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The Environmental Assessment and Management (TEAM) Guide

California Air District Supplement

Environmental assessments help determine compliance with current environmental regulations. The U.S. Air Force, U.S. Army, Defense Logistics Agency, and Corps of Engineers (Civil Works) have adopted environmental compliance programs that identify compliance problems before they are cited as violations by the U.S. Environmental Protection Agency (USEPA).

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The Guide combines Code of Federal Regulations (CFRs) and management practices (MPs) into a series of checklists that show legal requirements and the specific operations or items to review. TEAM Guide is supplemented by DOD component-specific manuals detailing DOD component regulations and policies. The California Air District Supplement was developed to be used in conjunction with the TEAM Guide and the California Supplement, using existing air quality legislation and regulations from selected air districts in California as well as suggested management practices.

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FOREWORD

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NOTICE

This manual is intended as general guidance for personnel at Department of Defense (DOD) installations/ CW facilities. It is not, nor is it intended to be, a complete treatise on environmental laws and regulations. Neither the U.S. Government nor any agency thereof, nor any of their employees, makes any warranty, expressed or implied, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information contained herein. For any specific questions about, or interpretations of, the legal references herein, consult appropriate legal counsel.

CALIFORNIA AIR DISTRICT SUPPLEMENT

The California Air District Supplement to the U.S. TEAM Guide contains the protocols necessary for determining compliance with selected California air district environmental regulations. This manual is a supplement to the U.S. TEAM Guide; the manual does not replace the Guide.

The following California air districts issue regulations cited in this manual:

- Bay Area Air Quality Management District (BAAQMD)
- Feather River Air Quality Management District (FRAQMD)
- Kern County Air Pollution Control District (KCAPCD)
- Mojave Desert Air Quality Management District (MDAQMD)
- Sacramento Metropolitan Air Quality Management District (SMAQMD)
- San Joaquin Valley Unified Air Pollution Control District (SJVUAPCD)
- Santa Barbara County Air Pollution Control District (StBCAPCD)
- South Coast Air Quality Management District (SCAQMD).

ORGANIZATION

The sections of the California Air District Supplement are organized in the order specified in the following list.

Bay Area Air Quality Management District

- Section 1, Air Emissions Management
- Section 10, Storage Tank Management
- Section 11, Toxic Substances Management

Feather River Air Quality Management District

- Section 1, Air Emissions Management
- Section 10, Storage Tank Management
- Section 11, Toxic Substances Management

Kern County Air Pollution Control District

- Section 1, Air Emissions Management
- Section 10, Storage Tank Management

Mojave Desert Air Quality Management District

- Section 1, Air Emissions Management
- Section 10, Storage Tank Management

Sacramento Metropolitan Air Quality Management District

- Section 1, Air Emissions Management
- Section 10, Storage Tank Management
- Section 11, Toxic Substances Management

San Joaquin Valley Unified Air Pollution Control District

- Section 10, Storage Tank Management
- Section 11, Toxic Substances Management

Santa Barbara County Air Pollution Control District

- Section 1, Air Emissions Management
- Section 10, Storage Tank Management

South Coast Air Quality Management District

- Section 1, Air Emissions Management
- Section 10, Storage Tank Management

CHECKLIST ITEM NUMBER CODES

Following the postal code for California (i.e., CA), each checklist item number has a code denoting the air district to which the checklist item applies. The following list sets forth these codes.

Bay Area Air Quality Management District	BA
Feather River Air Quality Management District	FR
Kern County Air Pollution Control District	KC
Mojave Desert Air Quality Management District	MD
Sacramento Metropolitan Air Quality Management District	SM
San Joaquin Valley Unified Air Pollution Control District	SJ
Santa Barbara County Air Pollution Control District	SB
South Coast Air Quality Management District	SC

COMMONLY USED ABBREVIATIONS

bbl	barrel	µm	micrometer
Btu	British thermal unit	mg	milligram
C	Celsius	mi	mile
cfs	cubic feet per second	min	minute
cm	centimeter	MJ	megajoule
cm^2	square centimeter	mL	milliliter
dscf	dry standard cubic foot	mm	millimeter
dscm	dry standard cubic meter	mo	month
F	Fahrenheit	mrem	millirem
ft	foot	MW	megawatt
ft^2	square feet	ng	nanogram
ft^3	cubic feet	NTU	nephelometric turbidity unit
g	gram	oz	ounce
gal	gallon	pCi	picoCurie
gJ	gigajoule	ppm	part per million
gr	grain	ppmv	part per million by volume
h	hour	ppmw	part per million by weight
ha	hectare	psi	pound per square inch
hp	horsepower	psia	pounds per square inch absolute
in.	inch	psig	pounds per square inch gauge
J	Joule	qt	quart
kg	kilogram	s	second
km	kilometer	scf	standard cubic foot
kPa	kilopascals	scm	standard cubic meter
L	liter	sdcf	standard dry cubic foot
lb	pound	sdcm	standard dry cubic meter
m	meter	TU	turbidity unit
m^3	cubic meter	V	volt
MBtu	million British thermal units	yd	yard
meq	milligram equivalent	yd^2	square yard
µg	microgram	yr	year

COMMONLY USED ABBREVIATIONS (continued)

CO	carbon monoxide	NO_2	nitrogen dioxide
CO_2	carbon dioxide	NO_x	nitrogen oxides
Hg	mercury	SO_2	sulfur dioxide

METRIC CONVERSION TABLE

The following conversion table may be used throughout this manual to make approximate conversions between U.S. units and metric units.

1 in.	=	2.54 cm or 25.4 mm
1 ft	=	0.3048 m
1 ft^2	=	0.093 m^2
1 ft^3	=	0.028 m^3
1 psi	=	6.895 kPa
1 lb	=	0.454 kg
1 mi	=	1.61 km
1 gal	=	3.78 L
°F	=	(°C + 17.78) x 1.8
°C	=	0.55 (°F - 32)
1 yd	=	0.9144 m
1 Btu	=	4.184 kJ
1 acre	=	4046.9 m^2
1 acre	=	0.405 hectare

SECTION 1

AIR EMISSIONS MANAGEMENT

Bay Area Air Quality Management District (BAAQMD) - California Supplement

SECTION 1

AIR EMISSIONS MANAGEMENT

Bay Area Air Quality Management District (BAAQMD)

California Supplement

This section covers the state requirements for Air Emissions Management and is intended to supplement the U.S. TEAM Guide. Refer to the U.S. TEAM Guide and the DOD Component Supplements for Federal, DOD, and service-specific requirements.

General Exemptions

The following kinds of sources are exempted from BAAQMD Rules and Regulations:

All of the following kinds of engines provided that they meet state emission standards:
- internal combustion engines and stationary internal combustion engines of less than 25 L (1,500 $in.^3$) displacement, including turbines with less than 1.3 megawatt (2,000 horsepower) output rating
- any engine use solely as a standby source of motive power
- aircraft.

Fires from residential heating and residential cooking.

Emissions from all of the following kinds of sources, except as limited by the Open Burning and Allowable Fires sections of this manual:
- agriculture operations
- open outdoor fires
- recreational fires
- outdoor cooking fires.

Air contaminant emissions from emission points that are not intended openings and from which no significant quantities of air contaminants are emitted.

Smoke generators intentionally operated for training observers to appraise visible emissions.

Air contaminants emitted for the sole purpose of a specific beneficial use, provided that essentially all of the air contaminants are confined to the beneficial use area.

Experimental operations that have been exempted by the APCO.

Adoption By Reference

The BAAQMD has adopted the provisions of 40 CFR 60, *Standards of Performance for New Stationary Sources*, by reference with following change: For the following Subparts, the BAAQMD deletes the 30-day emissions averaging periods and replaces them with 24-h maximum emissions averaging periods:

Subpart Da (electric utility steam generating units)
Subpart Db (industrial/commercial/institutional steam generating units)
Subpart EE (surface coating of metal furniture)
Subpart MM (auto and light duty truck surface coating operations)
Subpart QQ (publication rotogravure printing).

Definitions

- *Abrasive Blasting* - the operations of cleaning or preparing a surface by forcibly propelling a stream of abrasive material against the surface (BAAQMD Regulation 12, Rule 4, Section 200).

- *Aeration* - any process during which residual ethylene oxide is removed from sterilized materials (BAAQMD Regulation 11, Rule 9, Section 200).

- *Aeration-only Facility* - a facility that performs aeration on materials which have been sterilized with ethylene oxide at another facility (BAAQMD Regulation 11, Rule 9, Section 200).

- *Aerator* - any device in which aeration occurs (BAAQMD Regulation 11, Rule 9, Section 200).

- *Aerosol* - a suspension of solid liquid particles in a gas (BAAQMD Regulation 8, Rule 49, Section 200).

- *Aerosol Paint Product* - a mixture of pigments, resins, liquid solvents and gaseous propellants, packaged in a disposable can for hand-held application (BAAQMD Regulation 8, Rule 49, Section 200).

- *Aerospace Component* - a fabricated part, assembly of parts or completed unit of any aircraft, helicopter, missile or space vehicle, including prototype or test models (BAAQMD Regulation 8, Rule 29, Section 200).

- *Agricultural Fire* - a fire used for the purpose of initiating, continuing or maintaining agriculture as a gainful occupation (BAAQMD Regulation 5, Section 200).

- *Air Contaminant* - any material that, when emitted, causes or tends to cause the degradation of air quality, including, but not limited to, smoke, charred paper, dust, soot, grime, carbon, fumes, gases, odors, particulate matter, acids, or any combination thereof (BAAQMD Regulation 1, Section 200).

- *Air-Dried Coating* - a coating that is cured or dried at a temperature no greater than 90 °C (194 °F) (BAAQMD Regulation 8, Rule 14, Section 200).

- *Air Flotation Unit* - any device, equipment, or apparatus in which wastewater is saturated with air or gas under pressure, and which removes floating oil, floating emulsified oil, or other floating liquid precursor organic compounds (POCs) by skimming, including induced air flotation units and pre-air flotation unit flocculent sumps, tanks, or basins (BAAQMD Regulation 8, Rule 8, Section 200).

- *Air Pollutant* - see "Air Contaminant".

- *Air Pollution Control Equipment* - any equipment, the operation of which has as its primary purpose a significant reduction in either the emission of air contaminants or the effects of such emissions (BAAQMD Regulation 1, Section 200).

- *Air Pollution Control Officer* - See "APCO".

- *Air Stripping* - an operation that transfers organic compounds from contaminated water to the atmosphere by bringing water into intimate contact with air (BAAQMD Regulation 8, Rule 47, Section 200).

- *Annual Heat Input* - the total heat input of fuels burned by a combustion source during any consecutive 12-m period, as determined from the higher heating value and cumulative annual usage of each fuel (BAAQMD Regulation 9, Rule 7, Section 200).

- *APCO* - the Air Pollution Control Officer of the BAAQMD (BAAQMD Regulation 1, Section 200).

- *Architectural Coating* - any coating applied to stationary structures and their appurtenances, to mobile homes, to pavements, or to curbs (BAAQMD Regulation 8, Rule 3, Section 200).

- *Asphalt* - the dark-brown to black cementitious material (solid or liquid) of which the main constituents are bitumens which occur naturally or as a residue of petroleum refining (BAAQMD Regulation 8, Rule 15, Section 200).

- *Atmosphere* - the air that surrounds the earth, excluding the general volume of gases contained within any building or structure if the APCO determines that emissions within such building or structure do not escape to the outside air (BAAQMD Regulation 1, Section 200).

- *BAAQMD* - the Bay Area Air Quality Management District (BAAQMD Regulation 1, Section 200).

- *Baked Coating* - a coating that is heated to a temperature greater than 90 °C (194 °F) for the purpose of curing or drying (BAAQMD Regulation 8, Rule 14, Section 200).

- *Beryllium-Containing Waste* - material contaminated with beryllium and/or beryllium compounds (BAAQMD Regulation 11, Rule 3, Section 200).

- *Beryllium Propellant* - any propellant incorporating beryllium which undergoes combustion to provide rocket propulsion (BAAQMD Regulation 11, Rule 4, Section 200).

- *Bituminous Coating Materials* - black or brownish coating materials that are soluble in carbon disulfide, which consist mainly of hydrocarbons, and which are obtained from natural deposits or from residues from the distillation of crude petroleum oils or of low grades of coal (BAAQMD Regulation 8, Rule 3, Section 200).

- *Boiler or Steam Generator* - any external combustion equipment fired with any fuel used to produce hot water or steam (BAAQMD Regulation 9, Rule 7, Section 200).

- *Breakdown Condition* - an unforeseeable failure or malfunction of any air pollution control equipment or related operating equipment which causes a violation of an emission standard or limitation prescribed by District, State or Federal rules, regulations or laws, provided that any such failure or malfunction satisfies all of the following conditions (BAAQMD Regulation 1, Section 200):
    1. it is not the result of intent, neglect, or disregard of any air pollution control law, rule or regulation
    2. it is not the result of improper maintenance
    3. it does not constitute a nuisance
    4. it is not an excessively recurrent breakdown of the same equipment.

- *Btu* - British thermal unit (BAAQMD Regulation 9, Rule 7, Section 200).

- *CARB* - California Air Resources Board (BAAQMD Regulation 1, Section 200).

- *Cartridge Filter* - a discrete filter unit containing both filter paper and activated carbon that traps and removes contaminants from dry cleaning solvents, together with the piping and ductwork used in the installation of this device (BAAQMD Regulation 8, Rule 17, Section 200).

- *Cold Cleaner* - any nonboiling solvent degreaser, including, but not limited to, spray sinks, spray booths and batch-loaded dip tanks (BAAQMD Regulation 8, Rule 16, Section 200).

- *Commercial Sterilizer* - all ethylene oxide sterilizers other than hospital sterilizers (BAAQMD Regulation 11, Rule 9, Section 200).

- *Complying Solvent* - see "Nonphotochemically Reactive Solvent".

- *Confined Blasting* - any abrasive blasting conducted in an enclosure which significantly restricts air contaminants from being emitted to the ambient atmosphere, including, but not limited to, shrouding, tanks, drydocks, buildings and structures (BAAQMD Regulation 11, Rule 9, Section 200).

- *Construction* - fabrication, erection or installation of a plant (BAAQMD Regulation 1, Section 200).

- *Conveyorized Degreaser* - any continuously loaded, conveyorized solvent degreaser, either boiling or nonboiling, including, but not limited to gyro, vibra, monorail, cross-rod, mesh, belt and strip cleaners (BAAQMD Regulation 8, Rule 16, Section 200).

- *Cooling Tower* - any open water recirculation device that uses fans or natural draft to draw or force air to contact and cool water by evaporation (BAAQMD Regulation 11, Rule 10, Section 200).

- *Critical Organic Compound* - any POC that is emitted during separation, processing, or storage of wastewater, and that has a carbon number of C-14 or less (excluding phenolic compounds) (BAAQMD Regulation 8, Rule 8, Section 200).

- *Detailing Guns* - small air spray equipment, including air brushes, that operate at no greater than 5 cfm air flow and no greater than 50 psi gauge air pressure, and that are used to coat small products or portions of furniture (BAAQMD Regulation 8, Rule 19, Section 200).

- *Dioxins* - dibenzo-p-dioxins and dibenzofurans chlorinated in the 2, 3, 7 and 8 positions, containing 4, 5, 6 or 7 chlorine atoms, and expressed as 2, 3, 7, 8 tetrachlorinated dibenzo-para-dioxin equivalents using current California Department of Health Services toxic equivalency factors (BAAQMD Regulation 11, Rule 13, Section 200).

- *Discharge* - to permit, let, suffer or allow an emission (BAAQMD Regulation 1, Section 200).

- *Disposal Site* - the place, location, tract of land, area, or premises in use, or intended to be used, or which has been used for the landfill disposal of solid waste (BAAQMD Regulation 8, Rule 34, Section 200).

- *District* - the Bay Area Air Quality Management District (BAAQMD Regulation 1, Section 200).

- *Dry Cleaning Facility* - any facility engaged in the cleaning of fabrics or leather, including, but not limited to, washers, dryers, filters, purification systems, holding tanks, pumps, attendant piping and valves (BAAQMD Regulation 8, Rule 17, Section 200).

- *Dry-to-Dry Unit* - dry cleaning equipment that combines the functions of cleaning and drying in one unit and where articles to be cleaned are placed in the equipment and not removed until the drying cycle is complete (BAAQMD Regulation 8, Rule 27, Section 200).

- *Drying Cabinet* - dry cleaning equipment that consists of a housing in which articles are hung to dry, and which is used only to steam dry articles which would otherwise be damaged by the heat and tumbling action of a drying tumbler (BAAQMD Regulation 8, Rule 27, Section 200).

- *Drying Tumbler* - dry cleaning equipment that dries articles previously cleaned with synthetic solvent, including solvent reclaimers (BAAQMD Regulation 8, Rule 27, Section 200).

- *Electrostatic Application* - the application of charged atomized paint droplets that are deposited by electrostatic attraction (BAAQMD Regulation 8, Rule 14, Section 200).

- *Emission* - a gas or liquid stream containing one or more air contaminants, or the act of discharging an emission into the atmosphere (BAAQMD Regulation 1, Section 200).

- *Emission Point* - the place at which an emission enters the atmosphere (BAAQMD Regulation 1, Section 200).

- *Emulsified Asphalt* - any asphalt liquefied with water containing an emulsifier (BAAQMD Regulation 8, Rule 15, Section 200).

- *Enclosed Reservoir* - a liquid solvent tank that is completely enclosed except for a drain opening that allows used nonboiling solvent to drain into it from a separate solvent sink or work area and which is not accessible for soaking parts (BAAQMD Regulation 8, Rule 16, Section 200).

- *Ethylene Oxide Sterilizer* - a chamber that contains ethylene oxide (ETO) in any quantity or concentration for the purpose of destroying bacteria or viruses (BAAQMD Regulation 11, Rule 9, Section 200).

- *Existing Heat Transfer Operation* - any heat transfer operation that is not a new heat transfer operation (BAAQMD Regulation 9, Rule 3, Section 200).

- *Fan-Type Central Furnace* - a self-contained heater that provides for circulation of heated air at pressures other than atmospheric through ducts more than 25 cm (10 in.) in length, and that has an input rate of less than 175,000 Btu/h, but does not include a heating/cooling unit utilizing three phase electric current (BAAQMD Regulation 9, Rule 4, Section 200).

- *Fire* - any combustion of combustible materials of any type outdoors in the open, not in any enclosure, where the products of combustion are not directed through a flue (BAAQMD Regulation 5, Section 200).

- *Flexographic Printing* - the application of words, designs, or pictures to a substrate by means of a roll printing technique in which the pattern is applied is raised above the printing roll and the image carrier made of rubber or other elastomeric materials (BAAQMD Regulation 8, Rule 20, Section 200).

- *Flue* - any duct or passage for air, gases, or the like, such as a stack or chimney (BAAQMD Regulation 5, Section 200).

- *Fountain Solution* - a solution that is applied to the image plate to maintain the hydrophilic properties of the nonimage areas, and to keep the nonimage areas free from ink (BAAQMD Regulation 8, Rule 20, Section 200).

- *Freeboard Height* -
    1. for a cold cleaning degreaser: the distance from the top of the solvent or solvent drain to the top of the tank
    2. for an open-top vapor degreasing tank: the distance from the solvent air-vapor interface to the top of the degreaser tank
    3. for a conveyorized degreaser: the distance from the top of the solvent vapor-air interface to the bottom of the lowest opening in the degreaser tank (BAAQMD Regulation 8, Rule 16, Section 200).

- *Freeboard Ratio* - the freeboard height divided by the smaller of the length or width of the degreaser tank (BAAQMD Regulation 8, Rule 16, Section 200).

- *Fugitive Emissions* - include all of the following (BAAQMD Regulation 2, Rule 1, Section 200):
    1. all emissions from unintended openings in process equipment
    2. emissions occurring from miscellaneous activities relating to the operation of a facility
    3. those emissions of pollutants that could not reasonably pass through a stack, chimney, vent or other functionally equivalent opening.

- *Full Contact Fixed Cover* - a stationary separator cover that is always in full contact with the liquid surface of the oil-water separator (BAAQMD Regulation 8, Rule 8, Section 200).

- *Gasoline* - any petroleum distillate used as a motor fuel and having a Reid Vapor pressure greater than 4.0 psi absolute (BAAQMD Regulation 8, Rule 7, Section 200).

- *Gasoline Dispensing Facility* - any stationary facility that dispenses gasoline directly into the fuel tanks of motor vehicles (BAAQMD Regulation 3, Section 200).

- *Graphic Arts Operation* - any packaging gravure, publication gravure, flexographic printing, screen printing, letterpress, or lithographic printing operation, or any coating or lamination operation manufacturing converted flexible packaging materials for packaging of food or health care products for human or animal consumption (BAAQMD Regulation 8, Rule 20, Section 200).

- *Gravure Printing* - an intaglio printing operation in which the ink is transferred from minute etched wells on a plate to the substrate which is supported by an impression roller, with excess ink removed from the plate by a doctor blade (BAAQMD Regulation 8, Rule 20, Section 200).

- *Group I Vehicles* - passenger cars, light and medium duty trucks and vans, large/heavy duty truck cabs and chassis, and motorcycles (BAAQMD Regulation 8, Rule 45, Section 200).

- *Group II Vehicles and Equipment* - public transit buses and mobile equipment (BAAQMD Regulation 8, Rule 45, Section 200).

- *Heat Input* - the heat of combustion released due to burning a fuel in a source, using the higher heating value of the fuel, and not including the sensible heat of incoming combustion air (BAAQMD Regulation 9, Rule 6, Section 200).

- *Heat-Input Weighted Average* - the heat input of the gaseous fuel per unit time divided by the total heat input per unit time, and the heat input per unit time of the nongaseous fuel divided by the total heat input per unit time (BAAQMD Regulation 9, Rule 7, Section 200).

- *Heat Transfer Operation* - any operation that meets all of the following conditions (BAAQMD Regulation 1, Section 200):
    1. it involves the combustion of fuel for the principal purpose of utilizing the heat of combustion-product gases by the transfer of such heat to the process material
    2. it does not transfer a significant portion of heat by direct contact between the combustion-product gases and the process material.

- *Hexavalent Chromium/Chromate* - a cancer-causing (toxic) substance existing as part of various inorganic chromate compounds, for example, sodium dichromate or lead chromate (BAAQMD Regulation 11, Rule 8, Section 200).

- *High Capacity Wastewater Separators* - a wastewater separator or wastewater separator forebay with a design rated or maximum allowable capacity greater than or equal to 18.9 L/s (300 gal/min) (BAAQMD Regulation 8, Rule 8, Section 200).

- *High Volume Low Pressure (HVLP) Spray* - equipment used to apply a coating by means of a gun that operates with air pressure between 0.1 and 10.0 psi gauge (BAAQMD Regulation 8, Rule 14, Section 200).

- *Higher Heating Value* - the total heat liberated per mass of fuel burned (Btu/lb), when fuel and dry air at standard conditions undergo complete combustion and all resultant products are brought to their standard states at standard conditions (BAAQMD Regulation 9, Rule 7, Section 200).

- *Hospital Sterilizer* - a ethylene oxide sterilizer located in a hospital, medical clinic, dental clinic, veterinary clinic, or any other medical facility (BAAQMD Regulation 11, Rule 9, Section 200).

- *Incineration Operation* - any operation in which combustion is carried on for the principal purpose, or with the principal result, of oxidizing a liquid or solid waste material to reduce its bulk or facilitate disposal or both (BAAQMD Regulation 1, Section 200).

- *Input Rating* - the amount of energy consumed in 1 h (BAAQMD Regulation 9, Rule 6, Section 200).

- *Junction Box* - a manhole or access point to a wastewater sewer system line (BAAQMD Regulation 8, Rule 8, Section 200).

- *Key System Operating Parameter* - an air pollution abatement equipment operating parameter, such as temperature, flow rate or pressure, that ensures operation of the abatement equipment within manufacturer specifications and compliance with the standards of this regulation (BAAQMD Regulation 8, Rule 4, Section 200).

- *Landfill Gas* - any untreated, raw gas derived through a natural process from the decomposition of organic waste deposited in a solid waste disposal site or from the evolution of volatile species in the waste (BAAQMD Regulation 8, Rule 34, Section 200).

- *Large Appliances* - doors, cases, lids, panels and interior support parts of residential or commercial washers, dryers, ranges, refrigerators, freezers, water heaters, dishwashers, trash compactors, air conditioners and other similar products (BAAQMD Regulation 8, Rule 14, Section 200).

- *Letterpress Printing* - a method where the image area is raised relative to the nonimage area and the ink is transferred to the paper directly from the image (BAAQMD Regulation 8, Rule 20, Section 200).

- *Liquid Asphalt* - any asphalt that has been liquefied by blending with petroleum solvents, and further defined by ASTM specifications as follows (BAAQMD Regulation 8, Rule 15, Section 200):
    1. rapid cure type (ASTM D2028-76)
    2. medium cure type (ASTM D2027-76)
    3. slow cure type (Road Oil) (ASTM D2026-76).

- *Liquid Leak* - with reference to the requirements of the Dry Cleaning - Petroleum Solvents and the Dry Cleaning - Synthetic Solvents sections, the dripping of liquid petroleum dry cleaning solvent at a rate of more than three drops per minute (BAAQMD Regulation 8, Rule 17, Section 200).

- *Low Capacity Wastewater Separators* - a wastewater separator or wastewater separator forebay with a design rated or maximum capacity greater than 760 L/day (200 gal/day) and less than 18.9 L/s (300 gal/min) (BAAQMD Regulation 8, Rule 8, Section 200).

- *Major Facility* - any facility which the APCO determines to emit, on a pollutant specific basis, or determines will emit as a result of the issuance of an authority to construct, 100 tons/yr or more of the specific pollutant subject to regulation under the federal Clean Air Act (BAAQMD Regulation 2, Rule 1, Section 200).

- *Major Facility, MFR (Regulated Air Pollutants)* - a facility that has the potential to emit 100 tons/yr or more of any regulated air pollutant. For fugitive emissions of said pollutants, only those from facility categories listed in 40 CFR 70.2 "Definitions -- Major source (2)" shall be included in determining whether the facility is a major facility. Once any facility is determined to be a major facility, all fugitive emissions from the facility shall be included in calculating the facility's emissions (BAAQMD Regulation 2, Rule 1, Section 200).

- *Major Facility, MFR (Hazardous Air Pollutants)* - a facility that has the potential to emit 10 tons/yr or more of a single hazardous air pollutant or 25 tons/yr or more of a combination of hazardous air pollutants, or such lesser quantity as the EPA Administrator may establish by rule. All fugitive emissions of hazardous air pollutants are included in determining a facility's potential to emit. For radionuclides, the definition of a major facility shall be specified by the USEPA Administrator by rule (BAAQMD Regulation 2, Rule 1, Section 200).

- *Makeup Solvent* -
    1. with reference to the requirements of the Degreasing (Solvent Cleaning) Operations section, solvent that is added to the degreaser to replace solvent lost through evaporation (BAAQMD Regulation 8, Rule 16, Section 200);
    2. with reference to the requirements of the Graphic Arts Printing Operations section, that solvent that is added to printing inks to reduce viscosity (BAAQMD Regulation 8, Rule 20, Section 200).

- *Medical Facilities* - medical offices, dental offices, clinics, hospitals, skilled nursing facilities, research facilities, clinical laboratories, surgery centers, diagnostic laboratories and other providers of health care (BAAQMD Regulation 11, Rule 13, Section 200).

- *Medical Waste Incinerators* - furnaces or other closed fire chambers that are used to burn wastes generated at medical facilities (BAAQMD Regulation 11, Rule 13, Section 200).

- *Metal Furniture* - includes tables, chairs, waste baskets, beds, dishes, lockers, benches, shelving, file cabinets, room dividers, drapery hardware, window blinds and shades, or other similar products, or parts used to fabricate such products (BAAQMD Regulation 8, Rule 14, Section 200).

- *Modification* - any physical change in, or change in the method of operation of, an existing facility which results or may result in either an increase in the emission of any air pollutant subject to District control, or the emission of any such air pollutant not previously emitted; the following are not regarded as physical changes or changes in the method of operation (BAAQMD Regulation 1, Section 200):
    1. routine maintenance, repair or replacement with identical or equivalent equipment
    2. increased production rate or increased hours of operation where there is no increase in fixed capital cost, unless such production and hours are limited by permit conditions.

- *Modified Heat Transfer Operation* - any heat transfer that has been changed so as to result in an increase in the emission of NO_x; the following are not to be regarded as a change (BAAQMD Regulation 9, Rule 3, Section 200):
    1. any alterations or changes in the methods of operation which do not require an Authority to Construct
    2. the addition or use of any air pollution control equipment.

- *Multiple Nozzles* - the use of more than one nozzle to abrasive blast the same surface in such close proximity that their separate plumes are indistinguishable (BAAQMD Regulation 11, Rule 9, Section 200).

- *Natural Gas* - a mixture of gaseous hydrocarbons containing at least 80 percent methane by volume as determined according to Standard Method ASTM D1945-64 (BAAQMD Regulation 9, Rule 6, Section 200).

- *Natural Gas-Fired Water Heater* - see "Water Heater, Natural Gas-Fired" (BAAQMD Regulation 9, Rule 3, Section 200).

- *New Heat Transfer Operation* - any heat transfer operation for which an authority to construct has been issued by the District after 19 April 1975 (BAAQMD Regulation 9, Rule 3, Section 200).

- *Nitrogen Oxides (NO_x) Emissions* - the sum of nitric oxide (NO) and nitrogen dioxide (NO_2) in the flue gas, collectively expressed as NO_2 (BAAQMD Regulation 9, Rule 7, Section 200).

- *Noncomplying Solvent* - see "Photochemically Reactive Solvent".

- *Nongaseous Fuel* - any fuel that is not a gas at 68 °F [20 °C] and at one atmosphere (BAAQMD Regulation 9, Rule 7, Section 200).

- *Nonphotochemically Reactive Solvent* - any solvent that is not photochemically reactive (BAAQMD Regulation 8, Rule 4, Section 200).

- *Nonprecursor Organic Compound* - see "NPOC".

- *NPOC* - (BAAQMD Regulation 2, Rule 1, Section 200):
    a. methylene chloride (dichloromethane)
    b. 1,1,1-trichloroethane (methyl chloroform)
    c. 1,1,2-trichlorotrifluoroethane (CFC-113)
    d. trichlorofluoromethane (CFC-11)
    e. dichlorodifluoromethane (CFC-12)
    f. dichlorotetrafluoroethane (CFC-114)
    g. chloropentafluoroethane (CFC-115)
    h. chlorodifluoromethane (HCFC-22)
    i. trifluoromethane (HFC-23)
    j. 1-chloro 1,1-difluoroethane (HCFC-142b)
    k. 1,1,1-trifluoro 2,2-dichloroethane (HFC-123)
    l. 1,1,1,2-tetrafluoroethane (HFC-134a)
    m. 1,1-dichloro 1-fluoroethane (HFC-141b)
    n. 2-chloro-1,1,1,2-tetrafluoroethane (HCFC-124)
    o. pentafluoroethane (HCFC-125)
    p. 1,1,2,2-tetrafluoroethane (HFC-134)
    q. 1,1,1-trifluoroethane (HFC-143a)
    r. 1,1-difluoroethane (HFC-152a)
    s. cyclic, branched or linear completely fluorinated alkanes
    t. cyclic, branched or linear completely fluorinated saturated ethers
    u. cyclic, branched or linear completed fluorinated saturated tertiary amines
    rv saturated perfluorocarbons with sulfur bonding only to carbon and/or fluorine.

- *Offset Lithographic Printing* - a plane-o-graphic method in which the image and nonimage areas are on the same plane and the ink is offset from a plate to a rubber blanket, and then from the blanket to the substrate (BAAQMD Regulation 8, Rule 20, Section 200).

- *Oil-Water Separator* - see "Wastewater Separator" (BAAQMD Regulation 8, Rule 8, Section 200).

- *Oil-Water Separator Effluent* - see "Wastewater Separator Effluent" (BAAQMD Regulation 8, Rule 8, Section 200).

- *Oil-Water Separator Slop Oil* - see "Slop Oil" (BAAQMD Regulation 8, Rule 8, Section 200).

- *Oil-Water Separator Slop Oil Vessel* - see "Slop Oil Vessel" (BAAQMD Regulation 8, Rule 8, Section 200).

- *Olefin* - any organic compound, including cyclic compounds, containing one or more carbon-carbon double bonds in the molecule, except for all of the following (BAAQMD Regulation 8, Rule 4, Section 200):
    1. benzene
    2. benzene derivatives with no olefinic side chains
    3. organic compounds in which all olefinic groups contain three or more halogen atoms.

- *Opacity* - the decrease in the transmission of light through a gas stream, as indicated by the expression, $1 - P/P_o$, where P_o is the radiant power initially directed at the emission being measured, and P is the radiant power received after passing through the emission (BAAQMD Regulation 1, Section 200).

- *Open-top Vapor Degreaser* - any batch loaded, boiling solvent degreaser (BAAQMD Regulation 8, Rule 16, Section 200).

- *Organic Compound* - any compound of carbon excluding methane, CO, CO_2, carbonic acid, metallic carbides, metallic carbonates and ammonium carbonate (BAAQMD Regulation 1, Section 200).

- *Organic Compound, Nonprecursor* - see "NPOC".

- *Organic Compound, Precursor* - see "POC".

- *Organic Liquid* - all POCs that contain hydrogen and which would exist as liquids at actual conditions of use or storage (BAAQMD Regulation 8, Rule 1, Section 200).

- *Packaging Gravure* - gravure printing on paper, paperboard, foil, film or other substrates which are to be used to produce containers or packages (BAAQMD Regulation 8, Rule 20, Section 200).

- *Particulate Matter* - any material that is emitted as liquid or solid particles, or gaseous material that becomes liquid or solid particles at source testing temperatures, excluding uncombined water (BAAQMD Regulation 6, Section 200).

- *Permissive-Burn Day* - any day that is so declared by the APCO when, in his opinion, air pollution caused by open burning may be minimized (BAAQMD Regulation 5, Section 200).

- *Petroleum Solvent* - with reference to the requirements of the Petroleum Solvent Dry Cleaning section, any clear petroleum distillate having a minimum flash point of 38 °C (100 °F), and the following distillation ranges (BAAQMD Regulation 8, Rule 17, Section 200):
    1. not less than 50 percent over at 177 °C (350 °F)
    2. 90 percent over at 190 °C (375 °F)
    3. the end point not higher than 210 °C (410 °F).

- *Phase I Vapor Recovery System* - a gasoline vapor recovery system or equipment that recovers the vapors generated during the transfer of gasoline from gasoline delivery vessels into gasoline storage containers (BAAQMD Regulation 8, Rule 7, Section 200).

- *Phase II Vapor Recovery System* - a gasoline vapor recovery system or equipment that recovers the vapors generated during the fueling of motor vehicles from gasoline storage containers (BAAQMD Regulation 8, Rule 7, Section 200).

- *Photochemically Reactive Solvent* - any solvent that contains, in aggregate, more than 20 percent of compounds in any of following chemical compound classes, or which contains compounds in any single one of those classes in concentrations that exceed the values listed, where compounds which can be classed as members of more than one of these classes are considered to be members of the most reactive group, i.e., that group whose allowable concentration is lowest (BAAQMD Regulation 2, Rule 1, Section 200):
    1. aldehydes or olefins; 5 percent
    2. aromatic compounds with eight or more carbon atoms to the molecule, except ethylbenzene; 8 percent
    3. ethylbenzene, ketones having branched hydrocarbon structures, trichloroethylene or toluene; 20 percent.

- *Plant* - the machinery and equipment, including tanks, necessary to carry out an operation (BAAQMD Regulation 1, Section 200).

- *Pleasure Craft* - privately owned vessels used for noncommercial purposes (BAAQMD Regulation 8, Rule 43, Section 200).

- *POC* - any compound containing carbon except for all of the following (BAAQMD Regulation 1, Section 200):
    1. methane
    2. CO
    3. CO_2
    4. carbonic acid
    5. metallic carbides or carbonates
    6. ammonium carbonates
    7. any NPOC.

- *PPM* - parts per million by volume (BAAQMD Regulation 1, Section 200).

- *Pre-Air Flotation Unit Flocculation Sump, Basin, Chamber, or Tank* - any facility that pretreats the air flotation unit's influent with chemical coagulants, and/or adjusts the influent's pH (BAAQMD Regulation 8, Rule 8, Section 200).

- *Precursor Organic Compound* - see "POC".

- *Process Heater* - any combustion equipment that transfers heat from combustion gases to water or process streams, not including any kiln, furnace, or oven used for drying, baking, heat treating, cooking, calcining, or vitrifying (BAAQMD Regulation 9, Rule 7, Section 200).

- *Process Weight* - the total weight of all materials introduced into an operation, excluding all of the following (BAAQMD Regulation 6, Section 200):
    1. liquids and gases used solely as fuels
    2. air that is not consumed as a reactant
    3. combustion air.

- *Process Weight Rate* - a rate established as follows (BAAQMD Regulation 6, Section 200):
    1. for continuous or longrun steady-state operations, the total process weight for the entire period of continuous operation or for a typical portion thereof, divided by the number of hours of such period or portions thereof
    2. for cyclical or batch operations, the total process weight for a period which covers a complete operation or an integral number of cycles, divided by the number of hours of actual process operation during such period; where different interpretations of this definition result in more than one value for process weight rate, that interpretation that results in the minimum value shall apply.

- *Propellant* - a liquefied or compressed gas that expels the contents of a container when the pressure is released (BAAQMD Regulation 8, Rule 49, Section 200).

- *Public Fire Official* - an officer of a public agency charged with the responsibilities of setting or allowing fires, including, but not limited to, local, state and Federal officers (BAAQMD Regulation 5, Section 200).

- *Publication Gravure* - gravure printing on paper which is subsequently formed into books, magazines, catalogs, brochures, directories, newspaper supplements or other types of printed material (BAAQMD Regulation 8, Rule 20, Section 200).

- *Rated Heat Input* - the heat input capacity specified on the nameplate of a combustion unit, or the modified maximum heat input capacity of a combustion unit that has been physically modified (BAAQMD Regulation 9, Rule 7, Section 200).

- *Reconstruction* - the replacement of components of an existing plant to such an extent that the fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable, entirely new facility (BAAQMD Regulation 1, Section 200).

- *Reduced Sulfur Compounds* - all organic and inorganic sulfide compounds and mercaptans (BAAQMD Regulation 1, Section 200).

- *Reducer* - a solvent used to thin enamel (BAAQMD Regulation 8, Rule 34, Section 200).

- *Refinishing* - any coating of vehicles, their parts or components, or mobile equipment, including partial body collision repairs, for the purpose of protection or beautification and subsequent to the application of the original coating (BAAQMD Regulation 8, Rule 34, Section 200).

- *Remote Reservoir* - see "Enclosed Reservoir".

- *Rocket Motor Test Site* - any plant or installation where static test firing of a beryllium rocket motor and/or the disposal of beryllium propellant is conducted (BAAQMD Regulation 11, Rule 4, Section 200).

- *SCR* - Selective Catalytic Reduction (BAAQMD Regulation 9, Rule 9, Section 200).

- *Salvage Operation* - any operation in which combustion is carried on for the primary purpose result of salvaging metals, where the principal metal to be salvaged is not melted; other metals present in small quantities may be melted (BAAQMD Regulation 1, Section 200).

- *Sandblasting* - see "Abrasive Blasting" (BAAQMD Regulation 11, Rule 9, Section 200).

- *Screen Printing* - a process where the printing ink passes through a refined form of stencil to a web or fabric; the stencil openings determine the form and dimension of the imprint (BAAQMD Regulation 8, Rule 20, Section 200).

- *Sea Level Atmospheric Pressure* - 1.01 bar or 101 kPa (14.7 psia) (BAAQMD Regulation 1, Section 200).

- *Sensor* - a device that measures a physical quantity or the change in a physical quantity, such as temperature, pressure, flow rate, pH, or liquid level.

- *Sewer Line* - a lateral, trunk line, branch line, ditch, channel, or other conduit used to convey wastewater to downstream oil-water separators (BAAQMD Regulation 8, Rule 8, Section 200).

- *Slop Oil* - floating oil, flocculent sludge, and solids that accumulate in an oil-water separator or air flotation unit (BAAQMD Regulation 8, Rule 8, Section 200).

- *Slop Oil Vessel* - any vessel that, as its sole function, treats or dewaters oil-water separator slop oil (BAAQMD Regulation 8, Rule 8, Section 200).

- *Sludge-Dewatering Unit* - any device that, as its sole function, is used to dewater oil-water separator and air flotation slop oil/sludge (BAAQMD Regulation 8, Rule 8, Section 200).

- *Solid Waste* - all putrescible and nonputrescible solid, semisolid, and liquid wastes, including garbage, trash, refuse, paper, rubbish, ashes, industrial wastes, demolition and construction wastes, abandoned vehicles and parts thereof, discarded home and industrial appliances, manure, vegetable or animal solid and semisolid wastes, and other discarded solid and semisolid wastes, but not including hazardous waste (BAAQMD Regulation 8, Rule 34, Section 200).

- *Solids* - the nonvolatile portion of an aerosol paint product, consisting of the film-forming ingredients (resins and pigments) (BAAQMD Regulation 8, Rule 49, Section 200).

- *Solvent Reclaimer* - dry cleaning equipment that is used only to dry articles which have been cleaned in a separate piece of equipment, and which is vented to a carbon adsorber or other control device (BAAQMD Regulation 8, Rule 27, Section 200).

- *Solvent Recovery Dryer* - a class of dry cleaning dryers that employs a condenser to liquefy and recover solvent vapors evaporated in a closed-loop stream of heated air, together with the piping and ductwork used in the installation of this device (BAAQMD Regulation 8, Rule 17, Section 200).

- *Source* - any operation that produces and/or emits air pollutants (BAAQMD Regulation 1, Section 200).

- *Standard Conditions* - a sea level atmospheric pressure and a temperature of 21 °C (70 °F) (BAAQMD Regulation 1, Section 200).

- *Standard Dry Cubic Meter* - 1 m^3 of gas free of water vapor and at standard conditions (BAAQMD Regulation 1, Section 200).

- *Startup Period* - the period of time between initial operation and the issuance or denial of a permit to operate of a source or facility (BAAQMD Regulation 2, Rule 1, Section 200).

- *Stationary Gas Turbine* - any gas turbine system which is attached to a foundation and is gas and/or liquid fueled with or without power augmentation. Two or more gas turbines powering one shaft shall be treated as one unit (BAAQMD Regulation 9, Rule 9, Section 200).

- *Steam Generator* - see "Boiler".

- *Stormwater Sewer System* - a drain and collection system designed and operated for the sole purpose of collecting stormwater and which is segregated from the wastewater collection system (BAAQMD Regulation 8, Rule 8, Section 200).

- *Synthetic Minor Operating Facility* - a facility which by imposition of facilitywide federally enforceable permit conditions has its potential to emit limited to below the threshold levels for a major facility as defined by Sections 204.1 and 204.2 of this rule and in Section 212 of Regulation 2, Rule 6, and is not otherwise required to apply for a major facility review permit under Regulation 2, Rule 6 (BAAQMD Regulation 2, Rule 1, Section 200).

- *Synthetic Solvent* - any halogenated hydrocarbons including but not limited to perchloroethylene, 1,1,1-trichloroethane, and trichlorotrifluoroethane (CFC-113) (BAAQMD Regulation 8, Rule 17, Section 200).

- *Topping Off* - to attempt to dispense gasoline into a motor vehicle fuel tank after a vapor recovery dispensing nozzle has shut off automatically (BAAQMD Regulation 8, Rule 7, Section 200).

- *Touch Up* - that portion of the coating operation which is incidental to the main coating process but necessary to cover minor imperfections or mechanical damage incurred prior to intended use (BAAQMD Regulation 8, Rule 14, Section 200).

- *Touchup Guns* - see "Detailing Guns".

- *Transfer Efficiency* - the ratio of the amount of coating solids adhering to the object being coated to the total amount of coating solids used in the application process, expressed as a percentage (BAAQMD Regulation 8, Rule 14, Section 200).

- *Unconfined Blasting* - any abrasive blasting operation that is not confined blasting (BAAQMD Regulation 11, Rule 9, Section 200).

- *USEPA* - the United States Environmental Protection Agency.

- *Vacuum Blasting* - any abrasive blasting in which the spent abrasive and surface material is immediately collected by a vacuum device (BAAQMD Regulation 11, Rule 9, Section 200).

- *Vapor Leak* - with reference to the requirements of the Dry Cleaning - Petroleum Solvents and the Dry Cleaning - Synthetic Solvents sections, a vapor leak that is a visible mist (BAAQMD Regulation 8, Rule 17, Section 200).

- *VOC* - see "Volatile Organic Compound".

- *Volatile Organic Compound (VOC)* - any organic compound that would be emitted during use, processing, application, curing or drying of a solvent, surface coating or other material (BAAQMD Regulation 1, Section 200).

- *Wastewater* - any process water with contains oil, emulsified oil, or other organic compounds which is not recycled or otherwise used within a facility (BAAQMD Regulation 8, Rule 8, Section 200).

- *Wastewater Separator* - any device that is used to separate liquid organic compounds from oil-water waste streams, but not including any "Wastewater Separator Forebay", "Air Flotation Unit", "Sludge-Dewatering Unit", "Slop Oil Vessel", or "Junction Box" (BAAQMD Regulation 8, Rule 8, Section 200).

- *Wastewater Separator Effluent* - any process wastewater downstream of the oil-water separator that has not been treated by an air-flotation unit (BAAQMD Regulation 8, Rule 8, Section 200).

- *Wastewater Separator Forebay* - that section of a gravity-type wastewater separator which receives the untreated, oil-water waste from the preseparator flume, and acts as a header which distributes the influent to the separator channels (BAAQMD Regulation 8, Rule 8, Section 200).

- *Water Heater, Natural Gas-Fired* - a closed vessel, in which water is heated by the combustion of natural gas and is withdrawn for use external to the vessel at pressures not exceeding 160 psi gauge, including the apparatus by which heat is generated and all controls and devices necessary to prevent water temperatures from exceeding 210 °F (BAAQMD Regulation 9, Rule 3, Section 200).

- *Water Treatment Chemicals* - any combination of chemicals used to treat circulating water including tracers, corrosion inhibitors, antiscalants, dispersants and biocides (BAAQMD Regulation 11, Rule 10, Section 200).

- *Waterproofing Operations* - the immersion of articles into a water-repellent solution (BAAQMD Regulation 8, Rule 27, Section 200).

- *Wood Furniture* - those surface coated room furnishings that are subject to Standard Industrial Classification (SIC) Major Group 25 including tables, chairs, beds, sofas, dressers and standing screens made of solid wood, wood composition or wood material (BAAQMD Regulation 8, Rule 32, Section 200).

- *Wood Touchup/Repair/Restoration* - a coating, formulated and labelled exclusively as such, that provides an exact color or sheen match on finished wood products (BAAQMD Regulation 8, Rule 49, Section 200).

AIR EMISSIONS MANAGEMENT

GUIDANCE FOR BAAQMD CHECKLIST USERS

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AIR EMISSIONS MANAGEMENT

GUIDANCE FOR APPENDIX USERS

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.5. STATE-SPECIFIC AIR REQUIREMENTS	
A.5.1.CA.BA. The discharge of air contaminants or other materials that constitute a public nuisance is restricted (BAAQMD Regulation 1, Section 301).	Verify that the installation/CW facility does not discharge from any source quantities of air contaminants or other materials that result in any of the following: - injury, detriment, nuisance or annoyance to the public - danger to the comfort, repose, health or safety of the public - potential injury or damage to business or property.
A.5.2.CA.BA. Installations/CW facilities must not evade or circumvent any of the air quality requirements listed in this manual (BAAQMD Regulation 1, Sections 104).	Verify that the installation/CW facility has not attempted or approved any practice intended or designed to evade or circumvent any of the requirements listed in this manual.
A.5.3.CA.BA. Source emissions that are combined or separated must meet the standards for a single source/ emission point (BAAQMD Regulation 1, Sections 106 and 107).	Verify that the total quantity of pollutant emitted from a single source through two or more emission points does not exceed the quantity allowable through a single emission point. Verify that the total quantity of pollutant emitted from two or more source operations whose air contaminant emissions are combined prior to emission does not exceed the quantity allowable from a single source.
A.5.4.CA.BA. Installations/CW facilities must abide by the most stringent standard that applies to any source (BAAQMD Regulation 1, Section 102).	Verify that where an installation/CW facility is subject to more than one emission standard for the same air contaminant, the more stringent standard is observed.
A.5.5.CA.BA. Installations/CW facilities that emit air contaminants must register with the District (BAAQMD Regulation 1, Sections 410 and 411).	Verify that the installation/CW facility has registered with the District all sources of air contaminant emissions other than those plants and facilities that require annual operating permits.

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A.5.6.CA.BA. Installations/CW facilities must take specific measures during breakdown conditions (BAAQMD Regulation 1, Sections 113, 431, and 432).	(NOTE: If excessive emissions resulting from the breakdown of air pollution abatement equipment or operating equipment persist until the end of a production run or up to 24 h, whichever is sooner, a violation of District regulations shall be deemed to have occurred. However, the APCO may elect to take no enforcement action if the person responsible for the emissions shows that appropriate corrective measures have been taken and that emissions are either in compliance or that the equipment has been shut down either before the next production run or within 24 h, whichever is sooner.) Verify that, in the event of a breakdown condition, the installation/CW facility immediately notifies the APCO of the time, specific location, equipment involved and to the extent possible, the cause of the breakdown. Verify that within 30 days of the occurrence of a breakdown, the installation/CW facility submits a written report to the APCO including the following: - sufficient information to enable the APCO to determine whether or not a breakdown occurred and the cause of the breakdown - a summary of the corrective action taken following breakdown - present status of the breakdown - a summary of actions taken to insure that such breakdowns will not occur in the future.
A.5.7.CA.BA. Installations/CW facilities must implement the provisions of approved Stationary Source Curtailment Plans and Traffic Abatement Plans during air pollution episodes (BAAQMD Regulation 4).	(NOTE: When the concentration of specific air pollutants reaches certain levels, the Air Pollution Control Officer is empowered to declare an Air Pollution Episode. These episodes are classified as "Health Advisory", "Stage I (Alert) Episodes", "Stage II (Warning) Episodes", or "Stage III (Emergency) Episodes" depending upon the pollutant concentration levels reached. The Air Pollution Episode Plan forms the basis for abatement of the damaging effects of air pollution during these episodes, and involves the implementation of specific abatement actions during Air Pollution Episodes, including those that are detailed in Stationary Source Curtailment Plans and in Traffic Abatement Plans.) Determine if the installation/CW facility is responsible for the emission of 90.6 metric tons/yr (100 tons/yr) or more of air contaminants that have a State or Federal ambient air quality standard established. Verify that the installation/CW facility has an approved Stationary Source Curtailment Plan and an approved Traffic Abatement Plan. Verify that the installation/CW facility implements the applicable provisions of those plans during air pollution episodes.

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A.5.8.CA.BA. Installations/CW facilities must meet specific odorous substance discharge standards for nonexempt emission sources (BAAQMD Regulation 7).	(NOTE: These limitations are not applicable until they are brought into effect by the APCO upon his receiving ten or more complaints from people working, residing or traveling outside the property lines of the installation/CW facility, of objectionably odorous discharges from a source on installation/CW facility premises). Verify that, if required by the APCO, the installation/CW facility can document its implementation of odorous discharge limitations.
Permits	(NOTE: See Appendix 1-1 for a list of sources exempt from these permit requirements.)
A.5.9.CA.BA. Installations/CW facilities that plan to build or modify any equipment that causes or controls the emission of air contaminants must obtain an Authority to Construct (BAAQMD Regulation 2, Rule 1, Sections 301, 307, and 406).	Verify that the installation/CW facility obtains an Authority to Construct from the Control Officer before building, installing, modifying, or replacing any equipment or other contrivance, the use of that may cause, reduce or control the emission of air contaminants. (NOTE: Routine repairs, maintenance or cyclic maintenance that includes replacement of components with identical or equivalent components is not considered to be an alteration, modification or replacement unless the APCO determines otherwise.) Verify that no Authority to Construct is transferred between facilities or persons without the prior written permission of the APCO.

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A.5.10.CA.BA. Installations/CW facilities must obtain Permits to Operate for any equipment, activities, or operations that cause or control the emission of air contaminants (BAAQMD Regulation 2, Rule 1, Sections 302, 307, 401, 404.1, 405, 406, and 424).	Verify that any person who has been granted or requires an authority to construct secures a permit to operate. Verify that the installation/CW facility has applies for a permit to operate for any of the following sources used or operated before 1 July 1972 which is not subject to an exemption: - any persons who operate a facility causing emissions of 2.5 tons/yr or more of such air contaminant - any persons who operate gasoline terminals, bulk plants and facilities that dispense gasoline for sale or dispense more than 60,000 gal/yr - persons who operate coating, adhesive, dipping, laminating, printing, screening, masking, electrodeposition, resist application, or similar source or equipment at any facility whose coating, adhesive, dipping, laminating, printing, screening, masking, electrodeposition, resist application, or similar source or equipment consume greater than 30 gal of coating and emit 150 lb of VOC/yr or more on a facility wide basis, resulting from the applications of coatings. Upon request of the applicant, the APCO may group coating operations which individually emit less than 150 lb/yr into a single facility-wide source, or other convenient grouping.) Verify that the installation/CW facility applies for Permits to Operate within 90 days of being notified by the APCO of a loss of exemption. Verify that the installation/CW facility meets all the specific written conditions and requirements of the Permit to Operate. Verify that the installation/CW facility notifies the APCO, within 30 days of their implementation, of any changes in hours of operation, fuels, process materials or throughput that might increase emissions from a permitted source. Verify that the installation/CW facility has met one of the following requirements: - Permits to Operate, or approved facsimiles, are posted on or near the permitted equipment so that they are clearly visible and accessible - Permits to Operate are available for inspection at all times. Verify that no Permit to Operate is transferred between facilities or persons without the prior written permission of the APCO.

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Title V Operating Permits	(NOTE: The purpose of Rule 6 is to implement the operating permit requirements of Title V of the federal Clean Air Act as amended in 1990. This Rule applies to major facilities (as defined under this Rule), phase II acid rain facilities, subject solid waste incinerator facilities, and any facility in a source category designated by the Administrator of the EPA as requiring a Title V permit. This Rule also provides a means by which facilities may avoid the Title V requirements by limiting their potential to emit such that they are not major facilities (i.e., the synthetic minor operating permit). This Rule shall not alter any other requirements of applicable federal, state, or District orders, rules or regulations. This Rule does not apply to: - any demolition or renovation of an asbestos-containing source that requires a permit solely because it is subject to Regulation 11, Rule 2, Asbestos Demolition, Renovation, and Manufacturing - any wood heater that requires a permit solely because it is subject to Regulation 10, Subpart AAA - engines used to propel motor vehicles, as defined in the California Vehicle Code.)
A.5.11.CA.BA. Installations/CW facilities subject to Major Facility Review requirements must apply for Major Facility Review Permits (BAAQMD Regulation 2, Rule 6, Section 403).	Verify that installations/CW facilities with any major facility, phase II acid rain facility, subject solid waste incinerator facility, or designated facility apply for a major facility review permit, permit renewal, or permit modification (as appropriate). (NOTE: Notwithstanding the requirements set forth in this rule, a major facility that is not otherwise subject to major facility review shall not be required to apply for a federally enforceable operating permit (i.e., an MFR permit or a synthetic minor operating permit) until 3 yr from the program effective date provided that its actual emissions are below all the following thresholds: - 50 tons/yr of any regulated air pollutant - 70 percent of the major facility threshold of any single hazardous air pollutant, and - 15 tons/yr of any combination of hazardous air pollutants (these provisions do not apply to any facility that has explicitly permitted emission levels at or above any threshold for a major facility as defined, regardless of actual emissions.) (NOTE: Installations/CW facilities may elect to apply for a synthetic minor permit in lieu of a Major Facility Review Permit; see A.5.14.CA.BA. below.)

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A.5.12.CA.BA. Installations/CW facilities subject to Major Facility Review requirements must apply for Major Facility Review Permit in a timely manner (BAAQMD Regulation 2, Rule 6, Section 404).	Verify that the installation/CW facility submits an application for a major facility review permit to the APCO in a timely manner as follows: - the initial application for a major facility review permit must be submitted to the APCO within 12 mo after the facility becomes subject to this Rule - an application for a 5-yr renewal of the terms and conditions of a major facility review permit must be submitted to the APCO at least 6 mo but no earlier than 12 mo prior to the date on which the 5-yr period for the validity of the terms and conditions of the permit expires - an application for a significant permit modification must be submitted to the APCO within 12 mo of commencing an operation associated with a significant permit modification (where an existing federally enforceable major facility review permit condition would prohibit such change in operation, the responsible official must request preconstruction review and obtain a major facility review permit revision before commencing the change) - an application for a minor permit modification must be submitted to the APCO prior to commencing any operation associated with the minor permit modification - an initial application for the phase II acid rain portion of a major facility review permit shall be received by the APCO by 1 January 1996 - notwithstanding any other requirements of this checklist item, the initial application from any existing facility subject to the permitting requirements of Rule 6, that has less than 50 District permitted sources must be submitted to the APCO within 3 mo from the program effective date - notwithstanding any other requirements of this checklist item, the initial application from any existing facility subject to the permitting requirements of Rule 6, that has 50 or more District permitted sources shall be received by the APCO within 12 mo from the program effective date.
A.5.13.CA.BA. Installations/CW facilities with a Major Facility Review Permit must not modify any covered source or operation except under specific circumstances (BAAQMD Regulation 2, Rule 6, Section 309).	Verify that no person modifies any source or operation covered by a major facility review permit issued under this Rule unless such modification is either: - included in an operating scenario addressed in the permit - authorized under this Rule - permitted by the APCO pursuant to an application for a modification to the permit.

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A.5.14.CA.BA. Installations/CW facilities that choose to restrict emissions below major facility thresholds must apply for synthetic minor operating permits (BAAQMD Regulation 2, Rule 6, Section 420).	Verify that any installation/CW facility which elects to accept federally enforceable permit conditions to limit its potential to emit to below the thresholds for a major facility, and is not otherwise required to obtain a major facility review permit under this rule, applies for a synthetic minor operating permit. Verify that, if for any reason the facility plans a physical or operational change which would increase its potential to emit such that it would exceed any threshold for a major facility, the facility applies for a major facility review permit.
A.5.15.CA.BA. Applications for synthetic minor operating permits must be submitted in a timely manner (BAAQMD Regulation 2, Rule 6, Section 421).	Verify that applications for a synthetic minor operating permit or synthetic minor operating permit modification are submitted in a timely manner as follows: - an existing major facility which elects to apply for a synthetic minor operating permit in order to avoid a requirement to obtain a major facility review permit must apply for and receive a synthetic minor operating permit prior to the date by which it would have to apply for a major facility review permit (see A.5.12.CA.BA. above) - any facility not subject to the requirements of Rule 6 may apply for a synthetic minor operating permit at any time - a facility seeking a synthetic minor operating permit modification may apply for the modification at any time - for a physical or operational change to a synthetic minor facility which would increase the facility's potential to emit to a level above that of a major facility, the facility must undergo preconstruction review and apply for a major facility review permit prior to commencing the change.
A.5.16.CA.BA. Installations/CW facilities subject to Rule 6 (Major Facility Review Permits or synthetic minor operating permits) must submit monitoring reports every 6 mo (BAAQMD Regulation 2, Rule 6, Section 502).	Verify that every 6 mo, the installation/CW facility prepares and submits to the District any monitoring reports required by the major facility review permit. Verify that a responsible official certifies all such reports under penalty of perjury. Verify that the installation/CW facility promptly identifies and reports to the APCO all monitored excesses and any other deviations from the requirements of the permit.

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Emissions Reporting	
A.5.17.CA.BA. Installations/CW facilities must submit annual emissions reports as required (BAAQMD Regulation 2, Rule 1, Section 429).	Verify that installations/CW facilities with any source which emits or may emit NO_x or volatile organic compounds provides the APCO with a written statement, in such form as the APCO prescribes, showing actual emissions of NO_x or volatile organic compounds from that source. Verify that the statement contains a certification by a responsible official of the company or facility that the information contained in the statement is accurate to the best knowledge of the individual certifying the statement. Verify that the statement is submitted to the District each year with the annual permit renewal.
Monitoring	
A.5.18.CA.BA. Installations/CW facilities that are required to implement area monitoring for emissions of specific air pollutants must meet specific requirements (BAAQMD Regulation 1, Sections 510, 530, 540, 542, 543 and 544)	(NOTE: Installations/CW facilities may be required to implement area monitoring in order to meet other requirements listed in this manual, as one of the conditions of a Permit to Operate, or because the APCO has imposed such a requirement.) Verify that monitoring equipment has been installed and is calibrated, operated, sited and maintained as required by the APCO and/or the conditions of the Permit to Operate. Verify that area monitoring equipment downtime is reported to the APCO according to the following schedule: - for downtime that is caused by instrument malfunction and that lasts longer than a continuous 24-h period, report within the next normal working day after discovery of the malfunction - for downtime due to maintenance or repair operations expected to take longer than 5 days, report prior to beginning such operations. Verify that monitoring equipment data is examined for evidence of emission standard violations at least once every 7 days. Verify that if monitoring equipment data indicates an emission in excess of any emission standard, the installation/CW facility notifies the APCO within the next normal working day after the data was examined. Verify that the installation/CW facility submits monitoring data to the APCO on a monthly basis. Verify that the installation/CW facility maintains monitoring records for a period of at least 2 yr.

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A.5.19.CA.BA. Installations/CW facilities must, under specific circumstances, continuously monitor air pollutant emissions from certain sources (BAAQMD Regulation 1, Sections 520.1 and 520.7).	Verify that if the installation/CW facility operates any of the following kinds of air contaminant sources, then it has installed continuous emission monitors for the air pollutants listed: - for steam generators with a rated heat input of 264 GJ/h (250 MBtu/h) or more: NO_x, CO_2, O_2, opacity - for fossil fuel fired steam generators with a heat input of 264 GJ/h (250 MBtu/h) or more, with a use factor of at least 30 percent, and that utilize flue gas desulfurizing units: SO_2.
A.5.20.CA.BA. Continuous emissions monitoring (CEM) equipment must meet specific operational standards (BAAQMD Regulation 1, Sections 520.8, 521 and 522).	(NOTE: Installations/CW facilities may be required to install continuous monitoring equipment in order to meet other requirements listed in this manual, as one of the conditions of a Permit to Operate, or because the APCO has imposed such a requirement.) Verify that plans and specifications for monitoring selection and placement are submitted to the APCO for prior approval. Verify that monitoring equipment has been installed and performance tested using approved methods. Verify that monitoring systems and their components are maintained to operate within approved standards of accuracy. Verify that monitors are calibrated according to the following schedule: - for velocity sensing instruments, monthly calibration - for all other monitors, daily calibration. Verify that if monitoring equipment indicates an emission in excess of any emission standard, the installation/CW facility notifies the APCO within 96 h of the nature, extent, and cause of the emission, and of corrective action taken. Verify that if the monitoring equipment is not in operation for longer than 24 h, then the installation/CW facility meets all of the following requirements: - reports the occurrence to the APCO by the following working day. - notifies the APCO when the monitors are back in operation - for monitor downtime periods of greater than 15 days, maintains records that demonstrate that repairs were made as quickly as possible. Verify that the installation/CW facility submits monitoring data to the APCO on a monthly basis. **A.5.20.CA.BA. Continued on Next Page**

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A.5.20.CA.BA. (continued)	Verify that the installation/CW facility maintains for a period of at least 2 yr permanent records that include all of the following information: - occurrence and duration of any startup, shut-down or malfunction - records of performance testing, evaluations, calibrations, checks, adjustments, and maintenance of the monitoring equipment - the emissions measurements records produced by the monitoring equipment. Verify that the installation/CW facility meets all other requirements regarding continuous monitoring that are included in the Permit to Operate or have been specified by the APCO.
Hydrogen Sulfide	
A.5.21.CA.BA. Installations/CW facilities that emit hydrogen sulfide from any source must meet specific emission standards (BAAQMD Regulation 9, Rule 2).	Verify that it has met the requirements of the Monitoring section of this chapter. (NOTE: The requirements for odorous substances section of this manual may also apply to hydrogen sulfide sources.) Determine if the installation/CW facility emits, from any source, hydrogen sulfide in quantities that result in ground level concentrations in excess of any of the following standards: - 0.06 ppm averaged over three consecutive minutes - 0.03 ppm averaged over any 60 consecutive minutes. Verify that each area in which such a ground level hydrogen sulfide concentration excess occurs is controlled by the installation/CW facility from the emission source to the area boundaries.

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Lead Emissions	
A.5.22.CA.BA. Installations/CW facilities that operate any sources of lead emissions must meet specific standards (BAAQMD Regulation 11, Rule 1)	Verify that the installation/CW facility does not discharge, from any emission point, lead, or any compound of lead calculated as lead, in excess of 6.75 kg/day (15 lb/day). Verify that the installation/CW facility's discharges of lead, or of compounds of lead, result in ground level concentrations of lead that meet one of the following conditions: - concentrations less than or equal to 1.0 microgram/m^3 averaged over 24 h - concentrations less than or equal to 1.0 microgram/m^3 above the background concentrations of lead averaged over 30 days, provided that the installation/CW facility meets both of the following requirements: - the APCO is notified in writing of its decision to meet this alternative standard - monitoring equipment is installed and maintained.
Sulfur Dioxide	
A.5.23.CA.BA. Installations/CW facilities must meet specific SO_2 emission standards (BAAQMD Regulation 9, Rule 1, Sections 110 and 302).	Verify that the installation/CW facility meets one of the following conditions: - it does not emit, from any source, a gas stream containing SO_2 in excess of 300 ppm (dry) - it meets the other requirements of this Sulfur Dioxide Emissions section, and the requirements of the Area Monitoring section of this manual - it meets the requirements of the Sulfur Content of the Gasoline/Fuels section of this manual for sources to which they apply.
A.5.24.CA.BA. Installations/CW facilities must meet specific ground level SO_2 concentration standards (BAAQMD Regulation 9, Rule 1, Sections 301 and 501).	Determine if the installation/CW facility emits, from any source, SO_2 in quantities that result in ground level concentrations in excess of any of the following standards: - 0.5 ppm continuously for three consecutive minutes - 0.25 ppm averaged over 60 consecutive minutes - 0.05 ppm averaged over 24 h. Verify that each area with excess ground level SO_2 concentrations meets both of the following conditions: - the area is on installation/CW facility premises - the entire area from the emission source to the boundaries of the excess concentration area is physically secured against public access. **A.5.24.CA.BA. Continued on Next Page**

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A.5.24.CA.BA. (continued)	(NOTE: The APCO may require the installation/CW facility to meet the requirements of the Area Monitoring section of this manual.)
Particulate Matter and Visible Emissions	(NOTE: The purpose of Regulation 6 is to limit the quantity of particulate matter in the atmosphere through the establishment of limitations on emission rates, concentration, visible emissions and opacity. This Regulation does not apply to: - temporary sandblasting operations - open outdoor fires.) (NOTE: Where the presence of uncombined water is the only reason for failure to meet an applicable visible emission limitation, these standards do not apply. However, the burden of proof lies with the installation/CW facility) .
A.5.25.CA.BA. Air contaminant sources must meet specific visible emission standards (BAAQMD Regulation 6, Sections 301 and 302).	(NOTE: This checklist item covers all air contaminant sources not specifically covered by a separate checklist item below; see A.5.28.CA.BA. through A.5.32.CA.BA. below.) Verify that air contaminant sources do not emit, for an aggregate total of more than 3 min in any 1 h, either: - emissions that are as dark or darker than No. 1 on the Ringelmann Chart, or so opaque that they obscure an observer's view to an equivalent or greater degree - emissions that are equal to or greater than 20 percent opacity.
A.5.26.CA.BA. Installations/CW facilities must meet specific particulate matter discharge standards (BAAQMD Regulation 6, Sections 110, 111, 310 and 311).	Verify that the installation/CW facility does not discharge into the atmosphere from any source, particulate matter in excess of 343 mg/dscm (0.15 gr/dscf). (NOTE: The actual measured concentrations of emissions from incineration or salvage operations, gas-fired pathological waste incinerators, and heat transfer operations are subject to various correction factors when determining their compliance with this standard.) Verify that the installation/CW facility does not discharge into the atmosphere from any source other than fuel-fired indirect heat exchangers, particulate matter in excess of the rates shown in Appendix 1-2.

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A.5.27.CA.BA. Installations/CW facilities that operate any nonexempt sources of visible emissions must meet specific visible emission control requirements (BAAQMD Regulation 6, Sections 305 and 401).	Verify that for each source, except for gas fired heat transfer operations, the installation/CW facility has and maintains some means whereby the operator of the source is able to know the appearance of the emission at all times. Verify that the installation/CW facility does not emit, from any source operation, particles that fall on property outside of installation/CW facility premises, cause annoyance to any other person, and are large enough to be visible as individual particles at the emission point or are visible individually as incandescent particles.
A.5.28.CA.BA. Installations/CW facilities that operate internal combustions engines of less than 25 L displacement and/or any engine used solely as a standby source of motive power must meet specific visible emission standards (BAAQMD Regulation 6, Section 303.1).	Verify that these engines do not emit, for an aggregate total of more than 3 min in any 1 h, visible emissions that meet any of the following standards: - emissions that are as dark or darker than No. 2 on the Ringelmann Chart, or so opaque that they obscure an observer's view to an equivalent or greater degree - emissions that are equal to or greater than 40 percent opacity.
A.5.29.CA.BA. Installations/CW facilities that operate laboratory equipment must meet specific visible emission standards (BAAQMD Regulation 6, Section 303.2).	Verify that laboratory equipment used exclusively for chemical or physical analyses or experimentation does not emit, for an aggregate total of more than 3 min in any 1 h, visible emissions that meet any of the following standards: - emissions that are as dark or darker than No. 2 on the Ringelmann Chart, or so opaque that they obscure an observer's view to an equivalent or greater degree - emissions that are equal to or greater than 40 percent opacity.
A.5.30.CA.BA. Installations/CW facilities that operate portable brazing, soldering or welding equipment must meet specific visible emission standards (BAAQMD Regulation 6, Section 303.3).	Verify that portable brazing, soldering or welding equipment does not emit, for an aggregate total of more than 3 min in any 1 h, visible emissions that meet any of the following standards: - emissions that are as dark or darker than No. 2 on the Ringelmann Chart, or so opaque that they obscure an observer's view to an equivalent or greater degree - emissions that are equal to or greater than 40 percent opacity.

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A.5.31.CA.BA. Installations/CW facilities that conduct tube cleaning operations must meet specific visible emission standards (BAAQMD Regulation 6, Section 304).	Determine if the installation/CW facility operates any heat transfer operations that use fuel at a rate of 148 GJ/h (140 MBtu/h) or more. Verify that the installation/CW facility during tube cleaning does not emit, for an aggregate total of more than 3 min in any 1 h and for an aggregate total in any 24-h period of more than 6.0 min per 1055 GJ (1 billion Btu) gross heating value of the fuel burned during that period, visible emissions meeting any of the following standards: - emissions that are as dark or darker than No. 2 on the Ringelmann Chart, or so opaque that they obscure an observer's view to an equivalent or greater degree - emissions that are equal to or greater than 40 percent opacity.
A.5.32.CA.BA. Installations/CW facilities that operate diesel pile driving hammers must meet specific visible emission standards (BAAQMD Regulation 6, Section 306)	Determine if the installation/CW facility operates any pile driving hammers powered by diesel fuel. Verify that the installation/CW facility does not emit, for an aggregate total of more than 4 min during the driving of a single pile, visible emissions that meet any of the following standards: - for diesel hammers using kerosene, smoke suppressing fuel additives, and synthetic lubricating oil and maintaining records that document such usage: emissions that are as dark or darker than No. 2 on the Ringelmann Chart, or so opaque that they obscure an observer's view to an equivalent or greater degree - for all other diesel pile driving hammers: emissions that are as dark or darker than No. 1 on the Ringelmann Chart, or so opaque that they obscure an observer's view to an equivalent or greater degree.

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A.10. **STEAM GENERATORS** **A.10.1.CA.BA.** Installations/CW facilities that operate boilers, steam generators or process heaters must meet specific emission requirements (BAAQMD Regulation 9, Rule 7, Sections 101, 110, 111, 301-304, 401-403, 501, and 504).	(NOTE: The requirements of this Boilers, Steam Generators and Process Heaters - NO_x and CO Emissions section do not come into effect until 1 January 1996, with source tests that demonstrate compliance to be conducted by 1 July 1996. Installations/CW facilities that operate equipment that will be subject to these requirements at that time, must implement them in accordance with a schedule as follows: - Installations/CW facilities that will apply for the Low Fuel Usage Exemption must meet the following schedule: - by 1 July 1993, begin to keep fuel usage records using fuel meters or other measuring methods that have been approved by the APCO - by 1 January 1995, submit a compliance plan to the APCO - Installations/CW facilities that must modify existing sources or equipment to comply with these requirements must meet the following schedule: - by 1 January 1994, submit an application for any Authority to Construct that may be required - by 1 January 1995, submit a progress report to the APCO on the modifications.) Determine if the installation/CW facility operates any industrial, institutional, or commercial boilers, steam generators or process heaters, other than the following that are exempt from the requirements of this section: - boilers, steam generators or process heaters whose rated heat input is less than one MBtu/h - boilers, steam generators or process heaters that have a rated heat input less than 10 MBtu/h and are fired exclusively by natural gas, liquefied petroleum gas, or any combination thereof - boilers used by public electric utilities or by qualifying small power production facilities to generate electricity - waste heat recovery boilers that are used to recover heat from the exhaust of combustion turbines or reciprocating internal combustion engines - kilns, ovens, and furnaces used for drying, baking, heat treating, cooking, calcining, or vitrifying. **A.10.1.CA.BA. Continued on Next Page**

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A.10.1.CA.BA. (continued)	Verify that each nonexempt boiler, steam generator and process heater meets one of the following requirements: - has a rated heat input greater than or equal to 10 MBtu/h, is fired on gaseous fuel, and meets both of the following emission limits: - NO_x emissions do not exceed of 30 ppm by volume, dry at 3 percent oxygen - CO emissions do not exceed 400 ppm by volume, dry at 3 percent oxygen - has a rated heat input greater than or equal to 10 MBtu/h, is fired on nongaseous fuel and meets both of the following emission limits: - NO_x emissions do not exceed of 40 ppm by volume, dry at 3 percent oxygen - CO emissions do not exceed 400 ppm by volume, dry at 3 percent oxygen - has a rated heat input greater than or equal to 10 MBtu/h, is fired simultaneously on combinations of gaseous and nongaseous fuel, and meets both of the following requirements: - the heat-input weighted average of the emission limits specified in the first two sets of requirements listed above - is equipped with nonresettlable totalizing fuel meters on each fuel line - has a rated heat input greater than or equal to 10 MBtu/h, and has obtained and meets the conditions of an approved Low Fuel Usage Exemption plan - has a rated heat input less than 10 MBtu/h, has the capability of firing any fuel other than natural gas or liquefied petroleum gas, and meets one of the following requirements: - the emission limits specified above - stack-gas oxygen concentrations do not exceed 3 percent by volume on a dry basis - has an annual tune-up.

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A.15. FUEL-BURNING EQUIPMENT **Sulfur Content**	
A.15.1.CA.BA. Installations/CW facilities are allowed to burn only those fuels that meet specific sulfur content standards (BAAQMD Regulation 9, Rule 1, Sections 304 and 502).	Determine if the installation/CW facility burns any sulfur-containing, liquid or solid fuels other than the following that are exempt from these requirements: - liquid or solid fuels used to propel any motor vehicle, aircraft, missile, boat or ship, - liquid or solid fuels that do not emit a gas stream containing SO_2 in excess of 300 ppm (dry). Verify that the installation/CW facility does not burn any fuels that meet either of the following conditions: - liquid fuels with a sulfur content in excess of 0.5 percent by weight - solid fuels with a sulfur content that would result in the emission of a gas stream containing SO_2 in excess of 300 ppm (dry). Verify that the installation/CW facility has met the requirements of the Continuous Emission Monitoring section of this manual.
NO_x and CO Emissions	
A.15.2.CA.BA. Installations/CW facilities that operate nonexempt boilers, steam generators or process heaters that can be fired on either natural gas or nongaseous fuel must meet specific NO_x and CO emission standards during periods of natural gas curtailment (BAAQMD Regulation 9, Rule 7, Sections 305 and 503.2).	Verify that when natural gas is unavailable for use and equipment is fired on nongaseous fuels, all of the following emission limits are met: - NO_x emissions do not exceed of 150 ppm by volume, dry at 3 percent oxygen - CO emissions do not exceed 400 ppm by volume, dry at 3 percent oxygen. Verify that the installation/CW facility has documentation from its natural gas supplier that verifies periods of natural gas curtailment.

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A.15.3.CA.BA. Installations/CW facilities that operate nonexempt boilers, steam generators or process heaters for equipment testing must meet specific requirements (BAAQMD Regulation 9, Rule 7, Sections 306 and 503.3).	Verify that nonexempt, nongaseous fueled boilers, steam generators, or process heaters meet both of the following emission limits for equipment testing: - NO_x emissions do not exceed of 150 ppm by volume, dry at 3 percent oxygen - CO emissions do not exceed 400 ppm by volume, dry at 3 percent oxygen. Verify that the installation/CW facility has documentation to verify that equipment testing does not exceed a combined total of 48 h during any calendar year.
A.15.4.CA.BA. Installations/CW facilities that operate nonexempt boilers, steam generators or process heaters that have been modified must meet specific requirements (BAAQMD Regulation 9, Rule 7, Section 502).	Verify that the APCO is notified of boilers, steam generators or process heaters that have been physically modified so that their maximum heat input is different than the heat input specified on the equipment's nameplate.
A.15.5.CA.BA. Installations/CW facilities that operate nonexempt boilers, steam generators or process heaters must meet specific recordkeeping requirements (BAAQMD Regulation 9, Rule 7, Sections 503 and 504).	Verify that the installation/CW facility maintains, for a minimum of 2 yr, records of all of the following: - annual tune-ups, where required - documentation from natural gas suppliers verifying periods of natural gas curtailment and unavailability - hours of equipment testing conducted during each month - the results of any required source testing. Verify that installations/CW facilities with a low fuel Usage Exemption maintain, for a minimum of 2 yr, records of the cumulative annual usage and Higher Heating Value of each fuel used in its low fuel usage-exempted equipment.
Central Heating Furnaces	
A.15.6.CA.BA. Installations/CW facilities must meet specific requirements when installing residential, stationary, natural gas-fired, fan-type central furnaces (BAAQMD Regulation 9, Rule 4).	Verify that the brand name and model number of each furnace manufactured after 1 January 1984 is on the APCO's list of certified furnaces.

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Heat Transfer Operations **A.15.7.CA.BA.** Installations/CW facilities that operate heat transfer operations must meet specific NO_x emission standards (BAAQMD Regulation 9, Rule 3)	Verify that from each existing heat transfer operation designed for a maximum heat input of 1850 GJ/h (1.75 billion Btu/h) or more, the installation/CW facility does not emit NO_x in excess of the value calculated using the following equation: $L = X(175) + Y(300)$ where L = the allowable NO_x emission limit in ppm and X = the fraction of total heat input from gaseous fuel and Y = the fraction of total heat input from liquid fuel i.e., the limit when gaseous fuel alone is burned is 175 ppm, and that when liquid fuel alone is burned is 300 ppm. Verify that from each new or modified heat transfer operation designed for a maximum heat input of 264 GJ/h (250 MBtu/h) or more, the installation/CW facility does not emit NO_x in excess of the value calculated using the following equation: $L = X(125) + Y(225)$ where L = the allowable NO_x emission limit in ppm and X = the fraction of total heat input from gaseous fuel and Y = the fraction of total heat input from liquid fuel i.e., the limit when gaseous fuel alone is burned is 125 ppm, and that when liquid fuel alone is burned is 225 ppm.
Water Heaters **A.15.8.CA.BA.** Installations/CW facilities that install natural gas-fired water heaters manufactured after 1 July 1992 with an input rating of 75,000 Btu/h or less must meet specific requirements (BAAQMD Regulation 9, Rule 6).	Determine if the installation/CW facility installs any such natural gas-fired water heaters, other than the following that are exempt from these requirements: - heaters used in recreational vehicles - heaters used exclusively to heat swimming pools and hot tubs. Verify such nonexempt water heater has been certified by the manufacturer as meeting the NO_x emission standards of the BAAQMD.

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A.20. **GAS TURBINES**	(NOTE: The purpose of this rule is to limit emissions of NO_x from stationary gas turbines. This Rule does not apply to: - stationary gas turbines with a power rating less than 0.3 MW - testing of aircraft gas turbine engines for flight certification - gas turbines used solely for firefighting and/or flood control - emergency standby gas turbines - the operation of gas turbines rated less than 4.0 MW which operate less than 877 h/yr, provided the recordkeeping and reporting requirements are met.)
A.20.1.CA.BA. Stationary gas turbines must comply with emission limits for NO_x (BAAQMD Regulation 9, Rule 9, Sections 301 through 305, and 401).	Verify that, unless otherwise listed in following paragraphs, effective 1 January 1997, no person operates a stationary gas turbine unless NO_x emission concentrations, corrected to 15 percent O_2 (dry basis), do not exceed the compliance limit listed below: - gas turbines rated at 0.3 MW to less than 10.0 MW shall not exceed 42 ppmv, except that, for refinery fuel gas firing, the limit shall be 55 ppmv, and for nongaseous fuel firing during natural gas curtailment or short testing periods, the limit shall be 65 ppmv - gas turbines rated at 10.0 MW and over, without SCR, shall not exceed 15 ppmv, except that, for nongaseous fuel firing during natural gas curtailment or short testing periods, the limit shall be 42 ppmv - gas turbines rated at 10.0 MW and over, with SCR, shall not exceed 9 ppmv, except that, for nongaseous fuel firing during natural gas curtailment or short testing periods, the limit shall be 25 ppmv. Verify that, effective 1 January 1997, no person operates a stationary gas turbine rated at 4.0 MW or greater and operating less than 877 h/yr unless NO_x emission concentrations, corrected to 15 percent O_2 (dry basis)), do not exceed 42 ppmv when firing with natural gas and 65 ppmv when firing with nongaseous fuel. (NOTE: Persons operating these "low usage" stationary gas turbines must comply with specific recordkeeping requirements.) (NOTE: Persons operating a stationary gas turbine rated at 10 MW to less than 30 MW, without SCR, may comply with these alternate emissions limits: - effective 1 January 1996, no person may operate such a stationary gas turbine unless NO_x emission concentrations, corrected to 15 percent O_2 (dry basis), do not exceed 25 ppmv, except that, for nongaseous fuel firing during natural gas curtailment or short testing periods, the limit shall be 42 ppmv - effective 1 January 2000, no person may operate such a stationary gas turbine unless NO_x emission concentrations, corrected up to 15 percent O_2 (dry basis), do not exceed 15 ppmv, except that, for nongaseous fuel firing during natural gas curtailment or short testing periods, the limit shall be 42 ppmv.) **A.20.1.CA.BA. Continued on Next Page**

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A.20.1.CA.BA. (continued)	Verify that no person operates a stationary gas turbine rated at 30 MW or greater and operating 877 h/yr or more unless NO_x emission concentrations, corrected to 15 percent O_2 (dry basis), do not exceed 42 ppmv when firing with natural gas or 65 ppmv when firing with nongaseous fuels. Verify that, effective 1 January 1997, no person operates one of the following stationary gas turbines unless NO_x emissions, corrected to 15 percent O_2 (dry basis), do not exceed 18 ppmv, except that, for nongaseous fuel firing during natural gas curtailment or short testing periods, the limit shall be 42 ppmv: - received a permit to operate prior to 5 May 1993, and - was required to comply with Best Available Control Technology provisions limiting NO_x emissions to 25 ppm or below, and - used a technology other than SCR to comply with that limit . (NOTE: These emission limits do not apply during startup or shutdown periods, or during inspection and maintenance periods with the following limitations: - inspection and maintenance periods shall be limited to a total of 48 h between 1 May and 31 October in a calendar year. - for a calendar year in which a boiler inspection required by California Labor Code Section 7682 is not performed, inspection and maintenance periods shall be limited to a total of 144 h - for a calendar year in which a boiler inspection required by California Labor Code Section 7682 is performed, inspection and maintenance periods shall be limited to 144 h plus additional time required for the boiler inspection, provided, however, that the additional time shall not cause the calendar-year total of all inspection and maintenance periods to exceed 312 h.) (NOTE: Units that can demonstrate a thermal efficiency of greater than 25 percent may comply with adjusted emissions limits.)
A.20.2.CA.BA. Operators of stationary gas turbines must meet monitoring requirements (BAAQMD Regulation 9, Rule 9, Section 501).	Verify that any person who operates any stationary gas turbine rated equal to or greater than 10.0 MW and operated an average of more than 4000 h/yr over the last 3 yr before 21 April 1993, installs, operates and maintains in calibration a continuous emissions monitor (CEM), or alternative monitoring system, capable of measuring exhaust gas NO_x concentrations. (NOTE: A CEM must meet the requirements of the District Manual of Procedures, Volume V. Any alternative monitoring system must be approved by the APCO.)

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A.20.3.CA.BA. Operators of "low usage" stationary gas turbines must meet record-keeping requirements (BAAQMD Regulation 9, Rule 9, Section 502).	Verify that any person operating or seeking an exemption for a low usage stationary gas turbine maintains a daily gas turbine operating record that includes, the actual startup and stop time, total hours of operation, type and quantity of fuel used (liquid/gas). Verify that this information is available to District staff upon request for at least 2 yr from the date of entry.

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A.30. **MEDICAL WASTE INCINERATORS**	
A.30.1.CA.BA. Installations/CW facilities that operate medical waste incinerators must meet specific permit requirements (BAAQMD Regulation 11, Rule 13, Sections 102 and 401).	Determine if the installation/CW facility operates any medical waste incinerators apart from incinerators that are exclusively crematoria of human or animal remains and are exempt from the requirements of this section. Verify that the installation/CW facility has met all of the following requirements: - it has obtained a Permit to Operate and met the other requirements of the Permits section of this manual - it meets the remaining requirements of this Medical Waste Incinerators section.
A.30.2.CA.BA. Installations/CW facilities that operate medical waste incinerators must meet specific dioxin emission standards (BAAQMD Regulation 11, Rule 13, Sections 301 and 403).	Verify that the emissions of dioxins from any medical waste incinerator do not exceed 10 ng/kg of waste burned. Verify that the installation/CW facility conducts annual source tests until at least two consecutive source tests demonstrate that the dioxin emission limitation has been met. (NOTE: The APCO may require further source testing at any time.)
A.30.3.CA.BA. Installations/CW facilities that operate medical waste incinerators must meet specific design and operational requirements (BAAQMD Regulation 11, Rule 13, Section 302).	Verify that medical waste incinerators are designed and operated to meet all of the following requirements: - flue gas temperatures at the outlet of the air pollution control device do not exceed 300 °F, unless otherwise specified by the APCO - for single chamber incinerators, combustion chamber temperature is maintained at no less than 1650 °F - for multiple chamber incinerators: - primary combustion chamber temperature is maintained at no less than 1400 °F [760 °C] - secondary combustion chamber temperature is maintained at no less than 1650 °F - furnace residence time is at least 1 s - bottom ash, fly ash and air pollution control equipment residuals are handled and stored to prevent their entrainment into ambient air.

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A.30.4.CA.BA. Installations/CW facilities that operate medical waste incinerators must meet specific operator certification requirements (BAAQMD Regulation 11, Rule 13, Section 404).	Verify that each individual who operates or maintains a medical waste incinerator has obtained one of the following types of certification: - a certificate of training in medical waste incineration issued by ASME within 9 mo of commencement of the training program - equivalent training approved by the APCO. Verify that copies of all operator training certificates have been submitted to the District, and that the originals are available for inspection at the incineration facility.
A.30.5.CA.BA. Installations/CW facilities that operate medical waste incinerators must meet specific monitoring requirements (BAAQMD Regulation 11, Rule 13, Sections 501).	Verify that the installation/CW facility has installed, operates and maintains an approved continuous data recording system that monitors all of the following parameters for each incinerator it operates: - primary and secondary combustion chamber temperatures - exhaust gas CO concentration - air pollution control equipment operating parameters that have been specified by the APCO
A.30.6.CA.BA. Installations/CW facilities that operate medical waste incinerators must meet specific recordkeeping requirements (BAAQMD Regulation 11, Rule 13, Section 502)	Verify that the installation/CW facility maintains a log of maintenance records for the incinerator, air pollution control equipment, and monitoring equipment. .

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A.45. **SEWAGE SLUDGE INCINERATORS** **A.45.1.CA.BA.** Installations/CW facilities that process wastewater treatment plant sludges in sludge incineration plants or sludge drying plants must meet specific mercury emission standards and testing requirements (BAAQMD Regulation 11, Rule 5, Sections 302, 401 and 402).	Verify that the combined emissions from the installation/CW facility's sludge incinerators and sludge dryers do not contain more than 3200 g of mercury per 24-h period. Verify that unless the installation/CW facility has obtained a waiver from the APCO, it meets both of the following requirements: - tests emissions for mercury content within 90 days of the startup of a new sludge incinerator or sludge dryer - notifies the APCO at least 30 days prior to conducting an emissions test.

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A.60. PRINTING PRESSES AND GRAPHIC ARTS	(NOTE: This Rule does not apply to: - any facility which emits less than 182 kg (400 lb) of VOC in any month from graphic arts operations, including surface preparation and cleanup solvent (the burden of proof is on the facility to show it does not emit over the limit) - equipment used exclusively for research, laboratory analysis or determination of product quality and commercial acceptance, provided emissions of VOC from such equipment do not exceed 136 kg (300 lb)/mo per facility - printing of circuit boards - printing of heat shrinkable tubing - screen printing of water slide decals.)
A.60.1.CA.BA. Publication gravure operations must meet specific emission control requirements (BAAQMD Regulation 8, Rule 20, Section 301).	Verify that all publication gravure operations meet one or more of the following conditions: - the process uses ink and coating that contains less than 300 g VOC/L of product, less water - emissions of VOC from the printing and drying operation are controlled by an emission control system which has an overall collection and control efficiency of at least 85 percent on a mass basis.
A.60.2.CA.BA. Flexographic, gravure, letterpress, and lithographic operations must meet specific emission control requirements (BAAQMD Regulation 8, Rule 20, Section 302 and 308).	Verify that all flexographic, gravure, letterpress, lithographic, and related printing or coating operations meet the following product limits, expressed in grams VOC per liter of product as applied (pounds per gallon), less water, or percent VOC by volume: - ink: 300 (2.5) - coating: 300 (2.5) - adhesive 150 (1.25) - web splicing adhesive 300 (2.5) effective 1/1/95 — effective 1/1/97 - fountain solution 10 percent — 8 percent (NOTE: These limits do not apply when emissions of VOC to the atmosphere from the printing, coating or laminating and drying operations are controlled by an emission control system that has a collection and control efficiency of at least 75 percent overall on a mass basis.)

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A.60.3.CA.BA. Screen printing operations must specific emission control requirements (BAAQMD Regulation 8, Rule 20, Sections 307 and 308).	Verify that all screen printing operation meet the following product limits, expressed in grams VOC per liter (pounds per gallon), less water: effective 1/1/95 / effective 1/1/97 - ink: 400 (3.3) / 400 (3.3) - coating: 400 (3.3) / 400 (3.3) - adhesive: 300 (2.5) / 150 (1.25) - extreme performance ink/coating: 800 (6.7) / 400 (3.3) - metallic ink: 600 (5.0) / 400 (3.3) - sign ink/coating: 500 (4.1) / 400 (3.3) (NOTE: These limits do not apply when emissions of VOC to the atmosphere from the printing, coating or laminating and drying operations are controlled by an emission control system that has a collection and control efficiency of at least 75 percent overall on a mass basis.)
A.60.4.CA.BA. Graphics arts operations may comply with an alternative emission control plan (BAAQMD Regulation 8, Rule 20, Section 304).	Determine if the installation/CW facility is using an alternative emission control plan to meet the emission limits for any graphic arts operation. Verify that all alternative emission control plans are submitted to the APCO for review and approval.
A.60.5.CA.BA. VOC emission control systems on equipment used in graphic arts operations must meet specific monitoring and recordkeeping requirements (BAAQMD Regulation 8, Rule 20, Sections 505 and 506).	Verify that the system is equipped with a readily visible temperature gauge that monitors its operating temperature at all times. Verify that the installation/CW facility maintains the following records for the previous 24-mo period: - a current list of inks, coatings, adhesives, fountain solutions and makeup solvent in use which states the VOC content of each - on a daily basis the type and amount of all ink, coating, adhesive, fountain solution and makeup, surface preparation and cleanup solvent used - on a daily basis all key system operating parameters, such as temperature, flow rates, and pressure, when applicable.

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A.60.6.CA.BA. Graphic arts operations must meet specific recordkeeping requirements (BAAQMD Regulation 8, Rule 20, Section 503).	Verify that the installation/CW facility keeps, for a minimum of 2 yr, all of the following kinds of records: - a current list of inks, coatings, adhesives, fountain solutions and makeup solvents in use that states the VOC content of each - on a monthly basis the type and amount of all ink, using one of the following methods: - group the quantity of all inks used and identify the maximum VOC content and use the minimum density of 1.01 kg/L (8.44 lb/gal) - report process inks and pantone colors separately and use the specific VOC content and density value for each process ink and the highest volatile organic compound and 1.01 kg/L (8.44 lb/gal) for pantone inks - report process inks and pantone colors separately using the maximum VOC content and minimum density for both process and pantone inks or use the density of 1.01 kg/L (8.44 lb/gal) for pantone inks - itemize each ink and pantone color and use the specific VOC content and density value for each - on a monthly basis the type and amount of each coating, adhesive, fountain solution and makeup, surface preparation, and cleanup solvent used.
A.60.7.CA.BA. Graphic arts operations must meet specific surface preparation and cleanup requirements (BAAQMD Regulation 8, Rule 20, Section 307).	Verify that if installation/CW facility personnel use solvent for surface preparation, cleanup, or ink, coating or adhesive removal all of the following materials are stored and disposed of in closed containers: - cloth or paper impregnated with organic solvent - fresh or spent organic solvents.

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A.65. **FUGITIVE EMISSIONS**	
A.65.1.CA.BA. Installations/CW facilities that operate equipment in benzene service must meet specific requirements (BAAQMD Regulation 11, Rule 7, Sections 101, 110, 112, 207, 212, 301, 314, and 502.1.5(e)).	Determine if installations/CW facilities operate any equipment in benzene service, other than under the following conditions that exempt the installation/CW facility from the requirements of this section: - less than 1000 metric tons/yr (1101 tons/yr) of benzene are used and records are kept of the identification numbers of equipment that qualifies for this exemption - equipment is in vacuum service, i.e., it operates at an internal pressure that is at least 5 kPa (0.73 psi) below ambient pressure and its identification number is listed on a record of the identification numbers of equipment that qualify for this exemption. Verify that for each piece of exempt equipment, the installation/CW facility records all information and data that documents eligibility for that exemption in a log. Verify that the installation/CW facility marks all nonexempt equipment in a way that distinguishes it from exempt equipment. Verify that for all of its nonexempt equipment, the installation/CW facility meets one of the following (sets of) requirements: - all of the applicable requirements of this section - the provisions of an APCO-approved alternative emission control plan.
A.65.2.CA.BA. Installations/CW facilities must meet specific inspection and monitoring requirements for nonexempt pumps in benzene service (BAAQMD Regulation 11, Rule 7, Sections 302.1, 302.2, 401, 501, 502.1.5(d) and 601).	Verify that each nonexempt pump in benzene service meets one of the following conditions: - is monitored each month for indications of vapor leaks - is equipped with a dual mechanical seal system that includes a barrier fluid system and meets all of the following requirements: - is operated in one of the following ways: - with the barrier fluid at greater pressure than the pump stuffing box pressure - in conjunction with a barrier fluid degassing reservoir that is connected to a control device by a closed-vent system - in conjunction with a system that purges the barrier fluid into a process stream with zero benzene emissions **A.65.2.CA.BA. Continued on Next Page**

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A.65.2.CA.BA. (continued)	- the barrier fluid is not in benzene service nor in VOC service - the barrier fluid system is equipped with a sensor that detects any system failure to indicate a leak and meets one of the following conditions: - has an audible alarm - is checked each day - is located within the boundary of an unmanned plant site and is visually inspected as often as practicable but at least monthly - is visually inspected each week for indications of liquid dripping from the seal - design specifications and any modifications of them are recorded in a log - emits less than 500 ppm, has no externally actuated shaft penetrating its housing, and is tested annually for compliance with the 500 ppm emission standard - is equipped with a closed-vent system that captures and transports any seal leakage to a control device. (NOTE: Monthly monitoring involves use of a portable VOC detection instrument and procedures detailed in 40 CFR 61 (*National Emission Standards for Hazardous Air Pollutants*) and the BAAQMD Manual of Procedures.)
A.65.3.CA.BA. Installations/CW facilities must meet specific emission control requirements for nonexempt compressors in benzene service (BAAQMD Regulation 11, Rule 7, Sections 303.1 through 303.3, and 502.1.5(d)).	Verify that each compressor in benzene service meets one of the following requirements: - is equipped with a barrier fluid system that prevents process fluid leakage, and that meets all of the following requirements: - is operated in one of the following ways: - in conjunction with a seal system that is operated with the barrier fluid at greater pressure than the compressor stuffing box pressure - connected to a control device by a closed-vent system - in conjunction with a system that purges the barrier fluid into a process stream with zero benzene emissions - the barrier fluid is not in benzene service - the barrier fluid system is equipped with a sensor that detects any system failure to indicate a leak, and that meets one of the following conditions: - has an audible alarm - is checked each day - design specifications and any modifications of them are recorded in a log - is equipped with a closed-vent system that captures and transports any seal leakage to a control device - emits less than 500 ppm above background and is tested annually for compliance.

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A.65.4.CA.BA. Installations/CW facilities must meet specific operating and monitoring requirements for nonexempt valves in benzene service (BAAQMD Regulation 11, Rule 7, Sections 306, 307, 312, 313, 501, and 502.1.5(a) through (c)).	Verify that each open-ended valve or line is equipped with a cap, blind flange, or second valve that seals the open end at all times except when fluid flow is occurring. Verify that each open-ended valve or line that is equipped with a second valve is operated so that the valve on the process fluid end is closed before the second valve is closed. Verify that when a double block and bleed system is used, the bleed valve or line remain open only during operations that require venting the line between the block valves. Verify that each nonexempt valve in benzene service meets one of the following conditions: - is monitored each month for indications of vapor leaks - meets all of the following conditions: - emits less than 500 ppm above background - has been designated as no detectable emissions - has no external actuating mechanism in contact with the process fluid - is tested annually for compliance with the 500 ppm emission standard - did not leak for two consecutive monthly monitorings, and is now monitored quarterly, and remains leak-free - is designated as an unsafe-to-monitor or difficult-to-monitor valve, is monitored according to the provisions of an APCO-approved plan, and is identified as such in a log that contains the provisions of that plan - meets all of the following conditions: - is monitored in compliance with an APCO-approved alternative standard - no more than 2 percent of the total number of valves in the same process unit are leaking during any one monitoring period - the monitoring schedule and results are recorded in a log.
A.65.5.CA.BA. Installations/CW facilities must meet specific monitoring requirements for nonexempt pressure relief devices in liquid service, flanges and other connectors in benzene service (BAAQMD Regulation 11, Rule 7, Section 308).	Verify that pressure relief devices in liquid service, flanges and other connectors are monitored within five calendar days after evidence of a potential leak is found by visual, audible, olfactory or other detections methods.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.65.6.CA.BA. Installations/CW facilities must meet specific leak-response requirements when leaks have been detected in nonexempt pumps, compressors, valves, pressure relief devices in liquid service, flanges and other connectors in benzene service (BAAQMD Regulation 11, Rule 7, Sections 302, 303, 307, 308, 502.1.1, and 502.1.2).	Verify that when a leak is detected in any nonexempt pump, compressor, valve, pressure relief device in liquid service, flange or other connector, the installation/CW facility meets all of the following requirements: - attaches a weatherproof, readily visible tag marked with the equipment identification number to the leaking equipment - the first attempt to repair the leak comes not later than five calendar days after detection - repairs the leak as soon as practicable, but no later than 15 days after detection or within the guidelines listed in Appendix 1-3 - removes the leak tag from the equipment only after it has been monitored for two successive months during that time no leak has been detected - records all of the following information in a log that is kept for at least 2 yr: - the identification numbers of the monitoring instrument, the operator and the leaking equipment - the date the leak was detected - the date of each repair attempt and repair methods used - "Above 10,000 ppm if the maximum monitoring instrument reading after repair was greater than 10,000 ppm - "Repair Delayed", the reason for the delay if the leak is not repaired within 15 days, and expected date of successful repair - the signature of the individual who decided that a repair could not be effected without process shutdown, and dates of any such process unit shutdowns - the date of successful repair of the leak. Verify that any first attempts to repair valves, pressure relief devices in liquid service, flanges or other connectors, include, but are not limited to, the following practices where practicable: - tightening of bonnet bolts - replacement of bonnet bolts - tightening of packing gland nuts - injection of lubricants into lubricated packing.
A.65.7.CA.BA. Installations/CW facilities must meet specific emission control requirements for nonexempt pressure relief devices in gas/vapor service (BAAQMD Regulation 11, Rule 7, Section 304).	Verify that each pressure relief device meets one of the following conditions: - is equipped with a closed-vent system that captures and transports any leakage to a control device - emits no more than 500 ppm above background, except during and for no more than 5 days after a pressure release.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.65.8.CA.BA. Installations/CW facilities must meet specific emission control requirements for nonexempt sampling connecting systems (BAAQMD Regulation 11, Rule 7, Section 305).	Verify that each sampling connecting system meets one of the following conditions: - is an in-situ sampling system - is equipped with a closed purge system or closed vent system that operates in one of the following ways: - returns the purged process fluid directly to the process line - collects and recycles the purged process fluid - captures and transports all purged process fluid to a control device.
A.65.9.CA.BA. Installations/CW facilities must meet specific emission control requirements for nonexempt product accumulator vessels in benzene service (BAAQMD Regulation 11, Rule 7, Section 309).	Verify that each product accumulator vessel is equipped with a closed-vent system that captures and transports any leakage to a control device.
A.65.10.CA.BA. Installations/CW facilities must meet specific equipment standards and operating requirements for control devices used on nonexempt benzene service equipment (BAAQMD Regulation 11, Rule 7, Sections 311 and 502.1.3).	Verify that all control devices and closed vent systems are maintained and operated correctly. Verify that flares used as control devices are designed and operated to meet all of the following requirements: - no visible emissions are emitted except for a period not in excess of 3 min during any 1 h - the flame is present at all times - the correct combustion gas is used. Verify that closed vent systems meet all of the following conditions: - are monitored initially upon startup and annually thereafter - emit not more than 500 ppm - the first attempt to repair any leak in excess of 500 ppm comes not later than five calendar days after detection, with repair within 15 days or within the guidelines listed in Appendix 1-3. Verify that the installation/CW facility keeps all the following kinds of records pertaining to control devices and closed vent systems: - detailed schematic, design specifications and diagrams - dates and descriptions of any design specification modifications - procedures used to monitor the control device - periods when they are not in operation - dates of startups and shutdowns.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.65.11.CA.BA. Installations/CW facilities that operate nonexempt equipment in benzene service must meet specific reporting requirements (BAAQMD Regulation 11, Rule 7, Sections 402 and 403).	Verify that within 90 days of startup of new equipment in benzene service, the installation/CW facility submits an initial report to the APCO. Verify that semiannually after the initial report, the installation/CW facility submits a report to the APCO listing all of the following kinds of information: - process unit identification - numbers and locations of leaks detected - numbers and locations of, and explanations for, "Repair Delayed" leaks - dates of process unit shutdowns - equipment or operating procedure modifications - performance test results.
A.65.12.CA.BA. Installations/CW facilities that operate nonexempt equipment in benzene service must meet specific recordkeeping requirements (BAAQMD Regulation 11, Rule 7, Sections 502.1.4).	Verify that the installation/CW facility records all of the following information pertaining to nonexempt equipment in benzene service in a log: - a list of the identification numbers of nonexempt equipment - a list of the identification numbers of equipment designated for no detectable emissions - a list of the identification numbers of nonexempt pressure relief devices - the dates and results of required compliance tests - a list of the identification numbers of equipment in vacuum service.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
DRY CLEANING OPERATIONS **A.70.** **Petroleum Solvent**	
A.70.1.CA.BA. Installations/CW facilities that operate dry cleaning equipment that uses petroleum solvents must meet specific operating requirements (BAAQMD Regulation 8, Rule 17, Section 301).	Verify that the equipment is operated to meet all of the following requirements: - equipment is not operated if there is solvent liquid or vapor leaking from any portion of it - solvents and spent solvents are stored in closed containers, that may be equipped with vents approved by the APCO - all washer and dryer traps, access doors and other parts of the equipment where solvent may be exposed to the atmosphere, are kept closed at all times except as required for proper operation or maintenance - cartridge filters are treated in one of the following ways: - fully drained in the filter housing for at least 12 h before removal - put into an enclosed device including a solvent recovery dryer until dry before being discarded - all wastes are maintained and transported in sealed containers and disposed of in accordance with state regulations - articles that have been cleaned are transferred to the dryer within 5 min after they are out of the washer or are stored in closed transfer carts.
A.70.2.CA.BA. Installations/CW facilities that operate dry cleaning equipment that uses petroleum solvents must meet specific emission control requirements (BAAQMD Regulation 8, Rule 17, Section 111, 302, and 501).	Verify that installations/CW facilities with petroleum solvent dry cleaning facilities that consumes 10,000 L (2,642 gal) or more of solvent annually meet one of the following requirements: - all exhaust gases from dry cleaning equipment are vented through approved emission control equipment - an approved solvent recovery dryer is installed and operated so that the dryer remains closed and the recovery phase continues until the recovered solvent flow rate is not more than 15 mL/min. Verify that installations/CW facilities with petroleum solvent dry cleaning facilities that consume less than 10,000 L (2,642 gal) of solvent annually and have not installed one of the vapor loss control devices mentioned above, maintain purchase records for 2 yr showing amounts of solvents purchased and solvent remaining in inventory.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.70.3.CA.BA. Installations/CW facilities that operate solvent filtrations systems on any petroleum solvent dry cleaning equipment must meet specific requirements (BAAQMD Regulation 8, Rule 17, Section 303 and 502).	Verify that the installation/CW facility operates solvent filtration systems that are not cartridge filter systems so that the total VOC content in all filtration wastes meets one of the following standards: - 1 kg or less of VOC per 100 kg dry weight of articles cleaned, before disposal and exposure to the atmosphere - 0.25 kg or less of solvent per kg of still or filter waste. Verify that if the installation/CW facility elects to meet the first standard listed above, then it maintains, for 2 yr, records of the prewashed weight of articles cleaned per load.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
DRY CLEANING OPERATIONS **A.75.** **Perchloroethylene**	
A.75.1.CA.BA. Dry cleaning equipment that uses synthetic solvents must meet specific operating requirements (BAAQMD Regulation 8, Rule 27, Section 301).	Verify that the equipment is operated to meet all of the following requirements: - equipment is not operated if there is solvent liquid or vapor leaking from any portion of it - no residue from any solvent still contains more than 0.6 kg of solvent per kg of solvent still waste - used filtration cartridges are either drained in the filter housing for at least 24 h before being discarded or for at least 12 h provided that they are subsequently dried in a closed container which is vented to a control device approved by the APCO - used diatomaceous earth filters are cooked or treated so that the residue contains no more than 0.25 kg of solvent per kg of solvent still or filter waste - all wastes are maintained and transported in sealed metal containers and disposed of in accordance with state regulations for hazardous waste - all solvent and waste storage vessels, washers, waterproofing tanks, lint traps, equipment doors, and other parts of the equipment where solvent may be exposed to the atmosphere, are kept closed at all times except as required for proper operation or maintenance - all vapor loss control devices are installed, operated and maintained according to manufacturer's recommendations. (NOTE: Any other filtration or distillation system can be used if it can be demonstrated to the satisfaction of the APCO that it reduces waste losses below 0.01 kg per kg of dry weight of articles cleaned.)
A.75.2.CA.BA. Dry cleaning equipment that uses synthetic solvents must meet specific emission control requirements (BAAQMD Regulation 8, Rule 27, Section 302).	Verify that no dry cleaning equipment which uses synthetic solvents is operated unless one of the following requirements is satisfied: - all exhaust gases from drying tumblers and cabinets are vented through a carbon adsorber or other control device which has been approved in writing by the APCO and which reduces emissions of synthetic solvents to the atmosphere by at least 90 percent by weight - all of the exhaust gases from drying tumblers and cabinets are vented through a carbon adsorber which has been approved in writing by the APCO and which reduces emission of synthetic solvents to the atmosphere to no more than 100 ppm - before dilution - the air temperature at the outlet of a refrigerated condenser reaches 40 °F or less during the cool-down period (a temperature gauge with a minimum range from 0 °F to 150 °F must be installed on the condenser outlet duct).

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.75.3.CA.BA. Dry cleaning equipment that uses synthetic solvents must meet specific equipment requirements (BAAQMD Regulation 8, Rule 27, Sections 303 and 304).	Verify that no dry cleaning equipment which uses synthetic solvents is operated unless such equipment consists of dry-to-dry units. Verify that no separate drying tumblers installed after 5 September 1990 are operated in conjunction with dry-to-dry equipment.
A.75.4.CA.BA. Dry cleaning equipment that uses synthetic solvents for waterproofing operations must meet specific operational requirements (BAAQMD Regulation 8, Rule 27, Section 305).	Verify that no waterproofing operations which use synthetic solvents are conducted unless the following requirements are satisfied: - all articles which have been immersed in waterproofing solution are drained within the waterproofing tank until dripping ceases - all articles removed from a waterproofing tank are immediately placed into a dryer.
Hazardous Pollutants: Perchloroethylene and Synthetic Solvent Dry Cleaners	(NOTE: The purpose of this Rule is to limit emissions of synthetic solvent from dry cleaning operations and other related operations, and to limit exposure to perchloroethylene. This Rule is applicable to any person who performs dry cleaning or other related operations (water repellent treatment and dip tank operations) that use perchloroethylene or any other synthetic solvent. Operation of any equipment associated with dry cleaning that uses or contains synthetic solvent is subject to this Rule. The requirements of this Rule may be in addition to those found in other District rules and regulations. This Rule does not apply to dry cleaning facilities which do not use synthetic solvents.)
A.75.5.CA.BA. Existing dry cleaning equipment in nonresidential facilities must meet specific final equipment requirements (BAAQMD Regulation 11, Rule 16, Section 301).	Determine if the installation/CW facilities has any existing dry cleaning equipment in nonresidential facilities. Verify that all such equipment is either: - a converted machine - a closed-loop machine - a secondary control machine - until prohibited on October 1, 1998: - a vented machine - a transfer machine. Verify that any machine that replaces an existing machine is either: - a closed-loop machine - a secondary control machine. **A.75.6.CA.BA. Continued on Next Page**

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.75.5.CA.BA. (continued)	Verify that any additional machine (new installation; not replacing an existing machine) is a secondary control machine. Verify that any existing dry cleaning facility that requests an increase in permitted solvent usage for an existing machine or replacement machine is using either: - a secondary control machine or - a closed-loop machine with a fugitive control system. Verify that, unless waived in writing by the APCO, the dry cleaning facility installs and operates a ventilation system that meets the requirements for ventilation systems (see A.75.9.CA.BA. below).
A.75.6.CA.BA. New dry cleaning equipment in non-residential facilities must meet specific final equipment requirements (BAAQMD Regulation 11, Rule 16, Section 302).	Determine if the installation/CW facility has a dry cleaning facility with any dry cleaning equipment installed after 1 October 1994. Verify that all such new equipment: - is a secondary control machine - installs and operates a ventilation system that meets the requirements for ventilation systems (see A.75.9.CA.BA. below).
A.75.7.CA.BA. Certain dry cleaning equipment and operations are prohibited (BAAQMD Regulation 11, Rule 16, Section 304).	Verify that the installation/CW facility does not operate any dry cleaning equipment or perform any operations listed below: - any washing, drying, or treatment (excluding precleaning of spots) outside of approved equipment - any new installation of a vented machine or a transfer machine - a separate washer or drying tumbler used with dry-to-dry equipment - wet materials transferred to or from dry-to-dry machines (except from dip tanks or to a drying cabinet) - any self-service dry cleaning machine - conversion of any vented machine to a closed-loop system - effective 1 October 1998: any vented machine - effective October 1, 1998: any transfer machine is prohibited except a drying cabinet that meets the requirements for drying cabinets (see A.75.9.CA.BA. below).

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.75.8.CA.BA. Drying cabinets must meet specific operational and equipment standards (BAAQMD Regulation 11, Rule 16, Section 305.5).	Verify that any drying cabinet is used only for delicate and specialty articles which are likely to be damaged when dried in converted or closed-loop machines. Verify that any drying cabinet is fully enclosed and exhausted via one of the following methods: - to a control system that achieves a solvent concentration of 100 ppmv or less in each test measured as Perc (200 ppmv as methane, C(1)) at the outlet without dilution - to a control system that reduces the concentration of solvent in a closed system with no exhaust to the atmosphere or workroom.
A.75.9.CA.BA. Ventilation systems must meet specific standards (BAAQMD Regulation 11, Rule 16, Section 307.2).	Verify that installations/CW facilities with perchloroethylene (or other hazardous synthetic solvent) dry cleaning equipment in any nonresidential facility install and operate a ventilation system in order to minimize exposure to offsite people. Verify that emissions from dry cleaning machines and related equipment are captured and exhausted by a ventilation system that: - includes shrouds, hoods, rooms, walls, flexible barriers (e.g. plastic sheeting), or other structures designed to capture fugitive emissions - is exhausted with a ventilation fan(s) that operates whenever the dry cleaning machines and related equipment are operated and: - has a volumetric airflow of at least 1000 actual cubic feet per minute (ACFM) - produces either capture velocities greater than 100 ft/min at openings of the capture structures, or an air change rate of at least one air change every ten minutes of a working region that has air movement - restricted - exhausts emissions through a stack that extends a minimum of 5 ft above the roof of the building or any adjacent building, whichever is higher - is maintained in good operating condition.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.75.10.CA.BA. Water-repellent treatment and dip tank operations must meet specific operating requirements (BAAQMD Regulation 11, Rule 16, Section 308).	Verify that all materials to be treated with solvent water-repelling solutions are treated in a closed-loop machine, a converted machine, or a dip tank. (NOTE: Open spraying of water-repelling solution containing more than 1 percent solvent by weight is prohibited.) Verify that for dip tank operations: - the dip tank is fitted with a cover that prevents the escape of solvent vapors from the tank and remains covered at all times, except when materials are placed in and removed from the dip tank or while the basket is moved into position for draining - after immersion, the materials are drained within the covered dip tank until dripping ceases - all materials removed from a dip tank are immediately placed into a closed-loop machine or a converted machine for drying and not removed from the machine until the materials are dry.
A.75.11.CA.BA. The operation of any dry cleaning machine must meet specific good operating practices (BAAQMD Regulation 11, Rule 16, Section 309.1).	Verify that the owner/operator of any dry cleaning machine operates and maintains all components in accordance with manufacturer specifications. Verify that the owner/operator of any dry cleaning machine operates and maintains all components in accordance with the requirements of this Rule, as recorded on an operation and maintenance checklist.
A.75.12.CA.BA. Dry cleaning facilities must have trained operators (BAAQMD Regulation 11, Rule 16, Section 310).	Verify that the dry cleaning facility has one or more trained operators who successfully completes the initial course of environmental training, as evidenced by the original certificate record of completion issued pursuant to 17 CCR, Section 93110. (NOTE: New dry cleaning facilities must have trained operators within 3 mo after commencement of operations.) Verify that the trained operator is a full-time employee of the dry cleaning facility. (NOTE: Except where a trained operator who owns or manages multiple facilities serves as the interim trained operator at two of those facilities simultaneously for a maximum period of 4 mo, by which time each facility must have its own trained operator, one person cannot serve as the trained operator for two or more facilities simultaneously.) Verify that trained operators successfully complete the refresher course of an environmental training program at least once every 3 yr. **A.75.12.CA.BA. Continued on Next Page**

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.75.12.CA.BA.(continued)	Verify that, if the dry cleaning facility has only one trained operator and the trained operator leaves the employ of the facility, the facility: - notifies the District in writing within 30 days of the departure of the trained operator - obtains certification for a replacement trained operator within 3 mo. (NOTE: If the District determines that the initial course of an environmental training program is not reasonably available, the District may extend the certification period for a replacement trained operator until 1 mo after the course is reasonably available.)
A.75.13.CA.BA. Owners/ operators of dry cleaning facilities must notify the District (BAAQMD Regulation 11, Rule 16, Section 401).	Verify that owners/operators have notified the District of: - the name(s) of the owner and operator of the facility - the facility name and location - whether or not the facility is co-located with a residence or another commercial business - the number, types, makes, models, and capacities of all dry cleaning equipment - all control systems for each dry cleaning machine - for existing facilities only, the volume (gallons) of solvent purchased by the facility; volume of solvent sent to waste recycler; and net amount of solvent emitted during the previous calendar year; waste is to be itemized by the total amount of solvent in filter cartridges, still residue, and other waste materials recovered during the reporting period.
A.75.14.CA.BA. Owners/ operators of dry cleaning facilities must submit annual reports (BAAQMD Regulation 11, Rule 16, Section 402).	Verify that the owner/operator maintains an annual report, and furnishes this annual report (as a part of the permit update questionnaire) to the District by the date specified by the District. Verify that the annual report includes all of the following: - a copy of the record of completion and the dates of employment for each trained operator - the total of the pounds of materials cleaned in the reporting period - the total volume (gallons) of solvent used for all solvent additions (or solvent consumption) in the reporting period - the total amount of solvent in waste received by licensed waste hauler or recycler in the reporting period - the average facility mileage, determined from solvent consumption within the reporting period.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.75.15.CA.BA. Owners/ operators of dry cleaning facilities must meet monitoring and recordkeeping requirements (BAAQMD Regulation 11, Rule 16, Section 501).	Verify that the owner/operator maintains records for the specified time period, beginning on 21 December 1994. Verify that the following records, or copies thereof, are accessible at the facility at all times, and are retained for at least 2 yr or until the next District inspection of the facility, whichever period is longer: - for each dry cleaning machine, a log showing the date and the pounds of materials cleaned per load - solvent consumption (all purchase and delivery receipts for solvent) - the total inventory of solvent on hand at a facility at the beginning and the end of the annual reporting period - for those facilities with solvent tanks that are not directly filled by the solvent supplier upon delivery, the date(s) and gallons of solvent added to the solvent tank of each dry cleaning machine - waste records (the volume of waste recovered from solvent still or other cooker; the number and type of filter cartridges removed for disposal, the amount of other waste recovered; and the volume of water recovered and disposition (evaporation or disposal)) - completed operation and maintenance checklists - leak inspection checklists. Verify that, for dry cleaning equipment installed after 1 October 1994, the manufacturer's operating manual for all components of the dry cleaning system including the abatement systems are retained for the life of the equipment. Verify that the original record of completion for each trained operator is retained during the employment of that person, and a copy of the record of completion retained for an additional period of 2 yr beyond the separation of that person from employment at the facility.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.80. ACID PRODUCTION UNITS	
A.80.1.CA.BA. Emissions from sulfuric acid manufacturing must meet specific limits (BAAQMD Regulation 6, Section 320).	Verify that the installation/CW facility does not emit from any operation manufacturing sulfuric acid using as a principal raw material any sulfur-containing material, any emission having a concentration of SO_3 or H_2SO_4, or both, expressed as 100 percent H_2SO_4, exceeding 92 mg per dscm (0.04 gr. per dscf) of exhaust gas volume.
A.80.2.CA.BA. Emissions of acid mist from sulfuric acid production must meet specific limits (BAAQMD Regulation 12, Rule 6, Section 300).	Verify that the installation/CW facility does not emit from a sulfuric acid production unit gases which contain acid mist expressed as H_2SO_4 in excess of 0.15 g per kg (0.3 lb/T) of acid produced.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
CFCS AND HALONS **A.90.** **Repair/Recycling** **A.90.1.CA.BA.** Installations/CW facilities that service motor vehicle air conditioning systems must meet specific operating requirements (BAAQMD Regulation 12, Rule 7).	Verify that no refrigerant is added to any motor vehicle air conditioning system unless that system has been inspected, tested, and found to have no detectable leaks. Verify that air conditioning system leak detection methods include all of the following steps: - visual inspection of the system for evidence of leakage - testing for leakage using an electronic halogen detector or an alternative APCO-approved leak detection method. Verify that refrigerant added for leak detection is removed from the system before repairs are begun. Verify that all refrigerant recovery, recycling and charging equipment has been tested with an electronic detector and is without detectable leaks.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.100. **COATING OPERATIONS** **Cleanup and Preparation Solvents**	
A.100.1.CA.BA. Organic solvents used for surface preparation and cleanup must be managed according to specific standards (BAAQMD Regulation 8, Rule 1, Sections 320, 321, and 322).	Verify that closed containers are used for: - the storage or disposal of cloth or paper impregnated with organic compounds that are used for surface preparation, cleanup, or coating, ink, or paint removal - the storage of spent or fresh organic compounds to be used for surface preparation, cleanup, or coating, ink, or paint removal. Verify that no person uses organic compounds for the cleanup of spray equipment unless equipment for collection of the cleaning compounds and minimizing its evaporation to the atmosphere is used.
General Solvent and Surface Coating Operations	(NOTE: The purpose of this Rule is to limit emissions of precursor organic compounds from the use of solvents and surface coatings in any operation other than those covered by other Rules of this Regulation 8. This Rule does not apply to: - emissions from the use of water-base coatings or high solids coatings, as defined in this Rule, provided that the volatile content of any material containing organic solvents does not come into contact with flame - organic diluents which chemically react during any operation to such an extent that no more than 20 percent by volume of the total coating material is emitted as precursor organic compounds - operations that are subject to the requirements of other Rules of this Regulation 8, or which comply with appropriate limitations of those Rules prior to their effective dates - surface coating operations using nonrefillable aerosol containers; such coating is subject to the provisions of Regulation 8, Rule 49.)
A.100.2.CA.BA. Installations/CW facilities with operations subject to this Rule (General Solvent and Surface Coating Operations) must not exceed annual emission limits (BAAQMD Regulation 8, Rule 4, Sections 301, 302 and 304).	Verify that the installation/CW facility does not emit more than 2266 kg (2.5 tons) of precursor organic compounds annualized over a calendar year from any operation in which any organic solvent or any material containing organic solvent comes in contact with flame or is baked, heat cured or heat polymerized in the presence of oxygen. Verify that the installation/CW facility does not emit more than 4533 kg (5 tons) of precursor organic compounds annualized over a calendar year, from any operation, other than as described in the preceding paragraph. (NOTE: Compliance with the total limitations may be obtained by modifying processing procedures, equipment and/or materials so as to result in a reduction of precursor organic compound emissions which is equivalent to or better than that required by the applicable sections. Implementation of such modifications to achieve compliance requires express prior approval of the APCO.)

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.100.3.CA.BA. Installations/CW facilities with operations subject to this Rule must meet monitoring and recordkeeping requirements (BAAQMD Regulation 8, Rule 4, Section 501).	Verify that the installation/CW facility maintains a current list of coatings and solvents in use that provide all of the data necessary to evaluate compliance, such as VOC content of coatings and density of solvent. Verify that the installation/CW facility records on an annual basis the following information: - quantity of coating applied - type and amount of solvent used for cleanup and surface preparation. Verify that the installation/CW facility records air pollution abatement equipment key system operating parameters on a daily basis. Verify that the records are retained and available for inspection by the APCO for the previous 36-mo period.
Miscellaneous Operations	(NOTE: This Rule applies to any operation other than those limited by the other Rules of Regulation 8 and the Rules of Regulation 10. See Appendix 1-4 for a list of operations exempt from these requirements.)
A.100.4.CA.BA. Emissions from miscellaneous operations must not exceed specific limits (BAAQMD Regulation 8, Rule 2, Section 301).	Verify that no miscellaneous operation discharges into the atmosphere an emission containing more than 6.8 kg (15 lb)/day and containing a concentration of more than 300 ppm total carbon on a dry basis.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
Aerosol Paint Products	(NOTE: The purpose of this Rule is to limit emissions of organic compounds from the use of hand-held aerosol paint products. This Rule does not apply to aerosol lubricants, mold releases, asphaltic or rubber based automotive underbody coatings, electrical coatings, cleaners, belt dressings, anti-static sprays, layout fluids and removers, rust converters, adhesives, maskants, dyes or inks.)
A.100.5.CA.BA. Installations/CW facilities that use hand-held aerosol paint products must meet specific requirements (BAAQMD Regulation 8, Rule 49)	Verify that the installation/CW facility does not apply any hand-held aerosol coating whose VOC content exceeds the limit listed in Appendix 1-5. Verify that if more than one set of VOC standards apply to a specific aerosol coating (i.e., when a coating is recommended for more than one type of usage), then the most restrictive standard is met. Verify that the installation/CW facility does not apply any aerosol coating listed in Appendix 1-5 for uses other than those listed on the product label. Verify that if the installation/CW facility uses any multi-component aerosol kits, then the total VOC emitted from the use of that kit does not exceed the VOC limit listed in Appendix 1-5 for a single-component product in the same specialty category.
Architectural Coatings	(NOTE: This Rule does not apply to architectural coatings recommended by the manufacturer for use solely as one or more of the following: millwhite coatings, fire retardant coatings, tile-like glaze coatings, mastic texture coatings, metallic pigmented paints, swimming pool paints, multi-colored coatings, quick dry primers and sealers, shellacs, graphic arts coatings, bond breakers and belowground wood preservatives. This Rule also does not apply to architectural coatings supplied in containers having capacities of 1 L (1.1 qt) or less.)
A.100.6.CA.BA. Architectural coatings must meet specific VOC content limits (BAAQMD Regulation 8, Rule 3, Sections 113, 302, 304, and 307).	Verify that no person applies any architectural coating manufactured after September 2, 1979, which is recommended for use as a bituminous pavement sealer unless it is an emulsion type coating. Verify that no person applies any architectural specialty coating that exceeds the limits in Appendix 1-6.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
Aerospace Coatings	(NOTE: This Rule does not apply to: - the application of adhesives - coating operations that employ hand-held aerosol cans (see instead the Aerosol Paint Products section) - coatings that are applied by template in order to add designs, letters and/or numbers to products - coatings that are applied to test panels for evaluation of coating performance - the application of solid film lubricants.)
A.100.7.CA.BA. Installations/CW facilities that conduct nonexempt coating operations on aerospace components must meet specific VOC emission control standards and requirements (BAAQMD Regulation 8, Rule 29, Sections 112, 121, 122, 302, and 402).	Verify that the installation/CW facility meets one of the following conditions for each specialty coating used that is listed in Appendix 1-7 and exceeds the VOC content limits specified there: - approved air pollution abatement equipment is used that is designed to reduce VOC emissions during application of the coating - a Low Usage Coating Exemption from the APCO has been obtained and all of the following requirements are met: - the volume and VOC limit conditions contained in the exemption - the recordkeeping requirements of this section - the applicable requirements of the Organic Solvents section of this manual - the coating is one of the following kinds, for which the installation/CW facility meets the recordkeeping requirements of this Aerospace Coatings section and the applicable requirements of the Organic Solvents section of this manual: - a satellite (or satellite components) coating - a high temperature curing adhesive bonding primer, i.e., one with a cure temperature in excess of 325 °F.
A.100.8.CA.BA. Installations/CW facilities that use a stripper on aerospace components must meet specific requirements (BAAQMD Regulation 8, Rule 29, Sections 115 and 305).	Verify that use of any stripper meets one of the following conditions: - the stripper meets both of the following conditions: - its POC content is less than 400 g/L (3.3 lb/gal) - its true vapor pressure at actual usage temperature is less than 10 mm Hg (0.19 psia) - the stripping operation uses a tank type stripper that has a sealing fluid that floats on the stripper surface, is at least 4 in. deep, and consists of one of the following: - water - a fluid with a true vapor pressure at actual usage temperature of less than 10 mmHg (0.19 psia).

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.100.9.CA.BA. Aerospace coating operations using spray application equipment must meet specific emission control methods (BAAQMD Regulation 8, Rule 29, Section 310).	Verify that any person who uses spray application equipment to apply aerospace coatings uses one or more of the following high transfer efficiency application methods, unless emissions to the atmosphere are controlled by an approved emission control system with an overall abatement efficiency of at least 85 percent: - high-volume low-pressure (HVLP) spray, operated in accordance with the manufacturer's recommendations - electrostatic spray, operated in accordance with the manufacturer's recommendations - detailing gun - any other coating spray application that achieves an equivalent transfer efficiency compared to the spray application methods listed above (prior written approval from the APCO shall be obtained for each alternative method used).
A.100.10.CA.BA. Aerospace coating operations on aerospace components must meet specific recordkeeping requirements (BAAQMD Regulation 8, Rule 29, Section 501).	Verify that unless it has and meets the provisions of an APCO-approved alternate recordkeeping plan, the installation/CW facility maintains the following kinds of records for at least 2 yr. Verify that the installation/CW facility maintains current data necessary to evaluate compliance, including the following information as applicable: - coating stripper, catalyst, and reducer used - VOC content of coating and stripper as applied. Verify that installation/CW facility maintains records on coating usage on a weekly basis including the following information, as applicable, unless otherwise specified in permit conditions: - coating and mix ratio of components in the coating used as applied - quantity of each coating applied. Verify that installation/CW facility maintains records on a daily basis on coating usage and key system operating parameters when air pollution abatement equipment is used. Verify that installation/CW facility maintains records of cleanup solvent usage on a monthly basis, including the type and amount of solvent used for cleanup and surface preparation, unless otherwise specified in permit conditions. Verify that installation/CW facility maintains records on a monthly basis the amount of stripper used, unless otherwise specified in permit conditions (a person using a tank-type stripper must maintain records on a monthly basis showing the amount of stripper added to each tank.)

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
Large Appliances and Metal Furniture	(NOTE: Rule 14 does not apply to: - touchup operations - the application of adhesives - coating operations that employ hand-held aerosol cans (see instead the Aerosol Paint Products section).
A.100.11.CA.BA. Coating operations on large appliances and metal furniture must meet specific VOC emission control standards and requirements (BAAQMD Regulation 8, Rule 14, Sections 101, 110, 114, 302, 310, and 402).	Verify that, for each coating listed in Appendix 1-8 whose VOC content exceeds the limits specified there, the installation/CW facility has met one of the following requirements: - approved air pollution abatement equipment is used that is designed to reduce VOC emissions during application of the coating - a Low Usage Coating Exemption has been obtained from the APCO and all of the following requirements are met: - the volume and VOC limit conditions contained in the exemption - the recordkeeping requirements of this section - the applicable requirements of the Organic Solvents section of this manual.
A.100.12.CA.BA. Coating operations on large appliances and metal furniture must use specific kinds of application equipment and techniques (BAAQMD Regulation 8, Rule 14, Section 304).	Verify that the installation/CW facility applies metal surface coatings using properly operated equipment and any of the following application methods: - electrostatic application - electrodeposition - HVLP spraying - flow coating - roller coating - dip coating - brush coating - any other coating application method with a transfer efficiency of 65 percent or greater.
A.100.13.CA.BA. Coating operations on large appliances and metal furniture must meet specific surface preparation and cleanup requirements (BAAQMD Regulation 8, Rule 14, Section 320).	Verify that installations/CW facilities that use solvent for surface preparation or cleanup store and dispose of all of the following materials in closed containers: - cloth or paper impregnated with organic solvent - fresh or spent organic solvents. Verify that if the installation/CW facility uses organic compounds for the cleanup of spray equipment, it uses equipment that collects the cleaning compounds and minimizes its evaporation to the atmosphere.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.100.14.CA.BA. Coating operations on large appliances and metal furniture must meet specific record-keeping requirements (BAAQMD Regulation 8, Rule 14, Section 501).	Verify that the installation/CW facility maintains the following kinds of records for at least 2 yr: - a current list of coatings and solvents in use that contains all of the coating data necessary to evaluate compliance, including all of the following information, where applicable: - coating, catalyst, and reducer used - quantity of each coating applied - VOC content of coating as applied - records that show on a daily basis the following information: - coating and mix ratio of components in the coating used - quantity of each coating applied - identification of specialty coating limit category - oven temperature - type and quantity of solvent used for cleanup and surface preparation. Verify that any installation/CW facility operating air pollution abatement equipment to comply the requirements of this Rule also records key system operating parameters on a daily basis.
Marine Coatings	(NOTE: This Rule does not apply to: - the coating of pleasure craft or commercial fishing vessels using coatings purchased in containers of 1 gal or less - any coating used in volumes less than 75.7 l (20 gal) in any one calendar year provided the user successfully petitions the APCO for low-use exemption. - coating operations employing hand held aerosol cans - any solid film lubricant - touchup operations - the coating of aircraft and aerospace vehicles - bridges, piers or other stationary structures which require architectural coatings - antifoulant coating used on aluminum hulls provided records are maintained as specified.)
A.100.15.CA.BA. Surface coatings on marine vessels or structures must meet specific VOC content limits (BAAQMD Regulation 8, Rule 43, Sections 301 through 304, and 401).	Determine if the installation/CW facility uses, on any marine vessels and structures, coatings of any of the following kinds: - any specialty coating listed in Appendix 1-9 whose VOC content exceeds the limits specified there - any of the following kinds of coatings, other than those listed in Appendix 1-9, that contain VOCs in excess of the limits listed (less water and exempt solvents): - air-dried coatings, 340 g/L (2.8 lb/gal) - baked coatings, 275 g/L (2.3 lb/gal). **A.100.15.CA.BA. Continued on Next Page**

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A.100.15.CA (continued)	Verify that, for each coating that exceeds the VOC content limits, the installation/CW facility has met one of the following requirements: - approved air pollution abatement equipment is used that is designed to reduce VOC emissions during application of the coating - a Low Usage Coating Exemption has been obtained from the APCO and all of the following requirements are met: - the volume and VOC limit conditions contained in the exemption - records are kept that demonstrate that less than 75.7 L (20 gal) of the coating are used in any one calendar year - the provisions of an approved Alternative Emission Control Plan and the recordkeeping and reporting requirements of this section.
A.100.16.CA.BA. Installations/CW facilities that conduct nonexempt coating operations on marine vessels or structures must meet specific recordkeeping requirements (BAAQMD Regulation 8, Rule 43, Section 501).	Verify that the installation/CW facility maintains the following kinds of records for at least 2 yr: - a current list of coatings and solvents in use that contains all of the coating data necessary to evaluate compliance, including all of the following information, where applicable: - coating, catalyst, and reducer used - mix ratio of components used - VOC content of coating as applied - military specification of the component or area coated - type and amount of solvent used for cleanup and surface preparation - monthly records that show on a daily basis the following information: - coating and mix ratio of components in the coating used - quantity of each coating applied - identification of specialty coating limit category - oven temperature.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
Miscellaneous Metal Parts and Products	(NOTE: The following are exempt from these requirements (but must still abide by the requirements of the Organic Solvents section (see A.155) or other section as noted): - touchup operations - the application of adhesives - coating operations that employ hand-held aerosol cans - coatings that are applied by template in order to add designs, letters and/or numbers to products - coatings that are applied to large appliances or metal furniture - coatings that are applied to aircraft or aerospace vehicles - coatings that are applied to refinish nonmilitary motor vehicles - coatings that are applied to test panels for evaluation of coating performance - coatings that are applied to marine vessels and structures - nonbaked coatings that are applied to stationary structures and their appurtenances - solid film lubricants - electrical cathode coatings - chemical milling maskant coatings.)
A.100.17.CA.BA. Coating operations on miscellaneous metal parts and products must meet specific VOC emission control standards and requirements (BAAQMD Regulation 8, Rule 19, Sections 101, 110, 120, 302, 312, and 405).	Verify that, for each coating listed in Appendix 1-10 whose VOC content exceeds the limits specified there, the installation/CW facility has met one of the following requirements: - approved air pollution abatement equipment is used that is designed to reduce VOC emissions during application of the coating - a Low Usage Coating Exemption has been obtained from the APCO and the following requirements are met: - the volume and VOC limit conditions contained in the exemption - the recordkeeping requirements of this section - the applicable requirements of the Organic Solvents section of this manual.
A.100.18.CA.BA. Coating operations on miscellaneous metal parts and products using spray application equipment must meet specific emission control methods (BAAQMD Regulation 8, Rule 19, Section 313).	Verify that any person who uses spray application equipment to apply coatings to miscellaneous metal parts or products uses one or more of the following high transfer efficiency application methods, unless emissions to the atmosphere are controlled by an approved emission control system with an overall abatement efficiency of at least 85 percent: - high-volume low-pressure (HVLP) spray, operated in accordance with the manufacturer's recommendations - electrostatic spray, operated in accordance with the manufacturer's recommendations - detailing gun - any other coating spray application that achieves an equivalent transfer efficiency compared to the spray application methods listed above (prior written approval from the APCO shall be obtained for each alternative method used).

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.100.19.CA.BA. Installations/CW facilities that conduct nonexempt coating operations on miscellaneous metal parts and products must meet specific record-keeping requirements (BAAQMD Regulation 8, Rule 19, Section 501).	Verify that the installation/CW facility maintains the following kinds of records for at least 2 yr: - a current list of coatings and solvents in use that contains all of the coating data necessary to evaluate compliance, including all of the following information, where applicable: - coating, catalyst, and reducer used - VOC content of coating as applied - records that show on a weekly basis the following information: - coating and mix ratio of components in the coating used - quantity of each coating applied - identification of specialty coating limit category - oven temperature - records that show on a daily basis coating usage and key system operating parameters when air pollution abatement equipment is used - records that show on a monthly basis the type and amount of cleaning material used for cleanup and surface preparation, unless otherwise specified in permit conditions.
Finishing/Refinishing Motor Vehicles	(NOTE: The purpose of this Rule is to limit the emission of volatile organic compounds from the finishing or refinishing of motor vehicles, mobile equipment and their parts and components. This Rule does not apply to: - Original Equipment Manufacturer (OEM) coatings applied at manufacturing or assembly plants - touchup operations - graphic design applications - the coating of military vehicles and ground support equipment which is subject to the provisions of Regulation 8, Rule 19 (see Miscellaneous Parts and Products, above) (military vehicles include tanks and armored personnel carriers but do not include passenger vehicles) - the coating of radiators and engine components - the application of aerosol paint products.)
A.100.20.CA.BA. Installations/CW facilities that finish or refinish motor vehicles, mobile equipment, or their parts and components must use coatings that meet specific VOC content standards (BAAQMD Regulation 8, Rule 45, Sections 301 and 312).	Verify that if the installation/CW facility has specialty coatings, then it meets all of the following requirements: - the VOC content of each specialty coating in use does not exceed 840 g/L (7.0 lb/gal), excluding water and exempt solvents - except for antiglare/safety coatings, specialty coatings amount to no more than 5.0 percent of all coatings applied on a daily basis. Verify that, for each coating listed in Appendix 1-11 whose VOC content exceeds the limits specified there, the installation/CW facility uses approved air pollution abatement equipment designed to reduce VOC emissions.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.100.21.CA.BA. Installations/CW facilities that finish or refinish motor vehicles, mobile equipment, or their parts and components must use specific kinds of application equipment and techniques when applying surface coatings (BAAQMD Regulation 8, Rule 45, Sections 303).	Verify that each coating application method used is one of the following: - electrostatic application - HVLP spraying - any other APCO-approved method. Verify that all coating application equipment is operated in accordance with manufacturer's recommendations.
A.100.22.CA.BA. Installations/CW facilities that conduct nonexempt coating operations on motor vehicles, mobile equipment, and their parts and components must meet specific recordkeeping requirements (BAAQMD Regulation 8, Rule 45, Section 501).	Verify that, if the installation/CW facility uses any of the coatings listed in Appendix 1-11, the following kinds of records are maintained for at least 2 yr. Verify that the installation/CW facility maintains and has available during an inspection a current list of coatings in use that provides all of the coating data necessary to evaluate compliance, including the following information, as applicable: - coating, catalyst and reducer used - mix ratio of components used - VOC content of coating as applied. Verify that the installation/CW facility records, on a weekly basis, the following information: - coating and mix ratio of components in the coating used - quantity of each coating applied. Verify that the installation/CW facility records, on a daily basis, the following information: - quantity and mix ratio of each specialty coating applied. Verify that the installation/CW facility records on a monthly basis the type and amount of solvent used for cleanup and surface preparation. Verify that any installation/CW facility operating air pollution abatement equipment records on a daily basis: - coating and mix ratio of components in the coating used - key system operating parameters. Verify that any installation/CW facility using precoat retain purchase invoices to verify compliance; such invoices shall be available for inspection upon request.

COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT Bay Area Air Quality Management District (BAAQMD) - California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
Plastic Parts and Products	(NOTE: This Rule does not apply to: - the application of adhesives - any coating - used in volumes less than 75.7 L (20 gal) in any one - year, provided the user petitions the APCO (a person shall be limited to 208.1 L (55 gal) total coating per year under this exemption) - coating operations employing hand-held aerosol cans - touchup operation - coatings applied to plastic aerospace components - test panels used to evaluate coating performance - coatings that are applied by template in order to add designs, letters and/or numbers to the products - coatings applied to assembled printed circuit boards - translucent coatings applied to translucent plastic, provided records are maintained.)
A.100.23.CA.BA. Surface coatings on plastic parts and products must meet specific requirements (BAAQMD Regulation 8, Rule 31, Sections 302, 306, 307, 309, and 403).	Determine if the installation/CW facility uses, on any plastic parts or products, coatings of any of the following kinds: - any specialty coating listed in Appendix 1-12 whose VOC content exceeds the limits specified there - any of the following kinds of coatings that are applied to flexible parts or products and whose VOC content exceeds the limits listed, as applied (less water and exempt solvents): - flexible primer, 490 g/L (4.1 lb/gal) - color topcoat, 450 g/L (3.8 lb/gal) - base coat/clear coat system, 540 g/L (4.5 lb/gal) - any other kind of coating, other than those listed above, whose VOC content exceeds 340 g/L (2.8 lb/gal), as applied (less water and exempt solvents). Verify that, for each coating, the installation/CW facility has met one of the following requirements: - approved air pollution abatement equipment is used that is designed to reduce VOC emissions during application of the coating - a Low Usage Coating Exemption has been obtained from the APCO and the following requirements are met: - the volume and VOC limit conditions contained in the exemption - the recordkeeping requirements of this section.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.100.24.CA.BA. Extreme performance coatings on plastic parts and products must meet specific permit requirements (BAAQMD Regulation 8, Rule 31, Sections 309.4 and 401).	Verify that the installation/CW facility has obtained, in writing, an approval from the APCO of an Extreme Performance Coating Petition it has submitted and meets all of the following requirements: - the volume and VOC limit conditions contained in the approval - the recordkeeping requirements of this section.
A.100.25.CA.BA. Coating operations on miscellaneous metal parts and products using spray application equipment must meet specific emission control methods (BAAQMD Regulation 8, Rule 31, Section 310).	Verify that any person who uses spray application equipment to apply coatings to plastic parts or products uses one or more of the following high transfer efficiency application methods, unless emissions to the atmosphere are controlled by an approved emission control system with an overall abatement efficiency of at least 85 percent: - high-volume low-pressure (HVLP) spray, operated in accordance with the manufacturer's recommendations - electrostatic spray, operated in accordance with the manufacturer's recommendations - detailing gun - any other coating spray application that achieves an equivalent transfer efficiency compared to the spray application methods listed above (prior written approval from the APCO shall be obtained for each alternative method used). (NOTE: These requirements do not apply to: - the application of high solids, solvent-borne coatings with a solids content of at least 60 percent by volume to pretextured or hair-cell surfaces of plastic parts and products - the application of coatings to the inner surface area of pipes which require a spray gun nozzle extension - the application of a textured finish coat - the application of conductive coatings. - any facility where the total amount of all coatings used to coat plastic parts and products does not exceed 50 gal/yr.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.100.26.CA.BA. Coating operations on plastic parts and products must meet specific recordkeeping requirements (BAAQMD Regulation 8, Rule 31, Section 501).	Verify that the installation/CW facility maintains the following kinds of records for at least 2 yr. Verify that the installation/CW facility maintains current data necessary to evaluate compliance, including the following information as applicable: - coating catalyst and reducer used - VOC content of coating as applied. Verify that the installation/CW facility records coating usage on a weekly basis, including the following information as applicable: - coating and mix ratio of components in the coating used as applied - quantity of each coating applied - identification of specialty coating limit category - oven temperature. Verify that the installation/CW facility records coating usage and key system operating parameters on a daily basis when air pollution abatement equipment is used. Verify that the installation/CW facility records cleanup solvent usage on a monthly basis showing the type and amount used for cleanup and surface preparation, unless otherwise specified in permit conditions.
Wood Products	(NOTE: This Rule does not apply to: - facilities that use a total of less than 20 gal of coating per year - the following specific coating operations: - coatings and adhesives applied to Flatwood Paneling and Wood Flat Stock - coating applied to stationary structures and their appurtenances - coating applied from aerosol cans - adhesive coating - any refinishing operation necessary for preservation, to return the wood product or furniture to original condition, to replace missing furniture to produce a matching set, or to produce custom replica furniture - the application of coatings by template in order to add designs, letters or numbers to products - coatings used to produce the following finishes, provided records are maintained: - crackle lacquers - leaf finishes - faux finishes - imitation wood grain - the application of coatings to musical instruments.)

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.100.27.CA.BA. Surface coatings to wood products must meet specific requirements (BAAQMD Regulation 8, Rule 32, Sections 303 through 305).	Verify that, for any of the coatings listed in Appendix 1-13 whose VOC content exceeds the limits specified there, the installation/CW facility has met one of the following (sets of) requirements: - coatings are applied only in the following kinds of operations: - to refinish a wood product for preservation or restoration - to replace missing furniture and complete a matching set - to produce custom replica furniture - coatings are one of the following kinds, and the installation/CW facility meets the requirements of the Organic Solvents section: - crackle lacquers - leaf finishes - faux finishes - imitation wood grain - approved air pollution abatement equipment is used that is designed to reduce VOC emissions during application of the coating.
A.100.28.CA.BA. Installations/CW facilities that conduct nonexempt coating operations on wood products must meet specific spray application equipment requirements (BAAQMD Regulation 8, Rule 32, Sections 115, 117, and 301).	Determine if the installation/CW facility uses spray application equipment to apply coatings to wood products, furniture or cabinets, other than the following exempt coatings: - any polyester resin whose VOC content is less than 120 g/L (1.0 lb/gal) - crackle lacquers - leaf finishes - faux finishes - imitation wood grain. Verify that during all applications of nonexempt coatings, the installation/CW facility uses one or more of the following application methods: - airless spray - air-assisted airless spray - electrostatic air spray - high volume low pressure (HVLP) spray - detailing or touchup guns.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.100.29.CA.BA. Installations/CW facilities that conduct nonexempt coating operations on wood products must meet specific recordkeeping requirements (BAAQMD Regulation 8, Rule 32, Section 501 through 503).	Verify that if the installation/CW facility is involved in refinishing wood products or furniture, replacing missing furniture, or producing custom replica furniture, then it maintains the following kinds of records for at least 2 yr: - a current list of coatings and solvents in use that contains all of the following information, where applicable: - coating, catalyst, and reducer used - manufacturer's recommended mix ratio of components - VOC content of coating or reducer - records that show on a monthly basis the following information: - amount of coating, catalyst, and reducer used - type and quantity of solvent used for cleanup and surface preparation - type and quantity of stripper used. Verify that if the installation/CW facility is involved in any other kind of wood product coating operations, then it maintains the following kinds of records for at least 2 yr: - a current list of coatings and solvents in use that contains all of the coating data necessary to evaluate compliance, including all of the following information, where applicable: - coating, catalyst, and reducer used - manufacturer's recommended mix ratio of components - VOC content of coating as applied - records that show on a daily basis the following information: - coating and mix ratio of components in the coating used - quantity of each coating applied - identification of coating category - type and quantity of solvent used for cleanup and surface preparation. Verify that if the installation/CW facility is involved in producing custom architectural millwork, then it maintains job orders, shop drawings or blueprints, or designer or architectural drawings that demonstrate the custom nature of the work.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
Sandblasting Operations	
A.100.30.CA.BA. Installations/CW facilities that conduct sandblasting operations must, under certain circumstances, meet specific requirements (BAAQMD Regulation 12, Rule 4, Section 101 and 308).	Determine if the installation/CW facility conducts any sandblasting operations other than permanent abrasive blasting operations conducted in a building that is used in whole or part for abrasive blasting operations, and is therefore exempt from the requirements of this section. Verify that the installation/CW facility uses confined blasting for all temporary abrasive blasting operations, except that unconfined blasting may be used when any of the following conditions are met: - steel or iron shot/grit is used - the item to be blasted exceeds 8 ft in height, 8 ft in width, or 10 ft in length - the structure or surface is blasted at its permanent or ordinary location.
A.100.31.CA.BA. Installations/CW facilities that conduct temporary sandblasting operations on stucco or concrete must meet specific operating requirements (BAAQMD Regulation 12, Rule 4, Section 309).	Verify that the abrasive blasting of stucco and concrete is performed by wet blasting, hydroblasting, or vacuum blasting, except for the following operations for that dry blasting may be used: - window and door returns and frames - eaves, overhangs and ceilings - brushoff blasting except for stucco surfaces - completely shrouded structures and blast areas that effectively control emissions - abrasive cleaning operations other than aggregate exposure or paint removal related to new concrete construction or repair activity, if such operations are performed onsite.
A.100.32.CA.BA. Installations/CW facilities that conduct temporary sandblasting operations must meet specific visible emission standards (BAAQMD Regulation 12, Rule 4, Sections 102, 301 and 302).	(NOTE: Emissions from unconfined blasting employing multiple nozzles are considered to be a single source unless it can be demonstrated that each nozzle, evaluated separately, meets these requirements.) Verify that the installation/CW facility meets one of the following visible emission standards: - Ringelmann 1: the installation/CW facility does not emit, from any abrasive blasting operations, for a period or periods that amount to a total of more than 3 min in any 1 h, visible emissions that are as dark or darker than No. 1 on the Ringelmann Chart - Ringelmann 2: the installation/CW facility meets both of the following requirements: - does not emit, from any abrasive blasting operations, for a period or periods that amount to a total of more than 3 min in any 1 h, visible emissions that are as dark or darker than No. 2 on the Ringelmann Chart - meets all of the other requirements of this section that are applicable to "Ringelmann 2" operations.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.100.33.CA.BA. Installations/CW facilities that conduct "Ringelmann 2" sandblasting operations must meet specific operational requirements (BAAQMD Regulation 12, Rule 4, Sections 303 and 304).	Verify that during surface preparation for raised traffic delineating markers, and during pavement marking removal operations, the installation/CW facility uses one or more of the following abrasive blasting methods: - wet abrasive blasting - hydroblasting - vacuum blasting - dry unconfined blasting, but only for the following operations: - removal of, or surface preparation for immediate application of, surface markings of less than 93 m^2 (1,000 ft^2) - surface preparation for raised traffic delineating markers. Verify that during all other abrasive blasting operations, the installation/CW facility uses one or more of the following abrasive blasting methods: - confined blasting - wet abrasive blasting - hydroblasting - dry unconfined blasting.
A.100.34.CA.BA. Installations/CW facilities that conduct "Ringelmann 2" sandblasting operations using dry unconfined blasting must use certified abrasives (BAAQMD Regulation 12, Rule 4, Section 306).	Verify that all abrasives used in dry unconfined abrasive blasting are certified by the CARB.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.105. **COOLING TOWERS**	
A.105.1.CA.BA. Installations/CW facilities that operate cooling towers are prohibited from using hexavalent chromium-containing water treatment chemicals (BAAQMD Regulation 11, Rule 10, Section 301).	Verify that installations/CW facilities do not add hexavalent chromium-containing water treatment chemicals to the circulating water of any cooling tower.
A.105.2.CA.BA. Installations/CW facilities that operate cooling towers must meet specific hexavalent chromium concentration standards (BAAQMD Regulation 11, Rule 10, Sections 302, 303, 502, and 503).	Verify that concentration of hexavalent chromium in the circulating water of each cooling tower does not exceed 0.15 mg/L
A.105.3.CA.BA. Installations/CW facilities that operate cooling towers must meet specific recordkeeping requirements (BAAQMD Regulation 11, Rule 10, Section 504).	Verify that the installation/CW facility keeps for 2 yr all records of the circulating water tests.
A.105.4.CA.BA. Installations/CW facilities that operate cooling towers must submit compliance plans (BAAQMD Regulation 11, Rule 10, Section 501).	Verify that the installation/CW facility has submitted a written compliance plan to the District for each of its cooling towers. Verify that if the installation/CW facility plans to construct a new cooling tower, then it submits a compliance plan to the District at least 90 days before the tower is constructed. (NOTE: The compliance plan will contain details of cooling tower location, and construction materials and water treatment chemicals that are being or will be used.)

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
DEGREASING OPERATIONS **A.115.** **General**	
A.115.1.CA.BA. Installations/CW facilities that conduct degreasing operations must, under certain circumstances, meet specific requirements (BAAQMD Regulation 8, Rule 16, Sections 101, 114, and 115).	Determine if the installation/CW facility conducts any degreasing operations, other than the following that are exempt from these requirements: - solvent cleaning operations that use only emulsion or solution cleaners that contain less than 1.0 percent VOC by weight - equipment or operations that use unheated solvent, and that meet one of the following conditions: - contain less than 3.785 L (1 gal) of solvent - have a liquid surface area of less than 929 cm^2 (1 ft^2). Verify that it meets the applicable requirements of this section.
A.115.2.CA.BA. Installations/CW facilities that use trichloroethylene in degreasing (solvent cleaning) operations must meet specific requirements (BAAQMD Regulation 8, Rule 16, Sections 304 and 501.1).	Verify that it does not use more than 12 L (3.2 gal) of trichloroethylene per operating day in any solvent cleaning operation. Verify that it keeps, for at least 1 yr, records that show, on a source-specific and daily basis, the amount of makeup trichloroethylene used in any operation.
A.115.3.CA.BA. Installations/CW facilities that conduct nonexempt degreasing operations must meet specific recordkeeping requirements (BAAQMD Regulation 8, Rule 16, Section 501.2).	Verify that installations/CW facilities using solvents other than trichloroethylene keep, for at least 1 yr, records that show, on a facility-wide and quarterly basis, the type and total amount of makeup solvent used regardless of the number of cleaning operations involved.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
Conveyorized Solvent Cleaners **A.115.4.CA.BA.** Conveyorized cleaners must meet specific operating requirements (BAAQMD Regulation 8, Rule 16, Section 302.1).	Verify that all of the following operating requirements are met: - the degreasing equipment and emission control equipment are operated and maintained in proper working order - liquid solvent leaks are repaired immediately or the equipment is shut down - solvents, including waste solvents, are not stored or disposed of in ways that will result in their evaporation into the atmosphere - waste solvent residues are distilled prior to being disposed of by one of the following methods: - those residues that will be further distilled by a commercial reclamation service are stored in covered containers until pickup - those residues that will be disposed of at an appropriate facility do not contain more than 10 percent solvent by volume - covers over solvents are not removed or opened except as necessary for operation or maintenance of the degreasing equipment - porous or absorbent materials are not degreased. Verify that solvent carry out is minimized by using one or more of the following methods, where applicable: - for Strip Cleaners, the vertical conveyor speed shall be less than 3.3 m/min (11 ft/min) - for Nonstrip cleaners, the vertical conveyor speed shall be less than 3.3 m/min (11 ft/min), and parts shall be racked for best drainage. Verify that if a solvent spray is utilized, all spraying is done within the vapor zone, with the stream pressure low enough to prevent liquid splashing outside the container. (NOTE: If a solvent flow is utilized in a conveyorized cold solvent cleaner, only a continuous fluid stream shall be used (not a fine, atomized, or shower type spray) unless an approved emission control device is used with a control efficiency of 90 percent or more on a mass basis.) Verify that ventilation fans are not positioned in such a way to disturb the vapor zone. Verify that water is not detectable in the solvent returning from the water separator to the solvent cleaner.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.115.5.CA.BA. Conveyorized cleaners must meet specific equipment requirements (BAAQMD Regulation 8, Rule 16, Section 302.2).	Verify that conveyorized cleaner equipment includes all of the following: - a container for the solvent and the articles being cleaned - an apparatus, cover, or enclosed reservoir which reduces solvent evaporation when not processing work in the solvent cleaner - a method for draining cleaned parts, so that drained solvent is returned to the container - a permanent, conspicuous label summarizing the applicable operating requirements.
A.115.6.CA.BA. Conveyorized cleaners using a volatile solvent must have specific safety switches (BAAQMD Regulation 8, Rule 16, Section 302.3).	Verify that the safety switches include all of the following: - condenser flow switch, except where nonwater refrigerant is used - spray safety switch when a spray wand is used - vapor level control thermostat.
A.115.7.CA.BA. Conveyorized cleaners must have specific control devices (BAAQMD Regulation 8, Rule 16, Section 302.5).	Verify that no vapor solvent cleaner operates without one of the following control devices: - a freeboard ratio greater than or equal to 0.75 - a freeboard chiller where the chilled air blanket temperature measured in °F at the coldest point on the vertical axis in the center of the solvent cleaner is no greater than 30 percent of the initial boiling point of the solvent used or 40 °F - an approved emission control device with a control efficiency of 90 percent or more on a mass basis.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
DEGREASING OPERATIONS **A.116.** **Cold Cleaning** **A.116.1.CA.BA.** Cold cleaners must meet specific operating requirements (BAAQMD Regulation 8, Rule 16, Section 303.1 and 303.2).	Verify that all of the following operating requirements are met: - the degreasing equipment and emission control equipment are operated and maintained in proper working order - liquid solvent leaks are repaired immediately or the equipment is shut down - solvents, including waste solvents, are not stored or disposed of in ways that will result in their evaporation into the atmosphere - waste solvent residues are distilled prior to being disposed of by one of the following methods: - those residues that will be further distilled by a commercial reclamation service are stored in covered containers until pickup - those residues that will be disposed of at an appropriate facility do not contain more than 10 percent solvent by volume - devices designed to reduce solvent evaporation are not removed except as necessary for operation or maintenance of the degreasing equipment (where low volatility compounds are being used, remote reservoirs are deemed equivalent to closed covers) - porous or absorbent materials are not degreased - the workload does not occupy more than half the solvent cleaners evaporative area. Verify that if a solvent flow is utilized, only a continuous fluid stream shall be used (not a fine, atomized, or shower type spray), unless an approved emission control device is used with a control efficiency of 90 percent or more on a mass basis. Verify that cleaned parts are drained until dripping ceases. Verify that solvent agitation is accomplished only by pump recirculation or by means of a mixer, and that air agitation is not used.

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A.116.2.CA.BA. Cold cleaners must meet specific equipment requirements (BAAQMD Regulation 8, Rule 16, Section 303.3).	Verify that cold cleaner equipment includes all of the following: - a container for the solvent and the articles being cleaned - an apparatus, cover, or enclosed reservoir which reduces solvent evaporation when not processing work in the solvent cleaner (if a compound with low volatility is not being used or the solvent is agitated or heated, the cover must be designed so that it can be operated with one hand) - a method for draining cleaned parts, so that drained solvent is returned to the container (if a compound with low volatility is not being used, then the drainage facility must be internal so that the parts are enclosed while draining; the drainage facility may be external where the internal type cannot fit into the cleaning system) - a permanent, conspicuous label summarizing the applicable operating requirements.
A.116.3.CA.BA. Cold cleaners must have specific control devices (BAAQMD Regulation 8, Rule 16, Section 303.4).	Verify that no cold cleaner operates without one of the following control devices: - a freeboard ratio greater than or equal to 0.75 where the maximum solvent reservoir capacity is clearly marked by a suitable mechanical or physical means - a water cover, provided the solvent is insoluble in and heavier than water - a freeboard chiller where the chilled air blanket temperature measured in °F at the coldest point on the vertical axis in the center of the solvent cleaner is no greater than 30 percent of the initial boiling point of the solvent used or 40 °F - an approved emission control device with a control efficiency of 90 percent or more on a mass basis.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
DEGREASING OPERATIONS **A.117.** **Vapor Cleaning** **A.117.1.CA.BA.** Vapor solvent cleaners must meet specific operating requirements (BAAQMD Regulation 8, Rule 16, Section 301.1).	Verify that all of the following operating requirements are met: - the degreasing equipment and emission control equipment are operated and maintained in proper working order - liquid solvent leaks are repaired immediately or the equipment is shut down - solvents, including waste solvents, are not stored or disposed of in ways that will result in their evaporation into the atmosphere - waste solvent residues are distilled prior to being disposed of by one of the following methods: - those residues that will be further distilled by a commercial reclamation service are stored in covered containers until pickup - those residues that will be disposed of at an appropriate facility do not contain more than 10 percent solvent by volume - covers over solvents are not removed or opened except as necessary for operation or maintenance of the degreasing equipment - porous or absorbent materials are not degreased - the workload does not occupy more than half the solvent cleaners evaporative area. Verify that solvent carry-out is minimized by the following methods: - rack parts for best drainage - vertical speed of a powered hoist, if one is used, shall not be more than 3.3 m/min (11 ft/min) when lowering and raising the parts - retain the workload in the vapor zone until condensation ceases - for manual loading/unloading tip out any pools of solvent on the cleaned parts before removal, and - do not remove parts from the solvent cleaner until visually dry. Verify that if a solvent spray is utilized, all spraying is done at least 10 cm (4 in) below the top of the vapor level, with the stream pressure low enough to prevent liquid splashing outside the container. Verify that ventilation fans are not positioned in such a way to disturb the vapor zone. Verify that water is not detectable in the solvent returning from the water separator to the solvent cleaner.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.117.2.CA.BA. Vapor solvent cleaners must meet specific equipment requirements (BAAQMD Regulation 8, Rule 16, Section 301.2).	Verify that vapor solvent cleaner equipment includes all of the following: - a container for the solvent and the articles being cleaned - an apparatus, cover, or enclosed reservoir which reduces solvent evaporation when not processing work in the solvent cleaner (the cover must be designed to easily open and close without disturbing the vapor zone; where a solvent cleaner has a freeboard ratio greater than or equal to 0.75 and the evaporative area is greater than 1.0 m^2 (10.8 ft^2), the cover must be powered) - a method for draining cleaned parts, so that drained solvent is returned to the container - a permanent, conspicuous label summarizing the applicable operating requirements.
A.117.3.CA.BA. Vapor solvent cleaners must have specific safety switches (BAAQMD Regulation 8, Rule 16, Section 301.3).	Verify that the safety switches include all of the following: - condenser flow switch, except where nonwater refrigerant is used - spray safety switch when a spray wand is used - vapor level control thermostat.
A.117.4.CA.BA. Vapor solvent cleaners must have specific control devices (BAAQMD Regulation 8, Rule 16, Section 301.4).	Verify that no vapor solvent cleaner operates without one of the following control devices: - a freeboard ratio greater than or equal to 0.75 - a freeboard chiller where the chilled air blanket temperature measured in °F at the coldest point on the vertical axis in the center of the solvent cleaner is no greater than 30 percent of the initial boiling point of the solvent used or 40 °F - an approved emission control device with a control efficiency of 90 percent or more on a mass basis.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.120. **OIL/WATER SEPARATORS**	
A.120.1.CA.BA. Installations/CW facilities that operate wastewater separators, forebays or air flotation units must meet specific equipment and operating requirements (BAAQMD Regulation 8, Rule 8, Sections 115 and 303).	Determine if the installation/CW facility operates any wastewater separators, forebays or air flotation units, other than those that are exempt from these requirements because they are at a publicly owned municipal wastewater treatment facility. Verify that each compartment and access hatch on any nonexempt equipment has a vapor-tight cover that is kept closed except when the opening is being used for maintenance, inspection or sampling. Verify that each gauging or sampling device in any compartment cover is equipped with a vapor-tight cover, seal or lid that is kept closed except when the device is being used for maintenance, inspection or sampling.
A.120.2.CA.BA. Installations/CW facilities that operate sludge-dewatering units must meet specific equipment and operating requirements (BAAQMD Regulation 8, Rule 8, Sections 115 and 304).	Determine if the installation/CW facility operates any sludge-dewatering unit, equipment, machinery, apparatus, or device, other than those that are exempt from these requirements because they are at a publicly owned municipal wastewater treatment facility. Verify that each nonexempt unit meets one of the following conditions: - is totally enclosed and vented to an approved vapor loss control device - has vapor-tight covers on the unit, conveyor belts, and storage bins or tanks except during maintenance, inspection or when the solids storage bin is in use.
A.120.3.CA.BA. Installations/CW facilities that operate oil-water separator slop oil vessels must meet specific equipment and operating requirements (BAAQMD Regulation 8, Rule 8, Sections 115 and 305).	Determine if the installation/CW facility stores any oil-water separator and/or air flotation unit sludges in oil-water slop oil vessels, other than those that are exempt from these requirements because they are at a publicly owned municipal wastewater treatment facility. Verify that each nonexempt slop oil vessel is equipped with one of the following vapor loss control devices: - a solid, gestated, fixed cover that totally encloses the liquid contents in the vessel - an approved vapor recovery system - any other approved vapor loss control equipment. **A.120.3.CA.BA. Continued on Next Page**

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.120.3.CA.BA.(continued)	Verify that if the installation/CW facility has slop oil vessels that are equipped with solid covers, it meets all of the following requirements: - all covered openings are kept closed except when the opening is being used for maintenance, inspection or sampling - roof seals, access doors and other openings are visually inspected semiannually - no cracks or gaps greater than 0.32 cm. (0.125 in.) occur in the roof or between the roof and wall.
A.120.4.CA.BA. Installations/CW facilities that operate low capacity wastewater separators must meet specific requirements (BAAQMD Regulation 8, Rule 8, Sections 110, 112, 113, 114, 115, 301, 501, and 502).	Determine if the installation/CW facility operates any low capacity wastewater separators other than the following equipment or processes or facilities that are exempt from these requirements because they meet one or more of the following conditions: - any publicly-owned municipal wastewater treatment facility - any wastewater separator that processes influent wastewater whose temperature is below 20 °C (68 °F) or whose concentration of COCs is less than 1.0 ppm (by volume), provided that the installation/CW facility meets all of the following requirements: - samples and tests the wastewater semiannually - keeps records, for at least 2 yr, of the dates and times of testing, the location, and the wastewater temperature and/or COC concentration - any secondary wastewater treatment processes that are used as a wastewater polishing step - any stormwater sewer systems that collect stormwater and keep it separated from the process wastewater collection system - any wastewater that bypasses the oil-water separator provided that the installation/CW facility maintains, for 2 yr, the following records: - the date, duration and causes of each bypass - the amount of bypassed water - the dissolved COC concentration of the bypassed water. Verify that each nonexempt separator and/or forebay is operated within its designrated or maximum allowable capacity, and is equipped with one of the following vapor loss control devices: - a solid, gasketed, fixed cover that totally encloses the liquid contents in the separator tank, chamber, or basin - a floating roof, i.e., a floating pontoon or double-deck vapor-tight cover - an approved vapor recovery system - any other approved vapor loss control equipment. **A.120.4.CA.BA. Continued on Next Page**

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.120.4.CA.BA.(continued)	Verify that if the installation/CW facility has separators and/or forebays that are equipped with solid covers, then it meets all of the following requirements: - all covered openings are kept closed except when the opening is being used for maintenance, inspection or sampling - roof seals, access doors, and other openings are visually inspected semiannually - no cracks or gaps greater than 0.32 cm. (0.125 in.) occur in the roof or between the roof and wall. Verify that if the installation/CW facility has separators and/or forebays that are equipped with floating roofs, then it meets all of the following requirements: - primary seals are inspected within 60 days after initial installation and once every 5 yr thereafter - secondary seals are inspected within 60 days after initial installation and once every year thereafter - roofs found to have seals that are out of compliance with approved seal gap criteria are repaired within 30 days.
A.120.5.CA.BA. Installations/CW facilities that operate high capacity wastewater separators must meet specific requirements (BAAQMD Regulation 8, Rule 8, Sections 112, 113, 114, 115, 302, 501, and 502).	Determine if the installation/CW facility operates any high capacity wastewater separator, other than the following equipment, processes, or facilities that are exempt from these requirements because they meet one or more of the following conditions: - any publicly-owned municipal wastewater treatment facility - any wastewater separator that processes influent wastewater whose temperature is below 20 °C (68 °F) or whose concentration of COCs is less than 1.0 ppm (by volume), provided that the installation/CW facility meets all of the following requirements: - samples and tests the wastewater semiannually - keeps records, for at least 2 yr, of the dates and times of testing, the location, and the wastewater temperature and/or COC concentration - any secondary wastewater treatment processes that are used as a wastewater polishing step - any stormwater sewer systems that collect stormwater and keep it separated from the process wastewater collection system - any wastewater that bypasses the oil-water separator provided that the installation/CW facility maintains, for 2 yr, the following records: - the date, duration and causes of each bypass - the amount of bypassed water - the dissolved COC concentration of the bypassed water. **A.120.5.CA.BA. Continued on Next Page**

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.120.5.CA.BA.(continued)	Verify that each nonexempt separator and/or forebay is operated within its design rated or maximum allowable capacity, and is equipped with one of the following vapor loss control devices: - a solid, vapor-tight, full contact fixed cover that totally encloses the liquid contents in the separator tank, chamber, or basin - a floating roof, i.e., a floating pontoon or double-deck vapor-tight cover - a vapor-tight fixed cover with an approved vapor recovery system - a solid, sealed, gasketed, fixed cover that totally encloses the liquid contents in the separator tank, chamber, or basin, and that may be equipped with a pressure/vacuum valve - any other approved vapor loss control equipment. Verify that if the installation/CW facility has separators and/or forebays that are equipped with solid, vapor-tight, full contact fixed covers, all covered openings are kept closed and sealed except when the opening is being used for maintenance, inspection or sampling. Verify that if the installation/CW facility has separators and/or forebays that are equipped with floating roofs, it meets all of the following requirements: - primary seals are inspected within 60 days after initial installation and once every 5 yr thereafter - secondary seals are inspected within 60 days after initial installation and once every year thereafter - roofs found to have seals that are out of compliance with approved seal gap criteria are repaired within 30 days. Verify that if the installation/CW facility has separators and/or forebays that are equipped with vapor recovery systems, all inspection and access hatches are kept closed and sealed except when the opening is being used for maintenance, inspection or sampling. Verify that if the installation/CW facility has separators and/or forebays that are equipped with solid, sealed, gasketed fixed covers, it meets all of the following requirements: - all covered openings are kept closed except when the opening is being used for maintenance, inspection or sampling - roof seals, fixed cover, access doors and other openings are inspected semiannually to ensure that there are no emission leaks greater than 1000 ppm (at 1 cm from the opening and expressed as methane) above background - emission leaks greater than 1000 ppm (expressed as methane) above background are reported to the APCO and repaired within 15 days.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.120.6.CA.BA. Installations/CW facilities that operate oil-water separator effluent channels, ponds, trenches, or basins with a design rated or maximum allowable capacity greater than or equal to 25.2 L/s (400 gal/min) must meet specific requirements (BAAQMD Regulation 8, Rule 8, Sections 112, 113, 115, 306, and 502).	Determine if the installation/CW facility operates any such oil-water separator effluent channels, ponds, trenches, or basins, other than the following equipment, processes, or facilities that are exempt from these requirements because they meet one or more of the following conditions: - any publicly-owned municipal wastewater treatment facility - any wastewater separator that processes influent wastewater whose temperature is below 20 °C (68 °F) or whose concentration of COCs is less than 1 ppm (by volume), provided that the installation/CW facility meets all of the following requirements: - samples and tests the wastewater semiannually - keeps records, for at least 2 yr, of the dates and times of testing, the location, and the wastewater temperature and/or COC concentration - any secondary wastewater treatment processes that are used as a wastewater polishing step - any stormwater sewer systems that collect stormwater and keep it separated from the process wastewater collection system. Verify that each nonexempt oil-water separator effluent channel, pond, trench, and basin is operated within its design rated or maximum allowable capacity, and is equipped with one of the following vapor loss control devices: - a solid, gasketed, fixed cover that totally encloses the liquid contents in the separator channel, pond, trench, or basin - an approved vapor recovery system - any other approved vapor loss control equipment. Verify that if the installation/CW facility has equipment that is equipped with solid covers, then it meets all of the following requirements: - all covered openings are kept closed except when the opening is being used for maintenance, inspection or sampling - roof seals, access doors and other openings are visually inspected semiannually - no cracks or gaps greater than 0.32 cm. (0.125 in.) occur in the roof or between the roof and wall.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.120.7.CA.BA. Installations/CW facilities that operate air flotation units and/or pre-air flotation unit flocculation devices with a design rated or maximum allowable capacity greater than or equal to 25.2 L/s (400 gal/min) must meet specific requirements (BAAQMD Regulation 8, Rule 8, Sections 112, 114, 115, 307, 501 and 502).	Determine if the installation/CW facility operates any air flotation units and/or pre-air flotation unit flocculation devices, other than the following equipment, processes, or facilities that are exempt from these requirements because they meet one or more of the following conditions: - any publicly-owned municipal wastewater treatment facility - any wastewater separator that processes influent wastewater whose temperature is below 20 °C (68 °F) or whose concentration of COCs is less than 1 ppm (by volume), provided that the installation/CW facility meets all of the following requirements: - samples and tests the wastewater semiannually - keeps records, for at least 2 yr, of the dates and times of testing, the location, and the wastewater temperature and/or COC concentration - any wastewater that bypasses the air flotation unit provided that the installation/CW facility maintains, for 2 yr, the following records: - the date, duration and causes of each bypass - the amount of bypassed water - the dissolved COC concentration of the bypassed water. Verify that all nonexempt air flotation and pre-air flotation equipment is operated within its design-rated or maximum allowable capacity, and is equipped with one of the following vapor loss control devices: - a solid, gasketed, fixed cover that totally encloses the liquid contents in the equipment - an approved vapor recovery system - any other approved vapor loss control equipment. Verify that if the installation/CW facility has equipment that is equipped with solid covers, then it meets all of the following requirements: - all covered openings are kept closed except when the opening is being used for maintenance, inspection or sampling - roof seals, access doors and other openings are visually inspected semiannually - no cracks or gaps greater than 0.32 cm. (0.125 in.) occur in the roof or between the roof and wall.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.120.8.CA.BA. Installations/CW facilities that operate junction boxes must meet specific requirements (BAAQMD Regulation 8, Rule 8, Sections 112, 113, 115, 308 and 502).	Determine if the installation/CW facility operates any junction boxes, other than those that are exempt from these requirements because they are used in conjunction with one of the following devices, processes or facilities: - any publicly-owned municipal wastewater treatment facility - any wastewater separator that processes influent wastewater whose temperature is below 20 °C (68 °F) or whose concentration of COCs is less than 1 ppm (by volume), provided that the installation/CW facility meets all of the following requirements: - samples and tests the wastewater semiannually - keeps records, for at least 2 yr, of the dates and times of testing, the location, and the wastewater temperature and/or COC concentration - any secondary wastewater treatment processes that are used as a wastewater polishing step - any stormwater sewer systems that collect stormwater and keep it separated from the process wastewater collection system. Verify that each nonexempt junction box is equipped with one of the following vapor loss control devices: - a solid, gasketed, fixed cover that totally encloses the junction box - a solid manhole cover. Verify that if a junction box has openings or vent pipes in its cover, then all of the following conditions are met: - the total open area of the junction box does not exceed 81.3 cm^2 (12.6 in^2) - all vent pipes are at least 3 ft in length.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.130. **OPEN BURNING**	
A.130.1.CA.BA. Installations/CW facilities are prohibited from conducting open burning except under certain circumstances (BAAQMD Regulation 5, Sections 101, 110, 301 and 401).	Verify that the installation/CW facility does not conduct open burning within the District except for those open fires that meet any of the following conditions and are therefore exempt from this prohibition: - fires used only to cook food for human beings - fires used for recreational purposes using only clean dry wood or charcoal, and a small amount of firestarter - fires burning as safety flares - fires for the combustion of waste gases - flame cultivation when it meets all of the following conditions: - liquid petroleum gas (LPG) or natural gas-fired burners are used - the growth burned is such that combustion will not continue without the burner - fires that emit nothing but CO_2, NO_x, or water vapor under all operating conditions - fires set for the purposes of fire training using 1 gal or less of flammable liquid per fire. Verify that fires are set and allowed to burn only on permissive burn days.
A.130.2.CA.BA. Installations/CW facilities that set any allowable fire must meet specific operating requirements (BAAQMD Regulation 5, Section 111).	Verify that, unless specifically exempted by the public fire official, the APCO, or other requirements, installations/CW facilities meet all of the following requirements: - no burning is conducted before sunrise - no additional materials or fuel are ignited nor are any material or fuels added to any fire after 2 h before sunset - no materials or fuel are ignited nor are any material or fuels added to any fire when the wind velocity is less than 5 mph, or when the wind direction at the site causes smoke to drift towards populated areas - materials to be burned are reasonably free of dirt and soil - piled material has been dried for a minimum of 60 days before ignition, or contains less than 23 percent moisture by weight - the base area of piled material does not exceed 25 yd^2 [22.86 m^2] - the height of piled material is at least 2/3 the average width of the pile - ignition materials used are approved by the State Director of Forestry, including: - orchard torches, drip torches, pressurized diesel torches, propane or LPG torches - commercial petroleum gel materials, pressurized or solid (napalm or blivets) - commercial safety fuses - commercial type ignition grenades (e.g., Fenner) - fuses - commercial fuse lighters and matches **A.130.2.CA.BA. Continued on Next Page**

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.130.2.CA.BA.(continued)	- fires are ignited so as to burn as rapidly as possible within conditions of safety and minimum pollution - fires are ignited at or near the top of the piled material - no additional material, other than ignition material, is added to the fire - tonnage of materials burned per day and/or per site is within limitations set by the APCO and by the CARB.
Allowable Fires	
A.130.3.CA.BA. Installations/CW facilities that set fires for purposes of disease and pest prevention must meet specific requirements (BAAQMD Regulation 5, Sections 401.1, and 406).	Verify that if the installation/CW facility sets fires for the purposes of disease and pest prevention, it meets both of the following requirements: - the fire is set or allowed by the County Agricultural Commissioner - the person setting the fire shall provide written, facsimile or verbal notification to the District prior to the burn. (NOTE: If notification is made verbally by telephone, there must be a written confirmation of this action sent to the APCO within 5 calendar days.)
A.130.4.CA.BA. Crop replacement fires must meet specific requirements (BAAQMD Regulation 5, Section 401.2).	(NOTE: These include agricultural fires set for the purpose of establishing an agricultural crop in a location which formerly contained another type of agricultural crop or natural growth.) Verify that the fire is set or allowed by the public fire official having jurisdiction, in the performance of official duty, and is necessary for the crop replacement to proceed. Verify that fires are limited to a period beginning 1 October and ending 30 April. (NOTE: Upon the determination of the APCO that heavy winter rainfall has prevented such burning, the burn period may be extended to no later than 30 June.
A.130.5.CA.BA. Orchard pruning and attrition fires must meet specific requirements (BAAQMD Regulation 5, Section 401.3).	(NOTE: These include agricultural fires set for the purpose of disposal of periodic prunings and attrition losses from fruit trees, nut trees, vineyards and cane fruits.) Verify that the fire is set or allowed by the public fire official having jurisdiction, in the performance of official duty, and is necessary to maintain and continue the growing of the fruit trees, vineyards and cane fruits as a gainful occupation. Verify that fires are limited to a period beginning 1 November and ending 30 April. (NOTE: Upon the determination of the APCO that heavy winter rainfall has prevented such burning, the burn period may be extended to no later than 30 June.)

COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT Bay Area Air Quality Management District (BAAQMD) - California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.130.6.CA.BA. Double cropping stubble fires must meet specific requirements (BAAQMD Regulation 5, Section 401.4).	(NOTE: These include agricultural fires set for the purpose of disposal of grain stubble from agricultural land from which both grain and vegetable crops are harvested during the same calendar year.) Verify that the fire is set or allowed by the public fire official having jurisdiction, in the performance of official duty, and is necessary to remove the grain stubble and straw before a field vegetable crop can be planted. Verify that all material to be burned is free of visible surface moisture. Verify that no fires take place before 10:00 a.m. local time. Verify that fires are limited to a period beginning 1 June and ending 31 August.
A.130.7.CA.BA. Stubble fires must meet specific requirements (BAAQMD Regulation 5, Section 401.5).	(NOTE: These include agricultural fires set for the purpose of disposal of stubble and straw.) Verify that the fire is set or allowed by the public fire official having jurisdiction, in the performance of official duty, and is necessary to maintain and continue the growing of field crops as a gainful occupation. Verify that fire ignition techniques are be limited to backfiring, stripfiring, and "X" or crossfiring unless an alternate technique is approved by the APCO where a specific field condition is determined not to lend itself to these techniques in a given year. Verify that all material to be burned is free of visible surface moisture. Verify that, after 0.15 in. or more rainfall, the material pass the crackle test prior to burning. Verify that no fires take place before 10:00 a.m. local time, and that fires are limited to a period beginning 1 September and ending 31 December. Verify that, outside of Sonoma County, no more than 100 acres of any property are burned in a single day. Verify that within Sonoma County: - no person conducts a burn without a prior acreage allocation from the APCO - no more than 500 acres total of all properties are burned in a single day - no more than 100 acres of any property are burned in a single day - if by 12:00 p.m. the daily 500 acre burn acreage limitation has not been reached, up to 200 acres of any property may be burned in a single day provided: - the additional acreage burning allocation has been approved by the APCO - no more than two fields exceeding 100 acres total are burned simultaneously on the same property.

COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT Bay Area Air Quality Management District (BAAQMD) - California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.130.8.CA.BA. Installations/CW facilities that set fires for purposes of prevention of a fire hazard, including for the disposal of dangerous materials, must meet specific requirements (BAAQMD Regulation 5, Sections 401.6 and 406).	Verify that both of the following requirements are met: - the fire is set or allowed by the public fire official having jurisdiction over the site of the fire - the person setting the fire shall provide written, facsimile or verbal notification to the APCO prior to the burn. (NOTE: If notification is made verbally by telephone, there must be a written confirmation of this action sent to the APCO within 5 calendar days.)
A.130.9.CA.BA. Installations/CW facilities that set fires for the purpose instructing public or industrial employees in fire fighting methods must meet specific requirements (BAAQMD Regulation 5, Sections 401.7, and 406).	Verify that all of the following requirements are met: - the fire is set or allowed by the public fire official having jurisdiction over the site of the fire - the fire is set on other than a permissive burn day only with approval of the APCO - the person setting the fire shall provide written, facsimile or verbal notification to the District prior to the burn. (NOTE: If notification is made verbally by telephone, there must be a written confirmation of this action sent to the APCO within 5 calendar days. For structural fire training, written notification shall be made to the APCO at least 10 working days prior to the burn.)
A.130.10.CA.BA. Installations/CW facilities that set fires for purposes of disposing of flood debris must meet specific requirements (BAAQMD Regulation 5, Section 401.8).	Verify that the installation/CW facility obtains the permission of the public fire official having jurisdiction over the site of the fire, and sets the fire within the time period allowed by that official. Verify that the fire is necessary for the continuing or maintaining of agriculture as a gainful occupation. Verify that fires are limited to a period beginning 1 October and ending 31 May.
A.130.11.CA.BA. Installations/CW facilities that set fires for purposes of controlling vegetative growth in irrigation ditches or canals must meet specific requirements (BAAQMD Regulation 5, Sections 401.9, and 406).	Verify that both of the following requirements are met: - the fire is set or allowed by the public fire official having jurisdiction over the site of the fire - the person setting the fire shall provide written, facsimile or verbal notification to the District prior to the burn. (NOTE: If notification is made verbally by telephone, there must be a written confirmation of this action sent to the APCO within 5 calendar days.)

COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT Bay Area Air Quality Management District (BAAQMD) - California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.130.12.CA.BA. Installations/CW facilities that set fires for purposes of flood control must meet specific requirements (BAAQMD Regulation 5, Sections 401.10, and 406).	Verify that both of the following requirements are met: - the fire is set or allowed by the public fire official having jurisdiction over the site of the fire - the person setting the fire shall provide written, facsimile or verbal notification to the District prior to the burn. (NOTE: If notification is made verbally by telephone, there must be a written confirmation of this action sent to the APCO within 5 calendar days.)
A.130.13.CA.BA. Installations/CW facilities that set fires for purposes of range management and grazing must meet specific requirements (BAAQMD Regulation 5, Sections 401.11, and 406).	Verify that all of the following requirements are met: - the fire is set or allowed by the State Director of Forestry or by the public fire official having jurisdiction over the site of the fire - brush to be burned is treated at least 6 mo prior to burning - unwanted trees over 6 in. in diameter are felled and allowed to dry for an minimum of 6 mo prior to the burn - the person setting the fire shall provide written, facsimile or verbal notification to the District prior to the burn - fires are limited to a period beginning 1 July and ending 30 April. (NOTE: If notification is made verbally by telephone, there must be a written confirmation of this action sent to the APCO within 5 calendar days.) (NOTE: The brush treatment and drying requirements listed here, as well as the requirements concerning piled materials that apply to allowable fires in general, may be waived by the State Director of Forestry, the APCO, or the public fire official having jurisdiction over the site of the fire.)
A.130.14.CA.BA. Installations/CW facilities that set fires for purposes of forest debris removal or forest management must meet specific requirements (BAAQMD Regulation 5, Section 401.12).	Verify that all of the following requirements are met: - the fire is set or allowed by the public fire official having jurisdiction over the site of the fire - materials are piled or windrowed unless the public fire official advises against it - fires are limited to a period beginning 1 November and ending 30 April. (NOTE: The requirements concerning piled materials that apply to allowable fires in general may be waived by the public fire official having jurisdiction over the site of the fire.)

COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT Bay Area Air Quality Management District (BAAQMD) - California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.130.15.CA.BA. Installations/CW facilities that set fires for purposes of wildlife management must meet specific requirements (BAAQMD Regulation 5, Section 401.13).	Verify that the installation/CW facility has obtained the permission of the Department of Fish and Game before setting any fires for the purposes of improvement of lowland and marsh for wildlife and game habitat. Verify that no fires take place before 10:00 a.m., and that no fires take place or that any materials are added to an existing fire after 3:00 p.m. local time on any day. Verify that fires are limited to a period beginning 1 February 1 and ending 31 March, and a period beginning 1 September and ending 15 October. (NOTE: Upon the determination of the APCO in consultation with the California Department of Fish and Game and the Solano County Mosquito Abatement District, that heavy winter rainfall has prevented such burning, the burn period beginning 1 February and ending 31 March may be extended to no later than 30 June 30.
A.130.16.CA.BA. Installations/CW facilities that set fires for purpose of disposing of contraband must meet specific requirements (BAAQMD Regulation 5, Sections 401.15 and 406).	Verify that fires are set or allowed by any peace officer or public fire official, in the performance of official duty. Verify that the fire must, in the opinion of such officer, be necessary and the material not be able to be disposed of by any other means. Verify that the person setting the fire provides written, facsimile or verbal notification to the District prior to the burn. (NOTE: If notification is made verbally by telephone, there must be a written confirmation of this action sent to the APCO within 5 calendar days.)
A.130.17.CA.BA. Installations/CW facilities that set fires for purpose of wildland vegetation management must meet specific requirements (BAAQMD Regulation 5, Sections 401.16 and 408).	(NOTE: This includes prescribed burning by a state or federal agency, or through a cooperative agreement or contract involving the state or federal agency, conducted on land predominantly covered with chaparral, trees, coastal shrub, or standing bush.) Verify that the installation/CW facility submits a prescribed burn plan to the APCO for review at least 30 calendar days prior to the proposed burning that provides the following information: - location and specific objectives of each proposed burn - acreage or tonnage, type, and arrangement of vegetation to be burned - directions and distances to nearby sensitive receptor areas - fuel condition, combustion and meteorological prescription elements for the project - projected schedule and duration of project ignition, combustion, and burn down - specification for monitoring and of verifying critical parameters - specifications for disseminating project information - certification by a resource ecologist, biologist, or forester that the proposed burning is necessary to achieve the specific management objection(s) of the burn plan - smoke management plan.

COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT Bay Area Air Quality Management District (BAAQMD) - California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.130.18.CA.BA. Installations/CW facilities that set fires for purpose of filmmaking must meet specific requirements (BAAQMD Regulation 5, Sections 401.17 and 409).	(NOTE: This includes fires set as part of commercial film or video production activities for motion pictures and television.) Verify that the fire is set or allowed by the public fire official having jurisdiction, in the performance of official duty. Verify that the installation/CW facility submits an open burning petition to the APCO that provides the following information, as applicable: - date(s) and specific location(s) of each proposed burn - type and quantity (tonnage, acreage, or volume) of each material to be burned - the projected fuel use rate in British thermal units per hour, if known, calculated using the higher heating value of each fuel, and - the burn duration. Verify that prior to ignition, the installation/CW facility notifies the APCO on the day of each burn. Verify that if the APCO grants written approval, such approval is available at the burn location for inspection by the APCO, upon request. Verify that the installation/CW facility receives APCO approval in writing at least 10 working days prior to the burn.
A.130.19.CA.BA. Installations/CW facilities that set fires for purpose of public exhibition must meet specific requirements (BAAQMD Regulation 5, Sections 401.18 and 409).	(NOTE: This includes fires set as part of a planned civic event designed to educate or otherwise benefit the public.) Verify that the fire is set or allowed by the public fire official having jurisdiction, in the performance of official duty. Verify that the installation/CW facility receives APCO approval in writing at least 10 working days prior to the burn.

COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT Bay Area Air Quality Management District (BAAQMD) - California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.145. **ASPHALT PAVING MATERIALS/ OPERATIONS**	
A.145.1.CA.BA. Installations/CW facilities that use or contract out applications of liquid or emulsified asphalt paving materials must meet specific requirements (BAAQMD Regulation 8, Rule 15).	Verify that neither the installation/CW facility nor any contractor uses any of the following kinds of asphalt paving materials: - rapid cure liquid asphalt - medium cure liquid asphalt, except when the National Weather Service forecasts that atmospheric temperature for the 24-h period following application will not exceed 10 °C (50 °F) - slow cure liquid asphalt (road oil) that contains more than 0.5 percent by volume of petroleum solvents that boil at less than 260 °C (500 °F) - any emulsified asphalt that contains petroleum solvents in excess of 3.0 percent by volume.

COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT Bay Area Air Quality Management District (BAAQMD) - California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.150. **ETHYLENE OXIDE SOURCES**	
A.150.1.CA.BA. Installations/CW facilities that operate ethylene oxide sterilization equipment must, under certain circumstances, meet specific additional requirements (BAAQMD Regulation 11, Rule 9, Sections 102, 103, 301-340, and 402).	Determine if the installation/CW facility operates any ethylene oxide sterilization equipment, other than the following types of equipment that are exempt from the requirements of this section: - sterilizers of the liner-bag design that use ampules of ethylene oxide and meet all of the following conditions: - no more than one ounce is used in any charge - no more than 25 lb is used annually - sterilization equipment at installations/CW facilities where the facility-wide usage of ethylene oxide is less than 25 lb/yr. Verify that the installation/CW facility does not operate any commercial ethylene oxide sterilizers or any hospital ethylene oxide sterilizers unless it has met all of the following requirements: - exhaust streams from the sterilization chamber and the aerator (when aerator abatement devices are required) are continuously vented to, and never bypass, an approved emission abatement device - the seal fluid in the vacuum pump is recirculated or the sterilization chamber evacuation equipment is otherwise designed to prevent ethylene oxide release. Verify that the installation/CW facility does not operate an aeration-only facility unless all ethylene oxide emissions from the aerator are reduced 95 percent by weight by an approved abatement device. Verify that the installation/CW facility does not operate any sterilization equipment unless all systems are leak-free, as determined by a portable flame ionization detector or another approved leak detection method.
A.150.2.CA.BA. Installations/CW facilities that operate ethylene oxide sterilization equipment must meet specific recordkeeping requirements (BAAQMD Regulation 11, Rule 9, Sections 103, 501, and 502).	Verify that the installation/CW facility maintains records that demonstrate proper operation and maintenance of nonexempt emission control equipment. Verify that installations/CW facilities, including those where the facility-wide usage of ethylene oxide is less than 25 lb/yr, maintain the following for all nonexempt equipment: - a log that notes the date and time of each sterilizer operation cycle - records of all ethylene oxide and NPOC usage.

COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT Bay Area Air Quality Management District (BAAQMD) - California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.150.3.CA.BA. Installations/CW facilities that operate nonexempt ethylene oxide sterilizers must meet specific operating permit requirements (BAAQMD Regulation 11, Rule 9, Section 404).	Verify that the installation/CW facility does not operate any ethylene oxide sterilizer without having a Permit to Operate and meeting the other requirements of the Permits section of this manual.
A.150.4.CA.BA. Installations/CW facilities that operate nonexempt ethylene oxide sterilization equipment must meet specific e- mission source testing requirements (BAAQMD Regulation 11, Rule 9, Section 403).	Verify that the installation/CW facility conducts a source test on each commercial or hospital sterilizer that it operates no later than 1 October 1993.

COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT Bay Area Air Quality Management District (BAAQMD) - California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.155. OTHER EMISSIONS/ SOURCES **Beryllium Emissions**	
A.155.1.CA.BA. Installations/CW facilities that burn beryllium and/or beryllium-containing waste must meet specific operational requirements (BAAQMD Regulation 11, Rule 3, Section 302).	Verify that the installation/CW facility does not burn beryllium and/or beryllium-containing waste by any method except an incineration operation.
A.155.2.CA.BA. Installations/CW facilities that process beryllium or materials that contain beryllium must meet specific emission limitation requirements (BAAQMD Regulation 11, Rule 3, Sections 301, 303, 403 and 404)	Determine if the installation/CW facility meets any of the following conditions: - incinerates beryllium or beryllium-containing waste - operates any plant that processes beryllium, beryllium oxide, beryllium alloys containing more than 0.1 percent beryllium by weight, or beryllium-containing waste - operates any machine shop that processes beryllium, beryllium oxide, or beryllium alloys that contain more than 5 percent beryllium by weight. Verify that it meets one of the following emission limitation requirements: - discharges of beryllium do not exceed 10 g over a 24-h period - with the approval of the APCO, an ambient concentration limit on beryllium in the vicinity of the source of 0.01 microgram/m^3, averaged over a 30-day period is met. Verify that the installation/CW facility notifies the APCO in writing of the initial operational startup of any new beryllium source according to the following schedules: - no less than 30 nor more than 60 days before the anticipated startup date - within 15 days after actual startup. Verify that unless the installation/CW facility has obtained a waiver from the APCO, it meets all of the following requirements: - emissions are source tested within 90 days of the startup of any new beryllium source - the APCO is notified at least 30 days prior to conducting an emissions test.

COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT Bay Area Air Quality Management District (BAAQMD) - California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.155.3.CA.BA. Installations/CW facilities that emit beryllium from rocket motor firing must meet specific emission limitation requirements (BAAQMD Regulation 11, Rule 4).A.160.	Verify that if the installation/CW facility is involved in the firing of a beryllium rocket motor, it meets all of the following requirements: - time weighted atmospheric concentrations of beryllium resulting from rocket motor combustion products do not exceed 75 microgram min/m^3 of air within the limits of 10 to 60 min, accumulated during any two consecutive weeks, in any area where an adverse effect to public health could occur - ambient air concentrations are measured during and after firing. Verify that if the installation/CW facility maintains closed tanks containing beryllium propellant combustion products, it meets all of the following requirements: - beryllium propellant combustion products are not emitted from any closed tank in excess of 2 g/h and 10 g/day - combustion products from the tanks are continuously sampled. Verify that the installation/CW facility notifies the APCO at least 30 days prior to conducting an air sampling or emissions test.
Organic Solvents **A.155.4.CA.BA.** Installations/CW facilities that use organic solvents or materials that contain organic solvents must, under certain circumstances, meet specific emissions requirements (BAAQMD Regulation 8, Rule 4, Sections 101-114, and 301-304).	Determine if the installation/CW facility uses any organic solvents or materials that contain organic solvents, other than the following materials or uses that are exempt from the requirements of this section: - operations that use water-based coatings or high solids coatings provided that both of the following conditions are met: - the volatile content of any material containing organic solvents does not come into contact with flame - the operation has not been constructed or modified since 2 October 1974 - organic diluents that chemically react during any operation, provided that no more than 20 percent of by volume of the coating material that contains them is emitted as POCs (e.g. polyurethane, polyester resins) - operations that must meet the requirements of other sections in this manual, provided that those requirements are derived from other Rules of Regulation 8 of the BAAQMD - surface coating operations using nonrefillable aerosol containers (see instead the Aerosol Paint Products section). **A.155.4.CA.BA. Continued on Next Page**

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.155.4.CA.BA.(continued)	Verify that the installation/CW facility has installed approved air pollution control equipment and/or implemented approved modifications to its procedures, equipment or materials, that reduce emissions to below the following levels: - discharges of POCs at a rate greater than 6.8 kg/day (15 lb/day) or 1.4 kg/h (3 lb/h) from equipment in that any organic solvent or material containing organic solvent comes into contact with flame, or is baked, heat-cured or heat-polymerized in the presence of oxygen - discharges of POCs at a rate greater than 18 kg/day (40 lb/day) or 3.6 kg/h (8 lb/h), from operations that use photochemically reactive solvents under conditions other than those mentioned in the first condition stated above - discharges of POCs at a rate greater than 1360 kg/day (3000 lb/day) or 204 kg/h (450 lb/h) from equipment or operations that meet either of the following conditions: - equipment that uses any nonphotochemically reactive organic solvent, and that has been constructed or modified since 2 October 1974 - operations other than those in which an organic solvent comes into contact with a flame or is baked, heat-cured or heat-polymerized in the presence of oxygen.
Cleanup Operations **A.155.5.CA.BA.** Installations/CW facilities that use organic compounds in cleanup operations must meet specific requirements (BAAQMD Regulation 8, Rule 1, Sections 320 through 322).	Verify that the installation/CW facility stores and disposes of all of the following materials in closed containers: - cloth or paper impregnated with organic compounds - fresh or spent organic compounds. Verify that if the installation/CW facility uses organic compounds for the cleanup of spray equipment, it uses equipment that collects the cleaning compounds and minimizes its evaporation to the atmosphere.

COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT Bay Area Air Quality Management District (BAAQMD) - California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
Soil Aeration	
A.155.6.CA.BA. Installations/CW facilities that aerate or excavate certain kinds of chemically contaminated soil must meet specific requirements (BAAQMD Regulation 8, Rule 40, Sections 101 and 113).	Determine if the installation/CW facility is aerating or excavating soil that has been contaminated by leaks or spills of any organic chemical or petroleum liquid, under any of the following conditions: - the identity of soil contaminant is unknown - the initial boiling point of the contaminant is less than 302 °F [150 °C] - the contaminated soil is being heated. Verify that the installation/CW facility meets all of the applicable requirements of this section.
A.155.7.CA.BA. Installations/CW facilities that excavate chemically contaminated soil must meet specific reporting requirements (BAAQMD Regulation 8, Rule 40, Sections 114, 115, and 402, 404 and 405).	Verify that the installation/CW facility notifies the APCO as follows: - as soon as possible after the detection of contaminated soil during any excavation - within ten working days after completion of the excavation when excavating to repair a pipeline leak and generating no more than 5 yd^3 of contaminated soil in the process - at least 5 days prior to beginning the excavation for any excavation that does not meet any of the other conditions listed above - as early as possible before the new starting date when the scheduled starting date of an excavation is delayed.
A.155.8.CA.BA. Installations/CW facilities that aerate chemically contaminated soil must meet specific emission control requirements (BAAQMD Regulation 8, Rule 40, Sections 301 through 303).	Verify that the installation/CW facility's soil aeration operation meets one of the following requirements: - the soil aeration rate meets the standards listed in Appendix 1-14 - organic compound emissions from the aeration operation are reduced by an approved emission control device. Verify that the installation/CW facility covers contaminated soil that is not being aerated in one of the following ways: - with a layer of uncontaminated soil no less than 6 in. deep - with a tarp or other covering, provided that all of the following conditions are met: - no head space where vapors can accumulate is formed - the covering is in good condition and well secured to minimize emissions.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.155.9.CA.BA. Installations/CW facilities that aerate chemically contaminated soil must meet specific reporting requirements (BAAQMD Regulation 8, Rule 40, Section 403).	Verify that the installation/CW facility notifies the District at least 24 h before spreading or heating any chemically contaminated soil. Verify that the installation/CW facility notifies the District within 24 h of a change in any of the following parameters: - estimated total quantity of soil to be aerated - estimated quantity of soil to be aerated per day - estimated average degree of soil contamination or total organic content - chemical composition of the contaminants - the description of the bases for any of the above estimates.
Soil Vapor Extraction / Air Stripping Operations	
A.155.10.CA.BA. Installations/CW facilities that conduct certain kinds of soil vapor extraction or air stripping operations must meet specific requirements (BAAQMD Regulation 8, Rule 47, Sections 101, 109, 110-113, 301, 302, and 402).	Determine if the installation/CW facility is conducting any soil vapor extraction or air stripping operations, other than the following that are exempt from these regulations: - wastewater aeration at sewage treatment facilities - any operations at industrial wastewater treatment facilities - soil aeration operations that must meet the requirements of the Soil Aeration section of this manual. Verify that all air stripping and soil vapor extraction operations with a total organic compound emission greater than 15 lb/day are vented to an approved emission control device. Verify that the installation/CW facility meets one of the following requirements: - vents the emissions to an approved emission control device - operations emit no more than one of the following compounds, and the amount emitted does not exceed the values listed: - benzene, 0.05 lb/day - vinyl chloride, 0.2 lb/day - perchloroethylene, 0.5 lb/day - methylene chloride, 0.5 lb/day - trichloroethylene, 0.5 lb/day - has an exemption from the APCO and maintains emissions of the above compounds at 1 lb/day or less.

COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT Bay Area Air Quality Management District (BAAQMD) - California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.155.11.CA.BA. Installations/CW facilities that conduct nonexempt soil vapor extraction or air stripping operations must meet specific notification/permit requirements (BAAQMD Regulation 8, Rule 47, Sections 401).	Verify that if installation/CW facility personnel are to be responsible for air stripping or soil vapor extraction operations, then the installation/CW facility meets one of the following requirements: - applies for a District Permit - notifies the APCO of its intention to operate at least 30 days before startup.
A.155.12.CA.BA. Installations/CW facilities that conduct nonexempt air stripping operations must meet specific monitoring requirements (BAAQMD Regulation 8, Rule 47, Section 601.).	Verify that it collects and analyzes at least one sample of influent water into the air stripper on each of the following occasions: - every day for the first 3 days of operation - at least once each operating month thereafter.
A.155.13.CA.BA. Installations/CW facilities that conduct nonexempt soil vapor extraction or air stripping operations must meet specific recordkeeping requirements (BAAQMD Regulation 8, Rule 47, Section 501.).	Verify that the installation/CW facility maintains the following kinds of records for at least 2 yr: - all required air stripper influent water analysis results - all emission control device monitoring results.

COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT Bay Area Air Quality Management District (BAAQMD) - California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
Solid Waste Disposal Sites	(NOTE: This Rule does not apply to the following: - sites that have an in-place tonnage of less than 907,194 metric tons (1 million tons) - sites that have accepted and now contain only nondecomposable inert solid waste - sites that have obtained a written exemption from the APCO.
A.155.14.CA.BA. Installations/CW facilities that operate solid waste disposal sites must collect and process landfill gases (BAAQMD Regulation 8, Rule 34).	Verify that each solid waste disposal site is operated to meet all of the following requirements: - landfill gases are collected using an approved system - collected landfill gases are processed in one of the following ways: - burned in an approved flare or internal combustion engine - processed through an approved control device that reduces the gases' organic compound concentration - delivered into a fuel distribution pipeline.

Appendix 1-1

Exemptions to the Permit Requirements

(Source: BAAQMD Regulation 2, Rule 1, Sections 113 through 128)

(NOTE: Installations must obtain an Authority to Construct and Permit to Operate for certain sources of air contaminants **regardless of** any exemptions for which they might otherwise qualify:

- any source that emits, in quantities that would fail a risk screen analysis, substances that the CARB has identified as, or suspects are, toxic air contaminants
- any single piece of equipment that produces emissions in excess of 150 lb/day of any single pollutant
- any source that emits any of the following air contaminants in excess of the quantities listed:
  lead, 0.3 lb/day
  asbestos (except in demolition and waste disposal), 0.004 lb/day
  beryllium, 0.0002 lb/day
  mercury, 0.5 lb/day
  vinyl chloride, 0.5 lb/day
  fluorides, 1.5 lb/day
  sulfuric acid mist, 4.0 lb/day
  reduced sulfur compounds (including hydrogen sulfide), 2.5 lb/day
- any new air pollution abatement equipment that is used on exempt equipment to meet applicable emission standards.)

The following kinds of sources, equipment, operations and activities are exempt from the requirements of the Permits section of this manual if they meet the applicable requirements of the Permit Exemptions section:

- single family dwellings
- multiple family dwellings, hotels and motels
- office and commercial buildings where emissions result solely from space heating by natural gas of less than 20 MBtu/h heat input, but incinerators operated in conjunction with such sources are not exempt
- road construction and widening
- restaurants and other retail establishments for the purpose of preparing food for human consumption
- structural changes that do not change the quality, nature or quantity of air contaminant emissions
- farming operations, including orchards
- animal husbandry operations
- any combustion source that meets either of the following conditions:
  - its capacity is less than 1 MBtu/h
  - its capacity is less than 10 MBtu/h and it is fired exclusively with natural gas, liquefied petroleum gas, or any combination thereof is exempt if, in addition, it meets either of the following conditions:
    - it emits only combustion products
    - it is also exempted under one of the other provisions of this table
- equipment that meets any of the following conditions is exempt:
  - internal combustion engines or gas turbines used to propel or power vehicles
  - internal combustion engines or gas turbines with output ratings of less than 250 hp

(continued)

  - -- internal combustion engines directly used for agricultural operations necessary for the growing of crops or the raising of fowl or animals
  - -- internal combustion engines that are laboratory engines used in research or teaching programs
  - -- internal combustion engines used solely as a source of standby power and that meet any of the following conditions:
    - --- the engine operates for no more than 100 h/yr
    - --- it is used only for power when normal power line service fails
    - --- it is used only for emergency water pumping
  - -- portable internal combustion engines that are used on a temporary basis of no more than 30 days/yr at any one facility
- all of the following kinds of furnaces, ovens and kilns:
  - -- porcelain enameling furnaces or drying ovens
  - -- vitreous enameling furnaces or drying ovens
  - -- crucible furnaces, pot furnaces, or induction furnaces, that have a capacity of 1000 lb [approximately 453.59 kg] or less each, in which no sweating or distilling is conducted, and from which only the following metals are poured or in which only the following metals are held in a molten state:
    - --- aluminum or any alloy containing over 50 percent aluminum
    - --- magnesium or any alloy containing over 50 percent magnesium
    - --- lead or any alloy containing over 50 percent lead
    - --- tin or any alloy containing over 50 percent tin
    - --- zinc or any alloy containing over 50 percent zinc
    - --- copper
    - --- precious metals
  - -- equipment used exclusively for heat treating glass or metals, or used exclusively for case hardening, carburizing, cyaniding, nitriding, carbonitriding, siliconizing or diffusion treating of metal objects provided the maximum fuel use rate is less than 10 MBtu/h
  - -- crucible type or pot type furnaces with a brimful capacity of less than 45 $in.^3$ [114.3 cm^3] of any molten metal
  - -- ovens used exclusively for curing plastics that are concurrently being vacuum held to a mold
  - -- ovens used exclusively for the softening and annealing of plastics
  - -- ovens used exclusively for the curing of vinyl plastisols by the closed mold curing process
  - -- ovens used exclusively for curing potting materials or castings made with epoxy resins
  - -- kilns used for firing ceramic ware and heated exclusively with natural gas, liquefied petroleum gas, electricity, or any combination thereof
- all of the following kinds of food and agricultural equipment:
  - -- smokehouses or commercial barbecue units in which the maximum horizontal inside cross-sectional area does not exceed 20 ft^2 [approximately 6.1 m^2]
  - -- confection cookers where the products are edible and intended for human consumption
  - -- mixers and blenders used in bakeries where the products are edible and intended for human consumption
  - -- ovens used in bakeries where the products are edible and intended for human consumption, and where the total production of bread, buns and rolls never exceeds 40,000 lb [approximately 18143.69 kg] per operating day when averaged over any period of seven consecutive days
  - -- equipment used exclusively to grind, blend or package tea, cocoa, spices or roasted coffee
  - -- coffee roasters with a capacity of less than 15 lb/h [approximately 6.8 kg/h]
  - -- orchard heaters

(continued)

- all of the following kinds of surface preparation and cleaning equipment:
  - -- abrasive blast cabinet-dust filter combination units where the dust filter and blasting cabinet are built integrally and mounted on the same frame work
  - -- blast cleaning equipment using a suspension of abrasive in water
  - -- portable sandblasting equipment used on a temporary basis within the District
  - -- equipment used exclusively for steam cleaning provided that the solution contains less than 1 percent VOC by weight
  - -- equipment used exclusively for the surface preparation, cleaning, or stripping of metals using solutions that contain less than 1 percent VOC by weight
  - -- equipment used for washing or drying metal or glass products provided that all of the following conditions are met:
    - --- only solutions that contain less than 1 percent VOC by weight are used
    - --- any combustion sources used in the process are exempt from the requirements of the Permits section
  - -- equipment or operations that use unheated solvent, and which contain less than 1 gal [approximately 3.78 L] of solvent or have a liquid surface area of less than 1 ft^2 [approximately.3 m^2] are exempt, except for:
    - --- solvent cleaning stations at semiconductor manufacturing operation fabrication areas
    - --- solvent cleaning stations at aerospace stripping operations
    - --- wipe cleaning operations using more than 5 gal/yr [approximately 18.93 L/yr] of solvent
  - -- equipment and containers that are used for surface preparation, cleaning, or stripping by use of solvents or solutions are exempt if they meet all of the following conditions:
    - --- they are not used in solvent wipe cleaning operations
    - --- they are not used at solvent cleaning stations at semiconductor manufacturing fabrication areas
    - --- any VOCs used have initial boiling points that are greater than 302°F [150 °C] and that exceed the maximum operating temperature of the equipment by at least 180°F [approximately 82.22 °C]
    - --- the equipment or container (which for remote reservoir cold cleaners means the remote reservoir) has a capacity of less than 35.1 gal [approximately 132.87 L]
    - --- the equipment or container has a liquid surface area (or for remote reservoir cold cleaners, the sink or working area has a horizontal surface area) of less than 7 ft^2 [approximately 2.14 m^2]
    - --- if solvent flow is used, then only a continuous fluid stream, not a fine, atomized or shower type spray, is used
- all of the following kinds of surface coating and printing equipment:
  - -- any powder coating operation
  - -- coating equipment at any facility whose coating or laminating operations meet either of the following conditions:
    - --- they consume a total of less than 20 gal/yr [approxima75.71 L/yr] of coating on a facility-wide basis
    - --- they use exclusively coatings or adhesives that contain less than 1 percent VOC by weight
  - -- any coating operation that employs only hand held aerosol cans
  - -- dipping operations for coating objects with oils, waxes or greases provided that all coatings applied contain less than 1 percent VOC by weight
  - -- dipping operations for applying coatings of natural or synthetic resin provided that all coatings applied contain less than 1 percent VOC by weight
  - -- printing presses at facilities that meet all of the following conditions:

(continued)

--- they use less than 7500 lb [approximately 3401.94 kg] of ink annually
--- they use inks that contain less than 1 percent VOC by weight

- all of the following kinds of dry cleaning facilities or equipment:
  -- any dry cleaning facility that uses less than 320 gal/yr [approximately 1211.33 L/yr] of perchloroethylene and less than 700 gal/yr [approximately 2649.79 L/yr] of petroleum solvent
  -- lint traps used exclusively in conjunction with dry cleaning tumblers
  -- laundry dryers, extractors or tumblers used for fabrics cleaned only with water solutions of bleach or detergents
- equipment used for buffing, carving, cutting, drilling, grinding, machining, planing, routing, sanding, sawing, shredding, or turning of wood, ceramic artwork, ceramic precision parts, leather, metals, plastics, rubber, fiberboard, masonry, carbon or graphite
- equipment used for pressing or storing of sawdust, wood chips or wood shavings
- equipment used exclusively to mill or grind coatings and molding compounds in a paste form provided the solution contains less than 1 percent VOC by weight
- tumblers used for the cleaning or deburring of metal products without abrasive blasting
- batch mixers of 5 ft^3 [approximately 1.52 m^3] rated working capacity or less
- mixers for rubber or plastics provided no material in powder form is added and mixture contains less than 1 percent VOC by weight
- equipment used exclusively for the mixing and blending of materials at ambient temperature to make water based adhesives
- equipment used exclusively for the mixing and packaging of lubricants or greases
- presses used exclusively for extruding metals, minerals, plastics or wood
- presses used for the curing of rubber products and plastic products
- platen presses used for laminating
- roll mills or calendars for rubber or plastics
- equipment used exclusively for forging, pressing, rolling or drawing metals, or for heating metals immediately prior to forging, pressing, rolling or drawing, provided that all of the following conditions are met:
  -- maximum fuel use rate is less than 10 MBtu/h
  -- no lubricant with an initial boiling point less than 400 °F [approximately 204.44 °C] is used
- atmosphere generators use in connection with metal heat treating processes
- equipment used exclusively for sintering glass or metals
- equipment used exclusively for melting or applying wax containing less than 1 percent VOC by weight
- equipment used exclusively for conveying and storing plastic pellets
- all of the following kinds of casting and molding equipment:
  -- molds used for the casting of metals
  -- foundry sand mold forming equipment to which no heat is applied, except processes utilizing organic binders yielding in excess of 0.25 percent free phenol by weight of sand
  -- shell core and shell-mold manufacturing machines
  -- equipment used for compression molding and injection molding of plastics
  -- die casting machines
- storage tanks and storage vessels having a capacity of less than 260 gal [approximately 984.21 L]
- tanks vessels and pumping equipment used exclusively for the storage or dispensing of any aqueous solution that contains less than 1000 ppm by weight, organic compounds, except for those tanks and vessels storing any of the following materials:
  -- sulfuric acid with an acid strength of more than 99 percent by weight
  -- phosphoric acid with an acid strength of more than 99 percent by weight
  -- nitric acid with an acid strength of more than 70 percent by weight

(continued)

  - -- hydrochloric acid with an acid strength of more than 30 percent by weight
  - -- multi-phase liquids where the top phase contains more than 1 percent VOC by weight
- containers, reservoirs, tanks, or loading equipment used exclusively for the following purposes are exempt:
  - -- storage or loading of liquefied gases
  - -- storage or loading of organic liquids that have an initial boiling point that is greater than 302 °F [150 °C] and that exceeds the actual storage temperature by at least 180 °F [approximately 82.22 °C]
  - -- storage or loading of petroleum oils with an ASTM D-93 flash point of 130 °F [approximately 54.44 °C] or higher, when stored or loaded at a temperature at least 36 °F [approximately 2.22 °C] below the flash point
  - -- storage or loading of lubricating oils
  - -- storage or loading of fuel oils with a gravity of 25 (API) or lower
  - -- storage or loading of fuel oils with a gravity of 40 API or lower, in a container having a capacity of 10,000 gal [37854.12 L] or less
  - -- storage or loading of liquid soaps, liquid detergents, tallow, vegetable oils, waxes or wax emulsions 31
  - -- storage of asphalt with a sulfur content of less than 5 percent, except for asphalt cutback with hydrocarbons having an initial boiling point of less than 302°F [150 °C]
  - -- storage or fermentation of wine or beer
  - -- storage of organic salts or solids in an aqueous solution or suspension, provided that no liquid hydrocarbon layer forms on top of the aqueous phase
- all of the following kinds of testing equipment:
  - -- equipment used for hydraulic or hydrostatic testing
  - -- laboratory equipment used exclusively for chemical or physical analyses and bench scale laboratory equipment
  - -- equipment used for inspection of metal products
- equipment used exclusively for the dyeing or stripping (bleaching) of textiles provided that only solutions containing less than 1 percent VOC by weight are used
- photographic process equipment by which an image is reproduced upon material sensitized to radiant energy
- containers, reservoirs, or tanks used exclusively for the electrolytic plating with, or electrolytic polishing of, or electrolytic stripping of, the following metals: brass, bronze, cadmium, copper, iron, nickel, tin, zinc, and precious metals
- containers, reservoirs, or tanks used exclusively for etching (not chemical milling), except where ammonia or ammonium-based etchants are used
- comfort air conditioning or comfort ventilating systems that are not designed to remove air contaminants generated by or released from specific units or equipment
- refrigeration units except those used as, or in conjunction with, air pollution control equipment
- vacuum producing devices in laboratory operations which are used exclusively in connection with other equipment which is exempted from the requirements of the Permits section by other provisions of this table
- vacuum producing devices that do not remove or convey air contaminants from another source
- water cooling towers and water cooling ponds not used for either evaporative cooling of process water or for evaporative cooling of water from barometric jets or from barometric condensers
- natural draft hoods, natural draft stacks or natural draft ventilators
- vacuum cleaning systems used exclusively for industrial, commercial or residential housekeeping purposes
- equipment used to liquefy or separate oxygen, nitrogen or the rare gases from the air

(continued)

- equipment used exclusively to compress or hold dry natural gas, excluding drivers
- brazing, soldering or welding equipment
- any wastewater separator that processes less than 200 gal/day [approximately 757.08 L/day] of wastewater containing organic liquids
- aeration of soil, provided that duration of aeration does not exceed 3 mo.

Appendix 1-2

Maximum Allowable Rates of Emission for Particulate Matter Based on Process Weight Rate

(Source: BAAQMD Regulation 6, Section 311)

Process Weight Rate kg/h [lb/h]	Maximum Emission Rate kg/h [lb/h]
250 [550]	0.8 [1.8]
300 [660]	0.9 [2.0]
400 [880]	1.1 [2.4]
500 [1,100]	1.3 [2.9]
1,000 [2,205]	2.1 [4.6]
2,000 [4,410]	3.3 [7.3]
3,000 [6,615]	4.3 [9.5]
4,000 [8,820]	5.2 [11.0]
5,000 [11,020]	6.0 [13.0]
10,000 [22,045]	9.6 [21.0]
20,000 [44,090]	15.2 [33.0]
over 26,000 [57,320]	8.1 [40.0]

To use this table, proceed as follows:

- calculate the "Process Weight Rate", i.e., the process weight per hour, in kilograms per hour or pounds per hour
- find this figure in the appropriate column of the table
- opposite this figure, in the "Maximum Emission Rate" column, is the maximum number of kg/h [lb/h] of particulate matter that may be discharged into the atmosphere for the given process weight rate
- where the process weight rate falls between the figures listed in the table, the exact emission rate must be determined by interpolation using one of the following equations:

  for calculations in kilograms, use:

  $E \text{ (in kg/h)} = 0.02\ P^{0.67} \text{ (in kg/h)}$

  for calculations in pounds, use:

  $E \text{ (in lb/h)} = 4.10\ P^{0.67} \text{ (in lb/h)}$

  where E = Maximum Emission Rate, and

  P = Process Weight Rate

Appendix 1-3

Guidelines for Delay of Repair of Leaking Benzene Service Equipment
(Source: BAAQMD Regulation 11, Rule 7, Section 310)

A. General

Repair of equipment from which leaks gave been detected may be delayed if one of the following conditions is met:

- the repair is technically infeasible without the shut-down of a process unit, and the equipment is repaired before the end of the next process unit shutdown
- the equipment is isolated from the process, and does not remain in benzene service.

B. Pumps

Repair of pumps may be delayed if repair requires the use of a dual mechanical seal system that includes a barrier fluid system and repair is completed as soon as practicable, but not later than 6 mo after the leak is detected.

C. Valves

Repair of valves may be delayed if the owner or operator meets all of the following conditions:

- he demonstrates to the APCO that emissions of purged material resulting from immediate repair are greater than the fugitive emissions likely to result from delay of repair
- when repairs are made, the purged material is collected and destroyed, or recovered in an approved control device.

Repair of valves may be delayed beyond a process unit shutdown if all of the following conditions are met:

- the valve assembly replacement is necessary during the process unit shutdown
- valve assembly supplies have been depleted
- valve assembly supplies have been sufficiently stocked before the supplies were depleted
- the next process unit shutdown occurs sooner than 6 mo after the first process unit shutdown.

(continued)

Appendix 1-4

Exemptions to Organic Compound Emissions Limits for Miscellaneous Sources
(Source: BAAQMD Regulation 8, Rule 32, Sections 303 and 304)

Emissions from any operations consisting entirely of natural gas, provided best modern practices are used, are exempt from this Rule.

Emissions from the preparation of food for human consumption provided best modern practices are used, are exempt from this Rule.

The emissions from any cold reduction equipment used in metal forming are exempt from this rule provided the cooling oil introduced in the cold reduction system is not less than 90 percent (by weight) normal paraffins of a carbon number 12 or higher and that such oil shall have a Reid vapor pressure not greater than 52 mm Hg (1.0 psia).

Emissions from blind changing are exempt from this Rule, providing best modern practices are used.

Emissions from cooling towers, railroad tank cars, marine vessels and crude oil production operations are exempt from this Rule, provided best modern practices are used.

The following equipment is exempt from this Rule, provided best modern practices are used:

- Presses used for the curing of rubber products or plastic products.
- Ovens used exclusively for the curing of plastics which are concurrently being vacuum held to a mold or for the softening or annealing of plastics.
- Ovens used exclusively for the curing of vinyl plastisols by the closed mold curing process.
- Equipment used exclusively for the melting or applying of wax.
- Equipment used exclusively for the packaging of lubricants and greases.
- Equipment used exclusively for the manufacture of water emulsions of waxes, greases or oils.
- Vacuum producing devices in laboratory operations or which are used exclusively in connection with other equipment which is excluded or exempted by this Regulation.
- Vacuum producing devices which do not remove or convey air contaminants from another source.
- Porcelain enameling furnaces, porcelain enameling drying ovens, vitreous enameling furnaces or vitreous enamel drying ovens.
- All printing presses other than rotogravure printing presses.
- Equipment used exclusively for bonding lining to brake shoes.
- Equipment used for hydraulic and hydrostatic testing.
- Ovens and furnaces used for heat treating and annealing metals.
- Oil quench tanks used for tempering heated metals.
- Crucible type or pot type furnaces with a brimful capacity of less than 450 $in.^3$ of molten metal.
- Space heating and heat transfer operations using gas fuel and rated at less than 1 MBTU/h.
- Equipment used exclusively for steam cleaning.

The following equipment or any exhaust system or collector exclusively serving such equipment is exempt from this Rule providing best modern practices are used:

- Ovens used exclusively for curing potting materials or for castings made with epoxy resins.
- Equipment used for compression molding or injection molding of plastics.
- Dipping operations for coating objects with oils, waxes, or greases.

(continued)

- Dipping operations for applying coatings of natural or synthetic resins which contain no organic solvents.
- Unheated solvent dispensing containers, unheated solvent rinsing containers, or unheated coating dip tanks, all of 100 gal. capacity or less.
- Kilns used for firing ceramic ware, heated exclusively by natural gas, liquefied petroleum gas, electricity or any combination thereof.
- Shell core and shell molding machines.
- Die casting machines.
- Laboratory equipment used exclusively for chemical or physical analyses and bench scale laboratory equipment.

The limitations of this rule shall not apply to emissions arising from open outdoor fires.

Appendix 1-5

Allowable VOC Content Limits for Various Specialty Coatings that are Packaged in Hand-held Aerosol Containers

(Source: BAAQMD Regulation 8, Rule 49)

Coating	Maximum VOC Content (in percent VOC by weight of product)
General Coatings:	
Clear Coating	67%
Flat Paint Products	60%
Fluorescent	65%
Ground Traffic Marking Coating	66%
Metallic Coating	80%
Nonflat Paint Products	65%
Primer	60%
Specialty Clear and Tinted Coatings:	
Corrosion Resistant Brass/Bronze/Copper Coating	92%
Photographic Emulsion Coating	95%
Art Varnish	92%
Marine Spar Varnish	85%
Vinyl/Fabric/Polycarbonate	95%
Webbing/Veiling Coating	90%
Wood Stain	95%
Workable Art Fixative	95%
Exact Match Finish Coatings:	
Engine Enamel	80%
Automotive	88%
Industrial	88%
Miscellaneous Coatings:	
Auto Body Primer	80%
Automotive Bumper and Trim Products	95%
Aviation Propeller Coating	84%
Aviation or Marine Zinc Primer	82%

(continued)

Appendix 1-5 (continued)

Coating	Maximum VOC Content (in percent VOC by weight of product)
Floral Spray	95%
Glass Coating	95%
High Temperature Coating	80%
Hobby/Model/Craft Coatings:	
Enamel	80%
Lacquer	88%
Clear, Metallic	95%
Shellac Sealers:	
Clear	88%
Pigmented	75%
Slip-Resistant Epoxy Coating	85%
Spatter Coating	80%
Weld-Through Primer	75%
Wood Touchup/Repair/Restoration	95%

Appendix 1-6

Allowable Limits of VOC in Various Architectural Coatings
(Source: BAAQMD Regulation 8, Rule 3, Sections 304 and 307)

(NOTE: Architectural coatings that are manufactured prior to any VOC emission limit effective date and that do not meet the new VOC limit put into effect on that date, may be used without penalty for 3 yr after that effective date. Current VOC limits that came into effect on 1 September 1990 are [bracketed]; current VOC limits that came into effect on 1 January 1991 are {braced}; all other current VOC limits came into effect on 1 January 1990.)

	Maximum VOC Content (g/L of coating, as applied, less water and exempt solvents, and excluding any colorant added to tint bases)		
Coating	**Current (August 1992)**	**Effective 1 September 1992**	**Effective As Noted**
Below-Ground Wood Preservatives	600	350	
Bond Breakers	[350]		
Clear Wood Finishes			
Lacquer	{680}	350	
Sanding Sealers	550	350	
Varnish	350		
Concrete Curing Compounds	350		
Dry Fog Coatings	400		
Fire Retardant Coatings			
Clear	650		
Pigmented	350		
Form-Release Compounds	250		
Graphic Arts (Sign) Coatings	500		
Industrial Maintenance Coatings			(1 September 1994)
High Temperature Coatings	650	550	420
Anti-Graffiti Coatings	600	340	
Other I.M. Coatings	420	340	
Magnesite Cement Coatings	600	450	
Mastic Texture Coatings	300		
Metallic Pigmented Coatings	500		
Multi-Color Coatings	580	420	
Opaque Stains	350		
Opaque Wood Preservatives	350		

(continued)

Appendix 1-6 (continued)

Coating	Maximum VOC Content (g/L of coating, as applied, less water and exempt solvents, and excluding any colorant added to tint bases)		
	Current (August 1992)	Effective 1 September 1992	Effective As Noted
			(1 September 1994)
Pretreatment Wash Primers	780	780	420
Primers, Sealers and Undercoaters	350		
Roof Coatings	300		
Semitransparent and Clear			
Wood Preservatives	350		
Semitransparent Stains	350		
Shellac			
Clear	730		
Pigmented	550		
Swimming Pool Coatings	650	340	
Swimming Pool			(1 September 1997)
Repair & Maintenance Coatings	650		340
Traffic Coatings			
for public streets and highways	250		
for other surfaces	250		
black traffic coatings	250		
Waterproofing Sealers	400		

Appendix 1-7

Allowable VOC Content Limits for Various Specialty Coatings Used on Aerospace Components

(Source: BAAQMD Regulation 8, Rule 29, Sections 302 and 306)

Effective Date: 1 January 1992, except where otherwise noted.

Coating	Maximum VOC Content (in g/L [lb/gal] of coating, as applied, excluding water and exempt solvents)
Primer	350 [2.9]
Adhesive Bonding Primer	850 [7.1]
Interior Topcoat	340 [2.8]
Electric or Radiation Effect Coating	800 [6.7]
Extreme Performance Interior Topcoat	420 [3.5]
Fire Insulation Coating	600 [5.0]
Fuel Tank Coating	720 [6.0]
High Temperature Coating	720 [6.0]
Sealant	600 [5.0]
Self Priming Topcoat	420 [3.5]
Topcoat	420 [3.5]
Pretreatment Wash Primer	420 [3.5]
Sealant Bonding Primer	720 [6.0]
Temporary Protective Coating	250 [2.1]
Maskant For Chemical Processing (effective 1 November 1989)	600 [5.0]

Appendix 1-8

Allowable VOC Content Limits for Various Specialty Coatings Used on Large Appliances and Metal Furniture

(Source: BAAQMD Regulation 8, Rule 14, Section 310)

Effective Date: 1 July 1990.

	Maximum VOC Content (in g/L [lb/gal] of coating, as applied, less water and exempt solvents)	
Coating	**Baked Coatings**	**Air-Dried Coatings**
Heat Resistant	360 [3.0]	420 [3.5]
High Gloss	360 [3.0]	420 [3.5]
Metallic Topcoat	360 [3.0]	420 [3.5]
Pretreatment Wash Primer	420 [3.5]	420 [3.5]
Solar Absorbent	360 [3.0]	420 [3.5]
any other kind of coating	275 [2.3]	340 [2.8]

(NOTE: Any powder coating that emits a quantity of VOCs equivalent to that which would be emitted by a coating listed above must meet the same requirements.)

Appendix 1-9

Allowable VOC Content Limits For Various Specialty Coatings Used on Marine Vessels and Structures

(Source: BAAQMD Regulation 8, Rule 43, Section 302)

	Maximum VOC Content (in g/L [lb/gal] of coating, as applied, less water and exempt solvents)			
	Current		Effective 1 September 1994	
Coating	Baked Coatings	Air-Dried Coatings	Baked Coatings	Air-Dried Coatings
Heat Resistant	360 [3.0]	420 [3.5]	360 [3.0]	420 [3.5]
High Gloss	275 [2.3]	340 [2.8]	275 [2.3]	340 [2.8]
Extreme High Gloss	420 [3.5]	490 [4.1]	420 [3.5]	490 [4.1]
Undersea Weapons System	275 [2.3]	340 [2.8]	275 [2.3]	340 [2.8]
High Temperature		500 [4.2]		500 [4.2]
Inorganic Zinc		650 [5.4]		340 [2.8]
Navigational Aids		550 [4.6]		550 [4.6]
Pretreatment Wash Primer		780 [6.5]		420 [3.5]
Military Exterior Topcoat		340 [2.8]		340 [2.8]
Specialty Interior		340 [2.8]		340 [2.8]
Sealant Coat for Wire Spray Aluminum		610 [5.1]		610 [5.1]
Special Marking		490 [4.1]		490 [4.1]
Tack Coat		610 [5.1]		610 [5.1]
Repair and Maintenance Thermoplastic		550 [4.6]		340 [2.8]
Low Activation Interior Coating		420 [3.5]		420 [3.5]

Appendix 1-10

Allowable VOC Content Limits for Various Specialty Coatings Used on Miscellaneous Metal Parts and Products

(Source: BAAQMD Regulation 8, Rule 19, Sections 302 and 312; Revised September 1996)

Effective Date: 1 July 1991.

	Maximum VOC Content (in g/L [lb/gal] of coating, as applied, excluding water and exempt solvents)	
Coating	**Baked Coatings**	**Air-Dried Coatings**
Camouflage	360 [3.0]	420 [3.5]
High Gloss	360 [3.0]	420 [3.5]
Heat Resistant	360 [3.0]	420 [3.5]
High Performance Architectural	420 [3.5]	420 [3.5]
Metallic Topcoat	360 [3.0]	420 [3.5]
Pretreatment Wash Primer	420 [3.5]	420 [3.5]
Silicone Release	420 [3.5]	420 [3.5]
Solar Absorbent	360 [3.0]	420 [3.5]
Extreme Performance	420 [3.5]	420 [3.5]
High Temperature	420 [3.5]	420 [3.5]
any other kind of coating	275 [2.3]	340 [2.8]

(NOTE: Any powder coating that emits a quantity of VOCs equivalent to that which would be emitted by a coating listed above must meet the same requirements.)

Appendix 1-11

VOC Content Limits for Surface Coatings Applied to Motor Vehicles and Mobile Equipment

(Source: BAAQMD Regulation 8, Rule 45, Sections 301 and 302)

Part A.

For Group I motor vehicles, their parts and components, or
For Group II vehicles and equipment where color match is required or
For the spot/panel repair of Group I vehicles with lacquer finishes using lacquer coatings:

	VOC Limit (in g/L [lb/gal] as applied) (less water and exempt solvents)		
	Effective Dates		
Coating	1 January 1990	1 January 1992	1 January 1995
Pretreatment Wash Primers	780 [6.5]	780 [6.5]	420 [3.5]
Precoat	780 [6.5]	780 [6.5]	420 [3.5]
Primer/Primer Surfacer	720 [6.0]	340 [2.8]	250 [2.1]
Primer Sealer	720 [6.0]	420 [3.5]	340 [2.8]
Topcoat	720 [6.0]	600 [5.0]	460 [3.8]
Metallic/Iridescent Topcoat	720 [6.0]	600 [5.0]	540 [4.5]

Part B.

For Group II Motor Vehicles and Mobile Equipment, their parts and components, where color match is not required:

	VOC Limit (in g/L [lb/gal] as applied) (less water and exempt compounds)		
	Effective Dates		
Coating	1 January 1990	1 January 1992	1 January 1995
Pretreatment Wash Primers	780 [6.5]	780 [6.5]	420 [3.5]
Precoat	780 [6.5]	780 [6.5]	420 [3.5]
Primer	340 [2.8]	340 [2.8]	250 [2.1]
Topcoat	420 [3.5]	420 [3.5]	340 [2.8]
Metallic/Iridescent Topcoat	650 [5.4]	420 [3.5]	420 [3.5]
Extreme Performance	750 [6.2]	750 [6.2]	420 [3.5]
Camouflage Coating	420 [3.5]	420 [3.5]	420 [3.5]

Appendix 1-12

Allowable VOC Content Limits for Various Specialty Coatings Used on Plastic Parts and Products

(Source: BAAQMD Regulation 8, Rule 31, Section 309)

Coating	Maximum VOC Content (in g/L [lb/gal] of coating, as applied, excluding water and exempt solvents)
Camouflage	420 [3.5]
Conductive	700 [5.8]
Metallic Topcoat	420 [3.5]
Extreme Performance	750 [6.2]
High Gloss	420 [3.5]

Appendix 1-13

Allowable VOC Content Limits for Various Coatings Used on Wood Products, Furniture, or Custom Architectural Millwork

(Source: BAAQMD Regulation 8, Rule 32, Sections 303 and 304)*

Part I.

For Coatings Applied To Furniture or Custom Architectural Millwork

	Maximum VOC Content (in g/L [lb/gal] of coating, as applied, less water)		
	Effective Dates		
Coating	**1 July 1992**	**1 July 1995**	**1 July 1997**
High Solids Coatings:			
Clear Topcoat	700 [5.8]	420 [3.5]	420 [3.5]
Sanding Sealer	700 [5.8]	420 [3.5]	420 [3.5]
Pigmented Coating	600 [5.0]	420 [3.5]	420 [3.5]
Opaque Stain	700 [5.8]	700 [5.8]	420 [3.5]
Filler	500 [4.2]	500 [4.2]	275 [2.3]
Low Solids Coatings:			
Semitransparent Stain	800 [6.7]	480 [4.0]	120 [1.0]
Wash-Coat	800 [6.7]	480 [4.0]	120 [1.0]

Part II.

For Coatings Applied To General Wood Products

	Maximum VOC Content (in g/L [lb/gal] of coating, as applied, less water)		
	Effective Dates		
Coating	**1 July 1992**	**1 July 1995**	**1 July 1997**
High Solids Coatings:			
Clear Topcoat	550 [4.6]	275 [2.3]	275 [2.3]
Sanding Sealer	550	550	275

(continued)

	Maximum VOC Content (in g/L [lb/gal] of coating, as applied, less water)		
	Effective Dates		
Coating	**1 July 1992**	**1 July 1995**	**1 July 1997**
	[4.6]	[4.6]	[2.3]
Pigmented Coating	600	275	275
	[5.0]	[2.3]	[2.3]
Opaque Stain	700	700	240
	[5.8]	[5.8]	[2.0]
Filler	500	500	275
	[4.2]	[4.2]	[2.3]
Low Solids Coatings:			
Semitransparent Stain	480	480	120
	[4.0]	[4.0]	[1.0]
Wash-Coat	480	480	120
	[4.0]	[4.0]	[1.0]

Appendix 1-14

Allowable Rate of Uncontrolled Soil Aeration

(Source: BAAQMD Regulation 8, Rule 40, Section 301)

Organic Content	Maximum Aeration Rate	
ppm (weight)	m^3/day	yd^3/day
less than 50	Exempt	Exempt
50 - 99	459.0	600
100 - 499	91.8	120
500 - 999	45.9	60
1000 - 1999	22.9	30
2000 - 2999	11.5	15
3000 - 3999	7.6	10
4000 - 4999	5.7	8
greater than 5000	0.08	0.1

INSTALLATION:	COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT BAAQMD - California Supplement	DATE:	REVIEWER(S):
STATUS NA C RMA	REVIEWER COMMENTS:		

SECTION 10

STORAGE TANK MANAGEMENT

Bay Area Air Quality Management District (BAAQMD) - California Supplement

SECTION 10

STORAGE TANK MANAGEMENT

Bay Area Air Quality Management District (BAAQMD)

California Supplement

This section covers the state requirements for Storage Tank Management and is intended to supplement the U.S. TEAM Guide. Refer to the U.S. TEAM Guide and the DOD Component Supplements for Federal, DOD, and service-specific requirements.

Definitions

- *Air Contaminant* - any material that, when emitted, causes or tends to cause the degradation of air quality, including, but not limited to, smoke, charred paper, dust, soot, grime, carbon, fumes, gases, odors, particulate matter, acids, or any combination thereof (BAAQMD Regulation 1, Section 200).
- *CARB* - California Air Resources Board (BAAQMD Regulation 1, Section 200).
- *District* - the Bay Area Air Quality Management District (BAAQMD Regulation 1, Section 200).
- *Gasoline* - any petroleum distillate used as a motor fuel and having a Reid Vapor pressure greater than 4.0 psi absolute (BAAQMD Regulation 8, Rule 7, Section 200).
- *Gasoline Dispensing Facility* - any stationary facility that dispenses gasoline directly into the fuel tanks of motor vehicles (BAAQMD Regulation 3, Section 200).
- *Organic Compound* - any compound of carbon excluding methane, CO, CO_2, carbonic acid, metallic carbides, metallic carbonates and ammonium carbonate (BAAQMD Regulation 1, Section 200).
- *Organic Liquid* - all POCs that contain hydrogen and which would exist as liquids at actual conditions of use or storage (BAAQMD Regulation 8, Rule 1, Section 200).
- *Volatile Organic Compound (VOC)* - any organic compound that would be emitted during use, processing, application, curing or drying of a solvent, surface coating or other material (BAAQMD Regulation 1, Section 200).

STORAGE TANK MANAGEMENT

GUIDANCE FOR BAAQMD CHECKLIST USERS

	REFER TO CHECKLIST ITEMS:	REFER TO PAGE NUMBERS:
Emissions/Discharges From POL Storage Vessels	ST.15.1.CA.BA. through ST.15.1.CA.BA.	10-5

COMPLIANCE CATEGORY: STORAGE TANK MANAGEMENT Bay Area Air Quality Management District (BAAQMD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
ST.15. **EMISSIONS/ DISCHARGES FROM POL STORAGE VESSELS** **ST.15.1.CA.BA.** Gasoline dispensing facilities must have Phase I vapor recovery systems to prevent emissions during transfer of gasoline into stationary tanks (BAAQMD Regulation 8, Rule 7, Sections 111 and 301).	(NOTE: The purpose of this Rule is to limit emissions of organic compounds from gasoline dispensing facilities. This Rule does not actually contain a statement of applicability, only of exemptions; i.e., the Rule does not state who it applies to, only who is exempt. The following checklist items assume that all gasoline dispensing facilities are covered unless specifically exempted.) Verify that no person transfers or allows the transfer of gasoline into stationary tanks at a gasoline dispensing facility unless a CARB certified Phase I vapor recovery system is used. Verify that all Phase I vapor recovery systems at gasoline dispensing facilities are installed as per CARB certifications and recover at least 95 percent of gasoline vapors. (NOTE: This standard shall apply to each stationary tank during each bulk gasoline delivery.) Verify that all Phase I vapor recovery systems are equipped with a submerged fill pipe. Verify that all open vent pipes on stationary tanks at gasoline dispensing facilities are equipped with pressure-vacuum relief valves, with pressure relief set between 1 and 3 in. water column. Verify that all Phase I vapor recovery equipment is maintained to be properly operating as specified by the manufacturer. Verify that all Phase I vapor recovery equipment except pressure-vacuum relief valves are maintained to be leak-free and vapor tight. Verify that all Phase I vapor recovery systems have a poppetted drybreak on the vapor return. (NOTE: The following are exempt from these requirements: - storage tanks with a capacity of less than 1.0 m^3 (260 gal) - storage tanks installed before 1 October 1974 at facilities with an annual throughput of less than 227 m^3 (60,000 gal) which were not equipped with Phase I vapor recovery as of 1 July 1983 (should throughput exceed 227 m^3 (60,000 gal) in any 1 yr, this exemption shall no longer apply) - storage tanks with a capacity of less than 2.2 m^3 (550 gal), used primarily for the fueling of implements of husbandry, provided such tanks are equipped with a submerged fill pipe - storage tanks where the APCO determines in writing that Phase I vapor recovery is not feasible.)

COMPLIANCE CATEGORY: STORAGE TANK MANAGEMENT Bay Area Air Quality Management District (BAAQMD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
ST.15.2.CA.BA. Gasoline dispensing facilities must have Phase II vapor recovery systems to prevent emissions during transfer of gasoline from stationary tanks into motor vehicle fuel tanks (BAAQMD Regulation 8, Rule 7, Sections 112 and 302).	Verify that no person transfers or allows the transfer of gasoline from stationary tanks into motor vehicle fuel tanks at a gasoline dispensing facility unless a CARB certified Phase II vapor recovery system is used. Verify that all Phase II vapor recovery systems are maintained as per most recent CARB certifications. Verify that all Phase II vapor recovery equipment are maintained to be properly operating as specified by the manufacturer and substantially free of defects Verify that any component identified as defective but that does not substantially impair the effectiveness of the vapor recovery system is repaired or replaced within seven days Verify that all Phase II vapor recovery equipment is maintained to be leak-free and vapor tight. (NOTE: The following are exempt from these requirements: - facilities which are exempt from Phase I requirements (see A.55.1.CA above) - delivery of fuel to vehicle tanks, of a class of vehicles where it is determined by the APCO in writing that fill-neck configuration, location or other design features of that class of vehicles makes application of the requirements of this rule inapplicable to that class of vehicles - dispensing of gasoline at facilities where the APCO determines in writing that Phase II vapor recovery is not feasible - vehicle to vehicle refueling - facilities which exclusively refuel motor vehicle tanks with a capacity of 0.019 m^3 (5 gal) or less - facilities which exclusively refuel aircraft - facilities with an annual throughput of less than 227 m^3 (60,000 gal) where Phase II vapor recovery equipment was not installed prior to 1 July 1983 (should throughput exceed 227 m^3 (60,000 gal) in any 1 yr, this exemption shall no longer apply.)
ST.15.3.CA.BA. Topping off of motor vehicle fuel tanks is prohibited (BAAQMD Regulation 8, Rule 7, Section 303).	Verify that no person tops off motor vehicle fuel tanks.

COMPLIANCE CATEGORY: STORAGE TANK MANAGEMENT Bay Area Air Quality Management District (BAAQMD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
ST.15.4.CA.BA. Operating instructions for Phase II systems must be conspicuously posted at each retail facility (BAAQMD Regulation 8, Rule 7, Section 307).	Verify that, at each retail facility utilizing a Phase II system, the owner conspicuously posts operating instructions for the system in the gasoline dispensing area. Verify that the instructions clearly describe how to fuel vehicles correctly with vapor recovery nozzles utilized at the station, and include a warning that topping off may result in spillage or recirculation of gasoline and is prohibited. Verify that the instructions include a prominent display of the District's or the CARB's toll free telephone number for complaints.
ST.15.5.CA.BA. New tanks must be equipped with Phase I and II vapor recovery systems (BAAQMD Regulation 8, Rule 7, Section 310).	Verify that all gasoline tanks with a capacity greater than 1.0 m^3 (260 gal) and installed after 4 March 1987, are equipped with Phase I and II vapor recovery. (Adopted March 4, 1987, Amended October 17, 1990)
ST.15.6.CA.BA. Any tank exempt from Phase I vapor recovery requirements must have a submerged fill pipe (BAAQMD Regulation 8, Rule 7, Section 311).	Verify that any tank with a capacity greater than 1.0 m^3 (260 gal) where Phase I vapor recovery equipment is not required is equipped with a submerged fill pipe. Verify that such aboveground gasoline storage tanks are equipped with a pressure-vacuum relief valve which is set to either a pressure within 10 percent of the maximum allowable working pressure of the tank or at least 25.8 mm Hg (0.5 psig) pressure.

INSTALLATION:	COMPLIANCE CATEGORY: STORAGE TANK MANAGEMENT BAAQMD - California Supplement	DATE:	REVIEWER(S):
STATUS NA C RMA	REVIEWER COMMENTS:		

SECTION 11

TOXIC SUBSTANCES MANAGEMENT

Bay Area Air Quality Management District (BAAQMD) - California Supplement

SECTION 11

TOXIC SUBSTANCES MANAGEMENT

Bay Area Air Quality Management District (BAAQMD)

California Supplement

This section covers the District requirements for Asbestos Management and is intended to supplement the U.S. TEAM Guide. Refer to the U.S. TEAM Guide and the DOD Component Supplements for Federal, DOD, and service-specific requirements.

Definitions

- *Active Waste Disposal Sites* - any disposal site or portion thereof which accepts asbestos-containing waste material (BAAQMD Regulation 11, Rule 2, Section 200).

- *Adequately Wetted* - sufficiently mixed or penetrated with liquid to prevent the release of particles. If visible emissions are observed coming from asbestos-containing material, then that material has not been adequately wetted; however, the absence of visible emissions is not sufficient evidence of being adequately wetted. Material that is removed in units or parts of units shall be wet at all the exposed surfaces. If broken up, the material shall be wetted at all the exposed fracture surfaces (BAAQMD Regulation 11, Rule 2, Section 200).

- *Asbestos* - actinolite, amosite, (cummingtonite, grunerite), anthophyllite, chrysotile, crocidolite (riebecktite), tremolite (BAAQMD Regulation 11, Rule 2, Section 200).

- *Asbestos-Containing Material* - any building material which contains commercial asbestos in an amount greater than 1 percent by weight, area, or count as determined by the methods specified in Section 11-2-603 (BAAQMD Regulation 11, Rule 2, Section 200).

- *Asbestos-Containing Waste Material* - any waste that contains or has been contaminated by commercial asbestos and is generated by a plant or operation subject to the provisions of this Rule, including, but not limited to, asbestos mill tailings, control device asbestos waste, RACM demolitions and renovation waste material, disposable equipment and clothing, and bags or containers that previously contained commercial asbestos (BAAQMD Regulation 11, Rule 2, Section 200).

- *Category I Nonfriable Asbestos-Containing Material* - asbestos-containing packings, gaskets, resilient floor coverings, and asphalt roofing products (BAAQMD Regulation 11, Rule 2, Section 200).

- *Category II Nonfriable Asbestos-Containing Material* - asbestos-containing material, excluding Category I nonfriable asbestos-containing material, that, when dry, and in its present form, cannot be crumbled, pulverized, or reduced to powder by hand pressure. For the purposes of this Regulation, these products include transite board, pipe and asbestos cement products, plaster, stucco, paint and mastics (BAAQMD Regulation 11, Rule 2, Section 200).

- *Containment* - the isolation of an asbestos removal area from the outside air by use of physical barriers, usually plastic sheeting. Such barriers shall include transparent viewing ports which allow observation of all stripping and removal of RACM from outside the barrier (BAAQMD Regulation 11, Rule 2, Section 200).

- *Demolition* - wrecking, intentional burning or dismantling of any structural element or all of a building including, but not limited to, any related cutting, disjointing, stripping, removal and handling operations of RACM (BAAQMD Regulation 11, Rule 2, Section 200).

- *Emergency Demolition* - a demolition carried out pursuant to an order of a state or local government agency issued because the building is structurally unsound and in danger of imminent collapse, or has been declared a public nuisance (BAAQMD Regulation 11, Rule 2, Section 200).

- *Emergency Renovation* - renovation that is not planned but results from a sudden, unexpected event. This includes operations necessitated by equipment failures and unanticipated findings of RACM or the conversion of previously nonfriable asbestos-containing material to friable material during the course of a renovation. Renovations due to fire, water, or earthquake damage, or where an imminent danger to the public health may exist, are included. Renovations in public buildings, schools or owner-occupied single family dwellings during or within ten days of the close of escrow may be included at the discretion of the APCO (BAAQMD Regulation 11, Rule 2, Section 200).

- *Encapsulant* - a sealant material such as latex paint which, when applied penetrates the asbestos-containing material and binds the fibers, rendering them nonfriable (BAAQMD Regulation 11, Rule 2, Section 200).

- *Friable Asbestos-Containing Material* - any material that contains more than one percent asbestos and that falls into one or more of the following categories (BAAQMD Regulation 11, Rule 2, Section 200):
    1. Materials that can be crumbled, pulverized, or reduced to powder, when dry, by hand pressure. These include, but are not limited to, sprayed-on or trowelled-on fireproofing, acoustic ceiling material and ceiling tiles, linoleum and linoleum backing, thermal systems, nonasphalt-saturated roofing felts, asbestos-containing paper and joint compound.
    2. Materials that have been rendered to a crumbled, pulverized, or powdered state, when dry, by crushing, sanding, sawing or shot-blasting or other demolition or renovation techniques. These include, but are not limited to, USEPA Category I nonfriable asbestos-containing material as defined in 40 CFR Part 61.141 and in Section 11- 2-231.
    3. Materials in which the asbestos fibers are bound into a matrix, if such materials have been rendered to a powdered state, when dry, by crushing, sanding, sawing or shot-blasting or other demolition or renovation techniques, or by severe weathering. These include, but are not limited to, USEPA Category II nonfriable asbestos-containing material as defined in 40 CFR Part 61.141 and in Section 11- 2-232.

- *Glove Bag Technique* - a method of stripping or removing RACM in which the material is totally isolated inside a plastic bag and then manually removed using gloves which are an integral part of the bag (BAAQMD Regulation 11, Rule 2, Section 200).

- *Inactive Waste Disposal Site* - any disposal site or portion thereof, where additional asbestos-containing waste material will not be deposited and where the surface is not disturbed by vehicular traffic (BAAQMD Regulation 11, Rule 2, Section 200).

- *Leak-Tight* - any method of containerization that prevents solids, liquids, or particles from escaping or spilling out (BAAQMD Regulation 11, Rule 2, Section 200).

- *Outside Air* - the air outside buildings and structures (BAAQMD Regulation 11, Rule 2, Section 200).

- *Owner or Operator of a Demolition or Renovation* - any person who owns, leases, operates, controls or supervises the stationary structure being demolished or renovated, or any person who owns, leases, operates, controls or supervises demolition or renovation, or both

- *Particulate Asbestos Material* - finely divided particles of asbestos material (BAAQMD Regulation 11, Rule 2, Section 200).

- *Planned Renovation* - a renovation, or a number of such operations, in which the RACM that will be removed or stripped at an installation within a maximum time of 1 yr can be predicted. Operations that are individually nonscheduled are included, provided a number of such operations can be predicted to occur during a given period of time based on operating experience. The minimum period of time shall be 30 days (BAAQMD Regulation 11, Rule 2, Section 200).

- *Regulated Asbestos-Containing Material (RACM)* - (BAAQMD Regulation 11, Rule 2, Section 200):
    1. Friable asbestos-containing material, as defined in Section 11-2-209 or,
    2. Category I nonfriable asbestos-containing material that has or will become friable, or that has been subjected to sanding, drilling, grinding, cutting, or abrading, or,
    3. Category II nonfriable asbestos-containing material that may become or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation.

- *Removing* - taking out of RACM used on any element from any building, structure, plant or installation (BAAQMD Regulation 11, Rule 2, Section 200).

- *Renovation* - an operation other than demolition in which RACM is removed or stripped from any element of a building, structure, plant or installation (BAAQMD Regulation 11, Rule 2, Section 200).

- *Stripping* - taking off RACM used on any pipe, duct boiler, tank, reactor, turbine, furnace, or structural member (BAAQMD Regulation 11, Rule 2, Section 200).

- *Visible Emissions* - any emissions or releases from any point or area source containing particulate asbestos material that are visually detectable without the aid of instruments. This includes, but is not limited to, asbestos debris found outside of containment at a job site (BAAQMD Regulation 11, Rule 2, Section 200).

- *Waste Generator* - any owner or operator of a source subject to this Rule whose act or process produces asbestos- containing waste material (BAAQMD Regulation 11, Rule 2, Section 200).

- *Waste Shipment Record* - the shipping document, required by the APCO to be originated and signed by the waste generator, used to track and substantiate the disposition of asbestos-containing waste material (BAAQMD Regulation 11, Rule 2, Section 200).

TOXIC SUBSTANCES MANAGEMENT

GUIDANCE FOR BAAQMD CHECKLIST USERS

	REFER TO CHECKLIST ITEMS:	REFER TO PAGE NUMBERS:
Asbestos Management		
Renovation and Demolition of Asbestos-Containing Structures	T2.5.1.CA.BA. through T2.5.4.CA.BA.	11-7
Asbestos Personnel Training/ Certification	T2.10.1.CA.BA.	11-11
Asbestos Disposal	T2.15.1.CA.BA. through T2.15.3.CA.BA.	11-13

COMPLIANCE CATEGORY: TOXIC SUBSTANCES MANAGEMENT Bay Area Air Quality Management District (BAAQMD) - California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
ASBESTOS MANAGEMENT **T2.5. Renovation and Demolition of Asbestos-Containing Structures**	(NOTE: The requirements of this section do not apply to maintenance and decontamination operations where no RACM is being removed.)
T2.5.1.CA.BA. Buildings must be surveyed prior to demolition or renovation (BAAQMD Regulation 11, Rule 2, Section 303.8)	Verify that prior to commencement of any demolition or renovation, the owner or operator thoroughly surveys the affected stationary structure or portion thereof for the presence of RACM. Verify that the survey is performed by a person who is certified by the Division of Occupational Safety and Health pursuant to regulations required by subdivision (b) of Section 9021.5 of the Labor Code, and who has taken and passed an EPA-approved Building Inspector course and who conforms to the procedures outlined in the course. (NOTE: This section does not apply if the owner or operator asserts that the material to be renovated is RACM and will be handled in accordance with the provisions of Sections 11-2-303, 304 and 401. The requirement for certification by the Division of Occupational Safety and Health pursuant to Section 9021.5 of the Labor Code does not apply to in-house health professionals within a specific nonasbestos related company who perform occasional surveys only for that company as part of their regular job responsibilities.)
T2.5.2.CA.BA. RACM discovered after demolition begins must be wetted at all times (BAAQMD Regulation 11, Rule 2, Section 303.8)	Verify that when RACM is not discovered until after demolition begins and as a result of the demolition cannot be safely removed, the asbestos-contaminated debris is treated as asbestos-containing waste material and kept adequately wet at all times until disposed of properly.

COMPLIANCE CATEGORY: TOXIC SUBSTANCES MANAGEMENT Bay Area Air Quality Management District (BAAQMD) - California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
T2.5.3.CA.BA. RACM must be controlled during demolition and renovation operations (BAAQMD Regulation 11, Rule 2, Sections 303.1 through 303.6)	Verify that RACM is removed prior to other demolition or other operations that would either break up or preclude access to the RACM for subsequent removal. Verify that all exposed RACM is adequately wetted and kept wet during cutting, stripping, demolition, renovation, removal and handling operations both inside and outside of a building. (NOTE: Alternate methods include local HEPA exhaust, ventilation and collection systems, and removal in units that are wetted or encapsulated. Dry removal of RACM using local HEPA systems must be approved by the APCO.) (NOTE: Wetting requirements are suspended when the temperature at the point of wetting is below 0 °C (32 °F) in which case elements of RACM shall be removed in units or in sections to the maximum extent possible.) Verify that all RACM not removed in units or sections is adequately wetted and kept wet, and transported to the ground in leak-tight chutes or containers, utilizing negative air and HEPA equipment. Verify that any building, structure, room, facility or installation from which RACM is being stripped or removed, is isolated by physical barriers from the outside air to the extent feasible as determined by the APCO, and in a way that meets the following requirements: - such barriers shall include transparent viewing ports which allow observation of all stripping and removal of RACM from outside the barrier - the negative air pressure inside the isolated work area shall be maintained at a pressure differential relative to adjacent, nonisolated areas to the extent feasible - the negative air pressure ventilation equipment shall be operated continuously from the establishment of isolation barriers through final cleanup of the work area following stripping or removal of RACM. (NOTE: These provisions do not apply to: - a removal done entirely by the glovebag method - a removal using a mini-enclosure designed and operated according to Appendix G to 29 CFR Section 1926.58 - a removal of 1 ft^2 or less using a local HEPA exhaust, ventilation and collection system - a removal using any other engineering control technique approved by the APCO.) (NOTE: The requirement to maintain negative air pressure shall not apply to outdoor pipeways at industrial facilities; however, these jobs shall be contained by plastic barriers to the extent feasible to prevent visible emissions of RACM.)

COMPLIANCE CATEGORY: TOXIC SUBSTANCES MANAGEMENT Bay Area Air Quality Management District (BAAQMD) - California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
T2.5.4.CA.BA. Demolition and renovation operations must be reported to the APCO (BAAQMD Regulation 11, Rule 2, Section 401.3).	Verify that for every demolition even where no RACM is present, and for each renovation operation where the amount of RACM is greater than or equal to 30.8 m (100 ft) linear, 9.4 m^2 (100 ft^2) or 1 m^3 (35 ft^3), a written plan or notification of intent to demolish or renovate shall be provided to the APCO at least ten (10) days prior to commencement of demolition or renovation, or as early as possible prior to commencement of emergency demolition or renovation. Verify that the notification includes the following information: - whether the notification is the original or a revision - the name, address and telephone numbers of both the owner(s) of the structure and the operator of the demolition or renovation - a description of the structure being renovated, including the size, number of floors, age of the oldest portion, and the present and prior use of the structure - an estimate of the approximate amount of RACM to be removed from the structure or portion thereof, in terms of length of pipe in linear feet, surface area in square feet, or volume in cubic feet if the material is not attached to facility components - the name, address and telephone number of the person who completed the asbestos survey - the procedures used, including the analytical laboratory method employed, to locate and identify the presence of RACM and Category I and Category II nonfriable asbestos-containing material - the address and location (including building number or name and floor or room number, as applicable) of each structure where demolition or renovation will occur - accurate starting and completion dates of demolition or renovation - a description of planned demolition or renovation and method(s) to be employed - a description of work practices and engineering controls to be used including emission control procedures for asbestos removal and waste handling - the name, address and location of the waste disposal site where the asbestos-containing waste material will be deposited - certification that at least one person, trained as required, will supervise the asbestos removal described in this plan - description of the procedures to be followed in the event that unexpected RACM is found or Category II nonfriable asbestos-containing material becomes friable - the name, address and telephone number of the waste transporter. Verify that such notification is typewritten or computer printed and submitted on a District-approved form.

COMPLIANCE CATEGORY: TOXIC SUBSTANCES MANAGEMENT Bay Area Air Quality Management District (BAAQMD) - California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
ASBESTOS MANAGEMENT **T2.10.** **Asbestos Personnel Training/Certification**	(NOTE: The requirements of this section do not apply to maintenance and decontamination operations where no RACM is being removed.)
T2.10.1.CA.BA. There must be at least one trained person onsite during RACM stripping or removal operations (BAAQMD Regulation 11, Rule 2, Section 303.9)	Verify that no RACM is stripped or removed unless at least one onsite representative, such as a foreman or management-level person or other authorized representative, certifies that he or she is familiar with the provisions of this Rule as it pertains to demolition and renovation and the means of compliance therewith, and is present during all stripping and removing of RACM. Verify that evidence that the required training has been completed is posted onsite and made available for inspection by the APCO.

COMPLIANCE CATEGORY: TOXIC SUBSTANCES MANAGEMENT Bay Area Air Quality Management District (BAAQMD) - California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
ASBESTOS MANAGEMENT **T2.15.** **Asbestos Disposal**	
T2.15.1.CA.BA. Asbestos waste disposal operations must be reported to the APCO (BAAQMD Regulation 11, Rule 2, Sections 401.1 and 401.2).	Verify that for all active waste disposal operations, the owner/operator submits a brief description to the APCO of emission control equipment, and of: - each process that generates asbestos-containing waste material - the average weight of asbestos-containing waste material disposed of, measured in kg/day - the emission control methods used in all stages of waste disposal - and the type of disposal site or incineration site used for ultimate disposal, including the name of the site operator and the name and location of the disposal site. Verify that for any inactive waste disposal site, the owner/operator submits to the APCO a brief description of the site and the method or methods used to comply with the standard, or alternative procedures to be used.
T2.15.2.CA.BA. RACM from demolition, renovation, or removal must be disposed of according to specific standards (BAAQMD Regulation 11, Rule 2, Section 304.1)	Verify that the person responsible for any demolition, renovation or removal of RACM, or for any source other than an asbestos mill uses either one of the following disposal methods or an alternative disposal method which has received prior approval by the APCO: - treatment of asbestos-containing waste material with water - processing of asbestos-containing waste material into nonfriable forms - conversion of RACM and asbestos-containing waste material into nonasbestos (asbestos-free) material.
T2.15.3.CA.BA. RACM from demolition, renovation, or removal must be disposed of at specific waste disposal sites (BAAQMD Regulation 11, Rule 2, Section 304.3)	Verify that all asbestos-containing waste material is deposited at waste disposal sites operated in accordance with this Rule.

INSTALLATION:	COMPLIANCE CATEGORY: TOXIC SUBSTANCES MANAGEMENT BAAQMD - California Supplement	DATE:	REVIEWER(S):
STATUS NA C RMA	REVIEWER COMMENTS:		

SECTION 1

AIR EMISSIONS MANAGEMENT

Feather River Air Quality Management District (FRAQMD) - California Supplement

SECTION 1

AIR EMISSIONS MANAGEMENT

Feather River Air Quality Management District (FRAQMD)

California Supplement

This section covers the District requirements for Air Emissions Management and is intended to supplement the TEAM Guide. Refer to the TEAM Guide and the DOD Component Supplements for Federal, DOD, and service specific requirements.

Incorporation

The FRAQMD incorporates, and references, the Federal regulations for Title V Operating Permits (Title 40 of the Code of Federal Regulations, Part 70). Applications must be submitted to the District.

Definitions

- *Affected Pollutants* - include any of the following (FRAQMD Regulation X, Rule 10.1(D)):
    1. all pollutants, and the precursors to such pollutants, for which an ambient air quality standard has been established by the USEPA or the California Air Resources Board (CARB)
    2. all pollutants regulated by the EPA under the *Clean Air Act* (CAA) or by the CARB under the Health and Safety Code, including:
        a. reactive organic compounds
        b. NO_X
        c. sulfur oxide
        d. particulate matter
        e. CO
        f. ethylene
        g. lead, asbestos, beryllium or mercury
        h. vinyl chloride
        i. fluorides
        j. sulfuric acid mist
        k. hydrogen sulfide
        l. total reduced sulfur, or reduced sulfur compounds.

- *Agricultural Burning* - the use of open outdoor fires for the purpose of any of the following (FRAQMD Regulation I, Rule 1.1):
    1. disposal of agricultural waste from agricultural operations
    2. forest management burning
    3. range improvement burning
    4. improvement of land for wildlife habitat
    5. disease or pest prevention
    6. wildland vegetative management burning
    7. fires used for maintenance of a system for delivery of water for agricultural purposes.

- *Agricultural Wastes* - unwanted or unsalable material produced wholly from agricultural operations which are directly related to growing of crops, raising of fowls, animals or bees for the purposes of making a profit or livelihood, including all of the following (FRAQMD Regulation I, Rule 1.1):
    1. grass and weeds in or adjacent to fields in, or being prepared for, cultivation
    2. materials not produced wholly from such operations but which are intimately related to the growing or harvesting of crops, and which are used in the field; for example, empty fertilizer and pesticide sacks, bags or cartons.

- *Agricultural Operations* - the growing and harvesting of crops, including timber, or the raising of fowls, animals or bees, for the primary purpose of earning a living, or making a profit (FRAQMD Regulation I, Rule 1.1).

- *Air Pollution Control Officer (APCO)* - refers to the air pollution control officer of the Feather River Air Quality Management District, and to his duly authorized representatives (FRAQMD Regulation I, Rule 1.1).

- *Air Contaminant* - includes smoke, dust, charred paper, soot, grime, carbon, acids, fumes, gases, odors, or particulate matter, or any combination thereof (FRAQMD Regulation I, Rule 1.1).

- *Approved Ignition Devices* - those instruments or materials that will ignite open fires for agricultural burning without the production of black smoke by the ignition device (FRAQMD Regulation I, Rule 1.1).

- *Alteration or Modification* - any addition to, enlargement of, replacement of, or any major modification or change of the design, capacity, process, or arrangement, or any increase in the connected loading of equipment or control apparatus, which will significantly increase or affect the kind or amount of air contaminants emitted (see also "Modification") (FRAQMD Regulation I, Rule 1.1).

- *Architectural Coating* - any coating applied to stationary structures and their appurtenance, to mobile homes, to pavements, or to curbs (FRAQMD Regulation III, Rule 3.15(C)).

- *Atmosphere* - the air that envelopes or surrounds the earth; when air pollutants are emitted into a building not designed specifically as a piece of air pollution control equipment, such emissions are considered to be emissions into the atmosphere (FRAQMD Regulation I, Rule 1.1).

- *Belowground Wood Preservatives* - heavy duty coatings formulated solely for the purpose of protecting belowground wood from decay or insect attack and which contain a wood preservative chemical registered by the California Department of Food and Agriculture (FRAQMD Regulation III, Rule 3.15(C)).

- *Bituminous Coating* - black or brownish coating materials that are soluble in carbon disulfide, which consist mainly of hydrocarbons, and which are obtained from natural deposits or from residue from the distillation of crude oils or of low grades of coal (FRAQMD Regulation III, Rule 3.15(C)).

- *Board* - the Board of Directors of the Feather River Air Quality Management District (FRAQMD Regulation I, Rule 1.1).

- *Bond Breakers* - coatings whose sole purpose, when applied between layers of concrete, is to prevent the freshly poured top layer of concrete from bonding to the substrate on which it is poured (FRAQMD Regulation III, Rule 3.15(C)).

- *Brush Treated* - material that has been felled, crushed or uprooted with mechanical equipment, or has been desiccated with herbicide (FRAQMD Regulation I, Rule 1.1).

- *Burn Day* - a day designated by the CARB as permissible to allow open burning within designated districts or areas (FRAQMD Regulation I, Rule 1.1).

- *Concrete Curing Compounds* - Coatings whose sole purpose is to retard the evaporation of water from the surface of freshly cast concrete, thereby strengthening it (FRAQMD Regulation III, Rule 3.15(C)).

- *Combustible or Flammable Waste* - any garbage, rubbish, trash, rags, paper, boxes, crates, excelsior, ashes, offal, carcass or dead animals, or any other combustible or flammable refuse matter that is in solid or liquid state (FRAQMD Regulation I, Rule 1.1).

- *Combustion Contaminant* - particulate matter discharged into the atmosphere from the burning of any kind of material containing carbon in a free or combined state (FRAQMD Regulation I, Rule 1.1).

- *Condensed Fumes* - particulate matter generated by the condensation of vapors evolved after volatilization from the molten or liquid state (FRAQMD Regulation I, Rule 1.1).

- *Cooling Tower* - any open water recirculation device which evaporate circulating water to remove heat from a process, building, or refrigeration device, and puts the heat into ambient air (FRAQMD Regulation XI, Rule 11.3(B)).

- *Coordinated Agricultural Burning Program* - the Agricultural Burning Program approved by the Sacramento Valley Air Basin Control Council and the CARB, including policies and procedures developed by the District to implement the program (FRAQMD Regulation I, Rule 1.1).

- *Designated Agency* - the public fire protection or other agency designated by the CARB to issue permits for agricultural burning (FRAQMD Regulation I, Rule 1.1).

- *District* - the Feather River Air Quality Management District (FRAQMD Regulation I, Rule 1.1).

- *Dry Fog Coatings* - coatings that are formulated so that when sprayed, overspray droplets dry before falling on floors and other surfaces (FRAQMD Regulation III, Rule 3.15(C)).

- *Dust* - minute solid particles released in the air by natural forces or by mechanical processes such as crushing, grinding, milling, drilling, demolishing, shoveling, conveying, covering, bagging, sweeping, etc. (FRAQMD Regulation I, Rule 1.1).

- *Emission* - the passing into the atmosphere of an air contaminant or a gas stream which contains an air contaminant (FRAQMD Regulation I, Rule 1.1).

- *Emissions Unit* - an identifiable operation or process, or control equipment such as an article, machine, or other contrivance which emits, may emit, or results in the emissions of any affected pollutant, directly or as fugitive emissions. *Emissions unit* does not include open burning of agricultural biomass (FRAQMD Regulation X, Rule 10.1(D)).

- *Emission Point* - the place at which an emission enters the atmosphere (FRAQMD Regulation I, Rule 1.1).

- *Enamel Undercoaters* - coatings that are designed to be applied to a new surface over a primer or over a previous coat of paint, in order to improve the seal, provide better adhesion, and make a smooth base for nonflat coatings (FRAQMD Regulation III, Rule 3.15(C)).

- *Exempt Compounds* - any of the following compounds (FRAQMD Regulation III, Rule 3.15(C))

    1. methane
    2. CO_2
    3. CO
    4. carbonic acid
    5. metallic carbides or carbonates
    6. ammonium carbonate
    7. 1,1,1-trichloroethane
    8. methylene chloride
    9. trichlorofluoromethane (CFC-11)
    10. dichlorodifluoromethane (CFC-12)
    11. chlorodifluoromethane (CFC-22
    12. trifluoromethane (CFC-23)
    13. trichlorotrifluoroethane (CFC-113)
    14. dichlorotetrafluoroethane (CFC-114)
    15. chloropentafluoroethane (CFC-115)
    16. 2,2-dichloro-1,1,1-trifluoroethane (HCFC-123)
    17. 2-chloro-1,1,1,2-tetrafluoroethane (HCFC-124)
    18. pentafluoroethane (HFC-125)
    19. 1,1,2,2-tetrafluoroethane (HCFC-134)
    20. 1,1,1,2-tetrafluoroethane (HCFC-134a)
    21. 1,1-dichloro-1-fluoroethane (HCFC-141b)
    22. 1-chloro-1,1-difluoroethane (HCFC-142b)
    23. 1,1,1-trifluoroethane (HCFC143a)
    24. 1,1-difluoroethane (HFC-152a)
    25. Cyclic, branched or linear completely methylated siloxanes (VMS)
    26. The following classes of perfluorocarbon (PFC) compounds:
        a. cyclic, branched, or linear, completely fluorinated alkanes
        b. cyclic, branched, or linear, completely fluorinated ethers with no unsaturations
        c. cyclic, branched, or linear, completely fluorinated tertiary amines with no unsaturations
        d. sulphur containing perfluorocarbons with no unsaturations and with sulfur bonds only to carbon and fluorine
    27. The following low-reactive organic compounds which have been exempted by the USEPA:
        a. acetone
        b. ethane
        c. parachlorobenzotrifluoride (1-chloro-4-trifluoromethyl benzene).

- *Fire Retardant Coatings* - coatings that are designed to retard fires by significantly accomplishing any of the following (FRAQMD Regulation III, Rule 3.15(C)):
    1. reducing the rate of flame spread on the surface of a material to which such coating has been applied
    2. resisting ignition when exposed to high temperatures
    3. insulating a substrate to which such a coating has been applied, and prolonging the time required for the substrate to reach ignition temperature.

- *Flue* - any duct or passage for air, gases, or the like, such as a stack or chimney (FRAQMD Regulation I, Rule 1.1).

- *Forest Management Burning* - the use of open fires as part of a forest management practice to remove forest debris, including all of the following (FRAQMD Regulation I, Rule 1.1):
    1. forest management practices, including hazard reduction
    2. timber operations
    3. silviculture and forest protection practices.

- *Fugitive Dust* - solid airborne matter emitted from any noncombustion source (FRAQMD Regulation III, Rule 3.16(B)).

- *General Primers* - coatings that are intended to be applied to a surface to provide a firm bond between the substrate and subsequent coats (FRAQMD Regulation III, Rule 3.15(C)).

- *General Sealers* - coatings that are intended for use on porous substrates to protect the substrate, to prevent subsequent coatings from being absorbed by the substrate, or to prevent harm to subsequent coatings by materials in the substrate (FRAQMD Regulation III, Rule 3.15(C)).

- *General Undercoaters* - coatings that are designed to provide a smooth surface for subsequent coats (FRAQMD Regulation III, Rule 3.15(C)).

- *Graphic Arts Coatings (Sign Paints)* - coatings that are marketed solely for application to indoor and outdoor signs, including lettering enamels, poster colors and bulletin colors (FRAQMD Regulation III, Rule 3.15(C)).

- *Incineration* - an operation in which combustion is carried on for the principal purpose, or with the principal result of, oxidizing a waste material to reduce its bulk or facilitate its disposal (FRAQMD Regulation I, Rule 1.1).

- *Industrial Maintenance Primers* - coatings that are intended to be applied to a surface prior to the application of an industrial maintenance topcoat, to provide a firm bond between the substrate and subsequent coats (FRAQMD Regulation III, Rule 3.15(C)).

- *Industrial Maintenance Topcoats* - high performance coatings that are formulated for the purpose of heavy abrasion, water immersion, chemical, corrosion, temperature, electrical, or solvent resistance (FRAQMD Regulation III, Rule 3.15(C)).

- *Installation* - the placement, assemblage or construction of equipment or control apparatus at the premises where the equipment or control apparatus will be used, and includes all preparatory work at such premises (FRAQMD Regulation I, Rule 1.1).

- *Inversion Layer* - that point in the atmosphere at which there is no, or very little, vertical mixing or movement of air between the area above and below said point (FRAQMD Regulation I, Rule 1.1).

- *Lacquer* - clear or pigmented coatings formulated with nitro-cellulose or synthetic resins to dry by evaporation without chemical reaction and to provide a quick drying, solid protective film (FRAQMD Regulation III, Rule 3.15(C)).

- *Mastic Texture Coatings* - coatings, except waterproofing mastic coatings, which are formulated to cover holes and minor cracks and to conceal surface irregularities (FRAQMD Regulation III, Rule 3.15(C)).

- *Metallic Pigmented Paints* - nonbituminous coatings that are formulated with metallic pigment (FRAQMD Regulation III, Rule 3.15(C)).

- *Modification* - any physical change or operational change to an existing emissions unit, including a change in hours of operation or production rate which would necessitate a change in permit conditions. A modification to a stationary source shall include any modification of its permitted emissions units or addition of any new emissions unit. A modification also occurs when there is an increase of emissions from an emission unit which is not subject to a daily emissions limitation. A reconstructed stationary source is treated as a new stationary source, not as a modification. *Modification* does not include any of the following (FRAQMD Regulation X, Rule 10.1(D)):
    1. routine maintenance or repair
    2. an increase in the production rate if such increase does not exceed the operating design capacity or the actual demonstrated capacity of the stationary source as approved by the APCO
    3. a change in ownership
    4. a replacement of a piece of equipment with an identical piece of equipment with emissions less than or equal to those from the original piece of equipment.

- *Multi-Colored Coatings* - coatings that exhibit more than one color when applied, and which are packaged in a single container and applied in a single coat (FRAQMD Regulation III, Rule 3.15(C)).

- *Multiple-Chamber Incinerator* - any article, machine, equipment, contrivance, structure or part of a structure used to dispose of combustible refuse by burning, consisting of three or more refractory-lined combustion furnaces in series, physically separated by refractory walls, inter-connected by gas passage ports or ducts and employing adequate design parameters necessary for maximum combustion of the material to be burned (FRAQMD Regulation I, Rule 1.1).

- *"No-Burn" Day* - any day on which the CARB prohibits agricultural burning, or the District prohibits open burning (FRAQMD Regulation I, Rule 1.1).

- *Nonflat Architectural Coatings* - coatings that register a gloss of 15 or greater on an 85 ° meter, or 5 or greater on a 60 ° meter, and which are identified on the label as a gloss, semi-gloss, or eggshell enamel coating (FRAQMD Regulation III, Rule 3.15(C)).

- *Opaque Stains* - all stains that are not classified as semi-transparent stains (FRAQMD Regulation III, Rule 3.15(C)).

- *Opaque Wood Preservatives* - all wood preservatives that are not classified as semi-transparent wood preservatives (FRAQMD Regulation III, Rule 3.15(C)).

- *Open Fires, Open Burning* - any combustion of solid waste outdoors, in the open, not in an enclosure, where the products of combustion are not directed through a flue (FRAQMD Regulation I, Rule 1.1).

- *Operation* - any physical action resulting in a change in the location or physical properties of a material, or any chemical action resulting in a change in the chemical composition or the chemical or physical properties of a material (FRAQMD Regulation I, Rule 1.1).

- *Particulate Matter* - discrete atmospheric particles of solids or liquids, other than uncombined water, as distinguished from gases or vapors (FRAQMD Regulation I, Rule 1.1).

- *PM_{10}* - particulate matter with aerodynamic diameter smaller than or equal to a nominal 10 microns as measured by an applicable reference test method (FRAQMD Regulation X, Rule 10.1(D)).

- *PPM* - parts per million by volume on a dry gas basis (FRAQMD Regulation I, Rule 1.1).

- *Precursor* - a directly emitted pollutant that, when released to the atmosphere, forms, or causes to be formed, or contributes to the formation of, a secondary pollutant for which an ambient air quality standard has been adopted, or whose presence in the atmosphere will contribute to the violation of one or more national ambient air quality standards (FRAQMD Regulation X, Rule 10.1(D)).

- *Process Weight Per Hour* - the total process weight divided by the number of hours in one complete operation from the beginning of any given process to the completion thereof, excluding any time during which the equipment is idle (FRAQMD Regulation I, Rule 1.1).

- *Quick Dry Primers and Sealers* - Primers, sealers, and undercoaters that are intended to be applied to a surface to provide a firm bond between the substrate and subsequent coats, and which are dry to touch in 1/2 h and can be recoated in 2 h (American Society for Testing and Materials (ASTM) 1640) (FRAQMD Regulation III, Rule 3.15(C)).

- *Quick Dry Enamels* - Nonflat coatings that comply with all of the following standards (FRAQMD Regulation III, Rule 3.15(C)):
    1. they are capable of being applied directly from the container by brush or roller under normal conditions (i.e., at ambient temperatures between 60 and 80 °F)
    2. when tested in accordance with ASTM 1640, they satisfy all of the following:
        a. set to the touch in 2 h or less
        b. dry hard in 8 h or less
        c. tack free in 4 h or less by the mechanical method test
    3. they have a 60 °F dried film gloss of no less than 70.

- *Range Improvement Burning* - the use of open fires to remove vegetation for wildlife, game, or livestock habitat or for the initial establishment of an agricultural practice on previously uncultivated land (FRAQMD Regulation I, Rule 1.1).

- *Reactive Organic Compound* - any compound containing carbon except: methane, CO, CO_2, carbonic acid, metallic carbides or carbonates, ammonium carbonates, and halogenated hydrocarbons (FRAQMD Regulation X, Rule 10.1(D)).

- *Regulation* - one of the major subdivisions of the Rules and Regulations of the FRAQMD (FRAQMD Regulation I, Rule 1.1).

- *Roof Coatings* - coatings that are formulated for the sole purpose of preventing penetration of the substrate by water, including bituminous roof and waterproof mastic coatings (FRAQMD Regulation III, Rule 3.15(C)).

- *Rule* - refers to a rule of the FRAQMD (FRAQMD Regulation I, Rule 1.1).

- *Semi-Transparent Stains* - coatings that are formulated to change the color of a surface but not conceal the surface (FRAQMD Regulation III, Rule 3.15(C)).

- *Semi-Transparent Wood Preservatives* - wood preservative stains that are formulated for the purpose of protecting exposed wood from decay or insect attack by the addition of a wood preservative chemical registered by the California Department of Food and Agriculture, and which are formulated to change the color of a surface but not conceal the surface (FRAQMD Regulation III, Rule 3.15(C)).

- *Shellacs* - clear or pigmented coatings formulated with natural resins (except nitro-cellulose resins), thinned with alcohol, and formulated to dry by evaporation without a chemical reaction, and which are intended to provide stain blocking properties as well as a solid protective film (FRAQMD Regulation III, Rule 3.15(C)).

- *Solid Waste Dump* - any accumulation for the purpose of disposal of any solid waste (FRAQMD Regulation I, Rule 1.1).

- *Source* - a point or source of emissions in a facility where an individual operation would not affect the rest of the operation (FRAQMD Regulation I, Rule 1.1).

- *Source Operation* - the last operation that precedes the emission of an air contaminant and that satisfies all of the following conditions (FRAQMD Regulation I, Rule 1.1):
    1. it results in the separation of the air contaminant from the process material, or in the conversion of the process material into air contaminants (as in the case of combustion of fuel)
    2. it is not an air pollution abatement operation.

- *Specialty Flat Products* - self-priming flat products used only to perform one of the following functions (FRAQMD Regulation III, Rule 3.15(C)):
    1. repair fire, smoke or water damage
    2. neutralize odors
    3. block stains
    4. coat acoustical materials without affecting their acoustical abilities.

- *Specialty Primers, Sealers, and Undercoaters* - primers, sealers, and undercoaters used only to perform one of the following functions (FRAQMD Regulation III, Rule 3.15(C)):
    1. repair fire, smoke or water damage
    2. neutralize odors
    3. block stains
    4. block efflorescence
    5. condition chalky surfaces
    6. coat acoustical materials without affecting their acoustical abilities.

- *Spray Coating* - the application of paint, lacquer, shellac, stains, or other protective or surface preparation coatings to any type of surface by means of air or airless spray equipment (FRAQMD Regulation I, Rule 1.1).

- *Standard Conditions* - refers to a gas temperature of 60 °F and a gas pressure of 14.7 psia (FRAQMD Regulation I, Rule 1.1).

- *Standard Dry Cubic Foot of Gas* - the amount of gas that would occupy a volume of 1 ft^3, if free of water vapor at standard conditions (FRAQMD Regulation I, Rule 1.1).

- *Stationary Source* - any building, structure, facility, installation, operation, article, machine, equipment, or other contrivance which emits or may emit any affected pollutant directly or as a fugitive emission (FRAQMD Regulation X, Rule 10.1(D)).

- *Swimming Pool Coatings* - coatings specifically formulated to coat the interior of swimming pools and to resist swimming pool chemicals (FRAQMD Regulation III, Rule 3.15(C)).

- *Tile-Like Glaze Coatings* - coatings that are formulated to provide a tough, extra durable coating system to be applied as a continuous (seamless), high build film which cures to a hard glaze finish (FRAQMD Regulation III, Rule 3.15(C)).

- *Traffic Coatings* - coatings that are formulated to be applied to public streets, highways, and other surfaces including, but not limited to curbs, berms, driveways, and parking lots (FRAQMD Regulation III, Rule 3.15(C)).

- *Varnishes* - clear or pigmented coatings formulated with various resins to dry by chemical reaction on exposure to air (FRAQMD Regulation III, Rule 3.15(C)).

- *VOC* - volatile organic compounds.

- *Volatile Organic Compounds* - the same as Reactive Organic Compounds (FRAQMD Regulation III, Rule 3.15(C)).

- *Waste* - all discarded putrescible and nonputrescible solid, semisolid and liquid materials including garbage, trash, refuse, paper, rubbish, food, ashes, plastics, industrial wastes, demolition and construction wastes, equipment, instruments, utensils, appliances, manure, and human or animal solid and semisolid wastes (FRAQMD Regulation XI, Rule 11.5(B)).

- *Waterproofing Mastic Coatings* - weatherproof and waterproof coatings that are formulated to cover holes and minor cracks and to conceal surface irregularities, and which are to be applied in thicknesses of at least 15 mL (FRAQMD Regulation III, Rule 3.15(C)).

- *Waterproofing Sealers* - coatings that are formulated for the sole purpose of protecting porous substrates by preventing the penetration of water (FRAQMD Regulation III, Rule 3.15(C)).

AIR EMISSIONS MANAGEMENT

GUIDANCE FOR FRAQMD CHECKLIST USERS

	REFER TO CHECKLIST ITEMS:	REFER TO PAGE NUMBERS:
State Specific Air Requirements		
General	A.5.1.CA.FR and A.5.2.CA.FR	1-13
Permits	A.5.3.CA.FR through A.5.8.CA.FR	1-14
New Source Review	A.5.9.CA.FR	1-16
Stationary Emission Sources	A.5.10.CA.FR through A.5.13.CA.FR	1-17
Sulfur Oxides	A.5.14.CA.FR	1-18
Fugitive Dust	A.5.15.CA.FR	1-19
Medical Waste Incinerators		
Over 25 Tons per Year	A.30.1.CA.FR through A.30.7.CA.FR	1-21
25 Tons per Year or Less	A.30.8.CA.FR and A.30.9.CA.FR	1-23
Dry Cleaning Operations		
Perchloroethylene	A.75.1.CA.FR through A.75.6.CA.FR	1-25
Coating Operations		
Abrasive Blasting	A.100.1.CA.FR	1-31
Architectural Coatings	A.100.2.CA.FR and A.100.3.CA.FR	1-32
Cooling Towers	A.105.1.CA.FR	1-33
Chrome Plating/Chromic Acid Anodizing	A.110.1.CA.FR and A.110.2.CA.FR	1-35
Degreasing Operations		
General	A.115.1.CA.FR	1-37
Open Burning		

AIR EMISSIONS MANAGEMENT

GUIDANCE FOR FRAQMD CHECKLIST USERS

	REFER TO CHECKLIST ITEMS:	REFER TO PAGE NUMBERS:
Sutter County	A.130.1.CA.FR through A.130.6.CA.FR	1-39
Yuba County	A.130.7.CA.FR through A.130.13.CA.FR	1-42
Ethylene Oxide Sources	A.150.1.CA.FR through A.150.3.CA.FR	1-47

AIR EMISSIONS MANAGEMENT

GUIDANCE FOR APPENDIX USERS

APPENDIX NUMBER:	APPENDIX TITLE:	REFER TO PAGE NUMBERS:
1-1	Allowable Rate of Emission Based on Process Weight Rate	1-49
1-2	Equipment Requirements and Summary of Compliance Times for Existing and New Facilities	1-51
1-3	VOC Content Limits for Architectural Coatings	1-53

COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT Feather River Air Quality Management District (FRAQMD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.5. **STATE SPECIFIC AIR REQUIREMENTS** **General**	
A.5.1.CA.FR. Installations/ CW facilities are prohibited, under certain circumstances, from discharging air contaminants or other materials (Feather River Air Quality Management District (FRAQMD), Regulation II, Rules 2.13 and 2.14).	Verify that the installation/CW facility does not discharge from any source such quantities of air contaminants or other materials which may: - cause injury, detriment, nuisance or annoyance to the public - endanger the comfort, repose, health or safety of the public - cause, or have a natural tendency to cause, injury or damage to business or property. (NOTE: Odors emanating from agricultural operations are exempted.)
A.5.2.CA.FR. Installations/ CW facilities are prohibited from concealing or disguising an emission of air contaminants (FRAQMD Regulation III, Rule 3.13).	Verify that the installation/CW facility has not built, erected, installed or used any article, machine, equipment, or other contrivance which, without actually reducing the total release of air contaminants, seems to reduce or conceals an emission that is in violation of the emission standards of this protocol.

COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT Feather River Air Quality Management District (FRAQMD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
Permits	
A.5.3.CA.FR. Installations/ CW facilities that own or operate any equipment, machinery, article or other contrivance that emits air contaminants must meet specific requirements (FRAQMD Regulation IV, Rule 4.3).	Determine if the installation/CW facility owns or operates any equipment, machinery, article, or other contrivance that emits air contaminants, other than the following which are exempt from the standards of this protocol: - vehicles, but not including any article, machine, equipment or other contrivance that is mounted on a vehicle but would otherwise not be exempt - equipment used exclusively in connection with a dwelling for not more than two families - comfort air-conditioning or ventilating systems that are not designed to remove air contaminants - refrigeration units, except those used as, or in conjunction with, air pollution control equipment - water-cooling towers and ponds, except those used in any of the following ways: - for evaporative cooling or process water - for evaporative cooling of water from barometric jets or condensers - equipment used exclusively for steam cleaning - presses used exclusively for extruding metals, minerals, plastics or wood - residential incinerators when used to burn paper or leaves - space heaters - self-propelled mobile construction equipment other than pavement burners - equipment used in eating establishments to prepare food for human consumption - agricultural implements used in agricultural operations - any other process, article, machine, equipment or other contrivance specifically exempted by the APCO
A.5.4.CA.FR. Installations/ CW facilities that construct or modify any article, machine, equipment or other contrivance whose use might cause, or eliminate, reduce, or control, the emission of air contaminants must meet specific requirements (FRAQMD Regulation IV, Rules 4.0, 4.1, and 4.4).	Determine if the installation/CW facility is constructing or modifying any source of air contaminants, or has ever done so. Verify that the installation/CW facility has obtained an "Authorization to Construct" from the APCO prior to beginning the construction or modification. Verify that the "Authorization to Construct" is renewed annually until either replaced by a permit to operate (PTO) or canceled. Verify that the installation/CW facility has satisfied the conditions and requirements of the "Authorization to Construct". Verify that the installation/CW facility has obtained a PTO from the APCO prior to operating any source of air contaminants for which an "Authorization to Construct" has been issued. Verify that the emission standards for any source of air contaminants described in a PTO have not been exceeded.

COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT Feather River Air Quality Management District (FRAQMD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.5.5.CA.FR. Installations/ CW facilities that own or operate existing sources of air contaminants may be required to obtain "Permits to Operate" (FRAQMD Regulation IV, Rules 4.2 and 4.4(c)).	Determine if the APCO has required the installation/CW facility to obtain a PTO for any existing nonexempt sources. Verify that the installation/CW facility has a PTO for those sources. Verify that the emission standards for any source of air contaminants described in a PTO have not been exceeded.
A.5.6.CA.FR. Installations/ CW facilities that have been issued permits must meet specific requirements (FRAQMD Regulation IV, Rules 4.13 through 4.15).	Verify that permits issued to the installation/CW facility have not been willfully defaced, altered, forged, counterfeited or falsified. Verify that permits are readily available at all times on the operating premises. Verify that permits and written authorizations issued to the installation/CW facility are not transferred from one location to another, from one piece of equipment to another, or from one person to another, without the written approval of the APCO.
A.5.7.CA.FR. Installations/ CW facilities that shut down air pollution equipment must comply with specific notification requirements (FRAQMD Regulation IX, Rule 9.5).	Verify that, in the event of a shut-down of air pollution equipment for necessary scheduled maintenance, the installation/CW facility reports its intention to shut down the equipment to the APCO at least 24 h in advance.
A.5.8.CA.FR. Breakdowns of emission source equipment or air pollution control equipment must be reported under certain circumstances (FRAQMD Regulation IX, Rule 9.6).	Verify that installations/CW facilities that suffer an equipment breakdown that results in violation of the emission standards of this protocol notify the APCO as follows: - immediately, upon discovery of the breakdown - subsequently, with a written statement detailing all pertinent facts, including estimated duration of the breakdown - finally, when the condition causing the breakdown has been corrected and the equipment is back in operation.

COMPLIANCE CATEGORY:
AIR EMISSIONS MANAGEMENT
Feather River Air Quality Management District (FRAQMD)-California Supplement

REGULATORY REQUIREMENTS:	REVIEWER CHECKS: September 1996
New Source Review	(NOTE: This Rule applies to all new and modified stationary sources subject to District permit requirements and which, after construction or modification, emit or may emit any affected pollutants.)
A.5.9.CA.FR. Stationary sources subject to New Source Review must apply Best Available Control Technology (BACT) (FRAQMD Regulation X, Rule 10.1).	Verify that the installation/CW facility applies BACT to any new or modified emissions unit if the potential to emit equals or exceeds the following limits:

Pollutant	Pounds per Day
Reactive organic compounds	25
NO_x	25
Particulate matter (PM_{10})	80
Sulfur oxides	80
CO	500
Lead	3.2
Asbestos	0.03
Beryllium	0.002
Mercury	0.5
Vinyl chloride	5.0
Fluorides	15.0
Sulfuric acid mist	35.0
Hydrogen sulfide	50.0
Total reduced sulfur compounds	50.0
Reduced sulfur compounds	50.0

COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT Feather River Air Quality Management District (FRAQMD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
Stationary Emission Sources	
A.5.10.CA.FR. Installations/CW facilities must meet specific visible emission standards (FRAQMD Regulation III, Rule 3.0 and 3.1).	Determine whether the installation/CW facility discharges visible emissions, other than emissions from the following exempt activities: - open burning that meets the requirements of the Open Burning section of this chapter - fires for food preparation, heating, or comfort in single- or two-family dwellings, provided that tires, petroleum waste, tar or tar paper, or other waste that contains any of these prohibited materials are not burned. Verify that the installation/CW facility does not discharge into the atmosphere, from any single source of emissions not excluded above, any air contaminants for more than 3 min in any 1 h which are either: - as dark or darker than No. 2 on the Ringelmann Chart - so opaque that they obscure the observer's view to a degree equal to or greater than smoke that is as dark or darker than No. 2 on the Ringelmann Chart.
A.5.11.CA.FR. Installations/CW facilities must meet specific particulate matter discharge standards (FRAQMD Regulation III, Rule 3.2).	Verify that the installation/CW facility does not discharge into the atmosphere from any source particulate matter in excess of 0.3 gr/ft^3 of gas at standard conditions. Verify that, when the particulate matter source involves combustion, the concentration of particulate matter is calculated to 12 percent CO_2. Verify that, in measuring combustion contaminants from incinerators, the CO_2 produced by combustion of any liquid or gaseous fuels is excluded from the calculation to 12 percent CO_2.
A.5.12.CA.FR. Installations/CW facilities must meet specific discharge standards for dust and/or fumes (FRAQMD Regulation III, Rule 3.3).	Verify that the installation/CW facility does not discharge in any 1 h from any source, dust or fumes in total quantities that are in excess of the amounts shown in Appendix 1-1.

COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT Feather River Air Quality Management District (FRAQMD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.5.13.CA.FR. Installations/CW facilities must meet specific discharge standards for air contaminants that are separated or combined prior to being emitted (FRAQMD Regulation III, Rules 3.4 and 3.5).	Verify that if air contaminants from a single source operation are emitted through two or more emission points, both of the following conditions are met: - the total emitted quantity of any air contaminant is calculated as the product of the following two measurements: - the highest concentration measured at any of the emission points - the combined exhaust gas volume from all emission points - the total emitted quantity of any air contaminant must not be greater than the allowable standard set for a single source. Verify that if air contaminants from two or more sources are combined prior to emission, then one of the following conditions is met: - if the combined emissions can be analyzed to indicate the contributions of emissions from each source to the satisfaction of the APCO, then the emission standards are applied to and met by each source separately - if the combined emissions can not be analyzed to indicate the contributions of emissions from each source, then the combined emission must be treated as if it originated from a single source, and must meet the most stringent emission standards of any that are applicable to the single sources of the combined emission.
Sulfur Oxides	
A.5.14.CA.FR. Installations/CW facilities must not exceed specific sulfur oxide emission limits (FRAQMD Regulation III, Rules 3.10 and 3.11(a)).	Verify that the installation/CW facility does not emit, from any single source, any sulfur oxides in excess of 0.2 percent by volume (2000 ppm) collectively calculated as SO_2. Verify that the installation/CW facility does not emit, or permit the emission of air contaminants from any premises that result in ground level concentrations of total reduced sulfur compounds, expressed as hydrogen sulfide, in excess of 0.03 ppm for a period of 60 min.

COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT Feather River Air Quality Management District (FRAQMD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
Fugitive Dust	(NOTE: This Rule does not apply to: - agricultural operations - currently unworked land designated as reclaimed for agriculture - an emergency - unpaved roads open to public travel (this inclusion shall not apply to industrial or commercial facilities.)
A.5.15.CA.FR. Installations/CW facilities must take every reasonable precaution to prevent fugitive dust emissions from crossing the property line (FRAQMD Regulation III, Rule 3.16).	Verify that the installation/CW facility takes every reasonable precaution not to cause or allow the emissions of fugitive dust from being airborne beyond the property line, from any construction, handling or storage activity, or any wrecking, excavation, grading, clearing of land or solid waste disposal operation. (NOTE: Reasonable precautions include, but are not limited to: - use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures; construction operations, construction of roadways; or the clearing of land - application of asphalt, oil, water, or suitable chemical on dirt roads, material stockpiles, and other surfaces which can give rise to airborne dusts - other means approved by the APCO.)

COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT Feather River Air Quality Management District (FRAQMD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.30. MEDICAL WASTE INCINERATORS **Over 25 Tons Per Year**	(NOTE: The purpose of this Rule is to limit the emissions of dioxins to the atmosphere from medical waste incinerators. This Rule does not apply to those incinerators which are exclusively crematoria of human or animal remains.) (NOTE: These checklist items apply only to medical waste incinerators that incinerate more than 25 tons of waste per year.)
A.30.1.CA.FR. Dioxin emissions from medical waste incinerators must be controlled (FRAQMD Regulation XI, Rule 11.5(C)(1)).	Verify that medical waste incinerators meet one of the following requirements: - the dioxin emissions have been reduced by 99 percent or more of the uncontrolled emissions, or - the dioxin emission have been reduced to at most 10 ng/kgr of waste burned.
A.30.2.CA.FR. Medical waste incinerators must have specific control equipment (FRAQMD Regulation XI, Rule 11.5(C)(2)).	Verify that owners/operators install and use in a District-approved manner control equipment that meets the following requirements: - the flue gas temperature at the outlet of the control equipment does not exceed 300 °F, unless it has been demonstrated to, and approved in writing by both the CARB and the District, that lower emissions are achieved at a higher outlet temperature - for a single chamber incinerator, the combustion chamber is maintained at no less than 1800 °F (plus or minus 200 °F) - for a multiple chamber incinerator, the primary combustion chamber is maintained at not less than 1400 °F, and the secondary combustion chamber is maintained at not less than 1800 °F (plus or minus 200 °F) - the furnace design provides for a residence time for combustion gas of at least 1 s.
A.30.3.CA.FR. Ash and residuals must be handled according to specific requirements (FRAQMD Regulation XI, Rule 11.5(C)(3)).	Verify that no person operates a medical waste incinerator unless the bottom ash, fly ash and scrubber residuals are handled and stored in a manner that prevents entrainment into ambient air.

COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT Feather River Air Quality Management District (FRAQMD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.30.4.CA.FR. Owners/ operators of medical waste incinerators must meet specific recordkeeping requirements (FRAQMD Regulation XI, Rule 11.5(C)(4)).	Verify that the installation/CW facility maintains the following: - a continuous data recording systems which provides for each day of operation: - a continuous record of the primary and secondary combustion chamber temperatures - CO emissions - the key operating parameters of the air pollution control equipment, as specified by the District - the hourly waste charging rates - and the opacity of stack emission or other indicator of particulate matter approved by the District - maintenance records for the incinerator, control equipment, and monitoring equipment - calibration records for the monitoring equipment - equipment to weigh and record the amount of waste charged to the incinerator.
A.30.5.CA.FR. Owners/ operators of medical waste incinerators must meet specific testing requirements (FRAQMD Regulation XI, Rule 11.5(C)(5)).	Verify that the installation/CW facility conducts a minimum of two annual source tests for the dioxin stack emissions. Verify that annual source tests are conducted until at least two consecutive annual tests demonstrate compliance (after which testing frequency is determined by the APCO).
A.30.6.CA.FR. Violations, malfunctions, or upset conditions must be reported (FRAQMD Regulation XI., Rule 11.5(C)(6)).	Verify that the installation/CW facility reports any violation, malfunction, or upset condition of the incinerator, air pollution control equipment, or continuous data recording systems is reported to the District within 1 h of occurrence or by 9 a.m. the following business day if the malfunction occurs outside normal business hours and the District does not maintain an answering machine.
A.30.7.CA.FR. Operators must be trained (FRAQMD Regulation XI., Rule 11.5(C)(7)).	Verify that all persons who operate or maintain the incinerator have either a certificate of training issued by the American Society of Mechanical Engineers or an equivalent as determined by the APCO. Verify that copies of the training certificates are submitted to the District, with the originals maintained at the facility with the permit to operate.

COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT Feather River Air Quality Management District (FRAQMD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
25 Tons Per Year or Less	(NOTE: These checklist items apply only to medical waste incinerators that incinerate 25 tons of waste per year or less.)
A.30.8.CA.FR. Medical waste incinerators that incinerate 25 tons of waste per year or less must meet specific operating, equipment, and training requirements (FRAQMD Regulation XI, Rule 11.5(D)(1)).	Verify that no person operates a medical waste incinerator unless the bottom ash, fly ash and scrubber residuals are handled and stored in a manner that prevents entrainment into ambient air. Verify that the installation/CW facility maintains the equipment to weigh and record the amount of waste charged to the incinerator. Verify that all persons who operate or maintain the incinerator have either a certificate of training issued by the American Society of Mechanical Engineers or an equivalent as determined by the APCO. Verify that copies of the training certificates are submitted to the District, with the originals maintained at the facility with the permit to operate.
A.30.9.CA.FR. Owners/ operators of medical waste incinerators that incinerate more than 10 but less than 25 tons of waste per year must meet specific testing requirements (FRAQMD Regulation XI, Rule 11.5(C)(2)).	Verify that the installation/CW facility conducts one initial source test at the incinerator stack.

COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT Feather River Air Quality Management District (FRAQMD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
DRY CLEANING OPERATIONS **A.75.** **Perchloroethylene**	(NOTE: The FRAQMD has adopted the CARB regulations on perchloroethylene dry cleaning facilities; however, as of this writing, the regulations have not been codified as FRAQMD Rules or Regulations. The regulations will be codified at Regulation XI, Rule 11.7; therefore, that citation is used here until such time as the regulations are formally codified.)
A.75.1.CA.FR. Installations/CW facilities that operate dry cleaning equipment using perchloroethylene solvents must meet specific notification requirements (FRAQMD Regulation XI, Rule 11.7).	Verify that the owner/operator provides the District with all of the following information, in writing by the applicable date shown in column 2 of Appendix 1-2: - the name(s) of the owner and operator of the facility - the facility name and location - whether or not the facility is co-located with a residence - the number, types, and capacities of all dry cleaning equipment - any control systems for each dry cleaning machine - for existing facilities only, the gallons of perchloroethylene purchased by the facility during the previous calendar year. (NOTE: The District may exempt a source from the requirements above if the District maintains current equivalent information on the facility.)
A.75.2.CA.FR. Installations/CW facilities that operate dry cleaning equipment using perchloroethylene solvents must meet specific operating and maintenance requirements (FRAQMD Regulation XI, Rule 11.7).	Verify that the owner/operator does not operate dry cleaning equipment after the applicable dates shown in column 5 and column 6 of Appendix 1-2, unless all of the following requirements are met: - the trained operator, or his/her designee, operates and maintains all components of the dry cleaning system in accordance with the requirements of this section and the conditions specified in the facility's operating permit beginning on the applicable date specified in column 5 of Appendix 1-2 (for operations not specifically addressed, the components shall be operated and maintained in accordance with the manufacturer's recommendations) - record each operation and maintenance function and the date performed on the checklist provided by the District - the trained operator, or his/her designee, inspects the dry cleaning system for vapor leaks instead of perceptible vapor leaks beginning 1 April 1996 - the trained operator, or his/her designee, records the status of each component on the leak checklist provided by the District - the dry cleaning system is inspected at least once per week for liquid leaks - the dry cleaning system is inspected at least once a week for vapor leaks, beginning 1 April 1996 using one of the following techniques: - a halogenated-hydrocarbon detector - a portable gas analyzer or an alternative method approved by the District. **A.75.2.CA.FR. Continued on Next Page**

COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT Feather River Air Quality Management District (FRAQMD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.75.2.CA.FR. (continued)	Verify that any liquid leak, perceptible vapor leak, or vapor leak that has been detected by the operator shall be noted on the checklist and repaired. (NOTE: If the leak is not repaired at the time of detection, the leaking component shall be physically marked or tagged in a manner that is readily observable by a District inspector.) Verify that any liquid leak or vapor leak is repaired within 24 h of detection. (NOTE: If repair parts are not available at the facility, the parts shall be ordered within two working days of detecting such a leak. Such repair parts shall be installed within five working days after receipt. A facility with a leak that has not been repaired by the end of the 15th working day after detection shall not operate the dry cleaning equipment, until the leak is repaired, without a leak-repair extension from the District.)
A.75.3.CA.FR. Installations/CW facilities that operate dry cleaning equipment using perchloroethylene solvents must meet specific training requirements (FRAQMD Regulation XI, Rule 11.7).	Verify that the dry cleaning facility has one or more trained operators beginning on the applicable date shown in column 6 of Appendix 1-2. Verify that the trained operator is a full-time employee of the dry cleaning facility. (NOTE: Except where a trained operator who owns or manages multiple facilities serves as the interim trained operator at two of those facilities simultaneously for a maximum period of 4 mo, by which time each facility must have its own trained operator, one person cannot serve as the trained operator for two or more facilities simultaneously.) Verify that trained operators successfully complete the refresher course of an environmental training program at least once every 3 yr. Verify that, if the dry cleaning facility has only one trained operator and the trained operator leaves the employ of the facility, the facility: - notifies the District in writing within 30 days of the departure of the trained operator - obtains certification for a replacement trained operator within 3 mo. (NOTE: If the District determines that the initial course of an environmental training program is not reasonably available, the District may extend the certification period for a replacement trained operator until 1 mo after the course is reasonably available.)

COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT Feather River Air Quality Management District (FRAQMD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.75.4.CA.FR. Equipment at dry cleaning facilities using perchloroethylene solvents must meet specific requirements (FRAQMD Regulation XI, Rule 11.7).	Verify that the owner/operator does not operate the following dry cleaning equipment after the applicable date shown in column 7 of Appendix 1-2: - a transfer machine, including any reclaimer or other device in which materials that have been previously dry cleaned with perchloroethylene are placed to dry, except a drying cabinet that meets the requirements of this subsection (see below) - a vented machine - a self service dry cleaning machine. Verify that the owner/operator of each new or existing facility meets the applicable requirements of Appendix 1-2 as follows: - for an existing facility: - choose either Option 1 or Option 2 of Appendix 1-2 and notify the District of his/her choice by 1 October 1995 - comply with the requirements of Option 2, notwithstanding his/her choice of Option 1, if the facility does not meet the applicable requirements for Option 1 by 1 April 1996 - install, operate, and maintain the required equipment for the option chosen, as shown in column 1 of Appendix 1-2 for existing facilities - for a new facility: - install, operate, and maintain the required equipment shown in column 1 of Appendix 1-2 for new facilities (the applicable requirements shall be determined based on the date the facility commences operation of the dry cleaning equipment). Verify that the required equipment at the dry cleaning facility meets the following specifications: - a primary control system shall: - operate during both the heated and cool down phases of the drying cycle to reduce the mass of perchloroethylene in the recirculating air stream - not exhaust to the atmosphere or workroom - not require the addition of any form of water to the primary control system that results in physical contact between the water and perchloroethylene - for refrigerated condensers only: - be capable of achieving an outlet vapor temperature, downstream of any bypass, of less than or equal to 45 °F (7.2 °C) during cool down - have a graduated thermometer with a minimum range from 0 °F (-18 °C) to 150 °F (66 °C), which measures the temperature of the outlet vapor stream, downstream of any bypass of the condenser, and is easily visible to the operator **A.75.4.CA.FR. Continued on Next Page**

COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT Feather River Air Quality Management District (FRAQMD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.75.4.CA.FR. (continued)	- for equivalent closed loop vapor recovery systems: - use a technology that has been demonstrated to achieve a perchloroethylene concentration of 8600 ppmv or less in each test - have a device that measures the perchloroethylene concentration, or a demonstrated surrogate parameter, in the drum at the end of each drying cycle, before the machine door is opened and any fugitive control system activates, and indicates if the concentration is above or below 8600 ppmv; this device shall be installed such that the reading is easily visible to the operator Verify that a converted machine meets all of the following requirements, as demonstrated onsite to the District: - all process vents that exhaust to the atmosphere or workroom during washing, extraction, or drying shall be sealed - the converted machine shall use an appropriately sized primary control system to recover perchloroethylene vapor during the heated and cool down pleases of the drying cycle. Verify that secondary control systems: - are designed to function with a primary control system or designed to function as a combined primary control system and secondary control system that meets all of the applicable requirements of this section - do not exhaust to the atmosphere or workroom - do not require the addition of any form of water to the secondary control system that results in physical contact between the water and perchloroethylene - use a technology that has been demonstrated to achieve a perchloroethylene concentration in the drum of 300 ppmv or less in each test - have a holding capacity equal to or greater than 200% of the maximum quantity of perchloroethylene vapor expected in the drum prior to activation of the system - for add-on secondary control systems only, the system shall be sized and capable of reducing the perchloroethylene concentration in the drum from 8600 ppmv or greater to 300 ppmv or less in the maximum volume of recirculating air in the dry cleaning machine and all contiguous piping. Verify that any drying cabinet is: - fully enclosed - exhausted via one of the following methods: - to a control system that has been demonstrated to achieve a perchloroethylene concentration of 100 ppmv or less in each test, measured at the outlet without dilution - to a control system that reduces the concentration of perchloroethylene in a closed system with no exhaust to the atmosphere or workroom. **A.75.4.CA.FR. Continued on Next Page**

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.75.4.CA.FR. (continued)	Verify that no person performs water-repelling or dip tank operations, after the applicable date shown in column 8 of Appendix 1-2, unless all of the following requirements are met: - all materials to be treated with perchloroethylene water-repelling solutions shall be treated in a closed loop machine, a converted machine, or a dip tank - for dip tank operations: - the dip tank shall be fitted with a cover that prevents the escape of perchloroethylene vapors from the tank and shall remain covered at all times, except when materials are placed in and removed from the dip tank or while the basket is moved into position for draining - after immersion, the materials shall be drained within the covered dip tank until dripping ceases - all materials removed from a dip tank shall be immediately placed into a closed loop machine or a converted machine for drying and not removed from the machine until the materials are dry.
A.75.5.CA.FR. Dry cleaning facilities using perchloroethylene solvents must meet specific recordkeeping requirements (FRAQMD Regulation XI, Rule 11.7).	Verify that the owner/operator maintains records for the specified time period, beginning on the applicable date shown in column 3 of Appendix 1-2. Verify that these records, or copies thereof, are accessible at the dry cleaning facility at all times. Verify that all of the following records are retained for at least 2 yr or until the next District inspection of the facility, whichever period is longer: - for each dry cleaning machine, a log showing the date and the pounds of materials cleaned per load - purchase and delivery receipts for perchloroethylene - for only those facilities with solvent tanks that are not directly filled by the perchloroethylene supplier upon delivery, the date(s) and gallons of perchloroethylene added to the solvent tank of each dry cleaning machine - the completed leak inspection checklists and the operation and maintenance checklists - for liquid leaks, perceptible vapor leaks, or vapor leaks that were not repaired at the time of detection, a record of the leaking component(s) of the dry cleaning system awaiting repair and the action(s) taken to complete the repair (the record shall include copies of purchase orders or other written records showing when the repair parts were ordered and/or service was requested). Verify that for dry cleaning equipment installed after the effective date of this control measure in the District, the manufacturer's operating manual for all components of the dry cleaning system are retained for the life of the equipment. Verify that the original record of completion for each trained operator are retained during the employment of that person (a copy of the record of completion shall be retained for an additional period of 2 yr beyond the separation of that person from employment at the facility).

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.75.6.CA.FR. Dry cleaning facilities using perchloroethylene solvents must meet specific reporting requirements (FRAQMD Regulation XI, Rule 11.7).	Verify that the owner/operator maintains an annual report. (NOTE: At the District's discretion, the facility owner or operator shall furnish this annual report to the District by the date specified by the District. Verify that the annual report includes all of the following: - a copy of the record of completion for each trained operator - the total of the pounds of materials cleaned per load and the gallons of perchloroethylene used for all solvent additions in the reporting period - the average facility mileage, determined from all solvent additions in the reporting period, as follows: The Total of the Pounds of Materials Cleaned --- The Total of the Gallons of Perchloroethylene Used

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.100. **COATING OPERATIONS**	
Abrasive Blasting	
A.100.1.CA.FR. All abrasive blasting must meet specific requirements (FRAQMD Regulation III, Rule 3.6).	Verify that abrasive blasting operations meet all of the following requirements: - a permit for the operation has been issued - the abrasive blasting operation satisfies all of the conditions of the permit - the abrasive blasting is performed in compliance with state regulations.
Architectural Coatings	(NOTE: Rule 3.15 does not apply to: - coatings supplied in containers having capacities of 1 L or less - coatings recommended by the manufacturer for use only as one or more of the following: dry fog coatings, fire retardant coatings, tile-like glaze coatings, mastic texture coatings, metallic pigmented coatings, swimming pool paints, multicolor paints, quick dry primers, sealers and undercoaters, shellac, sin (graphic arts) coatings, bond breakers, or belowground wood preservative coatings. However, if anywhere on any sticker or label indication is given that the coating may be used for nonexempt purposes, then this exemption does not apply.)
A.100.2.CA.FR. Architectural coatings must meet specific VOC content limits (FRAQMD Regulation III, Rule 3.15(d)(1) through (7)).	Verify that the installation/CW facility does not use any of the specialty architectural coatings listed in Appendix 1-3 if they exceed the VOC limits listed. (NOTE: Where a sticker or label on the container indicates that the coating is suitable for use as other than the specialty coating purpose listed in Appendix 1-3, then the coating must meet the general VOC content limits of the next paragraph.) Verify that every other architectural coating or nonflat architectural coating used by the installation/CW facility does not contain more than 250 g VOC/L coating, less water and exempt solvents, and excluding colorant added to tint bases. Verify that low-solid stains and wood preservatives used at the installation/CW facility do not exceed 120 g VOC/L coating, excluding colorant added to tint bases. Verify that the installation/CW facility does not use any architectural coating which is recommended for use as a bituminous pavement sealer unless it is an emulsion-type coating.
A.100.3.CA.FR. Architectural coatings must meet specific VOC content limits (FRAQMD Regulation III, Rule 3.15(d)(8)).	Verify that all VOC-containing materials are stored in closed containers when not in use.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.105. COOLING TOWERS **A.105.1.CA.** Cooling towers must meet specific standards for hexavalent chromium (FRAQMD Regulation XI, Rule 11.3(C), (D), (E) and (F)).	Verify that the installation/CW facility does not operate a cooling tower unless the hexavalent chromium concentration in the circulating water does not equal or exceed 0.15 mg hexavalent chromium/L circulating water. Verify that hexavalent chromium-containing compounds are not added to the cooling tower circulating water. (NOTE: Except as specified in the checklist item on testing (below), such testing shall be performed every 6 mo.) Verify that owners/operators of new or existing cooling towers provide the District with the following written information: - owner/operator of the tower - location, type, and material of construction - whether hexavalent chromium based treatment chemicals were previously used (and if so, when they were discontinued) - if an alternate treatment program is chosen, a description of that program, as well as the circulating water monitoring plan. (NOTE: For new towers, information must be reported at least 90 days prior to operation of the tower.) Verify that nonwooden cooling tower circulating water is tested at least once every six calendar months to determine the concentration of hexavalent chromium. (NOTE: Testing may be discontinued when two consecutive required tests show concentrations less than 0.15 mg/L of circulating water.) (NOTE: Monitoring requirements may be waived by the District for any owner/operator who demonstrates that hexavalent chromium based treatment chemical has never been used in the cooling tower.) Verify that wooden cooling tower circulating water is tested at least once every calendar month. Verify that results of all monitoring and testing are maintained for 2 yr, and provided to the District upon request.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.110. **CHROME PLATING/ CHROMIC ACID ANODIZING**	
A.110.1.CA.FR. Decorative chrome plating operations must use specific control techniques (FRAQMD Regulation XI, Rule 11.2(C)).	Verify that all decorative chrome plating tanks use an anti-mist additive that is continuously maintained in the plating tank in a manner which has been demonstrated, to the satisfaction of the APCO, as reducing chromium emissions by at least 95 percent when compared to emissions when the anti-mist additive is not used; or an equivalent method approved by the APCO.
A.110.2.CA.FR. Hard chrome plating and chromic acid anodizing operations must take specific emission reduction measures (FRAQMD Regulation XI, Rule 11.2(D)).	Verify that no one operates a hard chrome plating tank or chromic acid anodizing tank unless the tank has an emissions collection system. Verify that the chromium emissions from the emissions collection system serving the tank have been reduced as follows: - if facility-wide chromium emissions from hard chrome plating and chromic acid anodizing are less than or equal to 2 lb/yr, chromium emissions must be reduced by at least 95 percent when compared to uncontrolled chromium emissions from the emissions collection system or reduced to less than 0.15 mg chromium/ ampere-hour of electrical charge applied to the tank(s) served by the emissions collection system, or - if facility-wide chromium emissions from hard chrome plating and chromic acid anodizing are greater than 2 lb/yr, but less than 10 lb/yr, emissions shall be reduced by at least 99 percent when compared to uncontrolled chromium emissions from the emissions collection system or reduced to less than 0.03 mg chromium per ampere-hour of electrical charge applied to the tank(s) served by the emissions collection system, or - if facility-wide chromium emissions from hard chrome plating and chromic acid anodizing are greater than or equal to 10 lb/yr, emissions shall be reduced by at least 99.8 percent when compared to uncontrolled chromium emissions from the emissions collection system or reduced to less than 0.006 mg chromium/ ampere-hour of electric current applied to the tank(s) served by the emissions collection system. Verify that any installation/CW facility subject to these requirements keep written records of the total monthly usage of electricity in units of ampere-hours for all plating tanks served by each emissions collection system, and maintains the records for at least 2 yr. Verify that electricity usage information is submitted to the District on an annual basis in accordance with the format and schedule specified by the APCO.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
DEGREASING OPERATIONS **A.115.** **General**	
A.115.1.CA.FR. Containers of solvent exceeding 55 gal capacity must be labeled with specific instructions (FRAQMD Regulation III, Rule 3.14).	Verify that any containers of solvent with a capacity in excess of 55 gal are labeled with instructions to store in a closed condition.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.130. **OPEN BURNING** **Sutter County**	
A.130.1.CA.FR. Installations/CW facilities are prohibited from setting open fires, or from authorizing the setting of open fires. (FRAQMD Regulation II (Sutter County), Rule 2.0, and 2.1(a) and (c) through (j).	Verify that no open burning is conducted without a permit. (NOTE: The following types of burning are exempt from the requirement to obtain a permit, provided that no prohibited materials (see next checklist item) are burned: - fires set or authorized by any public officer in the performance of his official duty for: - the prevention of a fire or health hazard which can not be abated by any other means - for the instruction of public employees in the methods of fighting fires - agricultural waste burning using L.P. gas or natural gas-fired burners specially designed to kill grasses and weeds in orchard and field crops, provided that the growth is such that combustion will not continue without the burner - training and development of public fire fighting personnel's skills - disposal of combustible or flammable solid waste developed from a single or two family dwelling when: - the burning is performed on the premises - the burned waste does not contain: - petroleum products or wastes, tires, or tar - demolition debris or metal salvage - wet garbage - dead animals or parts of animals - materials that produce offensive odors when burned - right-of-way clearing by a public entity or utility, or for levee and ditch maintenance - fires necessary to abate fires, set in compliance with state statutes - open fires for cooking meals for human beings, for recreational purposed, or for physical comfort - fires used in heating branding irons and as necessary in animal husbandry practices.)
A.130.2.CA.FR. Installations/CW facilities are prohibited from open burning of certain materials (FRAQMD Regulation II (Sutter County), Rules 2.1(h) and 2.9).	Verify that the installation/CW facility does not allow the burning of tires, petroleum waste, tar or tar paper, or other waste that contains any of these prohibited materials. (NOTE: Tires may only be burned for the production of a smoke column as required when applying specified types of restricted herbicides.)

COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT Feather River Air Quality Management District (FRAQMD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.130.3.CA.FR. Open burning on a day designated as a "no-burn" day by the CARB or the Yuba County APCO is prohibited, except under specific conditions (FRAQMD Regulation II (Sutter County), Rules 2.3, 2.4, and 2.10).	Verify that open burning does not occur on installation/CW facility premises on "no-burn" days, except in the following circumstances: - open burning authorized under a permit that specifically exempts it from "no-burn" day restrictions - open burning for cooking meals, for recreational purposes, or for physical comfort - training and development of fire fighting skills provided the APCO is notified of the time and location prior to igniting the fire - back-fires that are necessary to save lives or valuable property and are set in conformance with state statutes - fires necessary to abate hazards - accidental fires occurring in areas and/or materials that have been declared fire hazards in accordance with state statutes, and that the local fire agency allows to continue to burn in order to abate that hazard - the use of orchard or citrus grove heaters for frost protection providing the heaters are of the type approved by the CARB - disposal of combustible or flammable solid waste developed from a single or two family dwelling provided either: - a permit has been issued - such burning has been generally authorized, District-wide - agricultural waste burning using L.P. gas or natural gas-fired burners specially designed to kill grasses and weeds in orchards and field crops, provided that the growth is such that combustion will not continue without the burner - range improvement burning from 1 January through 31 May provided: - more than 50 percent of the land has been brush treated - the amount of brush treatment specified by the Department of Fish and Game for the improvement of wildlife or game habitat has been completed - fires used in heating branding irons and as necessary in animal husbandry practices.
A.130.4.CA.FR. Permitted open burning must meet specific requirements (FRAQMD Regulation II (Sutter County), Rules 2.5(b), (c), (e) and (f), 2.6).	Verify that the installation/CW facility, having obtained the necessary open-burning permit, notifies the APCO prior to igniting the fire. Verify that all open fires requiring permits are ignited by an approved ignition device. Verify that the burning is done on the day or days designated by the issuing agency (provided that day is a burn day). Verify that all open burning is conducted during the burning hours set by the APCO. (NOTE: Fire districts post copies of burning hours where fire permits are issued.) Verify that the installation/CW facility satisfies all other special requirements and conditions of the open-burning permit.

COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT Feather River Air Quality Management District (FRAQMD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.130.5.CA.FR. Installations/CW facilities that set open fires for the purpose of agricultural burning or for burning of agricultural waste must meet specific requirements (FRAQMD Regulation II (Sutter County), Rules 2.5(e) and 2.7).	Verify that prior to beginning any agricultural burning, the installation/CW facility receives permission from the APCO (in addition to permits). Verify that all materials for agricultural burning or for burning agricultural waste meet all of the following requirements: - they are free of all other wastes including tires, rubbish, tar paper, or construction debris - they are reasonably free of dirt, soil and visible soil moisture - they are arranged to burn with a minimum of smoke - they have been dried sufficiently to assure rapid and complete combustion with a minimum of smoke (trees, stumps and branches larger than 6 in. in diameter must be dried for a minimum of 30 days), or have been specifically exempted from this requirement.
A.130.6.CA.FR. Installations/CW facilities that burn for the purposes of range improvement, or disposing or wood waste from property being developed for commercial or residential purposes must meet specific requirements (FRAQMD Regulation II (Sutter County), Rule 2.8).	Verify that all burning is done on days when the air movement is away from populated areas, unless a variance is obtained. Verify that the burning is done as rapidly as practical within applicable fire control restrictions. Verify that burns designed primarily for the improvement of land for wildlife and game habitat are certified by the Department of Fish and Game. Verify that wood waste is burned on the property where grown and is free of material not grown on that property. Verify that waste to be burned for range improvement and woodwaste burning from property being developed for residential or commercial purposes has been "brush treated" for specific minimum periods of time prior to burning as follows: - 6 mo for waste that has been treated by herbicide desiccation and left standing - 30 days for waste that has been felled, crushed or uprooted with mechanical equipment. Verify that an installation/CW facility burning wood waste from property being developed for residential or commercial purposes meets all of the following requirements: - a permit was acquired for this kind of burning - no burning is done on a "no-burn" day.

COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT Feather River Air Quality Management District (FRAQMD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
Yuba County	
A.130.7.CA.FR. Installations/CW facilities are prohibited from setting open fires, or from authorizing the setting of open fires. (FRAQMD Regulation II (Yuba County), Rule 2.0, and 2.1(a), (c), (d), (e), (f), (g), (h), (i), and (j).	Determine if any open burning is conducted other than the following exempt activities: - fires set or authorized by any public officer in the performance of his official duty for: - the prevention of a fire or health hazard which can not be abated by any other means - for the instruction of public employees in the methods of fighting fires - agricultural waste burning using L.P. gas or natural gas-fired burners specially designed to kill grasses and weeds in orchard and field crops, provided that the growth is such that combustion will not continue without the burner - training and development of public fire fighting personnel's skills - disposal of combustible or flammable solid waste developed from a single or two family dwelling when: - the burning is performed on the premises - the burned waste does not contain: - petroleum products or wastes, tires, or tar - demolition debris or metal salvage - wet garbage - dead animals or parts of animals - materials that produce offensive odors when burned - right-of-way clearing by a public entity or utility, or for levee and ditch maintenance - fires necessary to abate fires, set in compliance with state statutes - production of a smoke column required when applying specified types of herbicides - open fires for cooking meals for human beings, for recreational purposed, or for physical comfort - fires used in heating branding irons and as necessary in animal husbandry practices.
A.130.8.CA.FR. Installations/CW facilities are prohibited from open burning of certain materials (FRAQMD Regulation II (Yuba County), Rules 2.1(h) and 2.9).	Verify that the installation/CW facility does not allow the burning of tires, petroleum waste, tar or tar paper, or other waste that contains any of these prohibited materials. (NOTE: Tires may only be burned for the production of a smoke column as required when applying specified types of restricted herbicides.)

COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT Feather River Air Quality Management District (FRAQMD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.130.9.CA.FR. Open burning on a day designated as a "no-burn" day by the CARB or the Yuba County APCO is prohibited, except under specific conditions (FRAQMD Regulation II (Yuba County), Rules 2.2, 2.3, 2.4, and 2.10.	Verify that open burning does not occur on installation/CW facility premises on "no-burn" days, except in the following circumstances: - open burning authorized under a permit that specifically exempts it from "no-burn" day restrictions - open burning for cooking meals, for recreational purposes, or for physical comfort - training and development of fire fighting skills provided the APCO is notified of the time and location prior to igniting the fire - back-fires that are necessary to save lives or valuable property and are set in conformance with state statutes - fires necessary to abate hazards - accidental fires occurring in areas and/or materials that have been declared fire hazards in accordance with state statutes, and that the local fire agency allows to continue to burn in order to abate that hazard - the use of orchard or citrus grove heaters for frost protection providing the heaters are of the type approved by the CARB - all burning performed above the inversion layer elevation, except the burning of agricultural wastes - disposal of combustible or flammable solid waste developed from a single or two family dwelling provided either: - a permit has been issued - burning has been generally issued district-wide - agricultural waste burning using L.P. gas or natural gas-fired burners specially designed to kill grasses and weeds in orchards and field crops, provided that the growth is such that combustion will not continue without the burner - range improvement burning from 1 January through 31 May provided: - more than 50 percent of the land has been brush treated - the amount of brush treatment specified by the Department of Fish and Game for the improvement of wildlife or game habitat has been completed - fires used in heating branding irons and as necessary in animal husbandry practices - burning of agricultural waste located and produced above 3000 ft mean sea level - agricultural burning that is located and produced above 6000 ft mean sea level - burning empty sacks, bags or cartons which contained fertilizer, pesticides or other toxic materials, provided the materials are within the definition of open, outdoor fires used in agricultural operations in the growing of crops or raising of fowls, animals, or bees.

COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT Feather River Air Quality Management District (FRAQMD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.130.10.CA.FR. Permitted open burning must meet specific requirements (FRAQMD Regulation II (Yuba County), Rules 2.5(b) and (f), 2.6, and 2.18).	Verify that, prior to igniting any permitted open burning fire, the permittee contacts the Yuba County Fire Control Dispatch Center (741-6331), and provides the following information: - name, address and phone number of permittee - time intended burn is to take place - location of intended burn site - material to be burned - volume of material being burned. Verify that all open fires requiring permits are ignited by an approved ignition device. Verify that the burning is done on the day or days designated by the issuing agency provided that day is a burn day. Verify that all open fires are ignited during the following burning hours, except when specifically exempted: - for agricultural burning: - from 15 September to 30 November: from 10:00 AM until 3:00 PM - all other times of the year: from 10:00 AM until 5:00 PM - for all other open burning: from 9:00 AM until 3:00 PM. (NOTE: Existing fires with existing fuel may be allowed to continue to burn after burning hours unless specifically prohibited. In the burning of orchard prunings and removals, additional fuel may be added until the burning operation is complete or until 10:00 PM, whichever comes first.) Verify that the installation/CW facility satisfies all other special requirements and conditions of the open-burning permit.
A.130.11.CA.FR. Installations/CW facilities that set open fires for the purpose of agricultural burning or for burning of agricultural waste must meet specific requirements (FRAQMD Regulation II (Yuba County), Rules 2.5(e) and 2.7).	Verify that prior to beginning any agricultural burning, the installation/CW facility obtains an Agricultural Burning Allocation from the APCO and performs the burning in compliance with its conditions. Verify that all materials for agricultural burning or for burning agricultural waste meet all of the following requirements: - they are free of all other wastes including tires, rubbish, tar paper, or construction debris - they are reasonably free of dirt, soil and visible soil moisture - they are arranged to burn with a minimum of smoke - they have been dried sufficiently to assure rapid and complete combustion with a minimum of smoke (trees, stumps and branches larger than 6 in. in diameter must be dried for a minimum of 30 days), or have been specifically exempted from this requirement.

COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT Feather River Air Quality Management District (FRAQMD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.130.12.CA.FR. Installations/CW facilities that burn for the purposes of forest management, range improvement, or disposing or wood waste from property being developed for commercial or residential purposes must meet specific requirements (FRAQMD Regulation II (Yuba County), Rule 2.8).	Verify that all burning is done on days when the air movement is away from populated areas, unless a variance is obtained. Verify that the burning is done as rapidly as practical within applicable fire control restrictions. Verify that burns designed primarily for the improvement of land for wildlife and game habitat are certified by the Department of Fish and Game. Verify that burns for the purpose of forest management meet all of the following requirements: - the waste must be wind-rowed or piled where feasible unless good silviculture practices dictate otherwise - the drying time for the waste must be followed as specified by the Designated Agency. Verify that wood waste is burned on the property where grown and is free of material not grown on that property. Verify that waste to be burned for range improvement and woodwaste burning from property being developed for residential or commercial purposes has been "brush treated" for specific minimum periods of time prior to burning as follows: - 6 mo for waste that has been treated by herbicide desiccation and left standing - 30 days for waste that has been felled, crushed or uprooted with mechanical equipment. Verify that an installation/CW facility burning wood waste from property being developed for residential or commercial purposes meets all of the following requirements: - a permit was acquired for this kind of burning - no burning is done on a "no-burn" day.

COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT Feather River Air Quality Management District (FRAQMD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.130.13.CA.FR. Installations/CW facilities that perform "wildland vegetative management burning" or "prescribed burning" must meet specific requirements in addition to those for agricultural burning (FRAQMD Regulation II, Rule 2.17).	Verify that the installation/CW facility submits a burn plan to the District for every proposed burn that satisfies either of the following conditions: - all burns occurring below a mean elevation of 1000 ft - all burns occurring at or above a mean elevation of 1000 ft, and encompassing a land area greater than 10 acres. Verify that burn plans are submitted prior to ignition according to the following schedule: - by 1 September for all burns scheduled to take place between 15 September and 30 November - at least 7 days prior to ignition for all other burns. Verify that fires are ignited with an approved ignition device. Verify that the installation/CW facility applies mitigation measures as necessary to ensure compliance with the provisions of the burn plan and of this protocol. Verify that no more than 640 acres [approximately 259 hectares] of wildland vegetation is ignited on any one day unless: - a written plan is presented to the APCO at least 45 days prior to the burn - the burning will not take place between 15 September and 30 November - the burn is approved by the APCO - at least 24 h notice is given to the APCO prior to ignition.

COMPLIANCE CATEGORY:
AIR EMISSIONS MANAGEMENT
Feather River Air Quality Management District (FRAQMD)-California Supplement

REGULATORY REQUIREMENTS:	REVIEWER CHECKS: September 1996
A.150. ETHYLENE OXIDE SOURCES	(NOTE: Emission control requirements do not apply to any facility which treats materials in a sterilizer and which uses a total of 25 pounds or less of ethylene oxide per calendar year. However, reporting and notification requirements do apply to such facilities.)
A.150.1.CA.FR. Ethylene oxide sterilizers and aerators must meet specific emission control requirements (FRAQMD Regulation XI, Rule 11.4(F) and (G)).	Verify that the installation/CW facility does not operate an ethylene oxide sterilizer or aerator unless: - there is no discharge of sterilizer exhaust vacuum pump working fluid to waste water streams - the exhaust systems including, but not limited to, any piping, ducting, fittings, valves, or flanges, through which ethylene oxide-contaminated air is conveyed from the sterilizer and aerator to the outlet of the control device are leak-free - all of the control requirements of the table below are met - for facilities using more than 600 lb ethylene oxide/yr, the back-draft valve is ducted to the control device used to control the sterilizer exhaust stream or the aerator exhaust stream - for facilities using more than 5000 lb ethylene oxide/yr, the sterilizer door hood exhaust stream is ducted to the control device used to control the aerator exhaust stream.

Control Category	Requirements		
Facility-wide pounds of ethylene oxide used per year	Exhaust Streams to be Controlled	Exhaust Streams to be Tested	Control Efficiency
<= 25	None	None	None
>25 but <= 600	Sterilizer	Sterilizer	99.0
>600 but <= 5000	Sterilizer Aerator Back-Draft Valve	Sterilizer Aerator	99.9 95.0 N/A
>5000	Sterilizer Aerator Sterilizer Door Hood Back-Draft Valve	Sterilizer Aerator	99.9 99.9 N/A N/A
Aeration-Only Facilities	Aerator	Aerator	95.0

COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT Feather River Air Quality Management District (FRAQMD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.150.2.CA.FR. Owners/ operators of ethylene oxide sterilizers and aerators must meet specific notification requirements (FRAQMD Regulation XI, Rule 11.4(D)).	Verify that the installation/CW facility provides the District with the following information, in writing: - the name of the owner/operator of the facility - the location of the facility - the number of sterilizers and aerators at the facility - an estimate of the total pounds of ethylene oxide and sterilant gas used the facility, in all sterilizers, during the previous calendar year.
A.150.3.CA.FR. Owners/ operators of ethylene oxide sterilizers and aerators must meet specific reporting requirements (FRAQMD Regulation XI, Rule 11.4(E)).	Verify that the installation/CW facility provides the District a written report annually on the date specified by the District. Verify that the report includes: - the number of sterilizer cycles and the pounds of ethylene oxide used per cycle for each sterilizer during the reporting period - the total pounds of sterilant gas and the total pounds of ethylene oxide purchased, used, and returned in the previous calendar year.

Appendix 1-1

Allowable Rate of Emission Based on Process Weight Rate

(Source: FRAQMD Regulation III, Rule 3.3)

Process Weight Rate		Rate of Emission	Process Weight Rate		Rate of Emission
lb/hr	ton/hr	lb/hr	lb/hr	ton/hr	lb/hr
100	0.05	0.551	16,000	8	16.5
200	0.10	0.877	18,000	9	17.9
400	0.20	1.40	20,000	10	19.2
600	0.30	1.83	30,000	15	25.2
800	0.40	2.22	40,000	20	30.5
1000	0.50	2.58	50,000	25	35.4
1500	0.75	3.38	60,000	30	40.0
2000	1.00	4.10	70,000	35	41.3
2500	1.25	4.70	80,000	40	42.5
3000	1.50	5.38	90,000	45	43.6
3500	1.75	5.96	100,000	50	44.6
4000	2.00	6.52	120,000	60	46.3
5000	2.50	7.58	140,000	70	47.8
6000	3.00	8.56	160,000	80	49.0
7000	3.50	9.49	200,000	100	51.2
8000	4.00	10.4	1,000,000	500	69.0
9000	4.50	11.2	2,000,000	1000	77.6
10,000	5.00	12.0	6,000,000	3000	92.7
12,000	6.00	13.6			

To use this table, proceed as follows:

- calculate the "Process Weight Rate", i.e., the process weight per hour in either lb/h or ton/h
- find this figure in the appropriate column of the table
- opposite this figure, in the "Rate of Emission" column, is the maximum number of lb/h of contaminants which may be discharged into the atmosphere for the given process weight.

To interpolate and/or extrapolate the data in the table, use one of the following equations:

where E = "Rate of Emission" in lb/h,
and P = "Process Weight Rate" in ton/h,

For interpolation of table data for process weights up to 60,000 lb/h, use:

$$E = 4.10\ P^{0.67}$$

For interpolation and extrapolation of table data for process weights greater than 60,000 lb/h, use:

$$E = (55.0\ P^{0.11}) - 40$$

Appendix 1-2

Equipment Requirements and Summary of Compliance Times for Existing and New Facilities

(Source: FRAQMD Regulation XI, Rule 11.7)

Requirements	Equipment	Date of Compliance (1 October 1994)						
	Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8
Facility & Compliance Option(s)	Required Dry Cleaning Equipment	Initial Notification	Record Keeping	Annual Reporting	Leak Check & Repair Operation & Maintenance Requirement	Environmental Training Requirement	Equipment Requirement	Water Repelling, Dip Tank Requirement
Existing Facilities								
Option 1	Converted Closed Machine with a Primary Control System	11/30/04	11/30/04	Specified by District	11/30/94	4/1/96	4/1/96	4/1/96
Option 2	Closed loop Machine with a Primary Control System	11/30/94	11/30/94	Specified by District	11/30/94	4/1/96	10/1/98	4/1/96
New Facilities	Commencing Operations Prior to April 1, 1996							
	Closed loop Machine with a Primary Control System	On application for permit	Upon start of operation	Specified by District	Upon start of operation	3 mo following start of operation	Upon the start of operation	Upon the start of operation

(continued)

Appendix 1-2 (continued)

Requirements	Equipment	Date of Compliance (1 October 1994)						
	Column 1	Column 2	Column 3	Column 4	Column 5	Column 6	Column 7	Column 8
Facility & Compliance Option(s)	Required Dry Cleaning Equipment	Initial Notification	Record Keeping	Annual Reporting	Leak Check & Repair Operation & Maintenance Requirement	Environmental Training Requirement	Equipment Requirement	Water Repelling, Dip Tank Requirement
New Facilities	Commencing Operations After to April 1,1996 Closed loop Machine with a Primary & Secondary Control System	On application for permit	Upon start of operation	Specified by District	Upon start of operation	3 mo following start of operation	Upon the start of operation	Upon the start of operation

Appendix 1-3

VOC Content Limits for Architectural Coatings

(Source: FRAQMD Regulation III, Rule 3.15(D)(5))

VOC content limits are expressed as grams of volatile organic compounds per liter of coating, less water and exempt solvents, and excluding any colorant added to tint bases.

Coating	VOC limit (g/L)
Varnish	350
Lacquer	680
Semi-Transparent Stains	350
Opaque Stains	350
Semi-Transparent and Clear Wood Preservatives	350
Opaque Wood Preservatives	350
General Primers, Sealers and Undercoaters	350
Specialty Primers, Sealers and Undercoaters	350
Industrial Maintenance Primers and Topcoats	420
Quick Dry Enamels	400
Specialty Flats	400
Waterproof Sealers	400
Concrete Curing Compounds	350
Roof Coatings	300
Waterproofing Mastic Coatings	300
Enamel Undercoaters	350
Traffic Coatings	250

INSTALLATION:	COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT FRAQMD - California Supplement	DATE:	REVIEWER(S):
STATUS NA C RMA	REVIEWER COMMENTS:		

SECTION 10

STORAGE TANK MANAGEMENT

Feather River Air Quality Management District (FRAQMD) - California Supplement

SECTION 10

STORAGE TANK MANAGEMENT

Feather River Air Quality Management District (FRAQMD)

California Supplement

This section covers the District requirements for Storage Tank Management and is intended to supplement the U.S. TEAM Guide. Refer to the U.S. TEAM Guide and the DOD Component Supplements for Federal, DOD, and service-specific requirements.

Definitions

- *Floating Roof* - a pontoon-type or double-deck-type roof resting on the surface of the liquid contents and equipped with closure seals to close the space between the roof edge and tank wall, with all tank gauging and sampling devices gas-tight except when gauging or sampling is taking place (FRAQMD Regulation III, Rule 3.9).

- *Gasoline* - any petroleum distillate having a Reid Vapor pressure of 4 lb or greater (FRAQMD Regulation III, Rule 3.8).

- *Gasoline Vapors* - the organic compounds in the displaced vapors including any entrained liquid gasoline (FRAQMD Regulation III, Rule 3.8).

- *Pressure Tank* - a tank that maintains working pressure sufficient at all time to prevent hydrocarbon vapor or gas loss to the atmosphere (FRAQMD Regulation III, Rule 3.9).

- *Submerged Fill Pipe* - any fill pipe, the discharge opening of which is entirely submerged when the liquid level is 6 in. above the bottom of the container; when applied to a container which is loaded from the side, then it is any fill pipe the discharge opening of which is entirely submerged when the liquid level is 18 in. above the bottom of the container (FRAQMD Regulation III, Rule 3.8).

- *Vapor Recovery System* - consists of a vapor gathering system capable of collecting the hydrocarbon vapors and gases discharged, and a vapor disposal system capable of processing such hydrocarbon vapors and gases so as to prevent their emission to the atmosphere, with all tank gauging and sampling devices gas-tight except when gauging or sampling is taking place (FRAQMD Regulation III, Rule 3.9).

STORAGE TANK MANAGEMENT

GUIDANCE FOR FRAQMD CHECKLIST USERS

	REFER TO CHECKLIST ITEMS:	REFER TO PAGE NUMBERS:
Aboveground Storage Tanks	ST.5.1.CA.FR	10-5
Emissions/Discharges From Bulk Gasoline Terminals	ST.10.1.CA.FR and ST.10.2.CA.FR	10-7
Emissions/Discharges From POL Storage Vessels	ST.15.1.CA.FR through ST.15.6.CA.FR	10-9

COMPLIANCE CATEGORY: STORAGE TANK MANAGEMENT Feather River Air Quality Management District (FRAQMD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
ST.5. ABOVEGROUND STORAGE TANKS **ST.5.1.CA.FR.** Gasoline storage tanks with a capacity of 250 gal or more must be equipped with a permanent submerged fill pipe (FRAQMD Regulation III, Rule 3.8(a)).	Verify that any gasoline storage tank with a capacity of 250 gal or more is equipped with a permanent submerged fill pipe. (NOTE: This provision does not apply to any storage tank which is used primarily for the fueling of implements of husbandry.)

COMPLIANCE CATEGORY: STORAGE TANK MANAGEMENT Feather River Air Quality Management District (FRAQMD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
ST.10. EMISSIONS/ DISCHARGES FROM BULK GASOLINE TERMINALS	
ST.10.1.CA.FR. Gasoline loading facilities must be equipped with vapor collection and disposal systems (FRAQMD Regulation III, Rule 3.8(c)).	Verify that gasoline is not loaded into any tank truck, trailer, or railroad tank car from any loading facility having an annual throughput of 5,000,000 gal or more unless the loading facility is equipped with a vapor collection and disposal system or its equivalent approved by the APCO. Verify that loading is accomplished in a manner so that all displace vapor and air is vented only to the vapor collection system. Verify that measures are taken to prevent liquid leaks from the loading device when it is not in use, or to accomplish complete drainage before the loading device is disconnected. Verify that the vapor disposal portion of the vapor collection and disposal systems process all vapors and reduces the emission of gasoline vapors by at least 90 percent by weight of uncontrolled emissions.
ST.10.2.CA.FR. Gasoline storage containers with a capacity of more than 40,000 gal must meet specific equipment requirements (FRAQMD Regulation III, Rule 3.8(d)).	Verify that stationary tanks, reservoirs or other containers with a capacity of 40,000 gal or more are not used to store gasoline unless the container meets one of the following requirements: - the container is a pressure tank maintaining working pressures sufficient at all times to prevent gasoline vapor or gas loss to the atmosphere - the container is designed and equipped with one of the following vapor loss control devices, properly installed, in good working order, and in operation - a floating roof of an approved type - a vapor recovery system of efficiency equivalent to a floating roof if an approved type - other equipment of equal efficiency approved by the APCO.

COMPLIANCE CATEGORY: STORAGE TANK MANAGEMENT Feather River Air Quality Management District (FRAQMD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
ST.15. EMISSIONS/ DISCHARGES FROM POL STORAGE VESSELS	
ST.15.1.CA.FR. Gasoline storage and delivery vessels must be vapor tight (FRAQMD Regulation III, Rule 3.8(b)(2) and (3)).	Verify that all gasoline storage and delivery vessels are vapor tight. Verify that all delivery vessels into which gasoline vapors are required to be transferred are filled only at a loading facility that is equipped with a system that prevents at least 90 percent by weight of the gasoline vapors displaced from entering the atmosphere. (NOTE: This paragraph does not apply to owners/operators of bulk loading facilities that successfully petition the APCO for exemption for their delivery vessels; however, such exempted vessels must be loaded through a submerged fill pipe.)
ST.15.2.CA.FR. Persons transferring gasoline from delivery vessels into stationary storage tanks with a capacity of 250 gal or more must prevent the release of displaced vapors to the atmosphere (FRAQMD Regulation III, Rule 3.8(b)(1)).	Verify that persons who transfer gasoline from delivery vessels (i.e., tank truck or trailer) into any stationary storage tank with a capacity of 250 gal or more prevents at least 90 percent of the displace vapors from being released. (NOTE: This provision does not apply to: - transfer of gasoline into any stationary storage container used primarily for the fueling of implements of husbandry - transfer of gasoline into any stationary storage container in existence prior to June 1991 when such container is served by a delivery vessel exempt from this Rule - transfer of gasoline into any stationary storage container in existence prior to June 1991 which is equipped with an offset fill pipe - transfer of gasoline into any stationary storage container installed prior to June 1991 for which the total monthly throughput does not exceed 25,000 gal.)
ST.15.3.CA.FR. Petroleum storage tanks with a storage capacity of 150,000 L (39,630 gal) or greater must meet specific equipment requirements (FRAQMD Regulation III, Rule 3.9(b)).	Verify that all petroleum product storage tanks with a capacity of 150,000 L (39,630 gal) or greater of petroleum products with a true vapor pressure of 1.5 or greater are either: - a pressure tank - equipped with a vapor recovery system or a floating roof. (NOTE: Underground storage and dispensing tanks of JP-4 Jet fuel with an annual throughput volume of less than 20,000,000 gal of JP-4 are exempt from these requirements.)

COMPLIANCE CATEGORY: STORAGE TANK MANAGEMENT Feather River Air Quality Management District (FRAQMD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
ST.15.4.CA.FR. Stationary gasoline storage tanks at retail service stations must meet Phase I vapor recovery system requirements (FRAQMD Regulation III, Rule 3.12(a)).	Verify that no person transfers gasoline from a delivery vessel equipped with a vapor recovery system into a stationary storage tank at a retail service station unless the storage tank is equipped with a CARB-certified Phase I vapor recovery system. (NOTE: This requirement does not apply to: - storage tanks with a capacity of less than 1.0 m^3 (260 gal) - storage tanks used the majority of the time for the fueling of implements of animal husbandry - storage tanks used exclusively to fuel motor vehicles with a fuel capacity of less than 5 gal - transfers to a stationary storage tank at an existing retail service station which receives gasoline exclusively from delivery tanks that are not required to be equipped with vapor recovery systems.) (NOTE: Storage tanks at existing retail service stations with an annual gasoline throughput of 480,000 gal or less during the calendar year are also exempt, until such time as these storage tanks are replaced, at which time all the tanks at the retail service station (except those exempted above) must be equipped with Phase I systems.)
ST.15.5.CA.FR. Stationary gasoline storage tanks at retail service stations must be equipped with Phase II vapor recovery systems (FRAQMD Regulation III, Rule 3.12(b)).	Verify that all stationary gasoline storage tanks at retail service stations used to transfer gasoline into motor vehicles are equipped with CARB-certified Phase II vapor recovery systems. (NOTE: This requirement does not apply to: - storage tanks with a capacity of less than 1.0 m^3 (260 gal) - storage tanks used the majority of the time for the fueling of implements of animal husbandry - storage tanks used exclusively to fuel motor vehicles with a fuel capacity of less than 5 gal.) (NOTE: Storage tanks at existing retail service stations with an annual gasoline throughput of 480,000 gal or less during the calendar year are also exempt, until such time as these storage tanks are replaced, at which time all the tanks at the retail service station (except those exempted above) must be equipped with Phase II systems.)
ST.15.6.CA.FR. Owners/ operators of retail service stations must not use defective Phase II systems (FRAQMD Regulation III, Rule 3.12(c)).	Verify that defective Phase II systems or components are not used until they have been repaired, replaced or adjusted, as necessary.

INSTALLATION:	COMPLIANCE CATEGORY: STORAGE TANK MANAGEMENT FRAQMD - California Supplement	DATE:	REVIEWER(S):
STATUS NA C RMA	REVIEWER COMMENTS:		

SECTION 1

AIR EMISSIONS MANAGEMENT

Kern County Air Pollution Control District (KCAPCD) - California Supplement

SECTION 1

AIR EMISSIONS MANAGEMENT

Kern County Air Pollution Control District (KCAPCD)

California Supplement

This section covers the state requirements for Air Emissions Management and is intended to supplement the TEAM Guide. Refer to the TEAM Guide and the DOD Component Supplements for Federal, DOD, and service-specific requirements.

Kern County Air Pollution Control District (KCAPCD) formerly (i.e., before July, 1992) included both the Valley Basin and the Desert Basin. Since then, the Valley Basin has become a part of the San Joaquin Valley Unified Air Pollution Control District (SJVUAPCD). Installations/CW facilities located in the Valley Basin must comply with the requirements of the SJVUAPCD, while those located in the Desert Basin must comply with those of the KCAPCD.

KCAPCD adopts by reference provisions of Part 60, Chapter 1, Title 40, Code of Federal Regulations (40 CFR 40):

- A General Provisions
- B Adoption and Submittal of State Plans for Designated Facilities
- C Emission Guidelines and Compliance Times
- Ca Emission Guidelines and Compliance Times for Municipal Waste Combustors
- Cb Emission Guidelines and Compliance Times for Sulfuric Acid Production Units
- D Standards of Performance for Fossil-Fuel Fired Steam Generators for Which Construction Commenced After 18 September 1971
- Da Standards of Performance for Electric Utility Steam Generators for Which Construction Commenced After 18 September 1978
- Db Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units
- Dc Standards of Performance for Small Industrial-Commercial Institutional Steam Generating Units
- E Standards of Performance for Incinerators
- Ea Standard of Performance for Municipal Waste Combustors
- K Standards of Performance for Storage Vessels for Petroleum Liquids Constructed after 11 June 1973 and Prior to 19 May 1978
- Ka Standards of Performance for Storage Vessels for Petroleum Liquids for which Construction, Reconstruction, or Modification Commenced After 18 May 1978, and Prior to 23 July 1984
- Kb Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After 23 July 23 1984
- N Standards of Performance for Primary Emissions from Basic Oxygen Process Furnaces for Which Construction Commenced After 11 June 1973
- O Standards of Performance for Sewage Treatment Plants
- GG Standards of Performance for Stationary Gas Turbines
- MM Standards of Performance for Automobile and Light-Duty Truck Surface Coating Operations
- QQ Standards of Performance for the Graphic Arts Industry: Publication Rotogravure Printing

VV Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry
XX Standards of Performance for Bulk Gasoline Terminals
AAA Standards of Performance for New Residential Wood Heaters
JJJ Standards of Performance for Petroleum Dry Cleaners

KCAPCD adopts by reference provisions of Part 61, Chapter 1 of 40 CFR:

A General Provisions
C National Emission Standard for Beryllium
E National Emission Standard for Mercury
F National Emission Standard for Vinyl Chloride
J National Emission Standard for Equipment Leaks (Fugitive Emission Sources) of Benzene
M National Emission Standard for Asbestos
V National Emission Standard for Equipment Leaks (Fugitive Emission Sources)
Y National Emission Standard for Benzene Emissions from Benzene Storage Vessels
BB National Emission Standard for Benzene Transfer Operation
FF National Emission Standard for Benzene Waste Operations

Definitions

- *Active Operations* - activity capable of creating fugitive dust, including any open storage pile, earth-moving activity, construction/demolition activity, disturbed surface area, and nonemergency movement of motor vehicles on unpaved roadways and any parking lot served by an unpaved road subject to KCAPCD Regulation IV, Rule 402 (KCAPCD Regulation IV, Rule 402).

- *Aeration* - in relation to the Ethylene Oxide Sources subsection, a process during which residual ethylene oxide (EtO) dissipates, whether under forced air flow, natural or mechanically assisted convection, or any other means, from previously sterilized materials after the sterilizer cycle is complete (KCAPCD Regulation IV, Rule 430).

- *Aeration-only Facility* - in relation to the Ethylene Oxide Sources subsection, a facility aerating materials sterilized with EtO at another facility (KCAPCD Regulation IV, Rule 430).

- *Aerator* - in relation to the Ethylene Oxide Sources subsection, any equipment or space in which materials previously sterilized with EtO are placed or remain for the purpose of aeration (KCAPCD Regulation IV, Rule 430).

- *Aerator Exhaust Stream* - in relation to the Ethylene Oxide Sources subsection, all EtO-contaminated air emitted from an aerator, including the EtO-contaminated air removed from a sterilizer through a rear chamber exhaust system (KCAPCD Regulation IV, Rule 430).

- *Aerospace Vehicle* - complete aircraft, helicopter, missile, or space vehicle (KCAPCD Regulation IV, Rule 410.4).

- *Agricultural Burning* - (See also "Open Burning in Agricultural Operations") includes open outdoor fires used in any of the following ways (KCAPCD Regulation IV, Rule 417.1):
  1. in agricultural operations in the growing of crops or raising of fowl or animals
  2. in forest management

3. in range improvement
4. in improvement of land for wildlife and game habitat
5. for disease or pest prevention
6. in the operation or maintenance of a system for delivery of water for agricultural purposes.

- *Air Contaminants* - any discharge, release, or other propagation into the atmosphere, directly or indirectly, caused by man and including, but not limited to, smoke, charred paper, dust, soot, grime, carbon, noxious acids, fumes, gases, odors, or particulate matter, or any combination thereof (KCAPCD Regulation I, Rule 102).

- *Air Dried* - curing or drying a coating by heating the coated object above ambient temperature, but below a maximum of 90 °C (194 °F) (KCAPCD Regulation IV, Rule 410.4).

- *Air Flotation Unit* - equipment used to remove suspended matter, both oil and solid, from water by dissolving air under pressure and then releasing the air at atmospheric pressure in a tank or basin (KCAPCD Regulation IV, Rule 414).

- *Air Pollution Control Officer (APCO)* - See "Control Officer".

- *Ampere-Hours* - the integral of electrical current applied to a plating tank (KCAPCD Regulation IV, Rule 429).

- *Annual Heat Input* - total heat released (therms) by fuel(s) burned in a unit during a calendar year as determined from higher heating value and cumulative annual fuel(s) usage (KCAPCD Regulation IV, Rule 425.2).

- *Anti-Mist Additive* - a chemical which when added to and maintained in a plating tank, reduces the emission rate from the tank (KCAPCD Regulation IV, Rule 429).

- *Antiglare Coating* - a coating not reflecting light (KCAPCD Regulation IV, Rule 410.4A).

- *APCO* - Air Pollution Control Officer. See "Control Officer".

- *Approved Ignition Devices* - those instruments or materials that will ignite agricultural waste without the production of black smoke by the ignition device, including items like liquid petroleum gas, butane, propane, or diesel oil burners and flares, but does not include the use of tires, tar paper, oil, and other similar materials (KCAPCD Regulation IV, Rule 417.1).

- *Architectural Coatings* - coating applied to stationary structures and their appurtenances, to mobile homes, to pavements, or to curbs (KCAPCD Regulation IV, Rule 410.1).

- *Asphalt* - a dark-brown to black refined liquid or solid cementitious material of which the main constituents are bitumens suitable for use in the manufacture of paving materials or dust palliatives (KCAPCD Regulation IV, Rule 410.5).

- *Atmosphere* - the air that envelopes or surrounds the earth. Air pollutants emitted into a building, not designed specifically as a piece of air pollution control equipment, is considered an emission into the atmosphere (KCAPCD Regulation I, Rule 102).

- *Baked* - curing or drying a coating by heating the coated object above ambient temperature to a temperature at, or above, 90 °C (194 °F) (KCAPCD Regulation IV, Rule 410.4).

- *Basecoat/Clearcoat System* - a topcoat system composed of a pigmented basecoat followed by transparent clearcoat (KCAPCD Regulation IV, Rule 410.4A).

- *Belowground Wood Preservatives* - coatings formulated to protect belowground wood from decay or insect attack and which contain a wood preservative chemical registered by the California Department of Food and Agriculture (KCAPCD Regulation IV, Rule 410.1).

- *Bituminous Coatings* - black or brownish coating materials which are soluble in carbon disulfide, which consist mainly of hydrocarbons, and which are obtained from natural deposits or from residues from the distillation of crude oils or of low grades of coal (KCAPCD Regulation IV, Rule 410.1).

- *Board* -
    1. with reference to the requirements of the Agricultural Burning section, the California Air Resources Board (CARB)
    2. in all other usages, the Air Pollution Control Board of the Kern County Air Pollution Control District (KCAPCD Regulation I, Rule 102).

- *Boiler* or *Steam Generator* - any external combustion unit fired with liquid and/or gaseous fuel used to produce hot water or steam, but not including gas turbine engine exhaust gas heat recovery systems (KCAPCD Regulation IV, Rule 425.2).

- *Bond Breakers* - coatings applied between layers of concrete to prevent the freshly poured top layer of concrete from bonding to the layer over which it is poured (KCAPCD Regulation IV, Rule 410.1).

- *Breakdown Condition* - an unforeseeable failure or malfunction of either (KCAPCD Regulation I, Rule 111):
    1. any air pollution control equipment, or related operating equipment, which causes a violation of any emission limitation or restriction
    2. any in-stack continuous monitoring equipment, where such failure or malfunction satisfies all of the following conditions:
        a. is not the result of neglect or disregard of any air pollution control law, rule, or regulation
        b. is not intentional or the result of negligence
        c. is not the result of improper maintenance
        d. does not constitute a nuisance
        e. is not a recurrent breakdown of the same equipment.

- *Brush Coating* - manually applying a coating to parts or products using a brush or roller (KCAPCD Regulation IV, Rule 410.4).

- *Brush Treated* - refers to material that, prior to being burned, has been felled, crushed, or uprooted with mechanical equipment, or has been desiccated with herbicides, or is dead (KCAPCD Regulation IV, Rule 417.1).

- *Btu* - British thermal unit.

- *Bulk Material* - sand, gravel, soil, aggregate, and any other organic or inorganic solid matter capable of releasing dust (KCAPCD Regulation IV, Rule 402).

- *Burn Days* - See "No-Burn Day" or "Permissive-Burn Day".

- *Camouflage Coating* - coating applied on military equipment intended to conceal such equipment from detection (KCAPCD Regulation IV, Rule 410.4).

- *CARB* - California Air Resources Board.

- *Cartridge Filter* - a discrete filter unit that traps and removes contaminants from dry cleaning solvents, together with the piping and ductwork used in the installation of this device (KCAPCD Regulation IV, Rule 410.6A).

- *Chrome* - metallic chrome (KCAPCD Regulation IV, Rule 429).

- *Chrome Plating* - either hard or decorative chrome plating (KCAPCD Regulation IV, Rule 429).

- *Chromic Acid* - an aqueous solution of chromium trioxide (CrO_3) or a commercial solution containing chromic acid, dichromic acid (H_2CrO_7) or trichromic acid ($H_2Cr_3O_{10}$) (KCAPCD Regulation IV, Rule 429).

- *Chromic Acid Anodizing* - the electrolytic process by which a metal surface is converted to an oxide surface coating in a solution containing chromic acid (KCAPCD Regulation IV, Rule 429).

- *Chromium* - hexavalent chromium (KCAPCD Regulation IV, Rule 429).

- *Clear Wood Finishes* - clear and semi-transparent coatings, including lacquers and varnishes, applied to wood substrates to provide a transparent or translucent solid film (KCAPCD Regulation IV, Rule 410.1).

- *Coating* - with reference to the requirements of the Printing Presses and Graphic Arts section, the application of a uniform layer of material across the entire width of a substrate; those machines that have both coating and printing units are considered as performing a printing operation. With reference to the requirements of the Coating Operations--Metal Parts and Products section, material applied to a metal part or product and intended to provide decorative or protective properties (KCAPCD Regulation IV, Rule 410.4).

- *Cogeneration Gas Turbine Engine* - an internal combustion gas or liquid-fueled device consisting of compressor, combustor, and power turbine used to power an electrical generator and generate steam (or useful heat) (KCAPCD Regulation IV, Rule 425).

- *Coils* - metal sheets or strips rolled into coils for further industrial or commercial use (KCAPCD Regulation IV, Rule 410.4).

- *Cold Cleaner* - any batch loaded, nonboiling solvent degreaser (KCAPCD Regulation IV, Rule 410.3).

- *Color Match* - ability of a repair coating to blend into an existing coating so color differences are not visible (KCAPCD Regulation IV, Rule 410.4A).

- *Combustible Refuse* - any solid or liquid combustible waste material containing carbon in a free or combined state (KCAPCD Regulation I, Rule 102).

- *Combustion Contaminant* - particulate matter discharged into the atmosphere from the burning of any kind of material containing carbon in a free or combined state (KCAPCD Regulation I, Rule 102).

- *Concrete Curing Compounds* - coatings applied to freshly poured concrete to retard the evaporation of water (KCAPCD Regulation IV, Rule 410.1).

- *Construction and Demolition Activity* - any onsite mechanical activity preparatory to or related to building, alteration, rehabilitation, demolition or improvement of property, including the following activities: grading, excavation, loading, crushing, cutting, planing, shaping, or groundbreaking (KCAPCD Regulation IV, Rule 402).

- *Contingency Measure* - additional PM_{10} control requirements automatically triggered in the event of lack of Reasonable Further Progress to attain or failure to attain or maintain the National Ambient Air Quality Standards for PM_{10} (KCAPCD Regulation IV, Rule 402).

- *Control Device* - equipment such as an incinerator or adsorber, or cooler/condenser filtration used to prevent air pollutants from being emitted into the atmosphere (KCAPCD Regulation IV, Rule 410.7).

- *Control Equipment* - any device which reduces emissions collected by the emissions collection system (KCAPCD Regulation IV, Rule 429).

- *Control Officer* - the Air Pollution Control Officer of the Air Pollution Control District of Kern County (KCAPCD Regulation I, Rule 102).

- *Conveyorized Degreaser* - any continuously loaded, conveyorized solvent degreaser, either boiling or nonboiling (KCAPCD Regulation IV, Rule 410.3).

- *Cooling Tower* - a device evaporating circulating water to remove heat from a process, a building, refrigerator, etc. transferring the heat to atmosphere (KCAPCD Regulation IV, Rule 429.1).

- *Cutback Asphalt* - paving grade asphalts liquefied with petroleum distillate and further defined by the American Society for Testing and Materials (ASTM) specifications as follows (KCAPCD Regulation IV, Rule 410.5):
    1. rapid cure type (ASTM D2028-76, Reapproved 1981)
    2. medium cure type (ASTM D2027-76, Reapproved 1981).

- *Cyclicly-Loaded Engine* - any engine experiencing under normal operation conditions variation in shaft load by 40 percent or more of rated bhp during recurrent periods of 30 s or less (KCAPCD Regulation IV, Rule 427).

- *Decorative Chrome Plating* - the process by which chromium is electrodeposited from a solution containing compound of chromium onto an object resulting in a chrome layer 1 micron (0.04 mil) thick or less (KCAPCD Regulation IV, Rule 429).

- *Degreaser* - a tank, tray, drum, or other container in which objects to be cleaned are exposed to a degreasing solvent or degreasing solvent vapor (KCAPCD Regulation IV, Rule 410.3).

- *Dioxins* - dibenzo-p-dioxins and dibenzofurans chlorinated in the 2,3, 7, and 8 positions and containing 4,5,6, or 7 chlorine atoms and expressed as 2,3,7,8, tetrachlorinated dibenzo-para-dioxin equivalents

using current State Office of Environmental Health Hazard Assessment toxic equivalency factors (KCAPCD Regulation IV, Rule 418.1).

- *District* - means the Kern County Air Pollution Control District (KCAPCD Regulation I, Rule 102).
- *Disturbed Surface Area* - portion of the earth's surface having been physically moved, uncovered, destabilized, or otherwise modified from its undisturbed natural condition, thereby increasing the potential for emission of fugitive dust. Disturbed surface area does not include areas restored to a natural state with vegetative ground cover and soil characteristics similar to adjacent or nearby natural conditions (KCAPCD Regulation IV, Rule 402).

- *Doctor Blade* - a steel blade used to scrape excess ink from a printing plate or inking cylinder (KCAPCD Regulation IV, Rule 410.7).

- *Dry Low-NO_x Combustor* - any gas turbine engine combustor using staging, air/fuel premixing, or other design features to reduce NO_x emissions (KCAPCD Regulation IV, Rule 425).

- *Dry-to-Dry Systems* - dry cleaning equipment that combines the functions of cleaning and drying in one unit and where articles to be cleaned are placed in the equipment and not removed until the drying cycle is complete (KCAPCD Regulation IV, Rule 410.6).

- *Dryer* - a machine used in dry cleaning operations to remove solvents from articles of clothing or other textile or leather goods, after washing and removing of excess solvent, together with the piping and ductwork used in the installation of this device (KCAPCD Regulation IV, Rule 410.6A).

- *Dust Palliative* - any light application of cutback asphalt, slow cure asphalt or emulsified asphalt for the express purpose of controlling loose dust (KCAPCD Regulation IV, Rule 410.5).

- *Dust Suppressant* - water, hygroscopic materials, or nontoxic chemical stabilizers used as treatment to reduce fugitive dust emissions. A suppressant is not used if prohibited by the Regional water Quality Control board, the CARB, the state EPA, or any other applicable law, rule, or regulation. All suppressants meet all specifications, criteria, or tests required by any federal, state, or local water agency. The use of dust suppressants are of sufficient concentration and application frequency to maintain a stabilized surface (KCAPCD Regulation IV, Rule 402).

- *Dusts* - minute, solid particles released in the air by natural forces or by mechanical processes such as crushing, grinding, milling, drilling, demolishing, shoveling, conveying, covering, bagging, sweeping, or other similar processes (KCAPCD Regulation I, Rule 102).

- *Earth-Moving Activity* - grading, earth cutting and filling, loading or unloading of dirt or bulk material, adding to or removing from open storage piles of bulk material, landfilling, or soil mulching (KCAPCD Regulation IV, Rule 402).

- *Electrodeposition* - applying an electrically-charged dip coating onto an object to be coated (KCAPCD Regulation IV, Rule 410.4).

- *Electrostatic Application* - spraying an electrically-charged coating onto an object (KCAPCD Regulation IV, Rule 410.4).

- *Emergency Standby Engine* - any engine used as a temporary replacement for primary mechanical or electrical power sources during periods of fuel or energy shortage or while primary power source is under repair (KCAPCD Regulation IV, Rule 427).

- *Emission* - the act of passing into the atmosphere an air contaminant or gas stream which contains an air contaminant, or the air contaminant so passed into the atmosphere (KCAPCD Regulation I, Rule 102).
- *Emission Point* - the place at which an emission enters the atmosphere (KCAPCD Regulation I, Rule 102).

- *Emulsified Asphalt* - any asphalt liquefied with water containing an emulsifier; the types most commonly used are anionic and cationic types (KCAPCD Regulation IV, Rule 410.5).

- *Enamel Undercoaters* - coatings which are designed to be applied to a new surface over a primer or over a previous coat of paint in order to improve the seal, provide better adhesion, and make a smooth base for nonflat coatings (KCAPCD Regulation IV, Rule 410.1).

- *Ethylene Oxide Sterilization Chamber* - a chamber using ethylene oxide, or a combination of ethylene oxide and CFC-12 or other diluents, to destroy bacteria and viruses on medical products, food products, containers, or other materials (KCAPCD Regulation IV, Rule 430).

- *Exempt Compounds* - the following compounds are excluded from the definition of Volatile Organic Compounds (VOC) (KCAPCD Regulation I, Rule 102):
    1. Acetone
    2. Methane
    3. CO
    4. CO_2
    5. Carbonic acid
    6. Ethane
    7. Metallic carbides or carbonates
    8. Ammonium carbonates
    9. Methylene chloride (dichloromethane)
    10. Methyl chloroform (1,1,1-trichloroethane)
    11. CFC-113 (1,1,2-trichloro-1,2,2-trifluoroethane)
    12. CFC-11 (trichlorofluoromethane)
    13. CFC-114 (1,2-dichloro 1,1,2,2-tetrafluoroethane)
    14. CFC-115 (chloropentafluoroethane)
    15. HCFC-12 (dichlorodifluoromethane)
    16. HCFC-123 (1,1,1-trifluoro 2,2-dichloroethane)
    17. HCFC-124 (2-chloro 1,1,1,2-tetrafluoroethane)
    18. HCFC-141b (1,1-dichloro 1-fluoroethane)
    19. HCFC-142b (1-chloro 1,1-difluoroethane)
    20. HCFC-22 (chlorodifluoromethane)
    21. HFC-23 (trifluoromethane)
    22. HFC-125 (pentafluoroethane)
    23. HFC-134 (1,1,2,2-tetrafluoroethane)
    24. HFC-134a (1,1,1,2-tetrafluoroethane)
    25. HFC-143a (1,1,1-trifluoroethane)
    26. HFC-152a (1,1-difluoroethane)
    27. PCBTF (parachlorobenzotrifluoride)
    28. Cyclic, branched, or linear completely methylated siloxanes (VMS)

29. Perfluorocarbon compounds which fall into these classes:
    a. cyclic, branched, or linear, completely fluorinated alkanes
    b. cyclic, branched, or linear, completely fluorinated alkanes
    c. cyclic, branched, or linear, completely fluorinated tertiary amines with no unsaturations
    d. sulfur containing perfluorocarbons with no unsaturations and with sulfur bonds only to carbon and fluorine.

Perfluorocarbon and methylated siloxane compounds are assumed to be absent from a product or process unless a manufacturer or facility operator identifies the specific individual compounds (from the broad classes of perfluorocarbon and methylated siloxane compounds) and the amounts present in the product or process and identifies a validated test method which can be used to quantify the specific compounds (KCAPCD Regulation I, Rule 102).

- *Extreme Performance Coating* - a coating used on surface of metal parts or products, intended, during use, to be exposed to any of the following (KCAPCD Regulation IV, Rule 410.4):
    a. industrial grade detergents, cleaners, or abrasive scouring agents
    b. unprotected shipboard conditions
    c. corrosive environmental conditions.

- *Federally-Enforceable* - all limitations and conditions which are directly enforceable by USEPA, including (KCAPCD Regulation II, Rule 201.2):
    1. District requirements developed pursuant to 40 CFR Parts 60 (NSPS), 61 (NESHAP), 63 (NESHAP), 70 (Title V Operating Permit Program), and 72 (Permits Regulation, Acid Rain)
    2. requirements contained in the California State Implementation Plan (SIP) that are applicable to the District
    3. District permit requirements established pursuant to 40 CFR Part 52.21 (PSD) or District permit requirements established pursuant to 40 CFR Part 51, Subpart 1 (NSR) and approved by USEPA into the SIP.

- *Fire Retardant Coatings* - coatings which have a flame spread index of less than 25 when tested in accordance with ASTM Designation E-84-87 (Standard Test Method for Surface Burning Characteristics of Building Material) after application to Douglas fir according to the manufacturer's recommendations (KCAPCD Regulation IV, Rule 410.1).

- *Flexographic Printing* - the application of words, designs, or pictures to a substrate by means of a roll printing technique in which the pattern is applied to an image carrier made of rubber or other elastomeric materials. As compared to gravure (intaglio) printing, the image to be printed via flexography is raised above the carrier surface, while in the gravure process the image to be printed is sunk below the surface (KCAPCD Regulation IV, Rule 410.7).

- *Flue* - any duct or passage for air, gases, or the like, such as a stack or chimney (KCAPCD Regulation I, Rule 102).

- *Forest Management Burning* - the use of open fires, as part of a forest management practice, to remove forest debris (KCAPCD Regulation IV, Rule 417.1).

- *Form-Release Compounds* - coatings applied to a concrete form to prevent the freshly poured concrete from bonding to the form. The form may consist of wood, metal, or some material other than concrete (KCAPCD Regulation IV, Rule 410.1).

- *Fountain Solution* - solution composed mainly of water, gum arabic, and other additives which is applied to the lithographic plate to maintain the hydrophilic properties of the nonimage areas (KCAPCD Regulation IV, Rule 410.7).

- *Freeboard Height* -
  1. for a cold cleaning degreaser: the distance from the top of the solvent or solvent drain to the top of the degreaser, based on inside tank dimensions
  2. for a remote reservoir degreaser: the distance from the solvent drain to the top of the degreaser, based on inside dimensions
  3. for a vapor degreasing tank: the distance from the solvent air-vapor interface to the top of the basic degreaser tank, based on inside tank dimensions (KCAPCD Regulation IV, Rule 410.3).

- *Freeboard Ratio* - the freeboard height divided by the smaller of the length or the width of the degreaser (KCAPCD Regulation IV, Rule 410.3).

- *Fuel Burning Equipment* - any furnace, boiler, apparatus, stack and all appurtenances thereto, used in the process of burning fuel for the primary purpose of producing heat or power by indirect heat transfer (KCAPCD Regulation IV, Rule 409).

- *Fuel Burning Unit* - the minimum number of fuel burning equipment, the simultaneous operations of which are required for the production of useful heat or power (KCAPCD Regulation IV, Rule 409).

- *Fugitive Emissions* - emissions which could not reasonably pass through a stack, chimney, vent, or other functionally-equivalent opening (KCAPCD Regulation II, Rule 201.2).

- *Fumes* - minute, solid particles generated by the condensation of vapors from solid matter after volatilization from a molten state, or generated by sublimation, distillation, calcination, or chemical reaction, when these processes create air-borne particles (KCAPCD Regulation I, Rule 102).

- *Gas-Fired* - using gaseous fuel as normal (not standby) fuel (KCAPCD Regulation IV, Rule 425).

- *Gaseous Fuel* - any fuel existing as gas at standard conditions (KCAPCD Regulation IV, Rule 425.2).

- *Grams of Volatile Organic Compound (VOC) per Liter of Coating Applied, Excluding Water and Exempt Compounds* - weight of VOC per combined volume of VOC and coating solids calculated by the following equation (KCAPCD Regulation IV, Rule 410.4):

$$\text{Grams of VOC per liter of Coating Applied, excluding water and exempt compounds} = \frac{Ws - Ww - Wec}{Vc - Vw - Vec}$$

Where: Ws = weight of volatile compounds in grams
Ww = weight of water in grams
Wec = weight of exempt compounds in grams
Vc = volume of coating as applied in liters
Vw = volume of water in liters
Vec = volume of exempt compounds in liters

- *Grams of VOC per Liter of Material* - weight of VOC per volume of material calculated by the following equation (KCAPCD Regulation IV, Rule 410.4):

$$\text{Grams of VOC per liter of Material} = \frac{Ws - Ww - Wec}{Vm}$$

Where: Ws = weight of volatile compounds in grams
Ww = weight of water in grams
Wec = weight of exempt compounds in grams
Vm = volume of material in liters

- *Graphic Arts Coatings (Sign Paints)* - coatings formulated for and hand-applied by artists using brush or roller techniques to indoor and outdoor signs (excluding structural components) and murals, including lettering enamels, poster colors, copy blockers, and bulletin enamels (KCAPCD Regulation IV, Rule 410.1).

- *Gravure Printing* - an intaglio printing operation in which the ink is transferred from minute etched wells on a cylinder to the substrate which is supported by an impression roller with excess ink removed from the cylinder by a doctor blade (KCAPCD Regulation IV, Rule 410.7).

- *Group I Vehicles* - passenger car, light and medium duty truck or van, large/heavy duty truck cab and chassis, or motorcycle (KCAPCD Regulation IV, Rule 410.4A).

- *Group II Vehicles* - bus (KCAPCD Regulation IV, Rule 410.4A).

- *Hard Chrome Plating* - the process by which chromium is electroplated from a solution containing compounds of chromium onto an object resulting in a chrome layer thicker than 1 micron (0.04 mil) (KCAPCD Regulation IV, Rule 429).

- *Hazardous Air Pollutants* - any air pollutant listed pursuant to Section 112(b) (42 U.S. Code (USC) Section 7412(b)) of the Federal Clean Air Act (KCAPCD Regulation II, Rule 201.2).

- *Heat Input* - total heat released (Btu's) by fuel(s) burned in a unit as determined from higher heating value, not including sensible heat of incoming combustion air and fuel(s) (KCAPCD Regulation IV, Rule 425.2).

- *Heat Resistant Coating* - coating designed during normal use to withstand temperatures of at least 204 °C (400 °F) (KCAPCD Regulation IV, Rule 410.4).

- *Hexavalent Chromium/Chromate* - a metallic substance existing as part of various inorganic chromate compounds, for example, sodium dichromate or lead chromate (KCAPCD Regulation IV, Rule 429.1).

- *High Gloss Coating* - coating achieving at least 85 percent reflectance on a 60° meter when tested by ASTM Method D-523/89 (KCAPCD Regulation IV, Rule 410.4).

- *High Performance Architectural Coating* - a coating used to protect architectural subsections meeting the requirements of the Architectural Aluminum Manufacturers Association (AAMA) publication number AAMA 605.2-1980 (KCAPCD Regulation IV, Rule 410.4).

- *High Temperature Coating* - coating designed during normal use to withstand temperatures of at least 538 °C (1000 °F) (KCAPCD Regulation IV, Rule 410.4).

- *High Volume, Low Pressure (HVLP) Spray* - applying a coating using a gun operating between 0.1 and 10.0 psig [0.69 and 68.95 kPa] and with liquid supply pressure less than 50 psig [344.75 kPa] (KCAPCD Regulation IV, Rule 410.4A).

- *High-Temperature Industrial Maintenance Coatings* - industrial maintenance coatings formulated for and applied to substrates exposed continuously or intermittently to temperatures above 400 °F [204.44 °C] (KCAPCD Regulation IV, Rule 410.1).

- *Higher Heating Value (HHV)* - total heat released per mass of fuel burned (Btu/lb), when fuel and dry air at standard conditions undergo complete combustion and all resulting products are brought to standard conditions (KCAPCD Regulation IV, Rule 425.2).

- *Hospital Sterilizer* - a sterilizer located at a hospital, medical clinic, dental clinic, veterinary clinic, or any other type of medical facility (KCAPCD Regulation IV, Rule 430).

- *Inactive Disturbed Surface Area* - any disturbed surface area upon which an active operation has not occurred for a period of at least ten consecutive days (KCAPCD Regulation IV, Rule 402).

- *Industrial Maintenance Anti-Graffiti Coatings* - two-component clear industrial maintenance coatings formulated for application to exterior walls and murals to resist repeated scrubbing and exposure to harsh solvents (KCAPCD Regulation IV, Rule 410.1).

- *Industrial Maintenance Coatings* - high performance coatings formulated for and applied to substrates which are exposed to one or more of the following extreme environmental conditions (KCAPCD Regulation IV, Rule 410.1):
    1. immersion in water, wastewater, or chemical solutions (aqueous or nonaqueous), or chronic exposure of interior surfaces to moisture condensation
    2. acute or chronic exposure to corrosive, caustic, or acidic agents, or to chemicals, chemical fumes, or chemical mixture solutions
    3. repeated exposure to temperatures in excess of 250 °F [121 °C]
    4. repeated heavy abrasion, including mechanical wear and repeated scrubbing with industrial solvents, cleansers, or scouring agents
    5. exterior exposure of metal structures.

- *Installation* - placement, assemblage, or construction of equipment or control apparatus at the premises where the equipment or control apparatus will be used, including all preparatory work at such premises (KCAPCD Regulation I, Rule 102).

- *Institutional Facility* - any hospital, boarding, home, school, corporation yard, or like facility (KCAPCD Regulation I, Rule 102).

- *Intaglio Printing* - printing done from a plate or cylinder in which the image is sunk below (etched or engraved into) the surface (KCAPCD Regulation IV, Rule 410.7).

- *KCAPCD* - Kern County Air Pollution Control District.

- *Lacquers* - clear wood finishes or pigmented coatings formulated with nitrocellulose or synthetic resins to dry by evaporation without chemical reaction, including clear lacquer sanding sealers (KCAPCD Regulation IV, Rule 410.1).

- *Large/Heavy Duty Truck* - a truck having a manufacturer's gross vehicle weight (GVW) rating of over 10,000 lb [4535.92 kg] (KCAPCD Regulation IV, Rule 410.4A).

- *Large Operation* - any active operation, excluding vehicle movement on roadways, on property involving in excess of 100 acres of disturbed surface area, or any earth-moving activity exceeding a daily volume of 7700 m^3 (10,000 yd^3) three times during the most recent 365-day period (KCAPCD Regulation IV, Rule 402).

- *Leak* - with reference to the requirements of the Dry Cleaning Operations section, the dripping of liquid perchloroethylene or petroleum dry cleaning solvent at a rate of more than 3 drops/min from equipment in organic service, or an emission of perchloroethylene or petroleum solvent that causes a portable hydrocarbon detection instrument to register at least 10,000 ppm as methane, as determined by USEPA Method 21 (see also "Gas Leak") (KCAPCD Regulation IV, Rule 410.6).

- *Lean-Burn Engine* - any spark-ignited, Otto cycle or two stroke engine fueled with gaseous or liquid fuel and operated with an exhaust gas oxygen concentration of 4 percent by volume, or greater (KCAPCD Regulation IV, Rule 427).

- *Letterpress Printing* - a method where the image area is raised relative to the nonimage area and the ink is transferred to the paper directly from the image (KCAPCD Regulation IV, Rule 410.7).

- *LHV* - lower heating value of fuel (KCAPCD Regulation IV, Rule 425).

- *Light and Medium Duty Truck or Van* - any truck or van having a manufacturer's GVW rating of 10,000 lb [4535.92 kg] or less (KCAPCD Regulation IV, Rule 410.4A).

- *Light Duty Truck* - truck having a manufacturer's maximum GVW rating of under 6001 lb [2722 kg] (KCAPCD Regulation IV, Rule 410.4).

- *Line* - the minimum equipment which is required for the application and/or drying of inks and/or curing of ultraviolet coatings of inks, or coatings on a substrate, including ink and/or coating applicators and drying systems, and associated ink and coating agitation and delivery systems (KCAPCD Regulation IV, Rule 410.7).

- *Liquid Fuel* - any fuel, including distillate and residual oil, existing as liquid at standard conditions (KCAPCD Regulation IV, Rule 425.2).

- *Loading Facility* - see "Organic Liquid Loading Facility".

- *Loading Rack* - any aggregate or combination of organic liquid loading equipment from the connection at the inlet of the organic liquid pump to and including the hose and connector at the portable delivery tank (KCAPCD Regulation I, Rule 102).

- *Low Volatility Solvent* - any solvent with an initial boiling point greater than 120 °C (248 °F) and with a temperature, as used, at least 100 °C (180 °F) below the initial boiling point (KCAPCD Regulation IV, Rule 410.3).

- *Magnesite Cement Coatings* - coatings formulated for and applied to magnesite cement decking to protect the magnesite cement substrate from erosion by water (KCAPCD Regulation IV, Rule 410.1).

- *Major Stationary Source of Hazardous Air Pollutants* - a stationary source that emits or has the potential to emit quantities equal to or exceeding the lesser of the following thresholds:
  1. 10 tons per calendar year or more of a single HAP listed in Section 112(b) of the Federal Clean Air Act
  2. 25 tons per calendar year or more of any combination of HAPs
  3. any such lesser quantity as the USEPA may establish by rule.

  Fugitive emissions of HAP's are considered in calculating emissions for stationary sources. The definition of a major stationary source of radionuclides are specified by rule by the USEPA (KCAPCD Regulation II, Rule 201.2).

- *Major Stationary Source of Regulated Air Pollutants* - a stationary source that emits or has the potential to emit a regulated air pollutant in quantities equal to or exceeding the lesser of any of the following thresholds:
  a. 100 tons per calendar year of any regulated air pollutant
  2. 50 tons per calendar year of VOCs or oxides of nitrogen.

  Fugitive emissions of these pollutants are considered in calculating total emissions for stationary sources in accordance with 40 CFR Part 70.2) (KCAPCD Regulation II, Rule 201.2).

- *Major Stationary Source Threshold* - the potential to emit a regulated air pollutant in the amounts specified under "Major Stationary Source of Regulated Air Pollutants" and "Major Stationary Source of Hazardous Air Pollutants" (KCAPCD Regulation II, Rule 201.2).

- *Makeup Solvent* - solvent which is added to the degreaser operation to replace solvent lost through evaporation, carryout, splashing, leakage, or disposal (KCAPCD Regulation IV, Rule 410.3).

- *Marine Vessel* - tugboat, tanker, freighter, passenger ship, barge, or other boat, ship, or watercraft, including both salt water and fresh water vessels (KCAPCD Regulation IV, Rule 410.4).

- *Mastic Texture Coatings* - coatings formulated to cover holes and minor cracks and to conceal surface irregularities, and applied in a thickness of at least 10 mils (dry, single coat) (KCAPCD Regulation IV, Rule 410.1).

- *Medical Facilities* - medical and dental offices, clinics and hospitals, skilled nursing facilities, research laboratories, clinical laboratories, all unlicensed and licensed medical facilities, clinics and hospitals, surgery centers, diagnostic laboratories, and other providers of health care (KCAPCD Regulation IV, Rule 418.1).

- *Medical Waste Incinerators* - any device located at a facility and used to dispose of waste generated at a medical facility by burning (KCAPCD Regulation IV, Rule 418.1).

- *Metal Parts or Products* - components or complete units fabricated from metal, except those subject to coating requirements of other source-specific rules (KCAPCD Regulation IV, Rule 410.4).

- *Metallic Iridescent Topcoat* - coating as applied containing more than 5 g/L (0.042 lb/gal) of visible metal or iridescent particles (KCAPCD Regulation IV, Rule 410.4).

- *Metallic Pigmented Coatings* - coatings containing at least 0.4 lb [0.18 kg] of metallic pigment per gal of coating as applied (KCAPCD Regulation IV, Rule 410.1).

- *Mobile Equipment* - equipment drawn or capable of being driven on a roadway, including but not limited to: truck body, truck trailer, utility body, camper shell, mobile crane, bulldozer, street cleaner, golf cart, military tank or other tracked military vehicle (KCAPCD Regulation IV, Rule 410.4A).
- *Modification* - any physical or operational change at a stationary source of facility which necessitates a revision of any federally-enforceable condition, established pursuant to this Rule or by any other mechanism, that enables a source to be a synthetic minor source (KCAPCD Regulation II, Rule 201.2).

- *Motor Vehicles* - any engine-powered device used to convey people, or freight and registered for use on public highways (KCAPCD Regulation IV, Rule 402).

- *Multi-Colored Coatings* - coatings which exhibit more than one color when applied and which are packaged in a single container and applied in a single coat (KCAPCD Regulation IV, Rule 410.1).

- *Multiple-Chamber Incinerator* - any article, machine, equipment, contrivance, structure or part of a structure used to dispose of combustible refuse by burning, consisting of three or more refractory-lined combustion furnaces in series, physically separated by refractory walls, interconnected by gas passage ports or ducts and employing adequate design parameters necessary for maximum combustion of the material to be burned. The refractories have a Pyrometric Cone equivalent of at least 17, tested according to the method described in the American Society for Testing Materials, Method C-24 (KCAPCD Regulation I, Rule 102).

- *Multistage Topcoat* - topcoat system consisting of basecoat/clearcoat system (two-stage) or basecoat/midcoat/clearcoat system (three-stage) (KCAPCD Regulation IV, Rule 410.4A).

- *Natural Gas Curtailment* - loss of natural gas supply due to action of PUC-regulated supplier. For the curtailment limit to apply, curtailment must not exceed 168 cumulative hours of operation per calendar year, excluding equipment testing not to exceed 48 h per calendar year (KCAPCD Regulation IV, Rule 425.2).

- *No-Burn Day* - any day on which the Board or a District prohibits agricultural burning (KCAPCD Regulation IV, Rule 417.1).

- *Nonroutine* - nonperiodic active operation occurring no more than three times per year, lasting less than 30 cumulative days per year, and scheduled less than 30 days in advance (KCAPCD Regulation IV, Rule 402).

- *Oil-Fired* - using liquid fuel as normal (not standby) fuel (KCAPCD Regulation IV, Rule 425).

- *Opaque Stains* - all stains that are not classified as semi-transparent stains (KCAPCD Regulation IV, Rule 410.1).

- *Opaque Wood Preservatives* - all wood preservatives not classified as clear or semi-transparent wood preservatives or as belowground wood preservatives (KCAPCD Regulation IV, Rule 410.1).

- *Open Burning in Agricultural Operations* - (See also "Agricultural Burning") includes all of the following (KCAPCD Regulation IV, Rule 417.1):
    1. the burning in the open of materials produced wholly from operations in the growing and harvesting of crops or raising of fowl or animals for the primary purpose of making a profit, or providing of livelihood, or of conducting agricultural research or instruction by an educational institution
    2. the burning of fence rows and ditch banks for weed control or abatement
    3. the burning of material not produced wholly from these operations, but which are intimately related to the growing or harvesting of crops and which are used in the field, such as fertilizer and pesticide sacks or containers, where the sacks or containers are emptied and burned in the field.

- *Open Outdoor Fire* - combustion of any combustible refuse or other material of any type outdoors in the open air, and not in any enclosure where the products of combustion are not directed through a flue (KCAPCD Regulation I, Rule 102).

- *Open Storage Pile* - any accumulation of bulk material with 5 percent or greater silt content not fully enclosed, covered, or chemically stabilized, and attaining a height of 3 ft or more and a total surface area of at least 500 ft^2. Silt content level is assumed to be 5 percent or greater unless a person shows, by sampling and analysis in accordance with ASTM Method C-136, the silt content is less, Results of ASTM Method C-136 are valid for 60 days from the date the sample was taken (KCAPCD Regulation IV, Rule 402).

- *Open-Top Vapor Degreaser* - any batch loaded, boiling solvent degreaser (KCAPCD Regulation IV, Rule 410.3).

- *Operation* - any physical action resulting in a change in the location, form, or physical properties of a materia, or any chemical action resulting in a change in the chemical composition or the chemical or physical properties of a material (KCAPCD Regulation I, Rule 102).

- *Packaging Gravure* - gravure printing on paper, paperboard, foil, film, or other substrates which are to be used to produce containers or packages (KCAPCD Regulation IV, Rule 410.7).

- *Particulate Matter* - any material, except uncombined water, which exists in a finely divided form as a liquid or solid at standard conditions (KCAPCD Regulation I, Rule 102).

- *Paving and Maintenance Operations* - all activities involved in the new construction and maintenance of roadways and parking areas (KCAPCD Regulation IV, Rule 410.5).

- *Penetrating Prime Coat* - any application of asphalt to an adsorptive surface to penetrate and bind the aggregate surface and promote adhesion between it and the new superimposed construction, but not including dust palliative or tack coats (KCAPCD Regulation IV, Rule 410.5).

- *Perchloroethylene Dry Cleaning Facility* - any facility engaged in the cleaning of fabrics or leather using one or more waxes in perchloroethylene solvent, extracting excess solvent by spinning, and drying by tumbling in an airstream; such a facility includes, but is not limited to, washers, dryers, filters, purification systems, waste disposal systems, holding tanks, pumps, and attendant piping and valves (KCAPCD Regulation IV, Rule 410.6).

- *Permissive-Burn Day* - any day on which agricultural burning is not prohibited by the Board (KCAPCD Regulation IV, Rule 417.1).

- *Petroleum Solvent Dry Cleaner* - a dry cleaning facility using petroleum solvent in a combination of washers, dryers, filters, stills, and settling tanks (KCAPCD Regulation IV, Rule 410.6A).

- *Plating Tank* - any container used to hold a chromium or chromic acid solution for the purposes of chrome plating or chromic acid anodizing (KCAPCD Regulation IV, Rule 429).

- PM_{10} - particulate matter with an aerodynamic diameter smaller than or equal to 10 microns as measured by CARB Test Method 501 (KCAPCD Regulation IV, Rule 402).

- *Porous Substrate* - paper or paperboard (KCAPCD Regulation IV, Rule 410.7).

- *Portable Hydrocarbon Detection Instrument* - a hydrocarbon analyzer that uses the flame ionization detection or thermal conductivity methods and satisfies Method 21, 40 CFR Part 60. The instrument is equated to calibrating on methane and sampling at 1 L/min (KCAPCD Regulation IV, Rule 410.6).

- *Potential to Emit* - maximum physical and operational design capacity to emit a pollutant during each calendar year. Limitations on physical or operational design capacity, including emissions control devices and limitations on hours of operation, may be considered only if such limitations are Federally enforceable (KCAPCD Regulation II, Rule 201.2).

- *Powder Coating* - coating applied without solvent or other carrier as a dry, finely divided solid, adhering to a substrate as a paint film when melted and fused (KCAPCD Regulation IV, Rule 410.4).

- *ppm* - parts per million by volume expressed on a gas basis.

- *Precoat* - coating applied to bare metal primarily to deactivate the metal surface for corrosion resistance and adhesion (KCAPCD Regulation IV, Rule 410.4A).

- *Prescribed Burning* - the planned application of fire to vegetation on land selected in advance of such application (KCAPCD Regulation IV, Rule 417.1).

- *Pretreatment Wash Primer* - coating containing a minimum of 0.5 percent acid by weight, necessary to provide surface etching, and applied directly to bare metal surfaces to provide corrosion resistance and adhesion (KCAPCD Regulation IV, Rule 410.4A).

- *Primer* -
    1. with reference to requirements of the Architectural Coatings section, coatings formulated for and applied to substrates to provide a firm bond between the substrate and subsequent coatings (KCAPCD Regulation IV, Rule 410.1)
    2. with reference to the requirements of the Coating Operations - Motor Vehicles and Mobile Equipment section, coating applied prior to application of a topcoat for the purpose of corrosion resistance and adhesion of the topcoat (KCAPCD Regulation IV, Rule 410.4A).

- *Primer Sealer* - coating applied prior to application of a topcoat for the purpose of corrosion resistance, adhesion of the topcoat, color uniformity, and to promote the ability of an undercoat to resist penetration by the topcoat (KCAPCD Regulation IV, Rule 410.4A).

- *Primer Surfacer* - coating applied prior to application of a topcoat for the purpose of corrosion resistance, adhesion of the topcoat, and promoting a uniform surface by filling in surface imperfections (KCAPCD Regulation IV, Rule 410.4A).

- *Process Heater* - any external combustion unit fired with liquid and/or gaseous fuel used to transfer heat from combustion gases to liquid process streams (KCAPCD Regulation IV, Rule 425.2).

- *Process Statement* - an annual report on permitted emission units from an owner or operator of a stationary source certifying under penalty of perjury the following (KCAPCD Regulation II, Rule 201.3):
    1. throughputs of process materials
    2. throughputs of materials stored
    3. usage of materials
    4. fuel usage
    5. any available continuous emissions monitoring data
    6. hours of operation
    7. any other information required or requested in writing by the District.

- *Process Weight Per Hour* - the total weight of all materials introduced into any specific source operation, which operation may cause any emission into the atmosphere. Solid fuels charged are considered as part of the process weight, but liquid and gaseous fuels and combustion air will not. The process weight per hour is derived by dividing the total process weight by the number of hours in one cycle of operation from the beginning of any given process to the completion thereof, excluding any time during which the equipment is idle (KCAPCD Regulation I, Rule 102).

- *Property Line* - boundaries of an area in which either a person causing fugitive dust emissions or a person allowing fugitive dust emissions has ownership or legal right to use the property (KCAPCD Regulation IV, Rule 402).

- *PSI* - pounds per square inch.

- *Publication Gravure* - gravure printing on paper which is subsequently formed into books, magazines, catalogs, brochures, directories, newspaper supplements, or other types of material (KCAPCD Regulation IV, Rule 410.7).

- *Quick Dry Enamels* - nonflat coatings which comply with all of the following standards (KCAPCD Regulation IV, Rule 410.1):
    1. are capable of being applied directly from the container by brush or roller when the ambient temperature is between 60 °F [15 °C] and 80 °F [26 °C])
    2. when tested in accordance with ASTM D 1640, they satisfy all of the following:
        a. set to the touch in 2 h or less
        b. dry hard in 8 h or less
        c. tack free in 4 h or less by the mechanical method test
    3. have a 60 °F [15 °C] dried film gloss of no less than 70.

- *Quick Dry Primers and Sealers* - primers, sealers, and undercoaters which are intended to be applied to a surface to provide a firm bond between the substrate and subsequent coats and which are dry to the touch in 1/2 h and can be recoated in 2 h (ASTM 1640) (KCAPCD Regulation IV, Rule 410.1).

- *Range Improvement Burning* - the use of open fires to remove vegetation for wildlife, game, or livestock habitat or for the initial establishment of an agricultural practice on previously uncultivated land (KCAPCD Regulation IV, Rule 417.1).

- *Rated Brake Horsepower (bhp)* - maximum continuous service rating specified for engine by manufacturer and listed on nameplate of unit (KCAPCD Regulation IV, Rule 427).

- *Rated Heat Input* - heat input capacity (Btu/h) specified on nameplate of unit or by manufacturer for that model number, or as limited by District permit (KCAPCD Regulation IV, Rule 425.2).

- *Rating* - manufacturer's continuous electrical output MW specification for a gas turbine-powered cogeneration system (KCAPCD Regulation IV, Rule 425).

- *Reasonably Available Control Technology (RACT)* - lowest emission limitation a particular source is capable of meeting by application of control technology reasonably available considering technological and economic feasibility (KCAPCD Regulation IV, Rule 425.2).

- *Reducer/Thinner* - solvent used to thin coating (KCAPCD Regulation IV, Rule 410.4A).

- *Refinish* - coating of vehicles, their parts and components, or mobile equipment, including partial body collision repairs, for the purpose of protection or beautification and subsequent to the original coating applied at an original equipment manufacturing (OEM) plant coating assembly line (KCAPCD Regulation IV, Rule 410.4A).

- *Regulated Air Pollutant* - any of the following air pollutants are regulated (KCAPCD Regulation II, Rule 201.2):
    1. oxides of nitrogen and volatile organic compounds
    2. any pollutant for which a National Ambient Air Quality Standard has been promulgated under Title I of the Federal Clean Air Act
    3. any pollutant regulated under any standard promulgated under Section 111 (42 USC Section 7411) of the Federal Clean Air Act, including New Source Performance Standards in 40 CFR Part 60
    4. any Class I or II substance subject to a standard promulgated under or established by Title VI of the Federal Clean Air Act
    5. any pollutant subject to any standard promulgated pursuant to Sections 112 (42 USC Section 7412) of the Federal Clean Air Act, including:
        a. any pollutant listed pursuant to Section 112(r) (Prevention of Accidental Release) is considered a regulated air pollutant upon promulgation of the list
        b. any HAP subject to a standard or other requirement promulgated by the USEPA pursuant to Section s112(d) or adopted by the District pursuant to Sections 112(g) and (i) is considered a regulated air pollutant for all sources or categories of sources either:
            - upon promulgation of a standard or requirement
            - 18 mo after a standard or requirement is scheduled to be promulgated pursuant to Section 112(e)(3)
        c. any HAP subject to a District case-by-case emissions limitation determination for a new or modified source, prior to the USEPA promulgation or scheduled promulgation of an emissions limitation is considered a regulated air pollutant when the determination is made pursuant to Section 112(g)(2) of the Federal Clean Air Act. In case-by-case emissions limitation determinations, the HAP is considered a regulated air pollutant only for the individual source for which the emissions limitation determination was made.

- *Remote Reservoir* - a liquid solvent tank which is completely enclosed except for a solvent return opening no larger than 100 cm^2 (15 $in.^2$) which allows used solvent to drain into it from a separate sink or work area and which is not accessible for soaking parts (KCAPCD Regulation IV, Rule 410.3).

- *Residential Rubbish* - refuse originating from residential uses including wood, paper, cloth, cardboard, tree trimmings, leaves, lawn clippings, and dry plants (KCAPCD Regulation I, Rule 102).

- *Residential Use* - use in areas where people reside or lodge including, but not limited to single and multiple family dwellings, condominiums, mobile homes, apartment complexes, motels, and hotels (KCAPCD Regulation IV, Rule 410.1).

- *Rich-Burn Engine* - any spark-ignited, Otto cycle or two stroke engine fueled with gaseous or liquid fuel and operated with an exhaust gas oxygen concentration of less than 4 percent by volume (KCAPCD Regulation IV, Rule 427).

- *Road Oils* - see "Slow Cure Asphalt".

- *Roof Coatings* - coatings formulated for application to exterior roofs for the primary purpose of preventing penetration of the substrate by water, or for reflecting heat and ultraviolet radiation. Metallic pigmented roof coatings which qualify as metallic pigmented coatings are not considered to be in this category, but are considered to be in the metallic pigmented coatings category (KCAPCD Regulation IV, Rule 410.1).

- *Rule* - refers to one of the KCAPCD Rules.

- *Sanding Sealers* - clear wood coatings formulated for and applied to bare wood to prepare it for sanding and to seal the wood for subsequent application of varnish. To be considered a sanding sealer a coating must be clearly labelled as such (KCAPCD Regulation IV, Rule 410.1).

- *SCR* - exhaust gas NO_x control system utilizing ammonia and a reducing catalyst to convert NO_x to nitrogen and oxygen (KCAPCD Regulation IV, Rule 425).

- *Screen Printing* - a commercial and industrial printing technique which involves the passage of a printing medium, such as ink, through a taut fabric to which a refined form of stencil has been applied. The stencil openings determine the form and dimension of the imprint (KCAPCD Regulation IV, Rule 410.7).

- *Sealers* - coatings formulated for and applied to a substrate to prevent subsequent coatings from being adsorbed by the substrate, or to prevent harm to subsequent coatings by materials in the substrate (KCAPCD Regulation IV, Rule 410.1).

- *Semi-Transparent Stains* - coatings formulated to change the color of a surface but not conceal the surface (KCAPCD Regulation IV, Rule 410.1).

- *Semi-Transparent Wood Preservatives* - wood preservative stains formulated and used to protect exposed wood from decay or insect attack by the addition of a wood preservative chemical registered by the California Department of Food and Agriculture, which change the color of a surface but do not conceal the surface, including clear wood preservatives (KCAPCD Regulation IV, Rule 410.1).

- *Shaft Output* - actual engine work done (bhp hours) calculated from measurements and data derived from operating parameters and/or performance curve(s) of device being powered by engine (KCAPCD Regulation IV, Rule 427).

- *Shellacs* - clear or pigmented coatings formulated solely with resinous secretions of the lac beetle (*laccifer lacca*), thinned with alcohol, and formulated to dry by evaporation without a chemical reaction (KCAPCD Regulation IV, Rule 410.1).

- *Sign Paints* - see "Graphic Arts Coatings".

- *Silicone Release* - coating containing silicone resin and having as its primary function the release of food products from metal surfaces such as baking pans (KCAPCD Regulation IV, Rule 410.4).

- *Silviculture* - the establishment, development, care, and reproduction of stands of timber (KCAPCD Regulation IV, Rule 417.1).

- *Slow Cure Asphalt (Road Oils)* - paving grade asphalt conforming to specifications of the American Society for Testing and Materials in ASTM D2026-72 (Reapproved 1979) (KCAPCD Regulation IV, Rule 410.5).

- *Solar Absorbent Coating* - coating having as its primary purpose the absorption of solar radiation (KCAPCD Regulation IV, Rule 410.4).

- *Solvent* - any liquid containing an organic compound or combination of organic compounds, which are used as diluents, thinners, dissolvers, viscosity reducers, cleaning agents, or for other similar uses. These liquids are principally derived from petroleum and include petroleum distillates, chlorinated hydrocarbons, chlorofluorocarbons, ketones, and alcohols. Solutions, emulsions, and dispersions of water and soap, or water and detergent, are not organic solvents. Soaps and detergents are water based surfactants (KCAPCD Regulation IV, Rule 410.3)

- *Solvent Recovery Dryer* - a class of dry cleaning dryers that employs a condenser to condense and recover solvent vapors evaporated in a closed-loop stream of heated air, together with the piping and ductwork used in the installation of this device (KCAPCD Regulation IV, Rule 410.6A).

- *Source Operation* - the last operation preceding the emission of an air contaminant, which operation satisfies both of the following conditions (KCAPCD Regulation I, Rule 102):
    1. results in the separation of the air contaminant from the process materials or in the conversion of the process materials into air contaminants, as in the combustion of fuels
    2. is not an air pollution abatement operation.

- *Specialty Coating* - coating necessary due to unusual job performance requirements, including, but not limited to, adhesion promoters, uniform finish blenders elastomeric materials, gloss flatteners, bright metal trim repair, and anti-glare/safety coatings (KCAPCD Regulation IV, Rule 410.4).

- *Specialty Flat Products* - self priming flat products used only to perform one of the following functions (KCAPCD Regulation IV, Rule 410.1):
    1. repair fire, smoke or water damage
    2. neutralize odors
    3. block stains
    4. coat acoustical materials without affecting their acoustical abilities.

- *Specialty Gravure Printing* - printing that uses the gravure process for production of wall and floor covering, decorated household paper products such as towels and tissues, cigarette filter tips, vinyl upholstery, woodgrains, and a wide variety of other products (KCAPCD Regulation IV, Rule 410.7).

- *Spot/Panel Repair* - nonassembly line process of repairing and restoring a portion of a motor vehicle to predamaged condition (KCAPCD Regulation IV, Rule 410.4A).

- *Stabilized Surface* - previously disturbed surface area showing visual or other evidence of surface particle conglomeration after application of a dust suppressant (KCAPCD Regulation IV, Rule 402).

- *Standard Conditions* - a gas temperature of 60 °F (15 °C) and a pressure of 29.92 in. of Hg. Results of all analyses and test are calculated or reported at this gas temperature and pressure (KCAPCD Regulation I, Rule 102).

- *Stationary Piston Engine* - any spark or compression-ignited reciprocating internal combustion engine attached to a foundation at a site or portable and operated at the same site for more than 1 yr (KCAPCD Regulation IV, Rule 427).

- *Sterilization Cycle* - the process that begins when EtO is introduced into a sterilizer, including the initial purge or evacuation after sterilization and subsequent air washes, and ending after evacuation of the final air wash (KCAPCD Regulation IV, Rule 430).

- *Sterilizer Exhaust Stream* - all EtO-contaminated air intentionally removed from a sterilizer during the sterilization cycle. EtO-contaminated air may also be removed from the sterilizer through a backdraft valve or rear chamber exhaust system during unloading of sterilized materials (KCAPCD Regulation IV, Rule 430).

- *Sterilant Gas* - EtO or any combination of EtO and other gas(es) used in a sterilizer (KCAPCD Regulation IV, Rule 430).

- *Swimming Pool Coatings* - coatings formulated and used to coat the interior of swimming pools and to resist swimming pool chemicals (KCAPCD Regulation IV, Rule 410.1).

- *Swimming Pool Repair Coatings* - chlorinated rubber based coatings used for the repair and maintenance of swimming pools over existing chlorinated rubber based coatings (KCAPCD Regulation IV, Rule 410.1).

- *Synthetic Minor Source* - a stationary source which, pursuant to Rule 201.2 or another mechanism, is subject to federally-enforceable conditions that limit its potential to emit to less than major stationary source thresholds (KCAPCD Regulation II, Rule 201.2).

- *Tack Coat* - any application of asphalt to an existing surface to provide a bond between new surfacing and the existing surface, and to eliminate slippage planes where the new and existing surfaces meet (KCAPCD Regulation IV, Rule 410.5).

- *Therm* - 100,000 Btu (KCAPCD Regulation IV, Rule 425.2).

- *Thermal Stabilization Period* - start up time necessary to bring a cogeneration system heat recovery device up to design temperature, not exceeding 2 h (KCAPCD Regulation IV, Rule 425).

- *Three-Stage Coating System* - topcoat system composed of pigmented basecoat, semi-transparent midcoat, and transparent clearcoat (KCAPCD Regulation IV, Rule 410.4A).

- *Tile-Like Glaze Coatings* - coatings which are formulated to provide a tough, extra-durable coating system, which are applied as a continuous (seamless) highbuild film, and which cure to a hard glaze finish (KCAPCD Regulation IV, Rule 410.1).

- *Timber Operations* - cutting or removal of timber or other forest vegetation for the purpose of producing commercial forest products (KCAPCD Regulation IV, Rule 417.1).

- *Topcoat* - coating applied over primer or an original equipment manufacturer finish for the purpose of appearance or protection (KCAPCD Regulation IV, Rule 410.4A).

- *Touch-Up Coating* - coating applied by brush, airbrush, detail HVLP spray equipment or hand-held, nonrefillable aerosol cans to repair minor surface damage and imperfections, after main coating process, and not exceeding 9 ft^2 per unit (KCAPCD Regulation IV, Rule 410.4).

- *Traffic Coatings* - coatings formulated for and applied to public streets, highways, and other surfaces including, but not limited to curbs, berms, driveways, and parking lots (KCAPCD Regulation IV, Rule 410.1).

- *Uncontrolled Emissions* - dioxins emissions measured from an incinerator at a location downstream of the last combustion chamber, but prior to any air pollution control device (KCAPCD Regulation IV, Rule 418.1).

- *Undercoaters* - coatings formulated and applied to substrates to provide a smooth surface for subsequent coats (KCAPCD Regulation IV, Rule 410.1).

- *Unpaved Road* - any straight or curved length of well-defined travel way for motor vehicles not covered by one or the following: concrete, asphaltic concrete, or asphalt (KCAPCD Regulation IV, Rule 402).

- *Utility Body* - special purpose service compartment or unit to be bolted, welded, or affixed onto an existing cab and chassis. Such compartment may serve as storage for equipment or parts (KCAPCD Regulation IV, Rule 410.4A).

- *Vacuum Pump* - a pump used to evacuate the sterilant gas during the sterilization cycle, including any associated heat exchanger (KCAPCD Regulation IV, Rule 430).

- *Varnishes* - clear wood finishes formulated with various resins to dry by chemical reaction on exposure to air (KCAPCD Regulation IV, Rule 410.1).

- *VOC* - please see "Volatile Organic Compound".

- *Volatile Organic Compound* - any compound containing at least one atom of carbon except for exempt compounds (KCAPCD Regulation IV, Rule 410.1).

- *Washer* - a machine, used in dry cleaning operations, which agitates fabric articles in a solvent bath and spins the articles to remove the solvent, together with the piping and ductwork used in the installation of this device (KCAPCD Regulation IV, Rule 410.6A).

- *Waste* - all discarded putrescible and nonputrescible solid, semisolid, and liquid materials, including garbage, trash, refuse, paper, rubbish, food, ashes, plastics, industrial wastes, demolition and construction wastes, equipment, instruments, utensils, appliances, manure, and human or animal solid and semisolid wastes (KCAPCD Regulation IV, Rule 418.1).

- *Wastewater Separator* - any device or piece of equipment that is used to remove VOC-containing liquids from water, or any device, such as a flocculation tank, clarifier, etc. that removes petroleum-derived compounds from wastewater (KCAPCD Regulation IV, Rule 414).

- *Wastewater Separator Forebay* - that section of a gravity-type wastewater separator which receives the untreated, oil-water waste from the preseparator flume, and acts as a header which distributes the influent to the separator channels (KCAPCD Regulation IV, Rule 414).

- *Water Treatment Chemicals* - any combination of chemicals added to cooling tower water including, but not limited to, corrosion inhibitors, antiscalants, tracers, dispersants, and biocides (KCAPCD Regulation IV, Rule 429.1).

- *Waterproofing Mastic Coatings* - weatherproof and waterproof coatings which are formulated to cover holes and minor cracks and to conceal surface irregularities, and which are applied in a thickness of at least 15 mils (KCAPCD Regulation IV, Rule 410.1).

- *Waterproofing Sealers* - colorless coatings which are formulated and applied for the sole purpose of protecting porous substrates by preventing the penetration of water and which do not alter surface appearance or texture (KCAPCD Regulation IV, Rule 410.1).

- *Wildlife Vegetation Management Burning* - the use of prescribed burning conducted by a public agency, or through a cooperative agreement or contract involving a public agency, to burn land predominantly covered with chaparral, trees, grass or standing brush (KCAPCD Regulation IV, Rule 417.1).

- *Wind Gust* - maximum instantaneous wind speed, as measured by an anemometer or as provided by the nearest local meteorological station (KCAPCD Regulation IV, Rule 402).

- *Wipe Cleaning* - a method of cleaning which uses a cloth, cotton swab, or other material, wetted with a solvent, which is physically rubbed on the surface to be degreased (KCAPCD Regulation IV, Rule 410.3).

- *Wooden Cooling Tower* - any cooling tower containing wood components exposed to circulating water (KCAPCD Regulation IV, Rule 429.1).

AIR EMISSIONS MANAGEMENT

GUIDANCE FOR KCAPCD CHECKLIST USERS

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AIR EMISSIONS MANAGEMENT

GUIDANCE FOR KCAPCD CHECKLIST USERS

	REFER TO CHECKLIST ITEMS:	REFER TO PAGE NUMBERS:
Motor Vehicle and Mobile Equipment Refinishing Operations	A.100.8.CA.KC. through A.100.12.CA.KC.	1-68
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GUIDANCE FOR APPENDIX USERS

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1-4	Allowable Limits of VOC in Various Metal Surface Coatings	1-107
1-5	VOC Content Limits for Surface Coatings Applied to Motor Vehicles and Mobile Equipment	1-109
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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
STATE SPECIFIC AIR REQUIREMENTS **A.5.** **General**	
A.5.1.CA.KC. Installations/ CW facilities are prohibited, under certain circumstances, from discharging air contaminants or other materials (Kern County Air Pollution Control District (KCAPCD) Regulation IV, Rules 419 and 420).	Verify that the installation/CW facility does not discharge from any source quantities of air contaminants or other materials resulting in any of the following: - injury, detriment, nuisance or annoyance to the public - endanger the comfort, repose, health or safety of the public - cause, or have a natural tendency to cause, injury or damage to business or property. (NOTE: Odors emanating from agricultural operations in the growing of crops or raising of fowl or animals are exempt from this requirement.)
A.5.2.CA.KC. Installations/ CW facilities are prohibited from concealing or disguising an emission of air contaminants (KCAPCD Regulation I, Rules 112 and 113).	Verify that the installation/CW facility has not built, installed, or used any article, machine, equipment, or other contrivance which conceals or seems to reduce (without actually doing so) an emission in violation of the emission standards of this protocol. Determine if the installation/facility operates any air contaminant sources that meet either of the following conditions: - a single source operation whose air contaminant emissions are emitted through two or more emission points - two or more source operations whose air contaminant emissions are combined prior to emission. Verify that all determinations of the total emitted quantity of any affected pollutant emitted from these kinds of sources have been made using methods approved by the APCO. (NOTE: In the event of a conflict between two or more requirements in this manual, the installation/CW facility should meet the requirement or combination of requirements resulting in the smallest rate or lowest concentration of air contaminants being emitted, unless otherwise specifically exempted or designated.)

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.5.3.CA.KC. Installations/CW facilities with new stationary sources and modified existing stationary source must provide Best Available Control Technology (BACT) (KCAPCD Regulation II, Rule 210.1).	Verify that BACT is provided for all affected pollutants expected to be emitted. (NOTE: BACT is not required for the following: - a new emissions unit or modification of an existing emissions unit for CO in attainment areas - a cargo carrier - a new emissions unit or modification of an existing unit solely to comply with District, state, or Federal air pollution control laws, regulations, or orders, as approved by the Control Officer, provided there is no increase in maximum rating - a new emissions unit or modification of an existing unit resulting in a voluntary reduction is emission for the sole purpose of generating Emission Reduction Credits - temporary replacement emissions unit - modifications solely consisting of administrative changes to the permit - portable internal combustion engines used by the Department of Defense or National Guard exclusively for military tactical support or other Federal emergency purpose.
Permits **A.5.4.CA.KC.** Installations/CW facilities using any equipment or conducting any activities or operations that cause or control the emission of air contaminants must meet specific permit requirements (KCAPCD Regulation II, Rules 201 and 202).	Determine if the installation/CW facility currently conducts, operates, or intends to modify pieces of equipment, operations, or activities that cause or control the issuance of air contaminants, other than equipment and operations listed in Appendix 1-1 which are exempt from permit requirements. Verify that installations/CW facilities have permits or have applied for permits for all nonexempt equipment, activities, and operations. Verify that installations/CW facilities claiming any exemption from permit requirements, based on a maximum daily limitation, keep adequate records demonstrating that conditions of the exemption are being met. Verify that an installation/CW facility, claiming exemption from permit requirements for temporary emissions units, meets all of the following requirements: - submits a written request to the Control Officer for an exemption - retains documentation and keeps records demonstrating its eligibility for the exemption - has not received a response to the request from the Control Officer within 30 days of submission - reapplies biannually for the exemption.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.5.5.CA.KC. Installations/ CW facilities, planning to build or modify any nonexempt equipment that causes or controls the issuance of air contaminants, must meet specific construction authorization requirements (KCAPCD Regulation II, Rules 201 I, 203, and 209).	Verify that the installation/CW facility obtains an Authority to Construct (ATC) from the Control Officer before constructing or modifying any article that may cause, eliminate, or control the issuance of air contaminants. Verify that no ATC is transferred between locations, pieces of equipment, or persons, unless a new application is filed with and approved by the Control Officer. Verify that the installation/CW facility meets all written conditions and requirements in the ATC.
A.5.6.CA.KC. Installations/ CW facilities, operating or using any nonexempt equipment that causes or controls the issuance of air contaminants, must meet specific operating permit requirements (KCAPCD Regulation II, Rules 201 III, 201 V, 203, 209, and 209.1).	Verify that the installation/CW facility meets all written conditions and requirements in the Permit to Operate (PTO), and otherwise operates permitted equipment as indicated in information submitted with the Permit application. Verify that the installation/CW facility meets one of the following requirements: - PTO, approved facsimiles, or other approved identifications bearing permit numbers are attached to permitted equipment so that they are clearly visible and accessible - PTOs are posted within 25 ft [7.62 m] of permitted equipment in a clearly visible and accessible locations - PTOs are maintained readily available at all times on the operating premises. Verify that PTO, facsimiles, or identifications are not defaced, altered, forged, or counterfeited. Verify that no PTO is transferred between locations, pieces of equipment, or persons, unless a new application is filed with and approved by the Control Officer.
A.5.7.CA.KC. Installations/ CW facilities must obtain permits for existing equipment whose exemptions, though valid at the time of installation, have been removed by revisions in Kern County Air Pollution Control District Rules and Regulations (KCAPCD Regulation II, Rule 202 VI).	Determine if the installation/CW facility has existing equipment whose exemptions have been removed by revisions to KCAPCD Regulation II, Rule 202 (as outlined in Appendix 1-1). Verify that the installation/CW facility files an application for PTO within 6 mo after revision of Rule 202.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.5.8.CA.KC. Installations/ CW facilities must obtain an ATC and PTO for certain types of emissions units despite any exemptions for which they qualify (KCAPCD Regulation II, Rule 202 III).	Determine if the installation/CW facility has any emissions units qualifying for exemption from permit requirements and satisfying any of the following conditions: - subject to either of the following Federal regulations: - 40 CFR, Part 60, New Source Performance Standards - 40 CFR, Part 61, National Emission Standards for Hazardous Air Pollutants - the Control Officer has determined they must meet permit requirements - are proposed as part of soil or groundwater remediation projects. Verify that the installation/CW facility has met the requirements of the Permits section for these emissions units.
A.5.9.CA.KC. Installations/ CW facilities operating a synthetic minor source must meet specific requirements when modifying the source (KCAPCD Regulation II, Rule 201.2(IV)).	Verify that, for a modification which would not increase the source's potential to emit to equal or exceed any major stationary source threshold, the source complies with requirements for new and modified stationary sources. Verify that, for a modification which would increase the source's potential to emit to equal or exceed any major stationary source threshold or would affect a monitoring, recordkeeping, or reporting requirement, the installation/CW facility both meets requirements for new and modified stationary sources and takes one of the following steps: - submits a revised request for synthetic minor source status no later than 180 days prior to anticipated commencement of modification - submits an application for a permit to operate a source subject to Title V of the Federal Clean Air Act Amendments of 1990 no later than 180 days prior to anticipated commencement of modification.
Emissions Limitations	
A.5.10.CA.KC. Stationary sources which have the potential to emit air contaminants equal to or in excess of the threshold for a major source of regulated air pollutants or of hazardous air pollutants (HAP) must meet specific emission limitations (KCAPCD Regulation II, Rule 201.3 III and IV).	(NOTE: The stationary sources which have applied for, or received, a permit are exempt from these requirements.) (NOTE: The installation/CW facility may take into account operation of air pollution control equipment on the capacity of the source to emit an air contaminant if the equipment is required by Federal, State, or District rules and regulations or permit terms and conditions.) **A.5.10.CA.KC. Continued on Next Page**

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.5.10.CA.KC. (continued)	Verify that no stationary source emits in any 12-mo period more than the following quantities of emissions: - 50 percent of the major source thresholds for regulated air pollutants (excluding HAPs) as follows: - 50 tons/yr of any regulated air pollutant - 25 tons/yr NO_x or ROC - 5 tons/yr of a single HAP - 12.5 tons/yr of any combination of HAPs - 50 percent of any lesser threshold for a single HAP as the USEPA may establish by rule. (NOTE: The installation/CW facility may operate the permitted emission units at a stationary source under an alternative operational limit.)
A.5.11.CA.KC. Installations/CW facilities choosing to meet alternative operational limits for stationary sources with the potential to emit air contaminants equal to or in excess of the threshold for a major source of regulated air pollutants or of hazardous air pollutants (HAP) must meet specific requirements (KCAPCD Regulation II, Rule 201.3 VII).	Verify that the installation/CW facility reports within 24 h to the Control Officer any exceedence of the alternative operational limit. Verify that the installation/CW facility maintains all purchase orders, invoices, and other documents to support information required to be maintained in a monthly log. Verify that the installation/CW facility maintains records onsite for 5 yr. Verify that installations/CW facilities with degreasing or solvent-using units meet the following requirements: - if solvents do not include methyl chloroform (1,1,1-trichloroethane), methylene chloride (dichloromethane), tetrachloroethylene (perchloroethylene), or trichloroethylene, no more than 5400 gal of any combination of solvent-containing materials and no more than 2200 gal of any one solvent-containing material are used in every 12-mo period - if solvents include methyl chloroform (1,1,1-trichloroethane), methylene chloride (dichloromethane), tetrachloroethylene (perchloroethylene), or trichloroethylene, no more than 2900 gal of any combination of solvent-containing materials and no more than 1200 gal of any one solvent-containing material are used in every 12-mo period - a monthly log of amount and type of solvent used in the preceding month with a monthly calculation of the total gallons used in the previous 12 mo is kept onsite - a copy of the monthly log is submitted to the Control Officer at the time of the annual permit renewal. **A.5.11.CA.KC. Continued on Next Page**

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.5.11.CA.KC. (continued)	Verify that installations/CW facilities with paint spraying units meet the following requirements: - total usage rate of all organic solvent-containing materials do not exceed 2200 gal in every 12-mo period - the organic solvent content of the material used at a paint spray unit does not exceed 7.3 lb/gal - a monthly log of the gallons of organic solvent-containing materials used in the preceding month with a monthly calculation of the total gallons used in the previous 12 mo are kept onsite - a copy of the monthly log is submitted to the Control Officer at the time of annual permit renewal. Verify that installations/CW facilities with diesel-fueled emergency standby engines with output less than 1000 bhp meet the following requirements: - for a Federal ozone nonattainment area classified as serious, the emergency standby engine does not operate more than 2600 h in a 12-mo period and does not use more than 133,000 gal of diesel fuel in every 12-mo period - a monthly log of hours of operation, gal of fuel used, and monthly calculation of the total hours operated and gallons of fuel used in the previous 12 mo are kept onsite - a copy of the monthly log is submitted to the Control Officer at the time of annual permit renewal. Verify that the installation/CW facility obtains any necessary permits prior to beginning any physical or operational change which will result in an exceedence of an applicable operational limit.
A.5.12.CA.KC. Stationary sources which have the potential to emit air contaminants equal to or in excess of the threshold for a major source of regulated air pollutants or of hazardous air pollutants (HAP) must meet specific recordkeeping limitations (KCAPCD Regulation II, Rule 201.3 V).	Verify that the following records are maintained in a monthly log, maintained onsite for 5 yr, and made available to the District, CARB, or USEPA upon request: - for coating/solvent emission units: - current list of all coatings, solvents, inks, and adhesives in use - description of any equipment used during and after coating/solvent application - monthly log of consumption for each solvent, coating, ink, and adhesive used - all purchase orders, invoices, and other documents to support information in the monthly log **A.5.12.CA.KC. Continued on Next Page**

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.5.12.CA.KC. (continued)	- for combustion emission units: - information on equipment type, make and model, maximum design process rate or maximum power input/output, minimum operating temperature and capacity, control device type and description, and all source test information - monthly log of hours of operation, fuel type, fuel usage, fuel heating value, percent sulfur for fuel oil and coal, and percent nitrogen for coal - for emission control units: - information on equipment type and description, make and model, and emission units served by the control unit - information on equipment design - monthly log of hours of operation - for general emission units: - information on the process and equipment - any additional information requested in writing by the Control Officer - monthly log of operating hours, each raw material used and its amount, each product produced and its production rate - purchase orders invoices, and other documents to support information in the monthly log.
A.5.13.CA.KC. Stationary sources which have the potential to emit air contaminants equal to or in excess of the threshold for a major source of regulated air pollutants or of hazardous air pollutants (HAP) must meet specific reporting limitations (KCAPCD Regulation II, Rule 201.3 VI).	Verify that, at the time of PTO renewal, the installation/CW facility submits a process statement certifying that the information provided is accurate and true. (NOTE: The following stationary sources which emit in every 12-mo period less than or equal to the following quantities are exempt from this requirement: - for any regulated air pollutant (excluding HAPs), 25 percent of the major source threshold, as follows: - 25 tons/yr of any regulated air pollutant - 12.5 tons/yr NO_x or ROC - 2.5 tons/yr of a single HAP - 6.25 tons/yr of any combination of HAPs - 25 percent of any lesser threshold for a single HAP as the USEPA may establish by rule.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
Emissions Monitoring **A.5.14.CA.KC.** Installations/CW facilities, required as a condition of their PTO to continuously monitor air pollutant emissions from certain sources, must meet specific monitoring requirements (KCAPCD Regulation I, Rule 108(III) and (IV)).	Verify that the installation/CW facility provides, properly installs, and maintains in good working order and in operation, continuous monitoring systems (CMS) to measure the following pollutants from the following sources: - fossil fuel fired steam generators with heat input of at least 250 MBtu/h with a use factor of at least 30 percent/yr - oxides of nitrogen (NO_x), if emission standards apply - CO_2 or O_2, if required to monitor NO_x emissions - SO_2, if control equipment is used - all sulfur recovery plants and sulfuric acid plants--SO_2 - CO boilers or regenerators of fluid catalytic cracking units and CO boilers of fluid cokers if feed rate is greater than 10,000 barrels (1,590,000 L) per day--SO_2. Verify that systems are installed, calibrated, maintained and operated in accordance with the following Sections of 40 CFR: - Fossil-Fuel Fired Steam Generators--Section 60.45 - Sulfuric Acid Plants--Section 60.84 - Petroleum Refineries--Section 60.105. (NOTE: Equivalent standards may be used by mutual agreement of the District, CARB, and USEPA.) Verify that the following Federal requirements and specifications are met, or equivalent specifications are met by mutual agreement of the District, CARB, and USEPA: - calibration of gas mixtures specifications in 40 CFR, Part 51, Appendix P, Section 3.3, and Part 60, Appendix B, Performance Specification 2., Section 2.1 - cycling times specified in 40 CFR, Part 51, Appendix P, Sections 3.4, 3.4.1, and 3.4.2 - continuous SO_2 and NO_x monitors meet applicable perform specification requirements of 40 CFR, Part 51, Appendix P, and Part 60, Appendix B - continuous CO_2 and O_2 monitoring systems meet performance specifications of 40 CFR, Part 51, Appendix P, and Part 60, Appendix B. Verify that all continuous emission monitoring systems are installed, calibrated, maintained, and operated in accordance with the conditions of their PTO.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.5.15.CA.KC. Installations/CW facilities, required as a condition of their PTO to continuously monitor air pollutant emissions from certain sources, must meet specific recordkeeping and reporting requirements (KCAPCD Regulation I, Rule 108(V) through (VIII)).	Verify that the installation/CW facility maintains, for at least 2 yr, permanent records, including all of the following information: - occurrence and duration of any startup, shut-down, or malfunction in the operation of any affected facility - records of performance testing, evaluations, calibrations, checks, adjustments, and maintenance of monitoring equipment - emissions measurements data, reduced according to 40 CFR, Part 51, Appendix P, Paragraphs 5.0 through 5.3.3, or other method deemed equivalent by joint decision of the District, CARB, and USEPA. Verify that the installation/CW facility meets all of the following reporting requirements: - in the event of a violation of a required emission standard, it reports the violation to the Control Officer within 96 h after occurrence - in the event of a breakdown of monitoring equipment, it notifies the Control Officer within 48 h and initiates repairs - in the event that the installation/CW facility intends to shut down any monitoring equipment, it notifies the Control Officer at least 24 h in advance - it submits to the Control Officer, by the 30th day after the end of the calendar quarter, a written report including all of the following information: - time intervals, date and magnitude of excess emissions; nature and cause of the excess (if known); corrective actions taken and preventive measures adopted - averaging period used for data reporting corresponding to averaging period specified in the emission test period used to determine compliance with an emission standard for the pollutant/source category in question - time and date of each period during which the CMS was inoperative (except for zero and span checks) and the nature of system repairs and adjustments - a negative declaration when no excess emissions have occurred.
Equipment Breakdown Conditions **A.5.16.CA.KC.** Installations/CW facilities that have had a breakdown must meet specific requirements (KCAPCD Regulation I, Rule 111).	Verify that, in the event of a breakdown, the installation/CW facility notifies the Control Officer no later than 1 h after detection, unless the installation/CW facility can convince the Control Officer that a longer reporting delay was necessary. **A.5.16.CA.KC. Continued on Next Page**

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A.5.16.CA.KC. (continued)	Verify that, in the event of a breakdown condition, the installation/CW facility meets one of the following requirements within 24 h, or before the end of the production run, whichever is sooner (or within 96 h for breakdowns of continuous monitoring equipment): - immediately undertakes appropriate corrective measures and comes into compliance - shuts down malfunctioning equipment for corrective measures - in lieu of shutdown, obtains an emergency variance. Verify that, within 10 days after a breakdown condition has been corrected, the installation/CW facility submits a written report to the Control Officer including all of the following information: - verification that the breakdown condition has been corrected along with date of the correction - a statement of the reasons or causes of the breakdown - a description of corrective measures undertaken, or about to be undertaken, to avoid future breakdowns - an estimate of the amount of emissions caused by the breakdown - pictures of the equipment or controls that failed, if available.
Emergency Contigency Plans	(NOTE: When concentration of specific air pollutants reaches certain levels, the Control Officer is empowered to declare an Air Pollution Episode. These episodes are classified as "Health Advisory", "Stage 1 (Alert) Episodes", "Stage 2 (Warning) Episodes", or "Stage 3 (Emergency) Episodes" depending upon pollutant concentration levels reached. Air Pollution Emergency Contingency Plans form the basis for abatement of the damaging effects of air pollution during these episodes; they include source curtailment and traffic abatement plans.)
A.5.17.CA.KC. Installations/CW facilities operating any stationary source that can be expected to emit 100 tons [90.72 metric tons] or more per year of hydrocarbons, NO_X, CO, or particulate matter must meet specific requirements (KCAPCD Regulation VI, Rules 613 and 615).	Verify that the installation/CW facility has an approved Stationary Source Curtailment Plan for each such source. Verify that the installation/CW facility implements applicable provisions of that plan during air pollution episodes.

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A.5.18.CA.KC. Installations/CW facilities employing more than 100 persons per shift at any one business address must meet specific requirements (KCAPCD Regulation VI, Rules 613 I.B and 615).	Verify that the installation/CW facility has an approved Traffic Abatement Plan. Verify that the installation/CW facility implements applicable provisions of that plan during air pollution episodes.
Visible Emissions	
A.5.19.CA.KC. Installations/CW facilities must meet specific visible emission standards (KCAPCD Regulation IV, Rule 401).	(NOTE: The following sources of air contaminants are exempt from these standards: - smoke from fires set by, or permitted by, a public officer in performance of official duty for either of the following reasons: - to prevent a fire hazard - for instruction of public employees in firefighting methods - smoke from permitted fires on industrial property set for instruction of employees in firefighting methods - agricultural operations and related equipment necessary for growing crops or raising fowl or animals - orchard and citrus grove heaters that do not produce unconsumed solid carbonaceous matter at a rate in excess of 1 g/min [0.032 oz./min].) Verify that the installation/CW facility meets one of the following conditions: - it does not discharge into the atmosphere from any single nonexempt source, emissions of air contaminants for a period or periods amounting to a total of more than 3 min in any 1 h that meet either of the following conditions: - emissions as dark or darker than No. 1 on the Ringelmann Chart - emissions so opaque that they obscure the observer's view to a degree equal to or greater than smoke that is as dark or darker than No. 1 on the Ringelmann Chart - its emissions violate these standards, but it can show that one of the following conditions was met during the time of any violation: - at the time of violation, the source was in compliance with all other applicable emission standards of Regulation IV - the emission exceeded standards due solely to the presence of uncombined water.

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A.10 **STEAM GENERATORS** **A.10.1.CA.KC.** Installations/CW facilities operating any boiler, steam generator, or process heater with a rated heat input of 5 MBtu/h or more and fired with gaseous and/or liquid fuels must meet specific emissions limitations (KCAPCD Regulation IV, Rule 425.2 V.A and V.B).	(NOTE: Compliance with these requirements is not expected until 30 November 1997, except for the NO_x minimization procedures.) Verify that one of the following NO_x minimization procedures are in place: - tune each unit at least once per year - operate each unit in manner maintaining stack gas oxygen at no more than 3.00 percent by volume on dry basis - operate each unit with automatic stack gas oxygen trim system set at 3.00 (plus or minus 0.15) percent by volume on dry basis. (NOTE: Units with an annual heat input rate of 90,000 therms or more must meet this minimization requirement until 30 November 1997.) Determine whether the unit has an annual heat input of 90,000 therms or more during one or more of the three preceding years of operation. Verify that it meets the following applicable NO_x emission limits:

	Gaseous Fuel	Liquid Fuel
During Normal Operation	70 ppmv or 0.09 lb/MBtu	115 ppmv, or 0.15 lb/MBtu
During Natural Gas Curtailment		150 ppmv, or 0.19 lb/MBtu

Verify that CO emissions do not exceed 400 ppmv.

(NOTE: NO_x and CO emission limits in ppmv are referenced at dry stack gas conditions, adjusted to 3.00 percent by volume stack gas oxygen and averaged over 15 consecutive minutes from no less than five data sets, recorded from sampling of no more than 3 min.)

Verify that the NO_x emission limit for any unit fired simultaneously with gaseous and liquid fuels is the heat input-weighted average of applicable limits.

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A.10.2.CA.KC. Installations/CW facilities operating any boiler, steam generator, or process heater with a rated heat input of 5 MBtu/h or more and fired with gaseous and/or liquid fuels must meet specific monitoring requirements (KCAPCD Regulation IV, Rule 425.2 V.C).	Verify that any installation/CW facility simultaneously firing a combination of different fuels installs and maintains totalizing mass or volumetric flow rate meters in each fuel line. Verify that any installation/CW facility operating a unit equipped with equipment intended to reduce or control NO_x installs and maintains appropriate provisions to monitor operational parameters of unit and/or NO_x control system that correlates to NO_x emissions.
A.10.3.CA.KC. Installations/CW facilities operating any boiler, steam generator, or process heater with a rated heat input of 5 MBtu/h or more and fired with gaseous and/or liquid fuels must meet specific recordkeeping and reporting requirements (KCAPCD Regulation IV, Rule 425.2 VI.A and VI.D).	Verify that the installation/CW facility monitors and records HHV and cumulative annual use of each fuel. Verify that any installation/CW facility operating a unit under natural gas curtailment limits monitors and records cumulative annual hours of operation on liquid fuel during curtailment and during testing. Verify that any installation/CW facility of identical units wishing to limit emissions testing to one unit per group of units establishes correlation of NO_x emissions and key operating parameters and keeps records of these data for each affected unit. Verify that records are maintained for at least two calendar years onsite and made readily available to District personnel. Verify that compliance test data and results are submitted to the District within 60 days of collection. Verify that the installation/CW facility submits an Emission Control Plan to the Control Officer. Verify that the plan includes the following information: - list of units subject to these requirements, including rated heat inputs, anticipated annual heat input, applicable requirements, and control option chosen, if applicable - description of actions to be taken to satisfy requirement - specification of proposed test methods.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.10.4.CA.KC. Installations/CW facilities operating any boiler, steam generator, or process heater with a rated heat input of 5 MBtu/h or more and fired with gaseous and/or liquid fuels must meet specific testing requirements (KCAPCD Regulation IV, Rule 425.2 VI.C).	Verify that the installation/CW facility is tested to determine compliance with applicable emissions requirements at least once every 12 mo. (NOTE: An installation/CW facility operating gaseous fuel-fired units demonstrating compliance for two consecutive years can demonstrate compliance once every 36 mo.)

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.15. **FUEL BURNING EQUIPMENT**	
A.15.1.CA.KC. Installations/CW facilities operating fuel burning equipment must meet specific combustion contaminant emission standards (KCAPCD Regulation IV, Rules 407.2).	Verify that the installation/CW facility does not discharge from fuel burning equipment combustion contaminants in excess of 0.1 gr/ft^3 of gas (calculated to 12 percent of CO_2 at standard conditions) at the point of discharge.

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A.20. **GAS TURBINES**	
A.20.1.CA.KC. Installations/CW facilities operating rich-burn, lean-burn, and diesel stationary piston engines of more than 50 bhp must meet specific maintenance requirements (KCAPCD Regulation IV, Rule 427 IV, V, and VIII.B.1).	(NOTE: These requirements do not apply to the following engines: - engines used exclusively for agricultural operations necessary for growing crops or raising fowl or animals - emergency standby engines operating fewer than 200 h/yr as documented by an elapsed operating time meter - engines used exclusively for firefighting purposes or flood control - laboratory engines used in research and testing - engines operated exclusively for performance verification and testing - portable engines not operated at the same site for more than 1 yr.) Verify that these engines are serviced in accordance with the following NO_x minimization maintenance schedule: - lubricating oil and filter are changed once every 3 mo or after no more than 300 h of operation - inlet air filter is cleaned once every 3 mo or after no more than 300 h of operation and replaced (if cartridge type) once every 1000 h of operation - fuel filter is cleaned once every year or replaced (if cartridge type) once every 1000 h of operation - intake and exhaust valves, spark plugs, spark timing and dwell or fuel injection timing, and carburetor mixture are checked and adjusted to factory specifications once every year or after no more than 1000 h of operation - spark plugs and ignition points are replaced after 3000 h of operation - coolant is changed once every year - exhaust system is checked for leaks and/or restrictions once every year. Verify that installations/CW facilities operating any of these engines maintain, for at least 2 yr, an engine service log for each engine demonstrating compliance.
A.20.2.CA.KC. Installations/CW facilities operating rich-burn, lean-burn, and diesel stationary piston engines of 250 bhp or more must meet specific operating and maintenance requirements (KCAPCD Regulation IV, Rule 427 IV, VI, and VIII.B.2).	(NOTE: These requirements do not apply to the following engines: - engines used exclusively for agricultural operations necessary for growing crops or raising fowl or animals - emergency standby engines operating fewer than 200 h/yr as documented by an elapsed operating time meter - engines used exclusively for firefighting purposes or flood control - laboratory engines used in research and testing - engines operated exclusively for performance verification and testing - portable engines not operated at the same site for more than 1 yr.) **A.20.2.CA.KC. Continued on Next Page**

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.20.2.CA.KC. (continued)	(NOTE: Installations/CW facilities must meet these requirements by 1 June 1997, except for cyclicly-loaded engines which must meet them by 1 January 1998 and public water district engines which must meet them by 31 May 1999.) Verify that the installation/CW facility meets the following NO_x reduction requirements or emission limits as applicable for rich-burn engines: - exhaust gas oxides of nitrogen concentration, averaged over not fewer than 15 consecutive minutes either: - are reduced by 90 percent across any exhaust gas control device - do not exceed 50 ppm by volume on dry basis corrected to 15 percent oxygen - exhaust gas CO concentration averaged over not fewer than 15 consecutive minutes do not exceed 2000 ppm by volume on a dry basis corrected to 15 percent oxygen. Verify that the installation/CW facility meets the following reduction requirements or emission limits as applicable for lean-burn engines: - exhaust gas oxides of nitrogen concentration averaged over not less than 15 consecutive minutes either: - are reduced by at least 80 percent across any exhaust gas control device - do not exceed 125 ppm by volume on dry basis corrected to 15 percent oxygen - for engines controlled exclusively by combustion modifications, exhaust gas oxides of nitrogen concentration do not exceed 0.75 microgram/J output (2.0 gr per bhp hour), or where the engine has no means to measure shaft output, exhaust gas oxides of nitrogen concentration, averaged over not fewer than 15 consecutive minutes, do not exceed 150 ppm by volume on dry basis corrected to 15 percent oxygen - exhaust gas CO concentration averaged over not less than 15 consecutive min do not exceed 2000 ppm by volume on dry basis corrected to 15 percent oxygen. Verify that the installation/CW facility meets the following requirements regarding exhaust gas concentrations of diesel engines, averaged over not less than 15 consecutive min: - oxides of nitrogen concentrations: - reduced by at least 30 percent across any exhaust gas control device - do not exceed 600 ppm by volume on dry basis corrected to 15 percent oxygen - CO concentrations do not exceed 2000 ppm by volume on dry basis corrected to 15 percent oxygen.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.20.3.CA.KC. Installations/CW facilities operating rich-burn, lean-burn, and diesel stationary piston engines of more than 50 bhp must meet specific monitoring requirements (KCAPCD Regulation IV, Rule 427 VII).	Verify that the installation/CW facility installs, operates, and maintains one of the following: - automatic combustion controls to ensure ongoing compliance with applicable emission limits - analytical equipment and/or procedures or sensing devices, indicating: - for rich-burn engines, either: - exhaust gas oxides of nitrogen and CO concentrations - for a catalyst system, air to fuel ratio showing operation within limits as recommended by catalyst system manufacturer - for lean-burn or diesel engines, both: - exhaust gas oxides of nitrogen and CO concentrations - flow rate of any reducing liquids or gases added to exhaust gases for operation of catalyst system.
A.20.4.CA.KC. Installations/CW facilities operating rich-burn, lean-burn, and diesel stationary piston engines of more than 50 bhp must have an approved control plan (KCAPCD Regulation IV, Rule 427 VIII.A).	Verify that the installations/CW facilities has an approved control plan for reduction of these air contaminant emissions. Verify that the plan includes: - a list of all engines with type of engine service and permit number - engine manufacturer, model number, rated bhp, type of fuel, and type of ignition - description of actions to be taken or emission controls to be applied to each engine - for engines of 250 bhp or more and for which the installation/CW facility chooses to comply with control efficiency limits, baseline NO_x test data representing emissions during maximum normal operating conditions - emission control equipment construction schedule, if applicable. Verify that installations/CW facilities maintains, for 2 yr, an engine operating log, including on monthly basis total hours of operation, type and quantity of fuel used, and cumulative hours of operation since last source test.
A.20.5.CA.KC. Installations/CW facilities operating cogeneration gas turbine engines with a rating equal to or greater than 10.0 MW must meet specific emissions limitations (KCAPCD Regulation IV, Rule 425 IV).	Verify that the NO_x emissions concentration (ppmv) from these engines does not exceed the following limit while operating under load and after the thermal stabilization period: - gas turbine using SCR for NO_x control: - RACT limit until 1 January 1997: - gas-fired, 10 - oil-fired, 40 **A.20.5.CA.KC. Continued on Next Page**

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.20.5.CA.KC. (continued)	- BACT limit on and after 1 January 1997: - gas-fired, 9 x (EFF/25) - oil-fired, 25 x (EFF/25) - Westinghouse 251B10 gas turbine with ATC issued before 1 January 1983 using dry low-NO_x combustor to meet 1 January 1997 limit: - RACT limit until 1 January 1997: - gas-fired, 96 - oil-fired, 114 - BACT limit on and after 1 January 1997: - gas-fired, 20 x (EFF/25) - oil-fired, 42 x (EFF/25). (NOTE: Percent EFF (efficiency) is the higher of EFF_1 or EFF_2 below. An EFF less than 25 is assigned a value of 25: $$EFF_1 = \frac{3412 \text{ Btu/kw-h X } 100\%}{\text{Actual Heat Rate at HHV, Btu/kw-h}}$$ EFF1 is the demonstrated percent thermal efficiency of the gas turbine engine only, calculated from the actual heat input (using HHV) without consideration of any downstream energy recovery, calculated at ISO conditions, and measured at peak load. $$EFF_2 = EFF_{mfr} \text{ X } \frac{LHV}{HHV}$$ Where EFF_{mfr} is the manufacturer's continuous rated percent thermal efficiency of the gas turbine engine with air pollution control equipment in operation and using fuel LHV. EFF_2 is EFF_{mfr} after correction from LHV to HHV at peak load.)
A.20.6.CA.KC. Installations/CW facilities operating cogeneration gas turbine engines with a rating equal to or greater than 10.0 MW must submit an emissions control plan to the Control Officer (KCAPCD Regulation IV, Rule 425 V.A).	Verify that the installation/CW facility has submitted an emissions control plan for each cogeneration gas turbine engine to the Control Officer for approval. Verify that the plan includes the following information: - KCAPCD permit number - gas turbine manufacturer's name - gas turbine model number - rated electrical energy output (MW) and rated heat recovery (Btu/h) - type of fuel (gas, and/or liquid) **A.20.6.CA.KC. Continued on Next Page**

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.20.6.CA.KC. (continued)	- HHV for each fuel - last year's fuel consumption (cubic feet of gas or gallons of liquid per hour) - last year's hours of operation - heat rate (Btu/kw-h) calculated using HHV for each type of fuel - e of emissions control to be applied to engine - documentation showing current NO_x emissions concentrations.
A.20.7.CA.KC. Installations/CW facilities operating cogeneration gas turbine engines with a rating equal to or greater than 10.0 MW must meet specific monitoring and recordkeeping requirements (KCAPCD Regulation IV, Rule 425 V.B).	Verify that the installation/CW facility installs, operates, and maintains in calibration, equipment approved by the Control Officer, capable of continuously measuring and recording the following information: - engine and/or emissions control system operating parameters as correlated to NO_x emissions - elapsed time of operation - NO_x emissions concentration. Verify that the NOx monitoring system meets USEPA requirements as specified in 40 CFR 60, Appendix. B, Spec.2, or other systems approved by the USEPA. Verify that the installation/CW facility submits to the Control Officer information demonstrating the emission monitoring system has data gathering and retrieval capability. (NOTE: Continuous NO_x monitoring is not required until 1 January 1997.) Verify that a cogeneration gas turbine engine operating log is maintained, including, on a daily basis, actual startup and stop times, total hours of operation, and type and quantity of fuel used. Verify that all records are maintained and made available for District inspection for 2 yr.

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A.25. MISCELLANEOUS INCINERATORS	
A.25.1.CA.KC. Installations/CW facilities using incinerators must meet specific equipment design requirements (KCAPCD Regulation IV, Rule 418).	Verify that each incinerator in use is either a multiple-chamber incinerator or another approved type.
A.25.2.CA.KC. Installations/CW facilities using incinerators or other equipment to dispose of combustible refuse must meet specific particulate matter emission standards (KCAPCD Regulation IV, Rule 407.1).	(NOTE: Incinerators meeting all of the following conditions are exempt from these requirements: - approved by the local fire control agency - are used to dispose of residential rubbish as permitted by requirements of the Open Burning section.) Verify that each nonexempt incinerator, or other kind of equipment used to dispose of combustible refuse by burning, meets one of the following conditions and particulate matter emission standards: - for equipment with burn rates greater than 100 lb/h [45.36 kg/h], particulate matter emissions do not exceed 0.1 gr/ft^3 of gas (calculated to 12 percent of CO_2 at standard conditions) and particles that are individually large enough to be visible while suspended in the atmosphere - for equipment with burn rates of 100 lb/h [45.36 kg/h] or less, particulate matter emissions do not exceed 0.3 gr/ft^3 of gas (calculated to 12 percent of CO_2 at standard conditions) - for any equipment whatsoever, particulate matter emissions do not exceed 0.10 lb/100 lb of combustible refuse charged. (NOTE: CO_2 produced by combustion of any liquid or gaseous fuels is excluded from the calculations to 12 percent of CO_2.)

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.30. **MEDICAL WASTE INCINERATORS**	
A.30.1.CA.KC. Installations/CW facilities operating medical incinerators must meet specific operating requirements (KCAPCD Regulation IV, Rule 418.1 III and IV).	(NOTE: If control equipment is required solely to comply with these requirements, the equipment is not subject to offset requirements of Rule 210.1 (New and Modified Stationary Source Review).) Determine whether the installation/CW facility operates a medical incinerator, other than those used exclusively to cremate human or domesticated pet remains. Verify that medical waste incinerators are not operated unless: - bottom ash, fly ash, and any scrubber wastes are handled and stored so as to prevent entrainment in the atmosphere - equipment is maintained for determining and recording weight of waste charged to the incinerator - each individual operating or maintaining the incinerator obtains either a certificate of training in medical waste incineration issued by the American Society of Mechanical Engineers or equivalent training approved by the Control Officer and submits copies of training certificates to the district. Verify that incinerators incinerating more than 25 tons [22.68 metric tons] of waste per year meet the following requirements: - uncontrolled dioxins emissions are reduced before the point of emission either: - by 99 percent or more - to 10 ng or less per kg of waste burned - flue gas temperature at outlet of any control equipment does not exceed 300 °F [148.89 °C], unless it has been approved by both the CARB and the Control Officer that lower emissions are achieved at a higher outlet temperature, and: - for a single chamber incinerator, the combustion chamber is kept at no less than 1600 °F [871 °C] - for a multiple chamber incinerator, the primary combustion is kept at no less than 1400 °F [760 °C]; the secondary chamber kept at no less than 1600°F [871 °C]; and residence time for combustion gas is no less than 1 s - a data recording system is maintained that provides, for each day of operation, continuous reading of the following: - primary and secondary combustion chamber temperatures - CO emissions - hourly waste charging rates - opacity of stack emissions - critical operating parameters of air pollution control equipment - any violation, malfunction, or upset condition of incinerator, air pollution control equipment, or continuous data recording system is reported to the district.

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A.30.2.CA.KC. Installations/CW facilities operating medical incinerators must meet specific administrative requirements (KCAPCD Regulation IV, Rule 418.1 V).	Verify that operating records for the incinerator, control equipment, and monitoring equipment and calibration records for monitoring equipment are maintained for at least 2 yr. Verify that medical waste incinerators burning more than 25 tons [22.68 metric tons] of waste per year conduct annual testing to demonstrate compliance and submit the test report to CARB and the district.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.60. **PRINTING PRESSES AND GRAPHIC ARTS**	(NOTE: Printing, coating, or laminating facilities which emit less than 75 lb/day of VOCs are exempt from these requirements, except for the recordkeeping requirements.)
A.60.1.CA.KC. Installations/CW facilities conducting nonexempt printing operations must meet specific operating requirements (KCAPCD Regulation IV, Rule 410.7 IV.A through IV.C).	Verify that, if the installation/CW facility operates a publication gravure printing line, a graphic arts printing line for packaging gravure, specialty gravure, screen printing flexographic printing, offset lithography, letterpress printing or related coating or laminating process, printing or coating on porous or nonporous substrate, it meets one of the following requirements: - uses only low VOC inks and coatings - installs and operates on the line, an emission control system with a control device efficiency of 95 percent on a mass basis - reduces VOC emissions from the line by at least 85 percent overall on each day from the baseline daily emissions. (NOTE: In order to be deemed a low VOC ink, coating, or adhesive, the ink, coating, or adhesive contains less than 300 g VOC/L (2.50 lb VOC/gal), as applied, excluding water and exempt compounds, provided total volatile content does not exceed that of other inks, coatings, or adhesives previously used by the installation/CW facility for the same or equivalent products.) Verify that fountain solutions do not contain more than 15 percent VOC (by volume), as applied. Verify that all spent or fresh VOC and all cloth or paper impregnated with VOCs used for surface preparation or cleanup are stored and disposed of in closed containers.
A.60.2.CA.KC. Emission control systems must meet specific operating requirements (KCAPCD Regulation IV, Rule 410.7 IV.D).	Verify that the emission control system consists of collection and control devices which include the following: - a control device designed and operated to achieve the required efficiency at all times during normal operation of the line being controlled - a collection system, with a capture efficiency of at least 90 percent, which vents all dryer exhaust to the control device - a collection system, with a capture efficiency of at least 90 percent, which has one or more inlets for collection of fugitive emissions from each line.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.60.3.CA.KC. Installations/CW facilities conducting printing operations must meet specific recordkeeping requirements (KCAPCD Regulation IV, Rule 410.7 V).	Verify that all required records are retained for a minimum of 2 yr. Verify that each installation/CW facility conducting printing operations of any kind maintains a current list of coatings, inks, and solvents in use with all data necessary to demonstrate compliance, including both of the following, where applicable: - mix ratio of components used - VOC content and chemical composition. Verify that if the installation/CW facility is not exempt, it maintains records on a daily and monthly basis including all of the following: - volume ink/solvent mix ratio - VOC content of each ink and/or coating used, in lb/gal - volume of each ink or coating used, in gal - volume, in gal, and VOC content, in lb/gal, of each cleanup solvent used. Verify that if the installation/CW facility is exempt, it maintains records demonstrating emissions are maintained below 75 lb/day [34.02 kg/day] and including all of the following: - VOC content of each ink and/or coating used, in lb/gal - volume of each ink or coating used, in gal - volume, in gal, and VOC content, in lb/gal, of each cleanup solvent used. (NOTE: Exempt installations/CW facilities may maintain these records on an extended basis, provided they demonstrate that emissions are below 75 lb/day [34.02 kg/day] for the entire extended period.) Verify that all required records are retained for a minimum of 2 yr.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.65. **FUGITIVE EMISSIONS**	(NOTE: The following activities are exempt from these requirements: - agricultural operations - actions required by Federal or state endangered species legislation - any disturbed surface area of less than 3 acres [1.21 hectares] on residential property - active operations conducted during emergency life-threatening situations, or in conjunction with any officially-declared disaster or state of emergency - active operations conducted by essential service utilities to provide electricity, natural gas, telephone, water, and sewer during periods of service outages and emergency disruptions - unpaved roads, provided the roads either: - are less than 75 ft [22.86 m] (50 ft, if contingency measure triggered) long - have a motor vehicle traffic volume less than 25 (15, if contingency measure triggered) vehicle-trips per day - have a motor vehicle traffic volume of 25 (15, if contingency measure triggered) vehicle-trips per day or more, not more than six times per year - provide access to not more than 10 residences - restorative grading of unpaved shoulders of paved roads - nonroutine or emergency maintenance of flood control channels and water spreading basins - weed and dried vegetation removal required by a fire prevention/control agency - active operations conducted during freezing weather, if applicable regulated asbestos-containing material (RACM) involves application of water - blasting operations permitted by the California Division of Industrial Safety.
A.65.1.CA.KC. Installations/CW facilities must meet specific requirements for controlling the emission of fugitive dust from specified bulk storage, earthmoving, construction and demolition, and other man-made conditions resulting in wind erosion, and unpaved roadways in the Kern County portion of Indian Wells Valley (KCAPCD Regulation IV, Rule 402 V.A - V.C).	Verify that emission of fugitive dust is not caused or allowed from any active operation, other than unpaved roadways, to remain visible in the atmosphere beyond the property line of the source, unless wind gusts exceed 25 mi/h [40.23 km/h] and one of the following conditions is met: - one of the control measures outlined in Appendix 1-2 are implemented - the installation/CW facility has an approved "High Wind Fugitive Dust Control Plan" indicating why control measures cannot be implemented. Verify that one or more Reasonable Available Control Measures are used to minimize fugitive dust emissions from each source type which is part of any active operation subject to this requirement, including unpaved roadways. Verify that, for any large operation, except those with an approved fugitive dust emissions control plan, downwind PM_{10} ambient concentrations do not increase more than 50 $\times g/m^3$ above upwind concentrations, as determined through sampling.

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A.65.2.CA.KC. Installations/CW facilities with large operations that create fugitive dust, from specified bulk storage, earthmoving, construction and demolition, and other manmade conditions resulting in wind erosion, and unpaved roadways in the Kern County portion of Indian Wells Valley, must follow specific additional requirements (KCAPCD Regulation IV, Rule 402 V.D).	Verify that no large operation subject to these requirements is conducted without either: - conducting onsite PM_{10} air quality monitoring and associated recordkeeping - filing for and obtaining an approved fugitive dust emissions control plan from the Control Officer. Verify that, if onsite PM_{10} monitoring is conducted, the following steps are taken: - the Control Officer is notified of intent to monitor at least 7 days prior to beginning - responsibility for acquisition, calibration, and operation of the samplers is accepted - samples are collected on four separate days during each calendar quarter - laboratory analysis is conducted in accordance with 40 CFR, Part 50, Appendix J - records are compiled and submitted to the district on a quarterly basis, not later than 30 days after the end of each calendar quarter.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
DRY CLEANING OPERATIONS **A.70.** **Petroleum Solvent** **A.70.1.CA.KC.** Installations/CW facilities operating dry cleaning equipment using petroleum solvents must meet specific operating and equipment requirements (KCAPCD Regulation IV, Rule 410.6A IV).	Verify that the dry cleaning equipment is not operated if solvent liquid and/or vapor is leaking from any portion of the equipment. Verify that inspections for liquid or vapor leaks includes all of the following sources: - hose connections, unions, couplings, and valves - machine door gasket and seating - filter head gasket and seating - pumps - base tanks and storage containers - water separators - filter sludge recovery - distillation unit - diverter valves - saturated lint from lint basket - cartridge filters. Verify that solvents are stored in closed containers, except where closed containers are prohibited by law, regulation, or fire control authority. Verify that all washer lint traps, access doors, and other parts of the equipment where solvent may be exposed to the atmosphere are kept closed at all times, except as required for proper operation or maintenance. Verify that used filtering material is put into a sealed container immediately after removal from the filter, unless the dry cleaning system is equipped with one of the following filtering systems: - cartridge filters containing paper or carbon or a combination thereof which are fully drained in a sealed filter housing for at least 24 h (or for 12 h if the filter is dried in a dryer vented to an emission control device) before being discarded - the petroleum solvent content in all filtration wastes is reduced to 1.0 kg [2.20 lb] or less per 100 kg [220.46 lb] dry weight of articles dry cleaned before disposal, and exposure to the atmosphere. Verify that all wastes from dry cleaning facilities are stored, transported, and disposed of in accordance with state Department of Health Services regulations. **A.70.1.CA.KC. Continued on Next Page**

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A.70.1.CA.KC. (continued)	Verify that articles which have been cleaned are, within 5 min after they are out of the washer, either transferred to the dryer or stored in closed transfer carts. Verify that the flow rate of recovered solvent from the solvent recovery dryer at termination of the recovery cycle does not exceed 0.05 L/min. Verify a clearly visible label, worded as follows, is posted specifying leak inspection and leak repair cycle information: "To protect against fire hazards, loss of valuable solvents, and emissions of solvents to the atmosphere, periodic inspection of this equipment for evidence of leaks and prompt repair of any leaks is recommended. The USEPA recommends that the equipment be inspected every 15 days. Each owner or operator shall repair all petroleum solvent vapor and liquid leaks within three working days after identifying the sources of the leaks. If necessary repair parts are not on hand, the owner or operator shall order these parts within three working days, and repair the leaks no later than three working days following the arrival of the necessary parts." Verify that petroleum solvent dry cleaners are not operated without one of the following requirements being met: - all exhaust gases from drying tumblers, washers, and cabinets are vented through a control device, which reduces the total emissions of petroleum solvent vapors by at least 90 percent by weight - a solvent recovery dryer that recovers at least 90 percent of petroleum solvent by weight is installed.
A.70.2.CA.KC. Installations/CW facilities operating dry cleaning equipment using petroleum solvents must meet specific record-keeping requirements (KCAPCD Regulation IV, Rule 410.6A V.A).	Verify that all of the following records are maintained for a minimum of 2 yr: - usage records showing the amounts of solvents purchased and used - solvent filtration records showing pre-washed weight of articles cleaned per load - solvent filtration waste records indicating the amount of VOCs contained in filtration waste material per 100 kg [220.46 lb] dry weight of articles cleaned.

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DRY CLEANING OPERATIONS **A.75.** **Perchloroethylene** **A.75.1.CA.KC.** Installations/CW facilities operating dry cleaning equipment using perchloroethylene solvents must meet specific operating requirements (KCAPCD Regulations IV, Rule 410.6 II.C and IV.A).	Verify that any leaking dry cleaning equipment is not operated and any solvent liquid or solvent vapor leaks are repaired immediately. Verify that inspection for liquid or vapor leaks includes all of the following sources: - hose connections, unions, couplings and valves - machine door gasket and seating - filter head gasket and seating - pumps - base tanks and storage containers - water separators - filter sludge recovery - distillation unit - diverter valves - saturated lint from lint basket - cartridge filters Verify that all washer lint traps, access doors, and other parts of dry cleaning equipment where solvent may be exposed to the atmosphere are kept closed at all times, except when required for proper operation or maintenance. Verify that backwashing from all diatomaceous earth type filters is treated in a still or muck cooker so that solvent content of the residue does not exceed 0.25 percent by weight. Verify that backwashing from all filters other than diatomaceous earth types is treated in a still or muck cooker so that solvent content of the residue does not exceed 60 percent by weight. Verify that cartridge type filters are drained in the filter housing for at least 24 h before discarded. Verify that all waste containing perchloroethylene is stored in sealed containers and disposed of at a permitted hazardous waste disposal facility. Verify that all perchloroethylene dry cleaning equipment installed after 1 July 1991 is a dry-to-dry system. **A.75.1.CA.KC. Continued on Next Page**

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A.75.1.CA.KC. (continued)	Verify that the dry cleaning facility is not operated unless one of the following requirements is met: - all exhaust gases from drying tumblers, cabinets, and floor pickups are vented through a carbon adsorber which reduces total emissions of organic compounds to the atmosphere during the entire drying cycle to 100 ppm by volume before distillation - exhaust gases from drying tumblers, cabinets, and floor pickups are vented through a control device other than a carbon adsorber, which reduces total emissions of organic compounds to the atmosphere during the entire cycle by at least 90 percent by weight.
A.75.2.CA.KC. Installations/CW facilities operating dry cleaning equipment using perchloroethylene solvents must meet specific recordkeeping requirements (KCAPCD Regulation IV, Rule 410.6 V).	Verify that all of the following recordkeeping requirements are met: - records showing daily perchloroethylene consumption are kept for a minimum of 2 yr - an inspection log is maintained including all of the following information: - daily inspection schedule - liquid or vapor leaks found - leaks repaired.

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COATING OPERATIONS **A.100** **Architectural Coatings**	
A.100.1.CA.KC. Installations/CW facilities that apply architectural coatings must ensure that these coatings meet specific standards (KCAPCD Regulation IV, Rule 410.1).	(NOTE: The following architectural coatings are exempt from these requirements: - coatings supplied in containers having capacities of 1 L [0.26 gal] or less - coatings sold in nonrefillable aerosol containers having capacities of 1 L [0.26 gal] or less - coatings recommended by the manufacturer for use solely as emulsion-type bituminous pavement sealers.) Verify that, if the installation/CW facility uses any of the architectural coatings listed in Appendix 1-3, none of those coatings exceed VOC limits listed. (NOTE: Architectural coatings manufactured prior to any VOC emission limit effective date listed in Appendix 1-3, and not meeting new VOC limits put into effect on that date, may be used without penalty for 3 yr after the effective date.) Verify that every other architectural coating used by the installation/CW facility does not contain more than 250 g VOC/L of coating, less water and exempt solvents, and excluding colorant added to tint bases. Verify that installations/CW facilities meet the most restrictive VOC standard for multiple-use coatings, except in the following cases: - High-Temperature Industrial Maintenance Coatings that may be represented as Metallic Pigmented Coatings, for use consistent with the definition of the former - Lacquer Sanding Sealers, that may be recommended for use as sanding sealers in conjunction with clear lacquer topcoats - Metallic Pigmented Coatings, that may be recommended for use as any of the following: - Primers, Sealers or Undercoaters - Roof Coatings - Industrial Maintenance Coatings - Shellacs, that may be represented in any other manner.
A.100.2.CA.KC. Installations/CW facilities that apply architectural coatings must meet specific storage requirements (KCAPCD Regulation IV, Rule 410.1 IV.D).	Verify that all VOC-containing materials are stored in closed containers when not in use.

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A.100.3.CA.KC. Installations/CW facilities that apply architectural coatings must meet specific cleanup requirements (KCAPCD Regulation IV, Rule 410.1 IV.E).	Verify that, if the installation/CW facility uses VOC-containing materials for cleanup of spray equipment, it uses equipment to collect cleaning compounds and minimize evaporation.
Metal Surface Coatings	(NOTE: The following surface coating operations are exempt from these requirements: - operations using any combination of coatings, provided total allowed facility VOC emissions do not exceed 15 lb in any one day, excluding recordkeeping requirements - application of surface coatings to automobiles, light-duty trucks, aircraft, aerospace vehicles, marine vessels, cans, coils, or magnetic wire, or to powder coatings - any surface coating operation subject to requirements of Coating Operations - Motor Vehicles and Mobile Equipment subsection.)
A.100.4.CA.KC. Installations/CW facilities conducting nonexempt coating operations must use surface coatings meeting specific VOC content standards (KCAPCD Regulation IV, Rule 410.4 IV.A and IV.B).	Verify that the installation/CW facility does not use coatings exceeding the VOC content limits listed in Appendix 1-4. (NOTE: In lieu of meeting the VOC content limits, air pollution control equipment with a capture efficiency of at least 85 percent and a control device efficiency of at least 90 percent may be used.)
A.100.5.CA.KC. Installations/CW facilities conducting nonexempt coating operations must use specific kinds of application equipment and techniques when applying metal surface coatings (KCAPCD Regulation IV, Rule 410.4 III.B and IV.C).	(NOTE: This requirement does not apply to the touchup, repair, or stenciling of identification numbers and letters. Verify that the installation/CW facility does not apply metal surface coatings unless one of the following methods is used: - brush, dip, or roll coating conducted in accordance with equipment manufacturer's recommendations - electrostatic or electrodeposition application conducted in accordance with manufacturer's recommendations - HVLP spraying operated in accordance with equipment manufacturer's recommendations - other application method demonstrated to achieve at least 65 percent transfer efficiency, for example, flow or continuous coating.

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A.100.6.CA.KC. Installations/CW facilities using solvent for surface preparation and cleanup must meet specific requirements (KCAPCD Regulation IV, Rule 410.4 IV.D).	Verify that no solvent exceeds 200 g VOC/L of material (1.7 lb/gal) when used to remove dirt, oils, or other contaminants prior to application of surface coatings or adhesives or when used to strip any coating. Verify that solvents used for cleaning coatings application equipment meet both of the following limits: - have a VOC content of 950 g or less/L material (7.9 lb/gal) - have a VOC composite partial pressure of 35 mm Hg or less at 20 °C (68 °F). Verify that solvents used for cleaning polyester resin application equipment meet one of the following limits: - have a VOC content of 200 g or less/L (1.7 lb/gal) - have a VOC content of 1100 g or less/L (9.2 lb/gal) and a VOC composite partial pressure of 1.0 mm Hg or less at 20 °C (68 °F). Verify that solvent cleaning operations use one of the following cleaning devices or methods: - wipe cleaning - spray bottle or containers with a maximum capacity of 16 fl oz from which solvents are applied without a propellant induced force - cleaning equipment having a closed solvent container during cleaning operations, except when depositing and removing objects to be cleaned, and closed during nonoperation except during maintenance and repair of the cleaning equipment itself - remote reservoir cold cleaner operated in accordance with Degreasing Operation requirements - system totally enclosing guns, cups, nozzles, bowls, and other parts during washing, rinsing, and draining procedures - nonatomized solvent flow method collecting cleaning solvent in a container or a collection system closed except for solvent collection openings and, if necessary, openings to avoid excessive pressure build-up inside the container - solvent flushing method discharging solvent into a closed container, except for solvent collection openings and, if necessary, openings to avoid excessive pressure build-up inside the container. Verify that discharged solvent from such equipment is collected in containers without atomizing into open air. Verify that, regardless of VOC content, all VOC-containing materials used in solvent cleaning operations are stored in nonabsorbent, nonleaking containers kept closed at all times except when filling or emptying.

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A.100.7.CA.KC. Installations/CW facilities must meet specific recordkeeping requirements related to metal surface coating operations (KCAPCD Regulation IV, Rule 410.4 V.B).	Verify that the installation/CW facility maintains the following records, available for inspection, for at least 3 yr: - current list of VOC containing products in use containing all data necessary to evaluate compliance, including the following information, as applicable: - material name and manufacturer's identification - application method - material type and specific use instructions - specific mixing instructions - maximum VOC content of coatings as applied, including thinning solvents, hardeners, etc., excluding water and exempt compounds - coating composition and density - daily coating and solvent use records including the following information for each: - volume used of each component and mix ratio - VOC content, in g/L or lb/gal, as applied/used - volume, in L or gal, applied/used - capture and control equipment operating records, if applicable, including: - periods of operation corresponding to use records showing control equipment was used as necessary - key system operating parameters showing operation as required - date performed and description of all control system maintenance. (NOTE: Installations/CW facilities exempt from other requirements of this subsection need not keep these records on a daily basis, provided records show emissions are less than 15 lb for the entire extended period.)
Motor Vehicle and Mobile Equipment Refinishing Operations	(NOTE: The following coating operations are exempt from these requirements: - coating operations employing hand-held nonrefillable aerosol cans, 18 ox or less, provided the area to be covered does not exceed 9 ft^2 per vehicle to repair minor surface damage and imperfections - graphic art operations.
A.100.8.CA.KC. Installations/CW facilities conducting nonexempt coating operations for finishing or refinishing motor vehicles (Group I and II), mobile equipment and their parts and components must use surface coatings meeting specific VOC content standards (KCAPCD Regulation IV, Rules 410.4A IV.A through IV.C).	Verify that the installation/CW facility does not refinish or spot/panel repair any Group I vehicle, or where color match is required, any Group II vehicle, mobile equipment or parts and components of such vehicles or equipment, using a coating with VOC content exceeding limits listed in Appendix 1-5A. Verify that, where color match is not required, the installation/CW facility does not refinish or spot/panel repair any Group II vehicle, mobile equipment, or parts and components of such vehicle or equipment using a coating with a VOC content exceeding limits listed in Appendix 1-5B. (NOTE: In lieu of complying with VOC content limits specified in Appendix 1-5A and 1-5B, air pollution control equipment with a capture efficiency of at least 85 percent and a control efficiency of at least 90 percent may be used.)

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A.100.9.CA.KC. Installations/CW facilities conducting nonexempt coating operations for finishing or refinishing motor vehicles (Group I and II), mobile equipment and their parts and components must use specific kinds of application equipment and techniques (KCAPCD Regulation IV, Rule 410.4A IV.D and IV.E).	Verify that all surface coatings subject to these requirements are applied within a permitted, properly maintained, and operational paint spraybooth located at a site with proper city or county zoning. Verify that the installation/CW facility uses one of the following application methods: - brush, dip, or roll coating conducted in accordance with manufacturer's recommendations - electrostatic or electrodeposition application conducted in accordance with manufacturer's recommendations - HVLP spray equipment operated in accordance with manufacturer's recommendations - other application method demonstrated to achieve at least 65 percent transfer efficiency.
A.100.10.CA.KC. Installations/CW facilities conducting nonexempt coating operations for finishing or refinishing motor vehicles (Group I and II), mobile equipment and their parts and components must meet specific surface preparation and equipment cleanup requirements (KCAPCD Regulation IV, Rule 410.4A IV.F and IV.G).	Verify that no material containing VOC in excess of 200 g/L (1.7 lb/gal) of material is used to remove dirt, oils, or other contaminants prior to application of surface coatings or adhesives or used to strip any coating. Verify that solvents used for cleaning coatings application equipment meet both of the following limits: - solvent has a VOC content of 950 g or less/L (7.9 lb/gal) of material - solvent has a VOC composite partial pressure of 35 mm Hg or less at 20 ºC (68 ºF). Verify that solvents used for cleaning polyester resin application equipment meet one of the following limits: - solvent has a VOC content of 200 g or less/L (1.7 lb/gal) - solvent has a VOC content of 1100 g or less/L (9.2 lb/gal) and a VOC composite partial pressure of 1.0 mm Hg or less at 20 °C (68 °F). Verify that one of the following cleaning devices or methods is used to perform solvent cleaning operations: - wipe cleaning - spray bottles or containers with a maximum capacity of 16 fl oz from which solvents are applied without a propellant-induced force - cleaning equipment having a closed solvent container during cleaning operations, except when depositing and removing objects to be cleaned, and closed during nonoperation, except during maintenance and repair of the cleaning equipment itself **A.100.10.CA.KC. Continued on Next Page**

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A.100.10.CA.KC (continued)	- remote reservoir cold cleaner operated in compliance with degreasing operation requirements - system totally enclosing spray guns, cups, nozzles, bowls, and other parts during washing, rinsing, and draining procedures - nonatomized solvent flow method collecting cleaning solvent in a container or a collection system closed except for solvent collection openings and, if necessary, openings to avoid excessive pressure build-up inside the container - solvent flushing method discharging cleaning solvent into a container closed except for solvent collection openings, if necessary, openings to avoid excessive pressure build-up inside the container. Verify that discharged solvent from such equipment is collected into containers without atomizing into open air. Verify that, regardless of VOC content, all VOC-containing materials used in solvent cleaning operations are stored in nonabsorbent, nonleaking containers kept closed at all times except when filling or emptying.
A.100.11.CA.KC. Installations/CW facilities conducting nonexempt coating operations for finishing or refinishing motor vehicles (Group I and II), mobile equipment and their parts and components and using specialty coatings must meet specific requirements (KCAPCD Regulation IV, Rule 410.4A IV.J).	Verify that the installation/CW facility meets both of the following requirements: - it does not use specialty coatings with a VOC content in excess of 840 g/L (7.0 lb/gal), excluding water and exempt solvents - if its use of specialty coatings, except antiglare/safety coatings, exceeds 1 gal/day, then use does not exceed 5 percent of all coatings applied on a daily basis.
A.100.12.CA.KC. Installations/CW facilities conducting nonexempt coating operations for finishing or refinishing motor vehicles (Group I and II), mobile equipment and their parts and components must meet specific recordkeeping requirements (KCAPCD Regulation IV, Rule 410.4A V.B).	Verify that the installation/CW facility maintains the following kinds of records for at least 3 yr: - a current list of VOC containing products in use containing all of data necessary to evaluate compliance, including the following information, as applicable: - material name and manufacturer's identification - application method - material type and specific use instructions - specific mixing instructions.

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A.105. **COOLING TOWERS**	
A.105.1.CA.KC. Installations/CW facilities with cooling towers must follow specific operating requirements (KCAPCD Regulation IV, Rule 429.1 III and IV.B).	Determine whether the installation/CW facility operates a cooling tower in which circulating water is exposed to the atmosphere. (NOTE: If circulating water meets either of the following criteria, it is exempt from these requirements except for the prohibition on adding hexavalent chromium containing compounds, reporting requirements, and permit requirements: - has hexavalent chromium concentration levels less than 0.15 mg/L - never had hexavalent chromium containing compounds added. Cooling devices commonly known as evaporative coolers or swamp coolers, whose operating principle is based on cooling air subsequently used to cool a building, residence, or other occupied area, are also exempt from these requirements, except for the prohibition on adding hexavalent chromium containing compounds.) Verify that no hexavalent chromium containing compounds are added to cooling tower circulating water. Verify that hexavalent chromium concentration levels in circulating water of both wooden and nonwooden cooling towers do not exceed 0.15 mg/L.
A.105.2.CA.KC. Installations/CW facilities with cooling towers must follow specific administrative requirements (KCAPCD Regulation IV, Rule 429.1 V).	Verify that any installation/CW facility with a newly constructed cooling tower not subject to permitting requirements submits a compliance plan to the Control Officer at least 90 days before the tower is operated. Verify that records are maintained for at least 2 yr of all circulating water tests for hexavalent chromium. Verify that the circulating water is tested for hexavalent chromium at least once every 6 mo. (NOTE: Testing may be discontinued and an exemption sought when two consecutive required tests show concentrations below 0.15 mg/L). Verify that the installation/CW facility annually submits to the Control Officer the following: - results of all circulating water tests - name and address of laboratory performing the tests - dates samples were collected and analyses were performed.

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A.110 **CHROME PLATING/ CHROMIC ACID ANODIZING**	
A.110.1.CA.KC. Installations/CW facilities operating decorative chrome plating facilities must meet specific operating and equipment requirements (KCAPCD Regulation IV, Rule 429 II).	Verify that an anti--mist additive is continuously maintained in the plating tank in a manner demonstrated to and approved by the Control Officer to achieve chromium emission reductions of at least 95 percent. Verify that control equipment is installed and used in a manner demonstrated to and approved by the Control Officer to achieve chromium emission reductions of at least 95 percent.
A.110.2.CA.KC. Installations/CW facilities operating hard chrome plating and chromic acid anodizing facilities must meet specific operating and equipment requirements (KCAPCD Regulation IV, Rule 429 III).	Verify that the installation/CW facility maintains continuous records of ampere-hours for all plating tanks served by a collection system and submits this information to the Control Officer. Verify that the plating tank is not operated unless it has an emissions collection system Verify that a hard chrome plating or chromic acid anodizing tank is not operated, unless one of the following conditions is met: - chromium emissions collected by emissions collection system serving the tank have been reduced by at least 95 percent of uncontrolled chromium emissions - chromium emissions collected by the emissions collection system serving the tank have been reduced to less than 0.15 mg of chromium per ampere-hour of electrical charge applied to the plating tank. Verify that a hard chrome plating tank or chromic acid anodizing tank is not operated if facility-wide chromium emissions are greater than 2 lb/yr but less than 10 lb/yr, unless one of the following conditions is met: - chromium emissions collected by emissions collection systems serving the tank have been reduced by at least 99 percent of uncontrolled chromium emissions - chromium emissions collected by the emissions collection systems are reduced to less than 0.03 mg of chromium per ampere-hour of electrical charge applied to the tanks. **A.110.2.CA.KC. Continued on Next Page**

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A.110.2.CA.KC.(continued)	Verify that a hard chrome plating or chromic acid anodizing tank is not operated if facility-wide chromium emissions are 10 lb/yr or greater, unless one of the following conditions is met: - chromium emissions collected by emissions collection systems serving the tank have been reduced by at least 99.8 percent of uncontrolled chromium emissions - chromium emissions from emissions collection systems are reduced to less than 0.006 mg of chromium per ampere-hour electrical charge applied to tanks.

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DEGREASING OPERATIONS **A.115** **General**	(NOTE: The following degreasing activities are exempt from all degreasing requirements: - wipe cleaning - operation of single pieces of degreasing equipment that use unheated solvent and that have a liquid surface area of less than 929 cm^2 (1 ft^2), except when all such degreasers operating at a stationary source have an aggregate liquid surface area greater than 0.93 m^2 (10 ft^2).
A.115.1.CA.KC. Installations/CW facilities conducting organic solvent degreasing operations must meet specific recordkeeping requirements (KCAPCD Regulation IV, Rule 410.3 V.A).	Verify that the installation/CW facility maintains the following kinds of records for at least 2 yr: - records showing on a quarterly basis the following information for each nonexempt degreaser: - type of degreaser - type of solvent - solvent initial boiling point - volume of solvent used - volume of makeup solvent added to the degreaser - records confirming that waste solvents and solvent residues are managed in compliance with state and Federal requirements applicable to solid wastes, hazardous wastes, or recyclable materials.

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DEGREASING OPERATIONS **A.116** **Cold Cleaners** **A.116.1.CA.KC.** Installations/CW facilities conducting organic solvent degreasing operations using cold cleaners must meet specific operating requirements (KCAPCD Regulation IV, Rule 410.3 IV.A.1, IV.A.3.g, and IV.A.4.f).	Verify that the following general operating and maintenance requirements are met for all cold cleaning degreasing activities: - degreasing equipment and emission control equipment is operated and maintained in proper working order - solvent leaks are either repaired immediately, or the solvent is removed to a sealed container and the leaking equipment is shut down - solvents, including waste solvent, are not stored or disposed of in a way that results in their evaporation into the atmosphere - covers over solvents are not removed or opened, except as necessary for operation or maintenance of degreasing equipment - air agitation of the solvent bath is not utilized - porous or absorbent materials such as cloth, leather, wood, or rope are not degreased - waste solvents and solvent residues are managed in compliance with state and Federal requirements applicable to solid wastes, hazardous wastes, or recyclable materials - if solvent flow is used, only a continuous fluid stream (not a fine, atomized, or shower-type spray) is used at a pressure that does not cause liquid solvent to escape the container - drain cleaned parts for at least 15 s after cleaning or until dripping ceases - solvent spraying is done at least 4 in. below the top of the vapor layer. Verify that each piece of degreasing equipment is equipped with a conspicuous, permanent label or sign listing its applicable operating requirements. Verify that each piece of degreasing equipment has a permanent conspicuous mark locating the maximum allowable solvent level which conforms with the applicable freeboard requirement.

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A.116.2.CA.KC. Installations/CW facilities conducting organic solvent degreasing operations using cold cleaners must meet specific equipment requirements (KCAPCD Regulation IV, Rule 410.3 IV.A.2 through IV.A.4).	Verify that cold cleaners, except remote reservoir cold cleaners, are equipped with the following: - a freeboard such that the freeboard ratio is greater than or equal to 0.75 - a container (degreaser) for solvent and the articles being cleaned - an apparatus or cover which prevents solvent from evaporating when not processing work; the cover is designed so that it can be opened and closed easily with one hand - a facility for draining cleaned parts such that the drained solvent is returned to the container - if a high volatility solvent is used, the drainage facility is internal, so that parts are enclosed under the cover while draining. Verify that cold cleaners, except remote reservoir cold cleaners, are not operated without one of the following control devices: - if a high volatility solvent is used, one of the following control devices is used: - a water cover if the solvent is insoluble in and heavier than water - any other system of control demonstrated to have emission control efficiency equivalent to 85 percent overall control - if low volatility solvent is used, the freeboard height is at least 6 in. Verify that remote reservoir cold cleaners are equipped with the following: - a cover for the drain when no work is being processed in the degreaser and high volatility solvent is used - a freeboard height of at least 6 in. - a sink-like work area which is sloped sufficiently towards the drain to preclude pooling of solvent.

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DEGREASING OPERATIONS **A.117** **Vapor Cleaning** **A.117.1.CA.KC.** Installations/CW facilities conducting organic solvent degreasing operations using open-top vapor degreasers must meet specific operating requirements (KCAPCD Regulation IV, Rules 410.3 IV.B.1).	Verify that the following general operating and maintenance requirements are met for all open-top vapor degreasing activities: - degreaser equipment and emission control equipment are operated and maintained in proper working order - solvent leaks are repaired immediately, or the degreaser is shut down and drained - any device designed to cover the solvent is not removed or opened unless processing work or performing maintenance on the degreaser - if solvent flow is used, only a continuous fluid stream (not a fine, atomized, or shower type spray) is used at a pressure which does not cause liquid solvent to splash outside of the solvent container - porous or absorbent materials such as cloth, leather, wood, or rope are not degreased - solvent, including waste solvent and solvent residues, is not stored or disposed of in such a manner as will cause or allow its evaporation into the atmosphere - waste solvent and waste solvent residues are managed in compliance with California and Federal requirements applicable to solid wastes, hazardous wastes, or recyclable materials - solvent agitation, where necessary, is achieved only by pump circulation, or by means of a mixer, or with ultrasonics - work loads do not occupy more than half of the degreaser's open top area - solvent spraying is done at least 4 in. below the top of the vapor layer - water is not visually detectable in the solvent returning from the water separator to the solvent cleaner - for open-top degreasers equipped with a lip exhaust, the exhaust is turned off when the degreaser is covered - exhaust ventilation does not exceed 20 m^3/min per m^2 (65 cfm/ft^2) of degreaser open area, unless necessary to meet OSHA requirements - ventilation fans are not positioned so as to disturb the vapor zone. Verify that solvent carry-out is minimized by using the following measures: - rack parts to allow complete drainage - move parts in and out of the degreaser at less than 3.3 m/min (2.2 in./s) - degrease the work load in the vapor zone until condensation ceases - allow parts to dry within the degreaser until visually dry - tip out any pools of solvent on the cleaned parts before removal. **A.117.1.CA.KC. Continued on Next Page**

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.117.1.CA.KC.(continued)	Verify that, if the unit is equipped with a refrigerated freeboard chiller and/or a primary condenser, the following procedures are followed: - when starting up the degreaser, the cooling system is turned on before, or simultaneously with, the sum heater - when shutting down the degreaser, the sump heater is turned off before, or simultaneously with, the cooling system.
A.117.2.CA.KC. Installations/CW facilities conducting organic solvent degreasing operations using open-top vapor degreasers must meet specific equipment requirements (KCAPCD Regulation IV, Rules 410.3 IV.B.2).	Verify that open-top vapor degreasers are equipped with all of the following: - a container (degreaser) for the solvent and articles being cleaned - a freeboard ratio greater than or equal to 0.75 - an apparatus or cover, which prevents solvent from evaporating when not processing work in the degreaser, designed to be opened and closed easily without disturbing the vapor zone - a facility for draining cleaned parts so that the drained solvent is returned to the container - a permanent, conspicuous label listing each of the operating requirements. Verify that open-top vapor degreasers do not operate without one of the following, or a combination of the following, major control devices: - condenser equipment, where the chilled air blanket temperature measured at the coldest point on the vertical axis in the center of the solvent cleaner, is either no greater than 30 percent of the initial boiling point, measured in degrees F, of the solvent used, or 41 ºF - enclosed design (cover or door opens only when the dry part is actually entering or exiting the degreaser) - a carbon adsorption system which ventilates air-vapor interface at a minimum rate of 15 m^3 (50 cfm/ft^2), but not greater than 20 m^3/min per m^2 (65 cfm/ft^2), unless required by OSHA standards, and exhausts less than 25 ppm of solvent by volume over a complete adsorption cycle, and with an overall capture and control efficiency of 85 percent - any other system of emission control demonstrated to have an overall capture and control efficiency of at least 85 percent. Verify that open-top vapor degreasers include all of the following safety switches: - condenser flow switch with a solvent temperature indicator, except where non-water refrigerant is used; a device which shuts off the sump heat if either the condenser coolant stops circulating or becomes warmer than specified - spray safety switch - manual reset vapor level thermostat with a solvent temperature indicator.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.117.3.CA.KC. Installations/CW facilities conducting organic solvent degreasing operations using conveyorized solvent degreasers must meet specific operating requirements (KCAPCD Regulation IV, Rules 410.3 IV.C.2 through IV.C.5).	Verify that conveyorized degreasers are equipped with all of the following: - a container (degreaser) for solvent and articles to be cleaned - freeboard ratio greater than or equal to 0.75 - an apparatus or cover, which prevents solvent from evaporating when not processing work in the degreaser - covers for closing off the entrance and exit during shutdown hours - a facility for draining cleaned parts so that drained solvent is returned to the container - for degreasers with greater than $2m^2$ air/vapor interface, a hood or enclosure with delivery or duct work to collect degreaser emissions, exhausting to a carbon adsorber or equivalent control device - permanent, conspicuous label listing each of the operating requirements. Verify that conveyorized degreasers do not operate without one of the following, or a combination of the following, major control devices: - condenser equipment, where the chilled air blanket temperature measured at the coldest point on the vertical axis in the center of the solvent cleaner, is either no greater than 30 percent of the initial boiling point, measured in degrees F, of the solvent used, or 41 °F - carbon adsorption system which ventilates air-vapor interface at a minimum rate of 15 m^3 (50 cfm/ft^2), but not greater than 20 m^3/min per m^2 (65 cfm/ft^2), unless required by OSHA standards, and exhausts less than 25 ppm of solvent by volume over a complete adsorption cycle, and with an overall capture and control efficiency of 85 percent by weight - any other system of emission control demonstrated to have an overall capture and control efficiency of at least 85 percent. Verify that conveyorized degreasers include both the following control devices: - drying tunnel or other means, such as a rotating basket, sufficient to prevent cleaned parts from carrying out solvent liquid or vapor - minimized opening--entrances and exits should silhouette the work loads so that the average clearance between parts and the edge of the degreaser opening is either less than 10 cm (4 in.) or less than 10 percent of the width of the opening, whichever is less. Verify that conveyorized degreasers are equipped with all of the following safety switches: - a condenser flow switch with a solvent temperature indicator, except where non-water refrigerant is used - a spray safety switch - a manual reset vapor level thermostat with a solvent temperature indicator.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.120. **OIL/WATER SEPARATORS**	(NOTE: The following are exempt from these requirements: - wastewater separators receiving effluent containing VOCs with a Reid vapor pressure of less than 0.5 psi and recovering less than 200 gal/day of VOC-containing liquid - air flotation units.)
A.120.1.CA.KC. Installations/CW facilities operating any wastewater separators must meet specific requirements (KCAPCD Regulation IV, Rule 414).	Verify that any compartment of any vessel or device operated for the recovery of oil or tar from effluent water, from any equipment which processes, refines, stores, or handles petroleum or coal tar products, is equipped with one of the following vapor loss control devices, except when gauging or sampling is taking place: - a solid cover with all openings sealed and totally enclosing the liquid contents of that compartment, except for such breathing vents as are structurally necessary - a floating pontoon or double-deck type cover equipped with closure seals meeting the following criteria: - have no holes or tears - installed and maintained so that gaps between the compartment wall and seal do not exceed 0.32 cm (1/8 in.) for an accumulative length of 97 percent of the perimeter of the tank - do not exceed 1.3 cm (1/2 in.) for an accumulative length of the remaining 3 percent of the perimeter of the tank - no gap between the compartment wall and seal exceeds 1.3 cm (1/2 in.) - a vapor recovery system with a combined collection and control efficiency of at least 90 percent by weight. Verify that any gauging or sampling device in a compartment cover is equipped with a cover or a lid that is kept closed, except when the device is in use. Verify that all wastewater separator forebays are covered. Verify that skimmed oil or tar removed from the separator is either charged to process units with feed or transferred to a container with a permitted control system with at least 90 percent control efficiency by weight.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.130. **OPEN BURNING**	
A.130.1.CA.KC. Installations/CW facilities are prohibited from burning any combustible refuse in any open outdoor fire within District boundaries, except under certain circumstances (KCAPCD Regulation IV, Rules 416 III and IV).	Verify that the installation/CW facility does not burn any combustible refuse in any open outdoor fire with the exception of the following exempt fires: - fires officially set or permitted by any public officer in order to prevent a fire hazard which cannot be abated by any other reasonable means - fires set for instruction of volunteer firemen, public, or industrial employees in methods of fire fighting - safety flares for combustion of waste gases - fires used only to cook food for human beings - burning of residential rubbish originating on and being burned on premises not served by an organized solid waste disposal service and more than 15 mi from a county sanitary landfill, except for burning of rubbish from any of the following: - any industrial, commercial, or institutional facility - any residential facility constructed for the use of more than two families - backfires or other fire control methods used to control an existing wild fire - any of the following kinds of open burning, provided a permit has been obtained from the District and the requirements of the Agricultural Burning section are met: - burning for right-of-way clearing - levee and ditch bank maintenance - open burning at open dumps by a public entity or utility - fires used for conducting agricultural operations in the growing of crops, or raising of fowl, animals, or bees on a farm for the primary purpose of making a profit or for a livelihood - wildland vegetation management, forest management, or range improvement.
A.130.2.CA.KC. Open burning/open detonation (OB/OD) of waste propellants, explosives, munitions, and pyrotechnics (PEMP) must meet specific operational requirements (KCAPCD Regulation IV, Rules 416 V.A through V.C).	Verify that the installation/CW facility has prior approval of the Control Officer through approval of an OB/OD burn plan before conducting an OB/OD operation to treat PEMP wastes. (NOTE: The OB/OD burn plan is only valid for a year, but can be renewed annually.) Verify that the OB/OD burn plan outlines the following: - methods to be used to achieve detonation or combustion - limits the category and amount of waste PEMP to be disposed of each year to an amount with a projected lifetime toxic cancer risk less than one-in-one million and limits daily disposal amounts to that level not causing an impact above acute toxic thresholds **A.130.2.CA.KC. Continued on Next Page**

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.130.2.CA.KC.(continued)	- limits OB/OD operations or provides for mitigation when meteorological conditions could cause emissions to result in or contribute to an exceedence of any state or Federal ambient air quality standard or cause a public nuisance - requires waste PEMP to be free of nonPEMP materials, except for those materials necessary to safely store, handle, or treat PEMP or intimately-related materials - requires waste PEMP to be in a condition facilitating combustion, assuring safe operations, and minimizing the amount of emissions emitted during treatment - includes the following information: - location of proposed treatment operation - category and amount of waste PEMP to be treated - directions and distances to nearby receptor areas - air quality impact analysis showing expected impacts with respect to state and Federal ambient air quality standards - risk assessment for acute and chronic health effects - meteorological criteria developed for the project - projected schedule or frequency of OB/OD events - specifications for monitoring and recording of critical project parameters - specifications for reporting and disseminating project information - material to be treated is limited to PEMP generated from operations at the Federal facility where the OB/OD operation is to take place - OB/OD detonation operations are allowed on normal business days - all OB/OD detonation operations conform to applicable jurisdictional fire codes - OB/OD detonation operations are not initiated if emissions may drift into a populated area or create a public nuisance.
A.130.3.CA.KC. Open burning/open detonation (OB/OD) of waste PEMP must meet specific record-keeping requirements (KCAPCD Regulation IV, Rules 416 V.E).	Verify that records are maintained for the type and amount of PEMP for each OB/OD detonation operation and is submitted to the District no more than 60 days prior to the end of the burn plan approval period. Verify that these records are kept for at least 5 yr.
A.130.4.CA.KC. Installations/CW facilities must have a permit in order to conduct agricultural burning (KCAPCD Regulation IV, Rules 417 II.A).	Verify that the installation/CW facility does not conduct agricultural burning of any kind without a valid permit issued by an agency designated by the Air Pollution Control Board.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.130.5.CA.KC. Installations/CW facilities must conduct all agricultural burning in compliance with specific requirements (KCAPCD Regulation IV, Rules 417 II.D through II.N, and 417 VI).	Verify that all agricultural burning conducted on installation/CW facility premises meets all of the following requirements: - it is conducted only after the installation/CW facility has notified the local fire control agency - it is conducted only on days when burning is permitted by the local fire control agency - it is conducted only on days when burning is permitted by the District and the Board, unless it is: - open burning in agricultural operations in the growing of crops or raising of fowl or animals at altitudes above 3000 ft mean sea level - agricultural burning in areas at altitudes above 6000 ft mean sea level - it is conducted during daylight hours and terminated by sunset each day - it does not create a public nuisance. Verify that materials to be burned meet all of the following conditions: - they do not include tires, rubbish, tar paper, plastic, construction debris, used pesticide containers (except sacks), or any material not produced in any agricultural operation - material stacked for burning are loosely stacked in a manner promoting drying and insuring combustion with a minimum of smoke - they are free of excessive dirt, soil, and visible surface moisture - they have been dried for the following minimum periods: - for trees and large branches, 6 weeks - for prunings and small branches, 3 weeks - for other materials, see specific requirements listed below - they are ignited with an approved ignition device - they are ignited as rapidly as practicable within applicable fire control restrictions. (NOTE: Empty sacks which contained pesticides may be burned on a no-burn day provided such sacks are within the definition of open burning in agricultural operations. Upon receipt of a burning permit from the appropriate fire control agency, tumbleweeds and star thistle may be burned provided: - no other feasible or practical method is available - an approved ignition device is used - a public nuisance is not created.)
A.130.6.CA.KC. Installations/CW facilities conducting field crop burning must meet specific additional requirements (KCAPCD Regulation IV, Rule 417 III).	Verify that cereal straw is ignited only by strip-firing into the wind or by backfiring, except under a special permit issued by the District when and where extreme fire hazards are declared by a public fire protection agency, or where crops are determined not to lend themselves to these techniques.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.130.7.CA.KC. Verify that field crop burning does not begin before 1000 hours, or after 1700 hours of any day. Installations/CW facilities conducting forest management burning must meet specific additional requirements (KCAPCD Regulation IV, Rule 417 V.A and V.B).	Verify that materials burned during forest management burning meet all of the following criteria: - unless good silvicultural practice dictates otherwise, they are piled or windrowed before being burned - they are dried as required by conditions of the agricultural burning permit.
A.130.8.CA.KC. Installations/CW facilities conducting range improvement burning must meet specific additional requirements (KCAPCD Regulation IV, Rule 417 IV).	Verify that, between 1 January and 31 May, range improvement burning is conducted by permit on a no-burn day, provided more than 50 percent of the land has been brush treated. Verify that no brush or unwanted trees are burned, unless it has been brush treated, when economically and technically feasible, at least 6 mo prior to the burn.
A.130.9.CA.KC. Installations must conduct wildland vegetation management burning in compliance with specific additional requirements (KCAPCD Regulation IV, Rule 417 V.C).	Verify that materials to be burned meet all of the following conditions: - they do not include tires, rubbish, tar paper. plastic, construction debris, used pesticide containers (except sacks), or any material not produced in any agricultural operation - material stacked for burning are loosely stacked in a manner promoting drying and insuring combustion with a minimum of smoke - they are ignited with an approved ignition device and as quickly as practicable within applicable fire control restrictions. Verify that wildland vegetation management burning is not permitted if it creates a public nuisance. Verify that all wildland vegetation management burning on installation/CW facility premises is conducted so that the total amount of material burned each day is within limitations set by the Control Officer and/or the burn plan that may have been required in advance of the burning. Verify that, if a project exceeds the limit or is situated in designated zones specified by the Control Officer, the installation/CW facility provides the District with the following information in advance of the burn: - location and specific objectives of the proposed burn - acreage or tonnage, type, and arrangement of vegetation to be burned **A.130.9.CA.KC. Continued on Next Page**

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.130.9.CA.KC.(continued)	- description of, and directions and distances to nearby receptor areas - fuel condition, combustion, and meteorological criteria - projected schedule and expected duration of ignition, combustion, and burn down - specifications for monitoring and verifying critical project parameters - specifications for disseminating project information.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.145. **ASPHALT PAVING MATERIALS/ OPERATIONS**	
A.145.1.CA.KC. Installations/CW facilities that apply asphalt paving materials must meet specific requirements (KCAPCD Regulation IV, Rule 410.5).	(NOTE: The requirements of this section do not apply to the use of medium cure asphalt where the National Weather Service official forecast of the high temperature for the 24-h period following application is below 50 °F (10 °C).) Verify that the installation/CW facility does not use any of the following kinds of asphalt paving materials for penetrating prime coat, tack coat, dust palliative, or any other paving and maintenance operations: - rapid cure cutback asphalt - medium cure cutback asphalt - slow cure asphalt material that, as produced for application, contains more than 0.5 percent of organic compounds that evaporate at 500 °F (260 °C) or lower - emulsified asphalt material that contains more than 3.0 percent by volume of organic compounds that evaporate at 500 °F (260 °C) or lower. Verify that the installation/CW facility keeps records for 2 yr showing the types and amounts of asphalts received and used on a daily basis.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.150. ETHYLENE OXIDE SOURCES	
A.150.1.CA.KC. Installations/CW facilities operating an EtO sterilization chamber must follow specific operating requirements (KCAPCD Regulation IV, Rule 430 II).	(NOTE: If facility-wide usage of EtO is less than 25 lb/yr [11.34 kg/yr], the installation/CW facility is exempt from these operating requirements. Sterilizers of liner-bag design using ampules of EtO are exempt from all EtO requirements, provided no more than 1 oz. [31.10 g] is used in any one charge, and no more than 25 lb [11.34 kg] is used annually.) Verify that sterilizer and aerator exhaust stream emissions are reduced to less than the following levels by a district-approved control device: - if facility-wide usage is 25 lb/yr [11.34 kg/yr] or more but less than or equal to 600 lb/yr [272.15 kg/yr], sterilizer exhaust emissions are reduced by at least 99 percent by weight - if facility-wide usage is more than 600 lb/yr [272.15 kg/yr] and less than or equal to 5000 lb/yr [2267.95 kg/yr], sterilizer exhaust emissions are reduced by at least 99 percent and by at least 95 percent by weight from aerators - if facility-wide usage is more than 5000 lb/yr [2267.95 kg/yr], sterilizer exhaust stream emissions are reduced by at least 99.9 percent by weight and any sterilizer door hood exhaust stream is ducted to the control device used to control aerator exhaust stream emissions by at least 99 percent by weight. Verify that the installation/CW facility meets the following requirements: - an aeration-only facility is not operated unless aerate exhaust emissions are reduced by at least 95 percent - an EtO sterilization chamber is not operated unless either: - the vacuum pump is of a recirculating design - chamber evacuation is otherwise designed so that no EtO is released in a wastewater stream - any sterilizer exhaust stream, or exhaust stream subject to control efficiency requirements, is continuously vented to, and does not bypass, the control device - a sterilization chamber or aerator is only operated when the entire exhaust system, including, but not limited to, any piping, ducting, fittings, valves, or flanges through which EtO-contaminated air is conveyed, is leak-free.
A.150.2.CA.KC. Installations/CW facilities operating an EtO sterilization chamber must follow specific administrative requirements (KCAPCD Regulation IV, Rule 430 III).	Verify that the installation/CW facility maintains the following for at least 2 yr: - an operations log noting date and time of each sterilization operation cycle and quantity of EtO and/or sterilant gas used - records of all purchases of EtO and CFC-12 - all records to demonstrate proper operation and maintenance of emission control equipment.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
OTHER EMISSIONS/ SOURCES **A.155.** **Particulate Matter**	
A.155.1.CA.KC. Installations/CW facilities must meet specific particulate matter discharge concentration standards (KCAPCD Regulation IV, Rule 404.1).	Verify that the installation/CW facility does not discharge into the atmosphere, from any source in operation on or before 18 April 1972, particulate matter in excess of 0.2 gr/ft^3 of gas at standard conditions. Verify that the installation/CW facility does not discharge into the atmosphere, from any source constructed or modified after 18 April 1972, particulate matter in excess of 0.1 gr/ft^3 of gas at standard conditions.
A.155.2.CA.KC. Installations/CW facilities must meet specific particulate matter emission rate standards (KCAPCD Regulation IV, Rule 405).	(NOTE: Installations/CW facilities may be exempted from these standards by conditions of their PTO.) Verify that the installation/CW facility does not discharge into the atmosphere from any source particulate matter in excess of the rates shown in Appendix 1-6.
A.155.3.CA.KC. Installations/CW facilities must meet specific sulfur compound emission standards (KCAPCD Regulation IV, Rule 407).	Verify that the installation/CW facility does not emit sulfur compounds meeting both of the following conditions: - exist as a liquid or gas at standard conditions - are in excess of 0.2 percent concentration by volume at the point of discharge when calculated as SO_2
Organic Solvents	
A.155.4.CA.KC. Installations/CW facilities using photochemically reactive solvents, or materials that contain photochemically reactive solvents, must meet specific disposal requirements (KCAPCD Regulation IV, Rule 410.2).	Verify that the installation/CW facility does not, during any one day, dispose of any of the following by any means that will result in evaporation of solvent into the atmosphere: - a total of more than 1.5 gal [5.68 L] of any photochemically reactive solvent - any material containing more than 1.5 gal [5.68 L] of any photochemically reactive solvent.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.155.5.CA.KC. Installations/CW facilities using organic solvents or materials that contain organic solvents must meet specific emission control requirements (KCAPCD Regulation IV, Rules 410 and 410.4 III.C).	(NOTE: The following materials and operations are exempt from these requirements: - transport or storage of organic solvents or materials containing organic solvents - use of equipment regulated under other requirements, or exempted from air pollution control requirements by provisions of any of the following sections: - Gasoline Transfer Operations - Organic Liquid Loading Facilities - Organic Liquid Storage - Wastewater Separators - operations conducted in full compliance with requirements of the Coating Operations - Metal Parts and Products section - spraying or other employment of insecticides, pesticides, or herbicides - any use of saturated halogenated hydrocarbons or perchloroethylene - use of equipment or surface coating material for which other requirements are specified in other sections of this protocol - use of any material meeting all of the following requirements: - its volatile content consists only of water and organic solvents - its organic solvent content comprises not more than 20 percent by volume of its total volatile content - its volatile content is not photochemically reactive - its usage does not result in organic solvents coming into contact with flame.) Determine if the installation's conduct of nonexempt operations or use of nonexempt materials results in discharges of organic materials into the atmosphere that meet any of the following conditions: - discharges of more than 15 lb [6.80 kg] of organic materials in any 1 day from equipment having any organic solvent or material containing organic solvent that comes into contact with flame, or is baked, heat-cured, or heat-polymerized in the presence of oxygen - discharges of more than 40 lb [18.14 kg] of organic materials in any 1 day from equipment that uses or applies any photochemically reactive solvent or material containing any photochemically reactive solvent, under conditions other than those mentioned in the first condition stated above - discharges of more than 3000 lb [1360.77 kg] of organic materials in any 1 day from equipment that uses or applies any nonphotochemically reactive solvent or material containing any nonphotochemically reactive solvent, under conditions other than those mentioned in the first condition stated above. (NOTE: Emissions of organic materials from photochemically reactive solvents used to clean up equipment mentioned above must be included when determining compliance with this requirement.) **A.155.5.CA.KC. Continued on Next Page**

COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT Kern County Air Pollution Control District (KCAPCD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.155.5.CA.KC (continued)	Verify that the installation/CW facility has installed approved air pollution control equipment designed to reduce these emissions. Verify that the installation/CW facility has obtained permits and met with all other applicable requirements of the Permits section. Verify that the installation/CW facility operates and maintains air pollution control equipment in compliance with conditions of the PTO. Verify that the installation/CW facility keeps records of chemical composition, physical properties, and amount consumed of each organic solvent used.

Appendix 1-1

Exemptions to the Permit Requirements

(Source: KCAPCD Regulation II, Rule 202)

The following kinds of equipment, operations, and activities are exempt from requirements of the Permits section of this protocol:

- any equipment used in agricultural operations in the growing of crops or raising of fowl or animals
- any structure designed for, and used exclusively as, a dwelling for not more than four families
- motor vehicles, excluding nonexempt emission units, mounted on vehicles
- repairs or maintenance not involving structural changes to any source operation with a PTO
- portable piston engine-powered equipment qualifying for and complying with CARB's statewide registration system
- any one of the following kinds of combustion equipment:
  - steam generators
  - steam superheaters
  - water boilers
  - water heaters
  - steam cleaners
  - closed heat transfer systems

  if it meets all of the following conditions:
  - total burner(s) maximum input heat rating is less than 5 MBtu/h (gross)
  - equipped to be fired exclusively with natural gas, LPG, or any combination thereof, provided the fuel meets all of the following requirements:
    - contains no more than 5 percent by weight of hydrocarbons heavier than butane
    - sulfur content is not greater than 0.30 gr of total sulfur per 100 standard ft^3 [30.48 m^3] of gas
- piston type internal combustion engines with a manufacturer's maximum continuous rating of 50 bhp or less
- gas turbine engines with a maximum heat input rating of 3 MBtu/h or less at International Standardization Organization (ISO) Standard Day Conditions
- locomotives, watercraft, and aircraft used to transport passengers or freight; this exemption is not intended to apply to equipment used for dredging waterways or to equipment used in pile driving adjacent to or in waterways
- water cooling towers that, except in cases where permits are specifically required, meet all of the following conditions:
  - have a circulation rate of less than 1000 gal/min [approximately 3785.12 L/min]
  - are not used for cooling liquids containing VOCs such as process water, water from barometric jets, or water from barometric condensers
- printing, coating, or laminating facility using less than 2 gal/day [approximately 7.57 L/day] of graphic arts materials
- mixers and blenders used in bakeries where products are edible and intended for human consumption
- ovens at bakeries with bakery production less than 1000 lb [approximately 453.59 kg] of product per operating day if other than electrically heated and fired exclusively with natural gas, LPG, or any combination thereof that meets both of the following requirements:

(continued)

  - contains no more than 5 percent by weight of hydrocarbons heavier than butane
  - sulfur content is not greater than 0.30 gr of total sulfur per 100 ft^3 [30.48 m^3] of gas
- smokehouses used for preparing food in which the maximum horizontal inside cross-sectional area does not exceed 20 ft^2 (approximately 6.1 m^2)
- source operations used exclusively for extruding or compression molding of rubber products or plastics, if no plasticizer or blowing agent is present
- containers, reservoirs, tanks used exclusively for the following purposes:
  - storage of oil with specific gravity of 0.8762 or higher (30° API or lower), and with a capacity of 100 barrels [15,898.73 L] [approximately 4200 gal] or less
  - storage of unheated organic material with a capacity of 250 gal [approximately 946.35 L] or less
  - storage of unheated organic material with an initial boiling point of 150°C (302°F) or greater
  - storage of fuel oils or non-air-blown asphalt with a 0.9042 specific gravity or higher (25° API or lower)
  - storage of petroleum distillates used as motor fuel with 0.8251 specific gravity or higher (40° API or lower), and with a capacity of 19,800 gal (471 barrels) [approximately 74,951.16 L] or less
  - storage of refined lubricating oils
  - storage of liquefied gases in unvented (except for emergency relief) pressure vessels
  - transporting materials on streets or highways
- loading racks used exclusively for the following:
  - unheated organic materials with an initial boiling point of 150°C (302°F) or greater
  - fuel oil with 0.8251 specific gravity or higher (40° API or lower)
  - crude oil, asphalt, or residual oil from tanks not requiring permits
  - crude oil with specific gravity of 0.8762 or higher (30° API or lower)
  - crude oil, asphalt, or residual oil from a delivery vehicle if loading equipment is attached to such vehicle
  - refined lubricating oil
- application equipment for architectural surface coatings
- unheated, nonconveyorized cleaning equipment, not including emission control enclosures, that meet all of the following conditions:
  - has an open surface area of 1.0 m^2 (10.0 ft^2) or less and internal volume of 92.5 gal or less
  - uses only organic solvents with an initial boiling point of 120 °C (248 °F) or greater
  - located at a stationary source losing less than 25 gal [approximately 94.64 L] of solvent per year to the atmosphere from all such equipment at the source, where solvent lost does not include solvent recycled or disposed of properly
  - maintains adequate monthly records to substantiate exemption from permit requirements
- brazing, soldering, or welding equipment used in conventional brazing, soldering, or welding operations only (excluding any internal combustion engine or other associated equipment that would otherwise require permits)
- equipment used exclusively to compress or hold dry natural gas (excluding any engine or other associated equipment requiring permits)
- fugitive emissions sources, such as valves and flanges, associated with an source operation exempt from permit
- unvented (except for emergency pressure relief) pressure vessels associated with a source operation exempt from permit
- source operation operated at one stationary source for not more than 45 days which is not a replacement for a specific application lasting or intended to last for more than 45 days at one stationary source, and which emits less than 2 tons/yr of any air contaminant

(continued)

- comfort air conditioning or comfort ventilating systems not designed to remove air contaminants generated by or released from a source operation
- any source operation if uncontrolled emissions of any air contaminant, other than NO_x and VOCs, cannot be expected to exceed 2 lb [0.9 kg] in any 24 h period
- any source meeting the following criteria for which an exemption has been granted by the Control Officer.:
  - emits no more than 10 lb uncontrolled in any 24-h period
  - emits no more than 180 lb in any quarter
  - not interfering with provision of the newest adopted Air Quality Attainment Plan.

Appendix 1-2

Suggested Fugitive Dust Reasonably Available Control Measures

(Source: KCAPCD Regulation IV, Rule 402, Table I)

Source Category	Control Method
Unpaved Road	Improve Road Surface Control Vehicular Traffic Speed Apply Dust Suppressants
Construction/Demolition Activity	Use Wind Breaks Apply Dust Suppressants
Earth-moving/Open Storage Pile	Use Wind Screens Use Enclosures Around Storage Piles Apply Dust Suppressants
Disturbed Surface Area	Use Fences/Barriers Vegetate Apply Dust Suppressants Cover with Gravel Compact Surface

NOTE: If water is selected as a dust suppressant, use of nonpotable water is encouraged.

Appendix 1-3

Allowable Limits of VOC in Various Architectural Coatings

(Source: KCAPCD Regulation IV, Rules 410.1 III.E and 410.1 IV.B)

(NOTE: Architectural coatings, manufactured prior to any VOC emission limit effective date and not meeting new VOC limits put into effect on that date, may be used without penalty for 3 yr after that effective date. Current VOC limits that came into effect on 1 September 1989 are [bracketed]; current VOC limits that came into effect on 1 September 1991 are {braced}.)

Coating	VOC (grams per liter of coating, as applied, less water and exempt solvents, and excluding any colorant added to tint bases)		
	Current (July 1992)	Effective 1 September 1992	Effective as noted
Below-Ground Wood Preservatives	{600}	350	
Bond Breakers	{350}		
Clear Wood Finishes			
Lacquer	[680]		
Sanding Sealers	{550}	350	
Varnish	[350]		
Concrete Curing Compounds	[350]		
Dry Fog Coatings	{400}		
Enamel Undercoaters	[350]		
Fire Retardant Coatings			
Clear	{650}		
Pigmented	{350}		
Form-Release Compounds	{250}		
Graphic Arts (Sign) Coatings	{500}		
Industrial Maintenance Coatings:			
Anti-Graffiti Coatings	{600}	340	
High Temperature Industrial			(1 September 1994)
Coatings	{650}	550	420
Other Industrial Maintenance Coatings	[420]	340	
Magnesite Cement Coatings	{600}	450	
Mastic Texture Coatings	{300}		
Metallic Pigmented Coatings	{500}		
Multi-Color Coatings	{580}	420	
Opaque Stains	[350]		

(continued)

Appendix 1-3 (continued)

Coating	VOC (grams per liter of coating, as applied, less water and exempt solvents, and excluding any colorant added to tint bases)		
	Current (July 1992)	Effective 1 September 1992	Effective as noted
Opaque Wood Preservatives	[350]		
			(1 September 1994)
Pre-Treatment Wash Primers	{780}		420
Primers, Sealers and Undercoaters	[350]		
Quick Dry Enamels	[400]		
Quick Dry Primers & Sealers	{450}		
Roof Coatings	[300]		
Semi-Transparent and Clear Wood Preservatives	[350]		
Semi-Transparent Stains	[350]		
Shellac			
Clear	{730}		
Pigmented	{550}		
Specialty Flats	[400]		
Swimming Pool Coatings	{650}	340	
Swimming Pool			(1 September 1997)
Repair & Maintenance Coatings	{650}	340	
Traffic Paints			
for public streets and highways	[250]		
for other surfaces	[250]		
black traffic coatings	[250]		
Waterproofing Mastic Coatings	[300]		
Waterproofing Sealers	[400]		

Appendix 1-4

Allowable Limits of VOC in Various Metal Surface Coatings

(Source: KCAPCD Regulation IV, Rules 410.4 IV.B)

Coating	VOC Content Limits (in g/L [lb/gal] of coating, less water and exempt solvents	
	Baked Coatings	Air-Dried Coatings
All Coatings, except those below	275 [2.3]	340 [2.8]
Camouflage.	360 [3.0]	420 [3.5]
Extreme Performance	360 [3.0]	420 [3.5]
Heat Resistant	360 [3.0]	420 [3.5]
High Gloss	360 [3.0]	420 [3.5]
High Performance Architectural	420 [3.5]	420 [3.5]
High Temperature	420 [3.5]	420 [3.5]
Metallic Topcoat	420 [3.5]	420 [3.5]
Pretreatment Wash Primer	275 [2.3]	340 [2.8]
Silicone Release	420 [3.5]	420 [3.5]
Solar Absorbent	360 [3.0]	420 [3.5]

Appendix 1-5

VOC Content Limits for Surface Coatings Applied to Motor Vehicles and Mobile Equipment

(Source: KCAPCD Regulation IV, Rules 410.4A IV.A, B, and C)

Part A.

Coating	VOC Limit (in g/L [lb/gal] as applied) (less water and exempt compounds)
Pretreatment Wash Primers	780 [6.5]
Primer/Primer Surfacer/Precoat	250 [2.1]
Primer Sealer	420 [3.5]
Multistage Topcoat	540 [4.5]
Singlestage Topcoat	420 [3.5]
Metallic/Iridescent Topcoat	540 [4.5]

Part B.

Coating	VOC Limit (in g/L [lb/gal] as applied) (less water and exempt compounds)
Pretreatment Wash Primers	780 [6.5]
Primer/Primer Surfaces/Primer Sealer/Precoat	250 [2.1]
Topcoat	420 [3.5]
Metallic/Iridescent Topcoat	420 [3.5]
Extreme Performance	420 [3.5]
Camouflage Coating	420 [3.5]

Appendix 1-6

Maximum Allowable Rates of Emission for Particulate Matter Based on Process Weight Rate

(Source: KCAPCD Regulation IV, Rule 405)

Process Weight Rate (lb/hr)	Maximum Emission Rate (lb/hr)	Process Weight Rate (lb/hr)	Maximum Emission Rate (lb/hr)
250 or less	1.03	5,000	6.67
300	1.20	5,500	7.03
350	1.35	6,000	7.37
400	1.50	6,500	7.71
450	1.63	7,000	8.05
500	1.77	7,500	8.39
600	2.01	8,000	8.71
700	2.24	8,500	9.03
800	2.43	9,000	9.36
900	2.60	9,500	9.67
1,000	2.80	10,000	10.00
1,200	3.12	12,000	11.28
1,400	3.40	14,000	12.50
1,600	3.66	16,000	13.74
1,800	3.91	18,000	14.97
2,000	4.14	20,000	16.19
2,500	4.64	30,000	22.22
3,000	5.10	40,000	28.30
3,500	5.52	50,000	34.30
4,000	5.93	60,000 or more	40.00
4,500	6.30		

To use this table, proceed as follows:

- calculate the "Process Weight Rate", i.e., the process weight per hour, in lb/h
- find this figure in the appropriate column of the table
- opposite this figure, in the "Maximum Emission Rate" column, is the maximum number of lb/h of particulate matter that may be discharged into the atmosphere for the given process weight rate
- where the process weight rate falls between the figures listed in the table, the exact emission rate must be determined by linear interpolation.

INSTALLATION:	COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT KCAPCD - California Supplement	DATE:	REVIEWER(S):
STATUS NA C RMA	REVIEWER COMMENTS:		

SECTION 10

STORAGE TANK MANAGEMENT

Kern County Air Pollution Control District (KCAPCD) - California Supplement

SECTION 10

STORAGE TANK MANAGEMENT

Kern County Air Pollution Control District (KCAPCD)

California Supplement

This section covers the state requirements for Storage Tank Management and is intended to supplement the TEAM Guide. Refer to the TEAM Guide and the DOD Component Supplements for Federal, DOD, and service-specific requirements.

Definitions

These definitions were obtained from the following KCAPCD Rules:

- *CARB* - California Air Resources Board.
- *CARB Certified Phase I Vapor Recovery System* - a vapor recovery system which has been certified by the CARB as capable of recovering or processing displaced gasoline vapors to an efficiency of 95 percent or greater (KCAPCD Regulation IV, Rule 412).
- *Class I Organic Liquid Loading Facility* - any facility loading 20,000 gal, or more on any one day of organic liquids with a true vapor pressure of 1.5 psia, or greater into tank trucks, trailers, or railroad tank cars (KCAPCD Regulation IV, Rule 413).
- *Class II Organic Liquid Loading Facility* - any facility loading 4000 gal or more, but less than 20,000 gal, on any one day of organic liquids with a true vapor pressure of 1.5 psia, or greater into tank trucks, trailers, or railroad tank cars (KCAPCD Regulation IV, Rule 4130.
- *District* - means the Air Pollution Control District of Kern County.
- *Emergency Standby Tanks* - tanks that are not used (filled or partially filled) more than twice in any 12 mo period (KCAPCD Regulation IV, Rule 411).
- *Excess Organic Liquid Drainage* - more than 10 mL liquid drainage. Such liquid drainage for disconnect operations is determined by computing average drainage from three consecutive disconnects at any one permit unit (KCAPCD Regulation IV, Rule 413).
- *Gas-Tight* - any emission of less than or equal to 10,000 ppm as methane measured with an instrument calibrated with methane and conducted in accordance with USEPA Method 21 (KCAPCD Regulation IV, Rule 411).
- *Gasoline* -
    1. with reference to gasoline storage, organic liquid used as a motor fuel with a true vapor pressure of greater than 1.5 psia [10.34 kPa absolute] (KCAPCD Regulation IV, rule 411)

2. with reference to gasoline transfer operations, any organic liquid, including petroleum distillates and alcohols having a Reid vapor pressure of 4 lb, or greater, as determined by ASTM Test Method D323-82 and used as a motor vehicle fuel or any fuel which is commonly or commercially known or sold as gasoline (KCAPCD Regulation IV, Rule 412.1)

- *Gasoline Bulk Plant* - any loading facility and associated unloading facilities, storage tanks and vapor recovery system(s) used to load less than 20,000 gal [75,708.24 L] in any one day of gasoline to delivery vessels (i.e., tank trucks or trailers) (KCAPCD Regulation IV, Rule 412).

- *Gasoline Storage and Dispensing Facility* - an aggregate of one or more stationary storage containers, and associated dispensing equipment, any of which is subject to the provisions of Rule 412 (Gasoline Transfer into Stationary Storage Containers, Delivery Vessels and Bulk Plants) (KCAPCD Regulation IV, Rule 412.1).

- *Gasoline Vapors* - volatile organic compounds (VOC) in displaced vapors, including any entrained liquids (KCAPCD Regulation IV, Rule 412).

- *Hold-Open Latch* - the integral component of a gasoline dispensing nozzle permitting the nozzle to remain open without sustained effort by the operator (KCAPCD Regulation IV, Rule 412.1).

- *KCAPCD* - Kern County Air Pollution Control District.

- *Leak* - dripping of liquid organic compounds at a rate of more than three drops per minute; or detection of organic compounds in excess of 10,000 ppm as methane when measured with a portable hydrocarbon detection instrument calibrated with methane and conducted in accordance with USEPA Method 21 (KCAPCD Regulation IV, Rule 413).

- *Leak-Free* - not having liquid (three drops per minute, or more), or vapor (10,000 ppmv as methane, or more) loss from gasoline dispensing or vapor collection components as determined by visual inspection and/or USEPA Test Method 21 (KCAPCD Regulation IV, Rule 412.1).

- *Loading Facility* - any aggregate or combination of organic liquid loading and vapor control equipment from the connection at the inlet of the organic liquid pump to and including the hose end connector at the portable delivery tanks and the discharge of the vapor control device(s) (KCAPCD Regulation IV, Rule 412).

- *Major Modification* - replacing, repairing, or upgrading 75 percent, or more of a CARB-Certified Phase II Vapor Recovery System (KCAPCD Regulation IV, Rule 412.1).

- *Metallic-Shoe Type Seal* - floating roof tank seal with typical geometry and components as shown on Figure 1 of KCAPCD Regulation IV, Rule 411 (KCAPCD Regulation IV, Rule 411).

- *Motor Vehicles* - any self-propelled device registered for use on public highways (KCAPCD Regulation IV, Rule 412.1).

- *Organic Liquid* - any liquid containing VOCs and having a true vapor pressure greater than 1.5 psia [10.34 kPa absolute] at actual storage conditions (KCAPCD Regulation IV, Rule 411).

- *Organic Liquid Loading Facility* - any aggregate, or combination of organic liquid loading and vapor control equipment, from the connection at the inlet of the organic liquid pump to, and including, the

hose end connector at the portable delivery tanks and the discharge of the vapor control device(s) (KCAPCD Regulation IV, Rule 413).

- *Petroleum Distillate* - the product of a distillation or condensation process obtained by condensing vapors for the purpose of purification, fractionation, or the formation of new substances (KCAPCD Regulation IV, Rule 411).

- *Portable Hydrocarbon Detection Instrument* - a hydrocarbon analyzer using flame ionization detection or thermal conductivity methods and satisfying USEPA Method 21, 40 Code of Federal Regulations (CFR) Part 60. Output of any such instrument is equivalent to calibration on methane and a sampling rate of 1 L/min (KCAPCD Regulation IV, Rule 413).

- *PPM* - parts per million by volume expressed on a gas basis.

- *PSI* - pounds per square inch.

- *Regulation* - one of the major subdivisions of the Rules of the KCAPCD.

- *Resilient-Toroid Type Seal* - floating roof tank seal with typical geometry and components as shown on Figure 2, KCAPCD Regulation IV, Rule 411 (KCAPCD Regulation IV, Rule 411).

- *Retail Service Station* - any new or existing gasoline storage and dispensing facility subject to payment of California Sales Tax on gasoline dispensed (KCAPCD Regulation IV, Rule 412.1).

- *Roof Drain* - any drain located in roof of tank opening directly into organic liquid content of tank (KCAPCD Regulation IV, Rule 411).

- *Rule* - refers to one of the KCAPCD Rules.

- *Submerged Fill Pipe* - any fill pipe, the discharge opening of which is entirely submerged when the liquid level is 6 in. above the bottom of the container. "Submerged fill pipe" when applied to a container which is loaded from the side is defined as any fill pipe the discharge opening of which is entirely submerged when the liquid level is 18 in. above the bottom of the container (KCAPCD Regulation IV, Rule 412).

- *Tank* - any stationary storage tank, reservoir, or other container having a capacity of 251 gal [950.14 L] or greater (KCAPCD Regulation IV, Rule 411).

- *Topping Off* - attempting to dispense gasoline into a motor vehicle fuel tank after a vapor recovery dispensing nozzle has automatically shut off (KCAPCD Regulation IV, Rule 412.1).

- *Vapor Tight* - any emission of less than or equal to 10,000 ppm when measured at a distance of 1 cm from the potential source with an instrument calibrated with methane in accordance with USEPA Method 21 (KCAPCD Regulation IV, Rule 412).

- *Visible Gap* - gap between tank shell and seal exceeding 1.5 mm (0.06 in.) (KCAPCD Regulation IV, Rule 411).

- *VOC* - please see "Volatile Organic Compound".

- *Volatile Organic Compound (VOC)* - any compound containing at least one atom of carbon except for the following exempt compounds (KCAPCD Regulation IV, Rule 411):
    1. methane
    2. CO
    3. CO_2
    4. carbonic acid
    5. metallic carbides or carbonates
    6. ammonium carbonates
    7. 1,1,1-trichloroethane (methyl chloroform)
    8. methylene chloride (dichloromethane)
    9. trichlorofluoromethane (CFC-11)
    10. dichlorodifluoromethane (CFC-12)
    11. chlorodifluoromethane (CFC-22)
    12. trifluoromethane (FC-23)
    13. trichlorotrifluoroethane (CFC-113)
    14. dichlorotetrafluoroethane (CFC-114)
    15. chloropentafluoroethane (CFC-115).
    16. dichlorotrifluoroethane (HCFC-123)
    17. tetrafluoroethane (HCFC-134a)
    18. dichlorofluoroethane (HCFC-141b)
    19. chlorodifluoroethane (HCFC-142b).

STORAGE TANK MANAGEMENT

GUIDANCE FOR KCAPCD CHECKLIST USERS

	REFER TO CHECKLIST ITEMS:	REFER TO PAGE NUMBERS:
Emissions From Bulk Gasoline Terminals	ST.10.1.CA.KC. and ST.10.2.CA.KC.	10-7
Emissions From POL Storage Vessels	ST.15.1.CA.KC. through ST.15.6.CA.KC.	10-9
Emissions From VOL Storage Vessels	ST.20.1.CA.KC. through ST.20.10.CA.KC.	10-13

COMPLIANCE CATEGORY: STORAGE TANK MANAGEMENT Kern County Air Pollution Control District (KCAPCD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
ST.10. **EMISSIONS FROM BULK GASOLINE TERMINALS**	
ST.10.1.CA.KC. Installations/CW facilities operating gasoline bulk plants must meet specific equipment requirements (KCAPCD Regulation IV, Rules 412 IV.C.2 through IV.C.4).	Verify that no delivery vessel is loaded at a bulk facility granted an exemption if any portion of the previous load was delivered to a stationary storage tank equipped with a CARB Certified Stage I vapor recovery system. Verify that, if the installation/CW facility's gasoline bulk plant is exempt from requirements of the organic liquid loading requirements, it meets both of the following requirements: - is equipped with a system or systems to prevent the release to the atmosphere of at least 95 percent by weight of gasoline vapors displaced during filling of stationary storage containers - each of its aboveground stationary storage containers is equipped with a pressure-vacuum valve with a minimum pressure valve setting of 8 oz., provided this setting does not exceed the container's maximum pressure rating. Verify that gasoline vapors are not purged into the atmosphere. Verify that the vapor recovery system does not cause pressure in the delivery vessel to exceed 18 in. [45.72 cm] water column pressure or 6 in. [15.24 cm] water column vacuum.
ST.10.2.CA.KC. Installations/CW facilities/CW facilities transferring gasoline into vehicle fuel tanks from stationary storage containers must meet specific recordkeeping and reporting requirements (KCAPCD Regulation IV, Rule 412.1.V).	Verify that each exempt gasoline dispensing facility keeps for 2 yr gasoline throughput records allowing gasoline throughput for any 30-day period to be continuously determined. Verify that verification is kept for each CARB-Certified Phase II Vapor Recovery System that it meets or exceeds the requirements of pressure tests.

COMPLIANCE CATEGORY: STORAGE TANK MANAGEMENT Kern County Air Pollution Control District (KCAPCD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
EMISSIONS/ DISCHARGES FROM POL STORAGE VESSELS	
ST.15.1.CA.KC. Installations/CW facilities storing gasoline with a true vapor pressure of greater than 1.5 psia in aboveground tanks must meet specific design and operating requirements (KCAPCD Regulation IV, Rules 411 IV.D).	Verify that installations/CW facilities storing gasoline in aboveground tanks with a capacity of 19,800 gal (471 barrels) [approximately 74,916.15 L] or less meet one of the following requirements for each tank: - tank is equipped with a pressure relief device set to within 10 percent of maximum working pressure of the container - tank is equipped with a vapor loss control device complying with vapor recovery system requirements for fixed roof tanks of 19,800 gal (471 barrels), or greater, capacity.
ST.15.2.CA.KC. Installations/CW facilities storing gasoline in aboveground tanks with a capacity of more than 250 gal [946.35 L] must meet specific equipment requirements (KCAPCD Regulation IV, Rules 412 IV.A.2).	Verify that each aboveground tank with a capacity of more than 250 gal [946.35 L] is not used to stored gasoline unless equipped with a pressure-vacuum valve set to within 10 percent of maximum allowable working pressure of the tank.
ST.15.3.CA.KC. Installations/CW facilities transferring gasoline into stationary storage tanks from delivery vessels must meet specific equipment requirements (KCAPCD Regulation IV, Rules 412 III.A, IV.A.1, and V.A).	(NOTE: The following gasoline transfer operations are exempt from these requirements: - transfer into any stationary storage container where all of the following conditions are met: - the container has a capacity of 550 gal [2081.98 L] or less and has a permanent submerged fill pipe - the gasoline is used exclusively for fueling implements of husbandry - transfer into any stationary storage container which was installed before 1 July 1975, is equipped with a permanent submerged fill pipe, and has a capacity of 2000 gal [7570.82 L] or less - transfer into any stationary container in existence prior to 1 July 1975 which is equipped with an offset fill pipe if the container is equipped with a permanent submerged fill pipe.) **ST.15.3.CA.KC. Continued on Next Page**

COMPLIANCE CATEGORY: STORAGE TANK MANAGEMENT Kern County Air Pollution Control District (KCAPCD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
ST.15.3.CA.KC.(continued)	Verify that the installation/CW facility does not transfer gasoline from any delivery vessel into any stationary storage container with a capacity of more than 250 gal (946.35 L), unless the container is equipped with the following: - a permanent submerged fill pipe - a CARB certified Phase I vapor recovery system maintained and operated according to the manufacturers specifications. Verify that, if the installation/CW facility conducts any exempt transfer operations, it maintains all data necessary to demonstrate eligibility for exemption, including both of the following: - exemption status - volume delivered to each stationary storage container serviced.
ST.15.4.CA.KC. Installations/CW facilities operating, or allowing onsite operation of, gasoline delivery vessels must meet specific equipment requirements (KCAPCD Regulation IV, Rules 412 IV.B, and V.A).	Verify that the installation/CW facility does not operate, or allow the operation of, a gasoline delivery vessel unless valid State of California decals attesting to the vapor integrity of the tank are displayed. Verify that the installation/CW facility does not store gasoline in, or otherwise use or operate, any gasoline delivery vessel unless it is designed and maintained to be vapor tight. Verify that any delivery vessel into which gasoline vapors have been transferred are filled only at a loading facility equipped with a system that prevents at least 95 percent by weight of the gasoline vapors displaced from entering the atmosphere. Verify that the installation/CW facility does not load gasoline into any delivery vessel from any loading facility granted an exemption, unless the delivery vessel is loaded through a submerged fill pipe.
ST.15.5.CA.KC. Installations/CW facilities/CW facilities involved in the transfer of gasoline into vehicle fuel tanks from stationary storage containers must meet specific design and operating requirements (KCAPCD Regulation IV, Rule 412.1.III and IV).	(NOTE: The transfer of gasoline into motor vehicle fuel tanks from any gasoline storage and dispensing facilities with a throughput meeting the following criteria is exempt from these requirements: - less than or equal to 24,000 gal [90,849.89 L]/calendar yr - less than or equal to 10,000 gal [37,854.12 L] in any 1 mo.) Verify that gasoline is not transferred into a motor vehicle fuel tank with a maximum capacity of more than 5 gal [18.93 L], unless the dispensing unit is equipped with and has in correct operation a CARB-Certified Phase II Vapor Recovery System. **ST.10.5.CA.KC. Continued on Next Page**

COMPLIANCE CATEGORY: STORAGE TANK MANAGEMENT Kern County Air Pollution Control District (KCAPCD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
ST.15.5.CA.KC.(continued)	Verify that, if any CARB-Certified Phase II Vapor Recovery System has a defect listed in Section 94006 of 17 CCR, the installation/CW facility takes the following steps: - tags the system "out-of-service" - repairs, replaces, or adjusts the defect to correct it - has the District reinspect the system. Verify that all CARB-Certified Phase II Vapor Recovery Systems are maintained and operated to be leak-free. Verify that the CARB-Certified Phase II Vapor Recovery Systems is not tampered with in any way which could impair collection and/or disposal of vapors. Verify that gasoline storage and dispensing equipment meet all applicable codes and regulations, including safety, fire, weights and measures, etc. Verify that, if the installation/CW facility operates a retail service station, it conspicuously posts operating instructions for the recovery system in the gasoline dispensing area with the following information: - how to correctly fuel vehicles using Phase II dispensing nozzles - a warning that topping off is prohibited and may result in spillage or recirculation of gasoline - the District or CARB toll-free telephone number for complaints. Verify that motor vehicle fuel tanks are not topped off. Verify that all retail service stations use hold-open latches on all gasoline dispensing nozzles, unless their use is prohibited by law or local fire control authority.
ST.15.6.CA.KC. Installations/CW facilities/CW facilities involved in the transfer of gasoline into vehicle fuel tanks from stationary storage containers must meet specific record-keeping and testing requirements (KCAPCD Regulation IV, Rule 412.1 V.A and V.B).	Verify that exempt gasoline dispensing facilities maintain gasoline throughput records allowing gasoline throughput for any 30-day period to be continuously determined. Verify that these records are available upon request to the Control Officer and maintained on the premises for 2 yr. Verify that CARB-Certified Phase II Vapor Recovery Systems are pressure tested to determine proper installation and function before startup, and thereafter as directed by the Control Officer if not consistently operated leak-free or a major modification is implemented. Verify that results of each CARB-Certified Phase II Vapor Recovery System pressure test are maintained, including date and names, addresses, and telephone numbers of persons responsible for system installation and testing.

COMPLIANCE CATEGORY: STORAGE TANK MANAGEMENT Kern County Air Pollution Control District (KCAPCD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
ST.20. **EMISSIONS FROM VOL STORAGE VESSELS**	
ST.20.1.CA.KC. Installations/CW facilities operating organic liquid loading facilities must meet specific emissions requirements (KCAPCD Regulation IV, Rule 413 III and IV.A).	(NOTE: Organic liquid loading facilities meeting the following conditions are exempt from these requirements: - the facility loads less than 4000 gal/day [15,141.65 L/day] of organic liquids, excluding recordkeeping requirements - the liquids loaded have a true vapor pressure at actual loading temperature of less than 1.5 psia [10.34 kPa absolute] - the facility meets the requirements of gasoline transfer operations.) Verify that the loading facilities do not emit in excess of the following VOC emission limits: - for Class I facilities, 0.08 lb/1000 gal loaded - for Class II facilities, 95 percent combined collection/control efficiency.
ST.20.2.CA.KC. Installations/CW facilities operating organic liquid loading facilities must meet specific equipment requirements (KCAPCD Regulation IV, Rule 413 III and IV.B).	(NOTE: Organic liquid loading facilities meeting the following conditions are exempt from these requirements: - the facility loads less than 4000 gal/day [15,141.65 L/day] of organic liquids, excluding recordkeeping requirements - the liquids loaded have a true vapor pressure at actual loading temperature of less than 1.5 psia [10.34 kPa absolute] - the facility meets the requirements of gasoline transfer operations.) Verify that Class I facilities are equipped with provisions for bottom loading, vapor collection, and vapor disposal, excluding facilities exclusively handling LPG provided both of the following conditions are met: - emissions requirements are met - loading and vapor collection equipment is designed, installed, and maintained and operated without leaks or excess organic liquid drainage at disconnections. Verify that Class II facilities are equipped with provisions for vapor collection and vapor disposal. Verify that any vapor collection and control system serving a gasoline tank truck operates with a pressure in the delivery tank being loaded of not more than 18 in. [45.72 cm] water column. **ST.20.2.CA.KC. Continued on Next Page**

COMPLIANCE CATEGORY: STORAGE TANK MANAGEMENT Kern County Air Pollution Control District (KCAPCD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
ST.20.2.CA.KC.(continued)	Verify that all delivery tanks previously containing organic liquids with a true vapor pressure greater than 1.5 psia at loading conditions are filled only at loading facilities conforming to these emissions and equipment requirements. Verify that loading and vapor collection equipment is designed, installed, maintained, and operated without leaks or excess organic liquid drainage at disconnections. Verify that construction of any new top loading facility or reconstruction, or expansion of any existing top loading facility with top loading equipment is not allowed.
ST.20.3.CA.KC. Installations/CW facilities operating organic liquid loading facilities must meet specific recordkeeping requirements (KCAPCD Regulation IV, Rule 413 V).	Verify that all exempt facilities maintain, for a minimum of 2 yr, daily records of liquid throughput, loading temperature, and liquid true vapor pressure. Verify that Class I and Class II facilities maintain daily records of liquid throughput, loading temperature, and liquid true vapor pressure. Verify that these records are readily available to District staff upon request and are maintained at the facility for at least 2 yr.
ST.20.4.CA.KC. Installations/CW facilities storing organic liquids and petroleum distillates with a true vapor pressure of greater than 1.5 psia in floating roof tanks must meet specific design and operating requirements (KCAPCD Regulation IV, Rules 411 III.A, III.B, and IV.A).	(NOTE: Any tank storing organic liquids that is a pressure vessel maintaining working pressures sufficient at all times to prevent organic liquid or VOC loss to the atmosphere is exempt from requirements of this section. The following floating roof tanks are also exempt from these standards: - emergency standby tanks which meet the following requirements: - used exclusively to store petroleum distillates - in existence prior to 1 May 1979 - thoroughly drained prior to return to emergency standby status - portable-temporary tanks with capacities of 21,000 gal (500 barrels) [79,493.65 L] or less left on site for 6 mo or less.) Verify that stored organic liquid does not have a true vapor pressure of 11 psia [75.84 kPa absolute], or greater, under storage conditions. Verify that the tank is equipped with both of the following items when storing or holding 19,800 gal (471 barrels), or greater, of organic liquid: - floating roof, consisting of a pontoon type or double-deck type cover, resting on the surface of liquid contents - a closure device between the tank shell and roof edge consisting of two seals, one above the other (the lower one is the primary seal; the upper one is the secondary seal). **ST.20.4.CA.KC. Continued on Next Page**

COMPLIANCE CATEGORY: STORAGE TANK MANAGEMENT Mojave Desert Air Quality Management District (MDAQMD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
ST.20.6.CA.MD(continued)	(NOTE: If the tank has been gas-freed and is to be refilled with gasoline, the roof is refloated with water, or an equivalent procedure approved by the APCO. Bulk gasoline distribution terminals which do not have either existing facilities for treatment of wastewater used to refloat the tank roof or facilities for equivalent emission control when refloating the roof with product are exempt from this requirement.) (NOTE: Notwithstanding secondary and primary seal requirements listed in Appendix 1-1, a secondary or primary seal may be loosened or removed for preventive maintenance, inspection, and/or repair upon prior notification and subject to the prior written approval of the APCO and for a period not exceeding 72 h.)
ST.20.7.CA.MD. Installations/CW facilities storing, transferring, and dispensing organic liquids must meet specific recordkeeping and recording requirements (MDAQMD Regulation IV, Rule 463(D)).	Verify that the installation/CW facility maintains an accurate record of liquids stored and their true vapor pressure ranges. Verify that the installation/CW facility maintains a log of all inspections, repairs, and maintenance on equipment subject to these requirements and retains these logs for at least 2 yr.
Transferring and Loading	
ST.20.8.CA.MD. Installations/CW facilities classified as Class A Facilities must meet the following requirements when loading organic liquids from the facility into any tank truck, trailer, or railroad car (MDAQMD Regulation IV, Rule 462(C)(1)).	Determine whether the organic liquids have a true vapor pressure of 77.5 mm Hg (1.5 psia) or greater under actual loading conditions. Verify that the loading facility is equipped with a vapor recovery system. Verify that loading is done so that displaced vapor and air are vented only to the vapor collection system. Verify that all connections and vapor lines are maintained in a vapor tight condition to prevent fugitive vapor leaks. Verify that measures are taken to prevent fugitive liquid leaks from the loading device when it is not in use or to complete drainage before the loading device is disconnected.

COMPLIANCE CATEGORY: STORAGE TANK MANAGEMENT Mojave Desert Air Quality Management District (MDAQMD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
ST.20.9.CA.MD. Installations/CW facilities classified as a Class B Facility must meet the following requirements when loading organic liquids from the facility into any tank truck, trailer, or railroad car (MDAQMD Regulation IV, Rule 462(C)(2)).	Determine whether the organic liquids have a true vapor pressure of 77.5 mm Hg (1.5 psia) or greater under actual loading conditions. Verify that the facility is equipped with a vapor recovery system to prevent release of fugitive vapor emissions during the filling of organic liquid delivery vehicle. Verify that the facility is equipped with a vapor recovery system to prevent the release of fugitive vapor emissions displaced during the filling of the facility's stationary storage containers with all connections and vapor lines maintained vapor tight. Verify that the facility is equipped with a pressure-vacuum valve on aboveground stationary storage containers with a minimum pressure valve setting of 8 oz/in.^{2}, provided the setting will not exceed the container's maximum pressure rating.
ST.20.10.CA.MD. All installations/CW facilities loading organic liquids from its facilities into any tank truck, trailer, or railroad car must meet specific operating requirements (MDAQMD Regulation IV, Rule 462(D)(1) and (2)).	Verify that vapor recovery systems meet all safety, fire, weights and measures, and other applicable codes or regulations. Verify that all of the components of the facility including, but not limited to, tanks, flanges, seals, pipes, pumps, valves, meters, and connectors are maintained and operated so as to prevent fugitive vapor leaks, fugitive liquid leaks, and excess organic liquid drainage during transfer, storage, and handling operations.
ST.20.11.CA.MD. All installations/CW facilities operating an organic liquid transport vehicle must meet specific operating requirements (MDAQMD Regulation IV, Rule 462(D)(3)).	Verify that loading or unloading of gasoline is not allowed unless the designated transporting vessel has a valid certification of vapor integrity. Verify that vapor leaks from dome covers, pressure vacuum vents, or other sources are determined in accordance with USEPA Method 21. Verify that transport equipment is operated so that there are no fugitive leaks. Verify that uncontrolled switch loading is prohibited, unless one of the following conditions are met: - any vapors vented to the atmosphere do not at any point during the transfer exceed 10,000 ppmv, measured as equivalent methane, with a portable hydrocarbon analyzer in accordance with USEPA Method 21 - emissions are controlled by a vapor recovery system.

COMPLIANCE CATEGORY: STORAGE TANK MANAGEMENT Kern County Air Pollution Control District (KCAPCD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
ST.20.5.CA.KC. Installations/CW facilities storing organic liquids and petroleum distillates with a true vapor pressure of greater than 1.5 psia in any nonexempt fixed roof tank equipped with an internal floating roof must meet specific design and operating requirements (KCAPCD Regulation IV, Rules 411 III.B and IV.B).	(NOTE: Any tank storing organic liquids that is a pressure vessel, maintaining working pressures sufficient at all times to prevent organic liquid or VOC loss to the atmosphere, is exempt from these requirements. The following floating roof tanks are also exempt from these standards: - emergency standby tanks which meet the following requirements: - used exclusively to store petroleum distillates - in existence prior to 1 May 1979 - thoroughly drained prior to return to emergency standby status - equipped with pressure relief device set to within 10 percent of maximum allowable working pressure of tank - portable-temporary tanks with capacities of 21,000 gal (500 barrels) [79,493.65 L] or less left on site for 6 mo or less.) Verify that stored organic liquid does not have a true vapor pressure of 11 psia [75.84 kPa absolute] or greater under storage conditions. Verify that any fixed roof tank with an internal floating roof and a capacity of 19,800 gal (471 barrels), or greater, is not used, unless the internal floating roof is equipped with a closure device meeting closure device requirements for floating roof tanks. Verify that a fixed roof tank with internal floating type cover is made available for inspection by District upon request.
ST.20.6.CA.KC. Installations/CW facilities storing organic liquids and petroleum distillates with a true vapor pressure of greater than 1.5 psia in any nonexempt fixed roof tank of 19,800 gal (471 barrels), or greater, capacity must meet specific design and operating requirements (KCAPCD Regulation IV, Rules 411 III.B and IV.C).	(NOTE: Any tank storing organic liquids that is a pressure vessel, maintaining working pressures sufficient at all times to prevent organic liquid or VOC loss to the atmosphere, is exempt from requirements of this section. The following floating roof tanks are also exempt from these standards: - emergency standby tanks which meet the following requirements: - used exclusively to store petroleum distillates - in existence prior to 1 May 1979 - thoroughly drained prior to return to emergency standby status - equipped with pressure relief device set to within 10 percent of maximum allowable working pressure of tank - portable-temporary tanks with capacities of 21,000 gal (500 barrels) [79,493.65 L] or less left on site for 6 mo or less.) Verify that these tanks are equipped with a vapor recovery system. Verify that the vapor recovery system is designed to collect all VOCs, and includes systems recovering or disposing of VOCs to prevent emission to the atmosphere at a control efficiency of at least 95 percent by weight. **ST.20.6.CA.KC. Continued on Next Page**

COMPLIANCE CATEGORY: STORAGE TANK MANAGEMENT Kern County Air Pollution Control District (KCAPCD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
ST.20.6.CA.KC.(continued)	Verify that any tank gauging or sampling device on a tank vented to a vapor recovery system is equipped with a gas-tight cover closed at all times except during gauging or sampling. Verify that piping, valves, and fittings are maintained in a gas-tight condition.
ST.20.7.CA.KC. Installations/CW facilities storing organic liquids and petroleum distillates with a true vapor pressure of greater than 1.5 psia in a tank of 19,800 gal (471 barrels), or greater, capacity must meet recordkeeping requirements (KCAPCD Regulation IV, Rules 411 V).	Verify that the installation/CW facility keeps an accurate record of liquids stored in each container, storage temperature, and Reid vapor pressure of such liquids. Verify that installations/CW facilities with exempt emergency standby tanks also maintain record of dates liquid is first introduced to each tank and dates tank is fully drained. Verify that these records regarding emergency standby tanks are submitted to the Control Officer 60 days prior to permit renewal. Verify that installations/CW facilities with exempt portable temporary tanks also maintain records on tank capacity, dates liquid is first introduced, and dates tank is fully drained and moved offsite. Verify that these records regarding portable temporary tanks are submitted to the Control Officer within 45 days of tank removal.
ST.20.8.CA.KC. Installations/CW facilities storing organic liquids in fixed or floating roof tanks designated as emergency standby tanks must meet specific requirements (KCAPCD Regulation IV, Rules 411 II.B, III.B.1 and V.A.2).	Determine if the installation/CW facility operates any fixed or floating roof tank that satisfies all of the following conditions: - used exclusively to store petroleum distillates or crude oil - designated for emergency standby use - was in use prior to 1 May 1979. Verify that each use of an emergency standby tank does not exceed 30 days. (NOTE: After an emergency standby tank has been used (i.e., filled or partially filled) and draining of the tank has begun, any further filling constitutes a separate use of the tank.) Verify that prior to return to Emergency Standby status, each such tank is thoroughly drained. Verify that all fixed roof emergency standby tanks are equipped with a pressure relief device set to within 10 percent of maximum allowable working pressure of the tank. **ST.20.8.CA.KC. Continued on Next Page**

COMPLIANCE CATEGORY: STORAGE TANK MANAGEMENT Kern County Air Pollution Control District (KCAPCD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
ST.20.8.CA.KC.(continued)	Verify that accurate records are maintained for each emergency standby tank, including all of the following information: - liquids stored in the tank, including their storage temperature and Reid vapor pressure - dates the tank is in use, i.e., date of first filling and date of final draining for each period of use. Verify that tank usage records are submitted to the Control Officer 60 days prior to annual permit renewal.
ST.20.9.CA.KC. Installations/CW facilities storing organic liquids in nonexempt tanks must meet specific recordkeeping requirements (KCAPCD Regulation IV, Rule 411 V.A.1).	Verify that the installation/CW facility keeps an accurate record of liquids, including storage temperature and Reid vapor pressure, stored in each container.
ST.20.10.CA.KC. Stationary sources containing an organic liquid storage unit which has the potential to emit air contaminants equal to or in excess of the threshold for a major source of regulated air pollutants or a major source of HAPs must meet specific recordkeeping requirements (KCAPCD Regulation II, Rule 201.3 V.2).	Verify that the following records are kept and maintained: - monthly log identifying the liquid stored and monthly throughput - information on the tank design and specifications including control equipment.

INSTALLATION:	COMPLIANCE CATEGORY: STORAGE TANK MANAGEMENT KCAPCD - California Supplement	DATE:	REVIEWER(S):
STATUS NA C RMA	REVIEWER COMMENTS:		

SECTION 1

AIR EMISSIONS MANAGEMENT

Mojave Desert Air Quality Management District (MDAQMD) - California Supplement

SECTION 1

AIR EMISSIONS MANAGEMENT

Mojave Desert Air Quality Management District (MDAQMD)

California Supplement

The district boundaries include all of the County of San Bernardino except for that portion of the County referred to as the San Bernardino Area. The District encompasses all of that portion of the County within the Southeast Desert Air Basin.

The boundaries of the Mojave Desert Air Quality Management District include the desert portion of San Bernardino County and those portions of the County or Riverside commonly known as the Palo Verde Valley.

Regulations Adopted by Reference

The MDAQMD adopts by reference the following regulations from 40 Code of Federal Regulations, Part 60 (40 CFR 60):

- 40 CFR 60, Subpart A - General Provisions
- 40 CFR 60, Subpart C - Emission Guidelines and Compliance Times
- 40 CFR 60, Subpart Ca - Emissions Guidelines and Compliance Times for Municipal Waste Combustors
- 40 CFR 60, Subpart Cb - Emissions Guidelines and Compliance Times for Sulfuric Acid Production Units
- 40 CFR 60, Subpart D - Standards of Performance for Fossil-Fuel Fired Steam Generators for Which Construction is Commenced After August 17, 1971
- 40 CFR 60, Subpart Db - Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units
- 40 CFR 60, Subpart Dc - Standards of Performance for Small Industrial-Commercial Industrial Steam Generating Units
- 40 CFR 60, Subpart E - Standards of Performance for Incinerators
- 40 CFR 60, Subpart Ea - Standards of Performance for Municipal Waste Combustors
- 40 CFR 60, Subpart G - Standards of Performance for Nitric Acid Plants
- 40 CFR 60, Subpart H - Standards of Performance for Sulfuric Acid Plants
- 40 CFR 60, Subpart K - Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973 and Prior to May 19, 1978
- 40 CFR 60, Subpart N - Standards of Performance for Primary Emissions from Basic Oxygen Process Furnaces for Which Construction is Commenced After June 11, 1973
- 40 CFR 60, Subpart O - Standards of Performance for Sewage Treatment Plants
- 40 CFR 60, Subpart DD - Standards of Performance for Grain Elevators
- 40 CFR 60, Subpart EE - Standards of Performance for Surface Coating of Metal Furniture
- 40 CFR 60, Subpart GG - Standards of Performance for Stationary Gas Turbines
- 40 CFR 60, Subpart MM - Standards of Performance for Automobile and Light-Duty Truck Surface Coating Operations

- 40 CFR 60, Subpart QQ - Standards of Performance for the Graphic Arts Industry: Publication Rotogravure Printing
- 40 CFR 60, Subpart SS - Standards of Performance for Industrial Surface Coating
- 40 CFR 60, Subpart UU - Standards of Performance for Asphalt Processing and Asphalt Roofing Manufacture
- 40 CFR 60, Subpart AAA - Standards of Performance for New Residential Wood Heaters
- 40 CFR 60, Subpart JJJ - Standards of Performance for Petroleum Dry Cleaners

The MDAQMD adopts by reference the following regulations from 40 CFR 61:

- 40 CFR 61, Subpart A - General Provisions
- 40 CFR 61, Subpart C - National Emission Standard for Beryllium
- 40 CFR 61, Subpart D - National Emission Standard for Beryllium Rocket Motor Firing
- 40 CFR 61, Subpart E - National Emission Standard for Mercury
- 40 CFR 61, Subpart F - National Emission Standard for Vinyl Chloride
- 40 CFR 61, Subpart J - National Emission Standard for Equipment Leaks (Fugitive Emission Sources) of Benzene
- 40 CFR 61, Subpart M - National Emission Standard for Asbestos
- 40 CFR 61, Subpart V - National Emission Standard for Equipment Leaks (Fugitive Emissions Sources)
- 40 CFR 61, Subpart Y - National Emission Standard for Benzene Emissions from Benzene Storage Vessels
- 40 CFR 61, Subpart BB - National Emission Standard for Benzene Emissions from Benzene Transfer Operations
- 40 CFR 61, Subpart FF - National Emission Standard for Benzene Waste Operations

Definitions

- *Active Operation* - activity capable of generating fugitive dust, including, but not limited to, storage of bulk material, earth-moving activity, construction/demolition activity, and nonemergency movement of vehicles on unpaved roads, including such activity on San Bernardino County and Bureau of Land Management properties (MDAQMD Regulation IV, Rule 403.1).

- *Actual Emission* - the emissions of a regulated air pollutant from a facility for every 12 mo period. Actual emissions are determined as follows (MDAQCD Regulation II, Rule 222):
  1. by the use of valid continuous emissions monitoring data or source tests data
  2. in the absence of data, by calculation of emissions from any one or more of the following:
     a. throughputs of process material
     b. throughputs of material stored
     c. usage of materials
     d. data provided in manufacturer's product specifications
     e. VOC content reports or laboratory analyses for the material
     f. any other information required by this rule or by any other Federal, State, or District regulations
     g. information requested in writing by the District.

- *Additive* - any substance added in small quantities to another substance in order to increase volume and/or change the physical properties of the mixture (MDAQMD Regulation XI, Rule 1116).

- *Adhesive* - any substance that is capable of bonding surfaces together by attachment (MDAQMD Regulation XI, Rule 1114).

- *Aeration* - a process during which residual ethylene oxide (EtO) dissipates, whether under forced air flow, natural or mechanically assisted convection, or any other means, from previously sterilized materials after the sterilizer cycle is complete (MDAQMD Regulation XV, Rule 1501).

- *Aerator* - any equipment or space in which materials previously sterilized with EtO are placed or remain for the purpose of aeration (MDAQMD Regulation XV, Rule 1501).

- *Aerator Exhaust Stream* - all EtO-contaminated air which is emitted from an aerator, including EtO-contaminated air which may be removed from a sterilizer through a rear chamber exhaust system (MDAQMD Regulation XV, Rule 1501).

- *Aerosol-Spray Coating* - a coating which is sold in a hand-held, pressurized, nonrefillable container of 16 oz or less and which is expelled from the container in a finely divided spray when a valve on the container is depressed (MDAQMD Regulation XI, Rule 1114).

- *Agricultural Operations* - any operation occurring on a ranch or farm directly related to growing crops, or raising fowls or animals for the primary purpose of making a profit or for a livelihood (MDAQMD Regulation I, Rule 102).

- *Air Pollutant* - any air pollution agent or combination of such agents, including any physical, chemical, biological, or radioactive (including source material, special nuclear material, and byproduct material) substance or matter which is emitted into or otherwise enters the ambient air (MDAQMD Regulation II, Rule 222).

- *Air Pollution Control Officer (APCO)* - that person appointed by the Air Pollution Control Board and assigned full time to manage and direct the business and operations of the District. The APCO is also the District Director, and is that person described for State purposes as the Air Pollution Control Officer (MDAQMD Regulation I, Rule 102).

- *Air Contaminant* - Any discharge, release, or other propagation into the atmosphere directly or indirectly caused by man and includes, but is not limited to, smoke, charred paper, dust, soot, grime, carbon, fumes, gases, odors, particulate matters, acids or in any combination of these materials (MDAQMD Regulation I, Rule 102).

- *Air-Dried Coating* - a coating that is cured at a temperature below 90 ºC (194 ºF) (MDAQMD Regulation XI, Rule 1115).

- *Air-Vapor Interface* - the degreaser surface area between the sides of the cleaner, the top of the solvent-vapor layer, and the air touching this layer (MDAQMD Regulation XI, Rule 1104).

- *Ampere-hours* - the integral of electrical current applied to a plating tank (Amperes) over a period of time (hours) (MDAQMD Regulation XV, Rule 1502).

- *Annual Heat Input* - the total heat input of fuels, in Btu, burned by a permit unit in a calendar year, as determined from the higher heating value and cumulative annual usage of each fuel (MDAQMD Regulation XI, Rule 1157).

- *Anti-Glare/Safety Coating* - a coating which does not reflect light (MDAQMD Regulation XI, Rule 1116).

- *Anti-Mist Additive* - a chemical which reduces the emission rate from the tank when added to and maintained in the plating tank (MDAQMD Regulation XV, Rule 1502).

- *Approved Training Program* - any training program that, at a minimum, is as stringent as specified in SAE standard J-1989 under the certification program of the National Institute for Automotive Service Excellence, or under a similar program of training and certification of the Mobile Air Conditioning Society (MACS), or such other program approved by the USEPA (MDAQMD Regulation XV, Rule 1511).

- *Appurtenance* - an accessory to an architectural structure including, but not limited to: hand railings, cabinets, bathroom and kitchen fixtures, fences, rain gutters and downspouts, window screens, lamp posts, heating and air conditioning equipment, large fixed stationary tools, and concrete forms (MDAQMD Regulation XI, Rule 1113).

- *Architectural Coatings* - any coatings applied to stationary structures and their appurtenances; to mobile homes, to pavements, or to curbs (MDAQMD Regulation I, Rule 102).

- *Asphalt* - a brownish-black cementitious material (solid, semi-solid, or liquid in consistency) of which the main constituents are bitumens which occur naturally or are a residue of petroleum refining (MDAQMD Regulation IV, Rule 471).

- *Atmosphere* - the portion of the air which envelopes or surrounds the earth (MDAQMD Regulation I, Rule 102).

- *Baked Coating* - a coating that is cured at a temperature at or above 90 ºC (194 ºF) (MDAQMD Regulation XI, Rule 1115).

- *Batch-Loaded* - the material placed in a nonconveyorized container for a vapor or cold cleaning process (MDAQMD Regulation XI, Rule 1104).

- *Belowground Wood Preservatives* - coatings formulated solely for the purpose of protecting belowground wood from decay or insect attack and which contain a wood preservative chemical registered by the California Department of Food and Agriculture (MDAQMD Regulation XI, Rule 1113).

- *Bituminous Coatings* - black or brownish coating materials, soluble in carbon disulfide, consisting mainly of hydrocarbons and which are obtained from natural deposits, or as residues from the distillation of crude oils or of low grades of coal (MDAQMD Regulation XI, Rule 1113).

- *Boiler* or *Steam Generator* - any combustion equipment (fired with any fuel) used to produce steam. Boiler or steam generator does not include any waste heat recovery boiler that is used to recover sensible heat from the exhaust of a combustion turbine (MDAQMD Regulation XI, Rule 1157).

- *Bond Breakers* - coatings whose sole purpose, when applied between layers of concrete, is to prevent the freshly poured top layer of concrete from bonding to the substrate on which it is poured (MDAQMD Regulation XI, Rule 1113).

- *Breakdown* - any situation arising from sudden and reasonably unforeseeable events, including acts of God, beyond the control of the owner/operator of any equipment required to have a permit pursuant to District rules which meets all of the following conditions:
    1. requires immediate corrective action to restore normal operations
    2. causes emissions to exceed a Technology-Based Emission Limitation due to unavoidable increases in emissions attributable to the situation
    3. is not caused by improperly designed equipment, lack of preventive maintenance, careless operation, improper operation, or operator error (MDAQMD Regulation IV, Rule 430).

- *Bulk Materials* - sand, gravel, soil, aggregate, and any other organic or inorganic solid matter capable of releasing dust, not including salt (MDAQMD Regulation IV, Rule 403.1).

- *California Air Resources Board (CARB)* - the Air Resources Board of the State of California as established pursuant to the provisions of Part 2 of Division 26 (commencing with section 39500) of the California Health and Safety Code (MDAQMD Regulation II, Rule 222).

- *Camouflage Coating* - a coating use, principally by the military, to conceal equipment from detection (MDAQMD Regulation XI, Rule 1115).

- *Catalyst* - a substance which is applied to a surface and which forms a film in order to beautify and/or protect such surface (MDAQMD Regulation XI, Rule 1116).

- *Certified Vapor Recovery System* - a system to limit emissions of gasoline which has been certified by the California Air Resources Board (CARB) in accordance with specific criteria listed within the California Administrative Code (MDAQMD Regulation I, Rule 102).

- *Charging Equipment* - equipment used to dispense refrigerant from gas cylinders (MDAQMD Regulation XV, Rule 1511).

- *Chrome* - metallic chrome (MDAQMD Regulation XV, Rule 1502).

- *Chrome Plating* - either hard or decorative chrome plating (MDAQMD Regulation XV, Rule 1502).

- *Chromic Acid* - an aqueous solution of chromium trioxide or a commercial solution containing chromic acid, dichromic acid or trichromic acid (MDAQMD Regulation XV, Rule 1502).

- *Chromic Acid Anodizing* - the electrolytic process by which a metal surface is converted to an oxide surface coating in a solution containing chromic acid (MDAQMD Regulation XV, Rule 1502).

- *Chromic* - hexavalent chromium (MDAQMD Regulation XV, Rule 1502).

- *Clear Topcoat* - a coating which contains resins and binders but not opaque pigments and which is specifically formulated to form a transparent or translucent solid protective film (MDAQMD Regulation XI, Rule 1114).

- *Close Fitting Lid* - a VOC impermeable cover that fits securely over a roofing kettle or other container so that no gap exists between the kettle body and lid greater than 3/8 in. (MDAQMD Regulation IV, Rule 471).

- Coal Tar - a viscous black liquid obtained by the destructive distillation of coal and used as a raw material for dyes, drugs, and organic chemicals and for waterproofing, paints, roofing, and insulation materials (MDAQMD Regulation IV, Rule 471).

- *Coal Tar Pitch* - a thick, dark, and sticky substance obtained from the distillation residue of coal tar (MDAQMD Regulation IV, Rule 471).

- *Coating* - a material which is applied to a surface and which forms a continuous film in order to beautify and/or protect such surface (MDAQMD Regulation XI, Rule 1115).

- *Cogeneration Facility* - a facility which produces (MDAQMD Regulation XI, Rule 1158):
  1. electric energy
  2. steam or forms of useful energy (such as heat) which are used for industrial or commercial heating or cooling purposes.

- *Cold Solvent Cleaning* - a process or activity, such as wipe cleaning, of removing soils from the surfaces of workloads by spraying, brushing, flushing, or immersing the parts with/in liquid solvent which is not heated or, when heated does not reach the solvent's boiling point (MDAQMD Regulation XI, Rule 1104).

- *Cold Solvent Degreaser* - any equipment using solvent which, if heated is maintained below the boiling temperature. Such equipment includes, but is not limited to, remote reservoirs, spray sinks, and batch-loaded dip tanks (MDAQMD Regulation XI, Rule 1104).

- *Color Match* - the ability to repair coating to blend into an existing coating so that color difference is not visibly detectable (MDAQMD Regulation XI, Rule 1116).

- *Combined-Cycle Turbine Unit* - any stationary gas turbine operated both for the production of electrical energy from shaft work and the useful energy produced from heat recovered from its exhaust gases (MDAQMD Regulation XI, Rule 1158).

- *Combustible Refuse* - any solid or liquid combustible waste material containing carbon in a free or combined state (MDAQMD Regulation I, Rule 102).

- *Combustion Contaminants* - particulate matter discharged into the atmosphere from the burning of any kind of material containing carbon in a free or combined state (MDAQMD Regulation I, Rule 102).

- *Concrete Curing Compounds* - coatings whose sole purpose is to retard the evaporation of water from the surface of freshly cast concrete (MDAQMD Regulation XI, Rule 1113).

- *Condenser (primary condenser)* - the primary device, such as cooling coils, used to condense (liquefy) solvent vapor (MDAQMD Regulation XI, Rule 1104).

- *Condenser Flow Switch* - a safety switch connected to a thermostat which shuts off the sump heater if the condenser coolant is either not circulating or exceeds its designed operating temperature (MDAQMD Regulation XI, Rule 1104).

- *Construction/Demolition Activity* - any onsite mechanical activity preparatory to or related to building, alteration, rehabilitation, demolition, or improvement of property that results in disturbed surface area,

including the following activities: grading, excavation, loading, crushing, cutting, planning, shaping, or groundbreaking (MDAQMD Regulation IV, Rule 403.1).

- *Control Device* - any device for reducing emissions of VOC to the atmosphere (MDAQMD Regulation IV, Rule 464).

- *Control Equipment* - air pollution control equipment that eliminates, reduces, or controls the issuance of air contaminants (MDAQMD Regulation I, Rule 102).

- *Conveyorized Degreaser* - any continuously loaded, conveyorized cold solvent or vapor degreaser, including, but not limited to, gyro, vibra, monorail, cross-rod, mesh, belt, and strip cleaners. Also strip degreasers which clean material by drawing the strip itself through the unit (MDAQMD Regulation XI, Rule 1104).

- *Cooling Towers* - open water recirculating devices that use fans or natural draft to draw or force air through the device to cool water by evaporation and direct contact. This includes, but is not limited to, evaporative condensers, quench or cooling towers used for Heating Ventilation Air Conditioning (HVAC) and/or industrial cooling processes (MDAQMD Regulation XV, Rule 1503).

- *Cutback Asphalt* - paving grade asphalt liquefied with petroleum distillate and as further defined by American Society for Testing and Materials (ASTM) specifications as follows (MDAQMD Regulation XI, Rule 1103):
    1. rapid cure type: ASTM D2028-76
    2. medium cure type: ASTM D2027-76
    3. slow cure type: ASTM D2026-72.

- *Decorative Chrome Plating* - the process by which chromium is electro-deposited from a solution containing compounds of chromium onto an object resulting in a chrome layer 1 micron thick or less (MDAQMD Regulation XV, Rule 1502).

- *Degreaser* - the solvent cleaning equipment used to clean soils from the surfaces of parts/workloads, and include the following types of equipment: cold solvent degreasers, vapor degreasers, conveyorized degreasers, and sealed chamber degreasers (MDAQMD Regulation XI, Rule 1104).

- *Diesel-Cycle Engine* - a two or four stroke compression ignition engine that is operated on any liquid or gaseous fuel, and with an exhaust stream oxygen concentration of four percent by volume or greater (MDAQMD Regulation XI, Rule 1160).

- *Dip Coat* - to dip an object into a vat of coating material and drain off any excess coating (MDAQMD Regulation XI, Rule 1114).

- *Dispose* - to discard refrigerant in any manner except destruction by incineration (MDAQMD Regulation XV, Rule 1511).

- *District Director* - is the same as Air Pollution Control Officer (MDAQMD Regulation I, Rule 102).

- *District* - the Mojave Desert Air Pollution Control District (MDAQMD Regulation I, Rule 102).

- *Disturbed Surface Area* - portion of the earth's surface that has been physically moved, uncovered, destabilized, or otherwise modified from its undisturbed natural condition, thereby increasing the poten-

tial for emission of fugitive dust. Disturbed surface does not include area restored to a natural state with vegetative groundcover and soil characteristics similar to adjacent or nearby natural conditions (MDAQMD Regulation IV, Rule 403.1).

- *Dry Fog Coating* - coatings which are formulated so that when sprayed, overspray droplets dry before falling on floors and other surfaces (MDAQMD Regulation XI, Rule 1113).

- *Dust Palliative* - any light application of liquefied asphalt (cutback or emulsified asphalt) for the express purpose of controlling loose dust (MDAQMD Regulation XI, Rule 1103).

- *Dusts* - minute solid particles released into the air by natural forces or by mechanical processes including, but not limited to, crushing, grinding, milling, drilling, demolition, shoveling, conveying, covering, bagging, grading, leveling, excavation, and sweeping (MDAQMD Regulation I, Rule 102).

- *Earth-Moving Activity* - grading, earth cutting and filling, loading or unloading of dirt or bulk materials, adding to or removing from open storage piles of bulk materials, landfilling, or soil mulching (MDAQMD Regulation IV, Rule 403.1).

- *Effluent Water* - any wastewater generated as a byproduct of industrial processes and containing dissolved, particulate organic materials. Consists of a mixture of water with a petroleum product, including, but not limited to the following: gasoline, kerosene, distillate fuel oils, residual fuel oils, and lubricants (MDAQMD Regulation IV, Rule 464).

- *Electric Utility Operation* - any electrical generating steam boilers, including auxiliary boilers, or combined-cycle turbine units used in conjunction with an electrical generating steam boiler (MDAQMD Regulation XI, Rule 1158).

- *Electrostatic Application* - the application of charged atomized paint droplets which are deposited by electrostatic attraction (MDAQMD Regulation XI, Rule 1116).

- *Emergency Internal Combustion Engines* - for purposes of this section, internal combustion engines used during periods of loss of commercial power at facilities normally serviced with commercial power. These units are normally operated during periods of compliance and operational preparedness testing (1 h/wk) and during periods of actual power loss (MDAMQD Regulation XI, Rule 1160).

- *Emergency Standby Unit* - any stationary gas turbine that operates as a mechanical or electrical power source for a facility only when the primary power source has been rendered inoperable due to failure beyond the reasonable control of the operator. A power interruption pursuant to a voluntary interruptible power supply agreement is not to be considered as an emergency loss of primary power. Electricity generated by such a unit cannot be sold (MDAQMD Regulation XI, Rule 1159).

- *Emissions Compliance Test* - an emissions compliance test conducted in accordance with a District approved test protocol pursuant to the District's "Compliance Test Procedural Manual " (MDAQMD Regulation XI, Rule 1160).

- *Emission Control System Operating Parameters* - any operating parameters that the District deems necessary to analyze for the determination of compliance. Such parameters include, but are not limited to, the ammonia and gas flow rates, the exhaust temperature for the SCR, humidity, water injection rate, exhaust gas flow rate, and the temperature for water injection (MDAQMD Regulation XI, Rule 1159).

- *Emission Factor* - the mass of chromium emitted to the atmosphere determined by a test conducted (under operating conditions) on the individual plating tank in accordance with the CARB Test Method 425, divided by the ampere-hours consumed by the tank expressed as the mass of chromium emitted per ampere-hour of electrical current consumed (MDAQMD Regulation XV, Rule 1502).

- *Emission Unit* - any article, machine, equipment, operation, contrivance, or related groupings of such that may produce and/or emit any regulated air pollutant or hazardous air pollutant (MDAQMD Regulation II, Rule 222).

- *Emissions Collection System* - a device or apparatus used to gather chromium emissions from the surface of a chrome plating or chromic acid anodizing tank or tanks (MDAQMD Regulation XV, Rule 1502).

- *Emissions Control Plan* - a document prepared by the facility which outlines how an existing facility will comply with the requirements for electric utility operations. The plan contains the following (MDAQMD Regulation XI, Rule 1158):
    1. a list of all permit units with their rated heat inputs and estimated annual capacity factors
    2. for each permit unit subject to the emissions limits, a statement as to the selected method of achieving the applicable standard
    3. is reviewed by the District at least once every 3 yr or at such time as applications are received by the District for new or revised Authority to Construct or Permits to Operate.

- *Emulsified Asphalt* - any asphalt liquefied with water containing an emulsifier. The two kinds of emulsions most pertinent are the anionic and cationic types (MDAQMD Regulation XI, Rule 1103).

- *Emulsion* - a suspension of small droplets of one liquid in a second liquid with which the first will not mix (MDAQMD Regulation XI, Rule 1104).

- *Enhanced Emissions Monitoring Device* - any automated data recording device or system having both data gathering and retrieval capabilities. Such equipment includes, but is not limited to, continuous emissions monitoring systems (CEMS) and predictive emissions monitoring systems (MDAQMD Regulation XI, Rule 1159).

- *Etching Filler* - a coating that contains less than 23 percent solids by weight and at least 1/2 percent acid by weight, and is used instead of applying a pretreatment coating followed by a primer (MDAQMD Regulation XI, Rule 1115).

- *Ethylene Oxide Sterilization Chamber* - a chamber using EtO, or a combination of EtO and CFC-12 or other diluents, to destroy bacteria and viruses on medical products, food products, containers, or other materials (MDAQMD Regulation XV, Rule 1501).

- *Evaporation* - to change into a vapor, normally from a liquid state (MDAQMD Regulation XI, Rule 1104).

- *Evaporative Surface Area for a Cold Solvent Degreaser* - the surface area of the top of the solvent (MDAQMD Regulation XI, Rule 1104).

- *Evaporative Surface Area for a Conveyorized Degreaser* - either (MDAQMD Regulation XI, Rule 1104):
    1. for a cold solvent degreaser, the surface area of the top of the solvent

2. for a vapor degreaser, the surface area of the top of the solvent vapor-air interface.

- *Evaporative Surface Area for a Vapor Degreaser* - the surface area of the top of the solvent vapor-air interface (MDAQMD Regulation XI, Rule 1104).

- *Excavation* - removal of surface covering, soil, pavement, etc. to expose underground equipment to view or to prepare a subsurface area for future construction (MDAQMD Regulation I, Rule 102).

- *Excess Organic Liquid Drainage* - (a) more than 2 mL of liquid drainage per disconnect from a top loading operation; or (b) more than 10 mL of liquid drainage from a bottom loading operation. Such liquid drainage is determined by computing the average drainage from three consecutive disconnects at any one loading arm (MDAQMD Regulation I, Rule 102).

- *Executive Officer* - The person appointed by the Air Pollution Control Board and assigned full-time to manage and direct the business and operations of the district. The Executive Officer is also the District Director and is the person described for State purposes as the Air Pollution Control Officer (APCO).

- *Exempt Compounds* - any of the following compounds: CO, CO2, carbonic acid, metallic carbides or carbonates, ammonium carbonate, and those compounds listed in 40 CFR 51.100(s)(1) (MDAQMD Regulation XI, Rule 1103).

- *Existing Facility* - any facility operating, constructed, or under construction as of the date or adoption of rules related to such facilities (MDAQMD Regulation I, Rule 102).

- *Facility* - any permit unit, group of permit units, nonpermitted equipment, or any combination thereof which emits or may emit an air pollutant; and belongs to a single major industrial group in the Standard Industrial Classification Manual; and is located on a single parcel of land or on contiguous property within the District; and which is owned or operated by the same person or by persons under common control (MDAQMD Regulation II, Rule 222).

- *Facility-wide Emissions from Hard Chrome Plating or Chromic Acid Anodizing* - the total emissions from all hard chrome plating or chromic acid anodizing at the facility over a calendar year. Emissions must be calculated as the sum of emissions from the plating tank(s) at the facility. The emissions from the tank(s) must be calculated by multiplying the emission factor by the sum of ampere-hours consumed during that year for all of the tank(s) within the facility (MDAQMD Regulation XV, Rule 1502).

- *Federal Clean Air Act* - the Federal Clean Air Act (codified at 42 USC, para. 7401-7671q) as well as any amendments thereto and any implementing regulations promulgated thereunder (MDAQMD Regulation II, Rule 222).

- *Federal Operating Permit* - an operating permit issued pursuant to District Regulation XII after the effective date of such regulation as set forth in District Rule 1200(D) (MDAQMD Regulation II, Rule 222).

- *Federal Ozone Nonattainment Area* - that portion of San Bernardino County that lies within the lines which begin at (MDAQMD Regulation XI, Rule 1157):
  1. the San Bernardino/Riverside County boundary, running north along the range line common to Range 3 East and Range 2 East
  2. then west along the township line common to Township 2 North and Township 3 North

3. then north along the San Bernardino/Los Angeles County boundary and the San Bernardino/Kern County Boundary
4. then east along latitude 30 degrees, 10 minutes north
5. then south along longitude 115 degrees, 45 minutes west and west along the San Bernardino/Riverside County Boundary.

- *Federally Enforceable* - any requirement, condition, or other term which is fully enforceable by USEPA pursuant to the provisions of 42 USC, para. 7413 (Federal Clean Air Act, para. 113) or the public pursuant to the provisions of 42 USC, para. 7604 (Federal Clean Air Act, para. 304) (MDAQMD Regulation II, Rule 222).

- *Fire Retardant Coatings* - a coating which has a flame spread index of less than 25 when tested in accordance with the current version of ASTM Designation E 85-87, "Standard Test Method for Surface Burning Characteristics of Building Material," after application to Douglas fir according to the manufacturer's recommendations (MDAQMD Regulation XI, Rule 1113).

- *Fixed Cover* - any cover made out of metal(s), polymer(s), or other material, and installed in a permanent position over the liquid (MDAQMD Regulation IV, Rule 464).

- *Flat Coatings* - coatings which register gloss less than 15 on a 85 ° meter or less than 5 on a 60 ° meter, or is labeled as a flat coating (MDAQMD Regulation XI, Rule 1113).

- *Flexographic Printing* - the application of words, designs, or pictures by roll printing technique in which the pattern to be applied is raised above the printing roll and the image carrier is made of rubber or other elastomeric material (MDAQMD Regulation XI, Rule 1117).

- *Floating Cover* - any cover made out of metal(s), polymer(s), or other material, which is in contact with a liquid surface at all times (MDAQMD Regulation IV, Rule 464).

- *Flow Coat* - to coat an object by flowing a stream of coating over an object and draining off any excess coating (MDAQMD Regulation XI, Rule 1114).

- *Forebay* - that section of a gravity-type separator which both (MDAQMD Regulation IV, Rule 464):
  1. receives the untreated, contaminated effluent water from the preseparator flume
  2. acts as a header which distributes the influent to the separator channels.

- *Freeboard Height for a Batch-Loaded Vapor Degreaser* - the vertical distance from the top of the solvent vapor-air interface to the top of the degreaser (MDAQMD Regulation XI, Rule 1104).

- *Freeboard Height for a Cold Solvent Degreaser* - the vertical distance from the top of the solvent to the lip of the cold solvent degreaser. For the purposes of this section, remote reservoirs do not have a freeboard (MDAQMD Regulation XI, Rule 1104).

- *Freeboard Height for a Conveyorized Degreaser* - either (MDAQMD Regulation XI, Rule 1104):
  1. for nonboiling (cold) solvent, the vertical distance from the top of the solvent to the bottom of the first opening in the solvent containing compartment or to the bottom of the lowest opening in the degreaser, whichever distance is greater
  2. for boiling (vaporized) solvent, the vertical distance from the top of the solvent vapor-air interface to the bottom of the first opening in the vapor containing compartment or to the bottom of the lowest opening in the degreaser, whichever distance is greater.

- *Freeboard Ratio* - the freeboard height divided by the smaller of the inside length, diameter, or the inside width of the degreaser evaporative area (MDAQMD Regulation XI, Rule 1104).

- *Fuel Burning Equipment Unit* - Boilers, furnaces, jet engines or other fuel burning equipment, the simultaneous operations required for the production of useful heat or power. (Definition primarily for use under MDAQMD Regulation IV, Rule 67).

- *Fugitive Dust* - any solid particulate matter that becomes airborne, other than that emitted from an exhaust stack, directly or indirectly as a result of the activities of man (MDAQMD Regulation I, Rule 102).

- *Fugitive Vapor Leak* - the detection of 10,000 ppm or greater, using an appropriate hydrocarbon analyzer when sampling is performed according to the procedures specified in USEPA Method 21 (MDAQMD Regulation IV, Rule 464).

- *Gasoline* - any organic liquid, including petroleum distillate and methanol having a Reid Vapor Pressure of 200 mm Hg (3.9 lb/in.^{2}), or greater, and used as a motor vehicle fuel, or any fuel that is commonly or commercially known or sold as gasoline (MDAQMD Regulation I, Rule 102).

- *General Primers* - coatings which are intended to be applied to a surface to provide a firm bond between the substrate and subsequent coats (MDAQMD Regulation XI, Rule 1113).

- *General Sealers* - coatings which are intended for use on porous substrates to protect the substrate, to prevent subsequent coatings from being absorbed by the substrate, or to prevent harm to subsequent coatings by materials in the substrate (MDAQMD Regulation XI, Rule 1113).

- *General Undercoaters* - coatings which are designed to provide a smooth surface for subsequent coats (MDAQMD Regulation XI, Rule 1113).

- *Grams of VOC Per Liter of Coating, Less Water and Less Exempt Compounds* - the weight of VOC per combined volume of VOC and coating solids and can be calculated by the following equation (MDAQMD Regulation XI, Rule 1113):

$$VOC_{g/L} = \frac{W_s - W_w - W_{es}}{V_m - V_w - V_{es}}$$

Where: W_s = weight of volatile compounds in grams
W_w = weight of water in grams
W_{es} = weight of exempt compounds in grams
V_m = volume of material in liters
V_w = volume of water in litera
V_{es} = volume of exempt compounds in liters

- *Grams of VOC Per Liter of Material* - the weight of VOC per volume of material and can be calculated by the following equation (MDAQMD Regulation XI, Rule 1114):

$$VOC_{g/L} = \frac{W_s - W_w - W_{es}}{V_m}$$

Where: W_s = weight of volatile compounds in grams
W_w = weight of water in grams
W_{es} = weight of exempt compounds in grams
V_m = volume of material in liters

- *Graphic Arts Coatings (Sign Paints)* - coatings which are formulated for hand-application by artists using brush or roller techniques to indoor and outdoor signs and murals, including lettering enamels, poster colors, copy blockers, and bulletin enamels, excluding structural components (MDAQMD Regulation XI, Rule 1113).

- *Gravure Printing* - an intaglio printing operation in which the ink is transferred from minute etched wells on a plate to the substrate, which is supported by an impression roller, with excess ink removed by a doctor blade (MDAQMD Regulation XI, Rule 1117).

- *Group I Vehicles* - public transit buses and mobile equipment (MDAQMD Regulation XI, Rule 1116).

- *Group II Vehicles and Equipment* - passenger cars, large/heavy duty truck cabs and chassis, light and medium duty trucks and vans, and motorcycles (MDAQMD Regulation XI, Rule 1116).

- *Hard Chrome Plating* - the process by which chromium is electro-deposited from a solution containing compounds of chromium onto an object resulting in a chrome layer thicker than 1 micron (0.04 mil) (MDAQMD Regulation XV, Rule 1502).

- *Hazardous Air Pollutant (HAP)* - any air pollutant listed pursuant to 42 USC, para. 7412(b) (Federal Clean Air Act, para. 112) or in regulations promulgated thereunder (MDAQMD Regulation II, Rule 222).

- *Heat Input* - the chemical heat released due to fuel combustion in a piece of fuel burning equipment, using the higher heating value of the fuel. This does not include the sensible heat of incoming combustion air (MDAQMD Regulation IV, Rule 474).

- *Heat-Input Weighted Average (Combined Fuels)* - when a permit unit is operated on combinations of gaseous and liquid fuels, the emissions limits for the applicable annual capacity factor class is calculated for each boiler by the following formula (MDAQMD Regulation XI, Rule 1158).

- *Heavily Traveled* - carrying more than ten vehicle trips per day with the majority of those vehicles having three or more axles (MDAQMD Regulation IV, Rule 403.1).

- *Hexavalent Chromium-containing Water Treatment Chemicals* - water treatment additives which contain hexavalent chromium (Chrome VI), alone or in combination with other water treatment chemicals (MDAQMD Regulation XV, Rule 1503).

- *High Annual Heat Input Permit Unit* - a permit unit with an annual heat input greater than or equal to 50,000 MBtu (MDAQMD Regulation XI, Rule 1157).

- *High Volatility Solvent* - any solvent that is not classified as a low volatility solvent (MDAQMD Regulation XI, Rule 1104).

- *High-Solids Stains* - stains containing more than 1 lb of solids per gallon be weight and can include wiping stains, glazes, and opaque stains (MDAQMD Regulation XI, Rule 1114).

- *High-Volume Low-Pressure (HVLP) Spray* - to spray a coating by means of a gun that operates between 0.1 and 10.0 psig air pressure, not to exceed 10 psig, measured at the air cap of the coating application system, and a permanent liquid coating pressure of not more than 50 psig (MDAQMD Regulation XI, Rule 1114).

- *Higher Heating Value* - the total heat liberated per mass of fuel burned (Btu/lb), when fuel and dry air at standard conditions undergo complete combustion and all resultant products are brought to standard conditions (MDAQMD Regulation XI, Rule 1157).

- *Independent Power Producer* - a power plant which is not directly regulated by a Public Utilities Commission, which provides power to an electric utility rather than directly to rate-payers, and which is a qualifying small power production facility per Public Utility Regulatory Policies Act regulations (18 CFR Ch.1, Subpart B) (MDAQMD Regulation XI, Rule 1158).

- *Industrial Maintenance Coating (General)* - a high performance coating which is formulated for, and applied to, substrates exposed to one or more of the following extreme environmental conditions (MDAQMD Regulation XI, Rule 1113):
    1. repeated (frequent) heavy abrasion, including mechanical wear and repeated (frequent) scrubbing with industrial solvents, cleaners, or scouring agents
    2. immersion in water, wastewater, or chemical solutions (aqueous and nonaqueous solutions), or chronic exposure of interior surfaces to moisture condensation
    3. acute or chronic exposure to corrosive, caustic, acidic agents, chemical fumes, mixtures, or solutions
    4. repeated exposure to temperatures in excess of 250 ºF
    5. exposed external metal structures.

- *Industrial Maintenance Coating (High Temperature)* - any industrial maintenance coating which is formulated for, and applied to, substrates exposed continuously or intermittently to temperatures above 400 F (MDAQMD Regulation XI, Rule 1113).

- *Initial Boiling Point* - the boiling point of a solvent as defined by ASTM Test Method D-1078-86 (MDAQMD Regulation XI, Rule 1104).

- *Ink* - a fluid that contains dyes and/or colorants and is used to make markings but not to protect surfaces (MDAQMD Regulation XI, Rule 1114).

- *Internal Combustion Engine* - any spark or compression ignited reciprocating stationary internal combustion engine that is attached to a foundation at a location, or is portable and operated at a location for more than 90 days in any consecutive 12 mo period, excluding engines used for self propulsion of a vehicle (MDAQMD Regulation XI, Rule 1160).

- *Lacquer* - clear or pigmented coatings formulated with nitrocellulose or synthetic resins to dry by evaporation without chemical reaction and to provide a quick drying, solid protective film (MDAQMD Regulation XI, Rule 1113).

- *Large/Heavy Duty Trucks* - any truck having a manufacturer's gross vehicle weight rating of over 10,000 lb (MDAQMD Regulation XI, Rule 1116).

- *Lean-Burn Engine* - a spark-ignited engine that is operated with any liquid or gaseous fuel and with an exhaust stream oxygen concentration of four percent by volume, or greater (MDAQMD Regulation XI, Rule 1160).

- *Letterpress Printing* - a printing method where the image area is raised relative to the nonimage area and the ink is transferred to the paper directly from the image surface (MDAQMD Regulation XI, Rule 1117).

- *Light and Medium Duty Trucks and Vans* - any truck or van having a manufacturer's gross vehicle weight rating of 10,000 lb or less (MDAQMD Regulation XI, Rule 1116).

- *Lip Exhaust* - a system which captures solvent vapors as defined by ASTM Test Method D-1078-86 (MDAQMD Regulation XI, Rule 1104).

- *Lithographic Printing* - printing by a planographic method in which the image and nonimage areas are on the same plane (MDAQMD Regulation XI, Rule 1117).

- *Low Annual Heat Input Permit Unit* - a permit unit with an annual heat input less than 50,000 MBtu (MDAQMD Regulation XI, Rule 1157).

- *Low Volatility Solvent* - a solvent with an initial boiling point greater than 120 ºC (248 ºF) and with an operating temperature at least 100 ºC (180 ºF) below the initial boiling point, as used (MDAQMD Regulation XI, Rule 1104).

- *Low-Solids Stains* - stains containing 1 lb of solids per gallon, or less, by weight (MDAQMD Regulation XI, Rule 1114).

- *Magnesite Cement Coating* - any coating formulated for, and applied to, magnesite cement decking to protect the magnesite cement substrate from erosion by water (MDAQMD Regulation XI, Rule 1113).

- *Magnetic Data Storage Disk Coating* - a coating used on a metal disk which stores data magnetically (MDAQMD Regulation XI, Rule 1115).

- *Major Facility* - any facility which emits or has the potential to emit the following amounts and types of air pollutants (MDAQMD Regulation II, Rule 222):
    1. for any facility located in Zone A (any area within the District which is designated Federal Severe-17 Nonattainment Area for Ozone):
        a. 100 tons/yr or more of any air pollutants other than those indicated in subparts b and c below
        b. 25 tons/yr or more of the following air pollutants:
            i. NO_x (nitrogen oxides)
            ii. VOC
        c. 10 tons/yr or more of any HAP or 25 tons/yr or more of any combination of HAP or such lesser quantity as the USEPA may establish by rule
    2. for any facility located in Zone B (any area within the District which is designated Federal Ozone Attainment or Unclassified):
        a. 100 tons/yr or more of any air pollutants other than those indicated in subpart b below
        b. 10 tons/yr or more of any HAP or 25 tons/yr or more of any combination of HAP or such lesser quantity as the USEPA may establish by rule.

- *Mastic Texture Coatings* - coatings, except waterproofing mastic coatings, which are formulated to cover holes and minor cracks and to conceal surface irregularities, and is applied in a minimum thickness of 10 mils (dry, single coat) (MDAQMD Regulation XI, Rule 1113).

- *Metal Parts and Products* - any components or complete units fabricated from metal, except those subject to the coating provisions of any other source specific rule of the District (MDAQMD Regulation XI, Rule 1115).

- *Metallic Coating* - a coating which contains more than 5 g of metal/L of coating, as applied (MDAQMD Regulation XI, Rule 1115).

- *Metallic Pigmented Coatings* - any coating containing at least 0.4 lb of metal particles per gallon of coating, as applied (MDAQMD Regulation XI, Rule 1113).

- *Metallic Topcoat* - any coating which contains more than 5 g/L (0.042 lb/gal) of metal particles, as applied, where such particles are visible in the dried film (MDAQMD Regulation XI, Rule 1116).

- *Mobile* - a device by which any person or property may be propelled, moved, or drawn upon the surface, waterways, or through the atmosphere, and which emits air contaminants. For the purpose of this rule, the description "mobile" includes registered motor vehicles which are licensed and/or driven on the public roadways of the state of California (MDAQMD Regulation IV, Rule 474).

- *Mobile Equipment* - any equipment which may be drawn or is capable of being driven on a roadway, including, but not limited to, truck bodies, truck trailers, utility bodies, camper shells, mobile cranes, bulldozers, street cleaners, golf carts, and implements of husbandry (MDAQMD Regulation XI, Rule 1116).

- *Modification* - any physical change in, or any change in the method of operation of, a stationary source. For the purpose of this definition (MDAPCD Regulation II, Rule 213.2):
  1. routine maintenance or repair is not considered to be physical changes, and
  2. an increase in production rate or operating hours is not considered to be a change in the method of operation, provided these increases are not contrary to any existing permit to operate conditions.

- *Modified Facility* - any facility that undergoes a physical revision to replace equipment, expand capacity, significantly revise methods of operation, or modernize its processes, except that a replacement identical to the previous unit, and routine maintenance and/or repair do not constitute a modification. Replacement of storage tanks designed to store hazardous or toxic materials, or the replacement of, or the exposing of, the majority of the attendant plumbing, is considered a modification (MDAQMD Regulation I, Rule 102).

- *Mold-Seal Coating* - the initial coating applied to a new mold or repaired mold to provide a smooth surface which, when coated with a mold or repaired mold to provide a smooth surface which, when coated with a mold release coating, prevents products from sticking to the mold (MDAQMD Regulation XI, Rule 1114).

- *Motor Vehicle* - A vehicle that is self-propelled (MDAQMD Regulation I, Rule 102).

- *Motor Vehicle Air Conditioner* - any equipment using a refrigerant to cool the driver's or passenger compartment of any motor vehicle (MDAQMD Regulation XV, Rule 1511).

- *Motor Vehicle Rework* - the reconditioning of motor vehicles (MDAQMD Regulation XI, Rule 1115).

- *Multi-Colored Coatings* - coatings which exhibit more than one color when applied and which are packaged in a single container and applied in a single coat (MDAQMD Regulation XI, Rule 1113).

- *National Ambient Air Quality Standards (NAAQS)* - standards set by the Federal government that define the acceptable amount of criteria pollutants in the air. Achievement of these standards protects the public's health and welfare (MDAQMD Regulation IV, Rule 403.1).

- *Noncontact Water Cooling Systems* - any system which involves the cooling of organic vapors via coolant injected through piping. There is no contact between the cooling fluid and the vapors being cooled (MDAQMD Regulation IV, Rule 464).

- *NO_x Emissions* - the sum of any oxides of nitrogen which can be measured in the flue gas (MDAQMD Regulation XI, Rule 1157).

- *Oil-Effluent Water Separator* - any tank, box, sump, or other container in which any petroleum or product thereof, floating on, or entrained or contained in water entering such tank, box, sump, or other container, is physically separated and removed from such water prior to outfall, drainage, or recovery of such water (MDAQMD Regulation I, Rule 102).

- *Opaque Stains* - all stains that are not classified as semi-transparent stains (MDAQMD Regulation XI, Rule 1113).

- *Opaque Wood Preservatives* - all wood preservatives not classified as semi-transparent wood preservatives (MDAQMD Regulation XI, Rule 1113).

- *Open Storage Pile* - any accumulation of bulk material with 5 percent or greater silt content not fully enclosed, covered, or chemically stabilized. Silt content level is assumed to be 5 percent or greater, unless a person can show, by sampling and analysis in accordance with ASTM Method C-136, the silt content is less. Results of ASTM Method C-136 are valid for 60 days from the date the sample was taken (MDAQMD Regulation IV, Rule 403.1).

- *Organic Materials* - chemical compounds of carbon excluding CO, CO_2, carbonic acid, metallic carbides, metallic carbonates, and ammonium carbonate (MDAQMD Regulation I, Rule 102).

- *Organic Solvents* - includes dilutes and thinners and are defined as organic materials that are liquids at standard conditions and which are used as dissolvers, viscosity, reducers or cleaning agents, except that such materials exhibiting a boiling point higher than 104 °C [219 °F] at 0.5 mm Hg absolute pressure or having an equivalent vapor pressure shall not be considered to be solvents unless exposed to temperatures exceeding 104 °C [219 °F] (MDAQMD Regulation I, Rule 102).

- *Organic Vapors* - chemical compounds of carbon, excluding CO, CO_2, metallic carbides, metallic carbonates, and ammonium carbonate in their gaseous state (MDAQMD Regulation IV, Rule 464).

- *Oven* - a heating chamber which uses heat, ultraviolet (UV) radiation, or electron beam (EB) radiation to bake, cure, polymerize, or dry a surface coating (MDAQMD Regulation XI, Rule 1117).

- *Overall Control Efficiency* - the product of the capture efficiency multiplied by the control efficiency; the weight per unit time of VOC removed by a control device divided by the weight per unit time of VOC emitted by an emission source, expressed as a percentage (MDAQMD Regulation IV, Rule 464).

- *Packaging Gravure* - gravure printing on paper, paperboard, foil, film, or other substrates which are to be used to produce containers or packages (MDAQMD Regulation XI, Rule 1117).

- *Panel* - a flat piece of wood or wood products, usually rectangular, and used inside homes and mobile homes for wall decorations (MDAQMD Regulation XI, Rule 1114).

- *Pantone Color* - a printing ink created for color matching by combination of process inks (MDAQMD Regulation XI, Rule 1117).

- *Particulate Matter* - any material, except contaminated water, which exists in a finely divided form as a liquid or solid at standard conditions (MDAQMD Regulation I, Rule 102).

- *Parts per Million by Volume (ppmv)* - the number of gas molecules of a given species, or group, in one million total gas molecules (MDAQMD Regulation XI, Rule 1157).

- *Penetrating Prime Coat* - any application of asphalt to an absorbent surface to penetrate and bind the aggregate surface and promote adhesion between it and the new superimposed construction. Prime coats do not include dust palliatives or tack coats (MDAQMD Regulation XI, Rule 1103).

- *Permit Unit* - any boiler, steam generator, or process heater required to have a permit to operate pursuant to District Rule 203 (MDAQMD Regulation XI, Rule 1157).

- *Person* - any firm, business establishment, association, partnership, corporation, or individual, whether acting as principal, agent, employee, or other capacity, including any governmental entity or charitable organization (MDAQMD Regulation XV, Rule 1511).

- *Petroleum Products* - any crude oil or oil distillate derived from tas sands, shale, or coal, including, but not limited to, gasoline, kerosene, distillate fuel oils, residual fuel oils, and lubricants (MDAQMD Regulation IV, Rule 464).

- *Photochemically Reactive Solvent* - any solvent with an aggregate of more than 20 percent of its total volume composed of the chemical compounds classified below or which exceeds any of the following individual percentage composition limitations, referred to the total volume of solvent:
    1. a combination of hydrocarbons, alcohols, aldehydes, ethers, esters, or ketones having an olefinic or cycloolefinic type of unsaturation except perchloroethylene: 5 percent;
    2. a combination of aromatic compounds with eight or more carbon atoms to the molecule, except ethylbenzene, methyl benzoate, and phenyl acetate: 8 percent;
    3. a combination of ethylbenzene, ketones having branched hydrocarbon structures, trichloroethylene, or toluene: 20 percent.

  Whenever any organic solvent or any constituent of an organic solvent may be classified from its chemical structure into more than one of the above groups of organic compounds, it is considered as a member of the most reactive chemical group, that is, that group having the least allowable percent of the total volume of solvents (MDAQMD Regulation I, Rule 102):

- *Pigmented Coatings* - opaque coatings which contain binders and colored pigments which are formulated to hide the wood surface, either as an undercoat or topcoat (MDAQMD Regulation XI, Rule 1114).

- *Plating Tank* - any container used to hold a chromium or chromic acid solution for the purposes of chrome plating or chromic acid anodizing (MDAQMD Regulation XV, Rule 1502).

- *PPM* - abbreviation for parts per million by volume.

- *Pretreatment Primer (Wash Primer)* - any coating which contains a minimum of 0.5 percent acid, by weight, as applied directly to bare metal surfaces and provides surface etching (MDAQMD Regulation XI, Rule 1113).

- *Primer* - any coating applied prior to the application of a topcoat for the purpose of corrosion resistance and adhesion of the topcoat (MDAQMD Regulation XI, Rule 1116).

- *Primer Sealer* - any coating applied prior to the application of a topcoat for the purpose of corrosion resistance, adhesion of the topcoat, color uniformity, and to promote the ability of an undercoat to resist penetration by the topcoat (MDAQMD Regulation XI, rule 1116).

- *Primer Surfacer* - any coating applied prior to the application of a topcoat for the purpose of corrosion resistance, adhesion of the topcoat, and which promotes a uniform surface by filling in surface imperfections (MDAQMD Regulation XI, Rule 1116).

- *Printing Ink* - any fluid or viscous composition used in printing, impressing, or transferring an image onto a substrate (MDAQMD Regulation XI, Rule 1117).

- *Process Heater* - any combustion equipment fired with any fuel, which transfers heat from combustion gases to water or process streams. Process heater does not include any dryers in which the material being dried is in direct contact with the products of combustion, such as: cement or lime kilns, glass melting furnaces, or smelters (MDAQMD Regulation XI, Rule 1157).

- *Process Ink* - the hues yellow, magenta, and cyan, plus black used in the four-color print process (MDAQMD Regulation XI, Rule 1117).

- *Process Statement* - an annual report on permitted emission units from an owner or operator of a facility certified pursuant to District Rule 1208 (with a Federal operating permit) and containing the following information as applicable: throughputs of process materials; throughputs of materials store; usage of materials; fuel usage; any available continuous emissions monitoring data; hours of operation; any other ion required by this rule; and/or any other information requested by the District in writing (MDAQMD Regulation II, Rule 222).

- *Process Weight* - the total weight of all materials introduced into any specific process which may discharge contaminants into the atmosphere. Solid fuels charged will be considered as part of the process weight, but liquid and gaseous fuels and air will not (MDAQMD Regulation I, Rule 102).

- *Process Weight Per Hour* - the total process weight divided by the number of hours in one complete operation from the beginning of any given process to the completion thereof, excluding any time during which the equipment is idle (MDAQMD Regulation I, Rule 102).

- *Publication Rotogravure* - gravure printing on paper which is subsequently formed into books, magazines, catalogues, brochures, directories, newspaper supplements, or other types of printed material (MDAQMD Regulation XI, Rule 1117).

- *Quick Dry Enamels* - nonflat coatings which comply with the following (MDAQMD Regulation XI, Rule 1113:
    1. capable of being applied directly from the container by brush or roller under normal conditions, normal conditions being ambient temperatures between 60 and 80 °F [approximately 16 and 27 °C]
    2. when tested in accordance with ASTM D 1640 they set to the touch in 2 h or less, dry hard in 8 h or less, and are tack free in 4 h or less by the mechanical method test
    3. have a 60 °F [approximately 16 °C] dried film gloss of no less than 70.

- *Quick Dry Primers and Sealers* - primers, sealers, and undercoaters which are intended to be applied to a surface to provide a firm bond between the substrate and subsequent coats and are dry to the touch in 1/2 h and can be recoated in 2 h, as determined under the current version of ASTM D 1640. The purpose of these coatings is (MDAQMD Regulation XI, Rule 1113):
    1. to provide a firm bond between the substrate and subsequent coats
    2. to prevent subsequent coatings form being absorbed by the substrate
    3. to prevent harm to subsequent coatings by materials in the substrate
    4. to provide a smooth surface for subsequent coats.

- *Rated Heat Input* - the heat input capacity in MBtu/h specified on the nameplate(s) of the fuel burning equipment, unless the fuel burning equipment is operated, consistent with the permit to operate, above the heat input capacity specified on the nameplate(s), in which case the maximum operated rate(s) are used as the rated heat input (MDAQMD Regulation IV, Rule 474).

- *Reactive Diluent* - a liquid which is a VOC during application, and which, through chemical reaction becomes an integral part of a finished coating. The finished coating must retain within itself 20 percent or more, by weight, of the reactive diluent (MDAQMD Regulation XI, Rule 1115).

- *Recover* - to remove refrigerant in any condition from a system and store it in an external Department of Transportation approved container, without necessarily testing or processing it in any way (MDAQMD Regulation XV, Rule 1511).

- *Recycle* - to clean refrigerant for reuse by oil separation and single or multiple passes through moisture-absorption devices such as replaceable core filter-driers (MDAQMD Regulation XV, Rule 1511).

- *Reducer* - the solvent used to thin enamel (MDAQMD Regulation XI, Rule 1116).

- *Refinishing* - any coating of vehicles, their parts and components, or mobile equipment, including partial body collision repairs, for the purpose of protection or beautification and which is subsequent to the original coating applied at an original equipment manufacturing plant coating assembly line (MDAQMD Regulation XI, Rule 1116).

- *Refrigerant* - any Class I or Class II substance used in a motor vehicle air conditioner. CLass I and Class II compounds are listed in Appendix A of 40 CFR Part 82, and include trichlorofluoromethane (CFC-11), dichlorodifluoromethane (CFC-12), trichlorofluoromethane (CFC-113), dichlorotetrafluoroethane (CFC-114), or chloropentafluoroethane (CFC -115); or any combinations of these compounds used in motor vehicle air conditioning equipment. Effective 15 November 1995, refrigerant also includes any substitute substance (MDAQMD Regulation XV, Rule 1511).

- *Refrigerated Freeboard Chiller* - a secondary cooling coil mounted above the primary condenser to provide a chilled air blanket above the solvent vapor-air interface and cause the condensation of additional solvent vapor (MDAQMD Regulation XI, Rule 1104).

- *Reid Vapor Pressure* - the absolute vapor pressure of volatile crude oil and volatile nonviscous petroleum liquids, except liquefied petroleum gases, as determined by ASTM-D-323-89 (MDAQMD Regulation IV, Rule 464).

- *Remote (Enclosed) Reservoir* - a cold solvent degreaser with a tank which is completely enclosed except for a solvent return opening which allows used solvent to drain into it form a separate solvent sink or work area. The return opening must be no larger than 100 cm^2 and the reservoir must not be accessible for soaking workloads (MDAQMD Regulation XI, Rule 1104).

- *Repair Coating* - a coating used to recoat portions of a product which has sustained mechanical damage to the original coating following normal painting operations (MDAQMD Regulation XI, Rule 1115).

- *Respirable Particulate Matter (PM_{10})* - any material, except uncombined water, existing in a finely divided form as a liquid or solid at standard conditions whose mean aerodynamic diameter is smaller than or equal to 10 micrometers as measured by an applicable test method, or methods found in Article 2, Subchapter 6, Title 17, California Code of Regulations (commencing with Section 94100) (MDAQMD Regulation IV, Rule 403.1).

- *Rich-Burn Engine* - a spark ignited engine that is operated with any liquid or gaseous fuel, and with an exhaust stream oxygen concentration of less than 4 percent by volume (MDAQMD Regulation XI, Rule 1160).

- *Road Surface Silt Loading* - a measurement of the amount of loose material accumulated on a road surface in terms of weight of material per unit area (MDAQMD Regulation IV, Rule 403.1).

- *Roll Coater* - a series of mechanical rollers that forms a thin coating film on the surface of roller, which is applied to a substrate by moving the substrate underneath the roller (MDAQMD Regulation XI, Rule 1114).

- *Roof Coatings* - coatings which are formulated for, and applied to, exterior roofs for the primary purpose of preventing penetration of the substrate by water, on reflecting heat and/or ultraviolet radiation. Metallic-pigmented coatings which qualify as metallic pigmented coatings are not considered to be in this category, but are considered to be in the metallic-pigmented coatings category. These coatings include bituminous roof and waterproof mastic coatings (MDAQMD Regulation XI, Rule 1113).

- *Roof Transfer Pipe* - a pipe or hose that connects to a roofing kettle's pump outlet and serves to convey hot roofing material from a kettle to a roof (MDAQMD Regulation IV, Rule 471).

- *Roofing Kettle* - a device used to heat and melt asphalt or coal tar pitch so that the asphalt or coal tar pitch can be applied onto a rooftop to provide a protective coating (MDAQMD Regulation IV, Rule 471).

- *Safety-Indicating Coating* - a coating which changes physical characteristics, such as color, to indicate unsafe conditions (MDAQMD Regulation XI, Rule 1115).

- Sanding Sealer - any clear wood coating formulated for, and applied to, bare wood for sanding and to seal the wood for subsequent application of varnish. A sanding sealer must be clearly labelled as such (MDAQMD Regulation XI, Rule 1113).

- *Screen Printing* - a process where the printing ink passes through a web or a fabric to which a refined form of stencil has been applied. The stencil openings determine the form and dimensions of the imprint (MDAQMD Regulation XI, Rule 1117).

- *Sealed Chamber Degreaser* - a degreaser in which all spraying is contained inside the cleaning equipment (MDAQMD Regulation XI, Rule 1104).

- *Sealer* - a coating, containing binders, which seals the wood prior to application of the subsequent coatings (MDAQMD Regulation XI, Rule 1114).

- *Searles Valley Planning Area (SVPA)* - a region coterminous with Hydrological Unit Number 18090205 as defined by the United States Geological Survey (MDAQMD Regulation IV, Rule 403.1).

- *Semi-Transparent Sealer* - any clear wood coating formulated for, and applied to, bare wood for sanding and to seal the wood for subsequent application of varnish. A sanding sealer must be clearly labeled as such (MDAQMD Regulation XI, Rule 1113).

- *Semi-Transparent Stains* - coatings which are formulated to change the color of a surface but not conceal the surface (MDAQMD Regulation XI, Rule 1113).

- *Semi-Transparent Wood Preservatives* - wood preservative stains, including clear wood preservatives, which are formulated for the purpose of protecting exposed wood from decay or insect attack by the addition of a wood preservative chemical registered by the California Department of Food and Agriculture, and which are formulated to change the color of a surface but not conceal the surface (MDAQMD Regulation XI, Rule 1113).

- *Shellacs* - clear or pigmented coatings formulated with natural resins (except nitro-cellulose resins), thinned with alcohol, and formulated to dry by evaporation without a chemical reaction and are intended to provide stain blocking properties as well as a solid protective film (MDAQMD Regulation XI, Rule 1113).

- *Shut-Down Period* - the 1-h time frame immediately preceding the shut-down of the fuel burning equipment (MDAQMD Regulation IV, Rule 474).

- *Soil* - any surface contaminant which is to be removed by either cold solvent cleaning or vapor cleaning. Surface contaminants include, but are not limited to, for metal/nonmetal cleaning operations: oils, greases, waxes, tars, stains, ink, and/or particulate matter such as sand, metal chips, abrasives, or fibers. In addition, for circuit board operations, surface contaminants include the resist (a maskant) and flux from soldering (MDAQMD Regulation XI, Rule 1104).

- *Solar Power Production Facility* - an independent power producer which is a solar thermal powerplant per Public Resources Code Para. 25140 (MDAQMD Regulation XI, Rule 1158).

- *Solid Particulate Matter* - particulate matter that exists as a solid at standard conditions (MDAQMD Regulation I, Rule 102).

- *Solid-Film Lubricant* - any very thin coating consisting of a binder system, containing primarily one or more of molybdenum disulfide, graphite, polytetrafluoroethylene (PTFE) or other solids which act as dry lubricants between faying surfaces (MDAQMD Regulation XI, Rule 1115).

- *Solvent* - a liquid solution or vapor, which contains VOCs, and which is used as a diluent, thinner, dissolver, viscosity reducer, cleaning agent, or for other similar use. Typical degreasing solvents would dissolve oils, greases, waxes, or tars, to release and flush surface contaminants such as sand, metal chips, buffing abrasives or fibers, and other soil-held surface contaminants from the surfaces of the workload. A solvent may be a single compound or a blend of two or more compounds (MDAQMD Regulation XI, Rule 1104).

- *Solvent Leak* - the fugitive loss of three or more drops of liquid solvent per minute (MDAQMD Regulation XI, Rule 1104).

- *Specialty Coatings* - coatings which are necessary due to unusual job performance requirements. Said coatings include, but are not limited to, adhesion promoters, uniform finish blenders, elastomeric materials, gloss flatteners, bright metal trim repair, and anti-glare/safety coatings (MDAQMD Regulation XI, Rule 1116).

- *Spray Safety Switch* - a manually reset switch which shuts off the spray pump if the vapor level drops more than 10 cm (4 in.) from the design operating height (MDAQMD Regulation XI, Rule 1104).

- *Standard Conditions* - gas temperatures of 15.5 °C (60 °F) and gas pressure of 760 mm Hg (14.7 psi) absolute (MDAQMD Regulation I, Rule 102).

- *Start-Up Period* - the 1 h time frame immediately following the startup of the fuel burning equipment (MDAQMD Regulation IV, Rule 474).

- *Stationary Gas Turbine* or *Unit* - any gas turbine system that is gas and/or liquid fueled with or without power augmentation. This unit is either attached to a foundation at a facility or is portable equipment operated at a specific facility for more than 90 days in any 12-mo period. Two or more gas turbines powering one shaft is treated as one unit (MDAQMD Regulation XI, Rule 1159).

- *Stationary Source* - a unit or an aggregation of units of nonvehicular air-contaminant-emitting equipment located on one property or on contiguous properties, which is under the same ownership or entitlement to use and operate, and, in the case of an aggregation of units, those units which are related to one another. Units are deemed related to one another if the operation of one is dependent upon, or affects the operation of the other; if their operation involves a common or similar raw material, product, or function; or if they have the same first three digits in their standard industrial classification codes as determined from the Standard Industrial Classification Manual published in 1972 by the Executive Office of the President, Office of Management and Budget. In addition, in cases where all or part of a stationary source is a facility used to load cargo onto or unload cargo from cargo carriers, other than motor vehicles, the Air Pollution Control Office considers such carriers to be part of the stationary source. Accordingly, all emissions from such carriers (excluding motor vehicles) which will result in an adverse impact on air quality in the State of California, are considered as emissions from such stationary source. Emissions from such carriers include those that result from the operation of the carriers' engines; the purging or other method of venting of vapors; and from the loading, unloading, storage, processing, and transfer of cargo (MDAPCD Regulation II, Rule 213.2).

- *Stencil Coating* - an ink or a coating which is rolled or brushed onto a template or stamp for the purpose of adding identifying letters, numbers, and/or other markings to metal parts and products (MDAQMD Regulation XI, Rule 1115).

- *Sterilization Cycle* - the process that begins when EtO is introduced into the sterilizer, includes the initial purge or evacuation after sterilization and subsequent air washes, and ends after evacuation of the final air wash (MDAQMD Regulation XV, Rule 1501).

- *Sterilant Gas* - EtO or any combination of EtO and other gas(es) used in a sterilizer (MDAQMD Regulation XV, Rule 1501).

- *Stripper* - a liquid used to remove cured coatings, cured inks, and/or cured adhesives (MDAQMD Regulation XI, Rule 1114).

- *Swimming Pool Coatings* - coatings specifically formulated to coat the interior of swimming pools and to resist swimming pool chemicals (MDAQMD Regulation XI, Rule 1113).

- *Swimming Pool Repair and Maintenance Coatings* - a chlorinated rubber-based coating used for the repair and maintenance of swimming pools over existing rubber-based coatings (MDAQMD Regulation XI, Rule 1113).

- *Tack Coat* - any application of asphalt to an existing surface to provide a bond between new surfacing and existing surface and to eliminate slippage places where the new and existing surfaces meet (MDAQMD Regulation XI, Rule 1103).

- *Thermal Stabilization Period* - the start up or shut down time necessary to bring the heat recovery steam generator to the proper operating temperature, not to exceed 2 h (MDAQMD Regulation XI, Rule 1159).

- *Toner* - a wash coat which contains binders and dyes or pigments to add tint to a coated surface (MDAQMD Regulation XI, Rule 1114).

- *Topcoat* - any coating applied by brush or hand held, nonrefillable aerosol cans to repair minor surface damage and imperfections (MDAQMD Regulation XI, Rule 1116).

- *Touch-Up Coating* - a coating applied by brush or hand held, nonrefillable aerosol cans to repair minor surface damage and imperfections (MDAQMD Regulation XI, Rule 1115).

- *Traffic Coatings* - coatings which are formulated to be applied to public streets, highways, and other surfaces including, but not limited to curbs, berms, driveways, and parking lots (MDAQMD Regulation XI, Rule 1113).

- *Transfer Efficiency* - the ratio of the weight of coating solids deposited on an object to the total weight of coating solids used in a coating application step, expressed as a percentage (MDAQMD Regulation XI, Rule 1114).

- *Ultrasonics* - the enhancement of the cleaning process by agitation of liquid solvents with high frequency sound waves. The induced vibrations cause implosions of the microscopic vapor cavities within the liquid solvent. Such implosions within the solvent which is in contact with a solid surface, facilitates the removal of grease, dirt, and other material from that surface (MDAQMD Regulation XI, Rule 1104).

- *Uncontrolled Chromium Emissions from the Hard Chrome Plating or Chromic Acid Anodizing Facility* - the chromium emissions from the emission collection systems at the facility calculated as if no control equipment is in use. For the purpose of determining compliance with this rule, the uncontrolled chromium emissions must be calculated using an emission factor based on tests conducted in accordance with the CARB Test Method 425 or 14/ampere-hours, whichever is less (MDAQMD Regulation XV, Rule 1502).

- *Unpaved Road* - any vehicle travel way not covered by one or more of the following: concrete, asphaltic concrete, or asphalt (MDAQMD Regulation IV, Rule 403.1).

- *Vacuum Pump* - a pump used to evacuate the sterilant gas during the sterilizer cycle, including any associated heat exchanger (MDAQMD Regulation XV, Rule 1501).

- *Vapor Cleaning* - a process using the condensation of vaporized solvent to remove/flush soils and soil-held debris from the surfaces of the workload (MDAQMD Regulation XI, Rule 1104).

- *Vapor Degreaser* - any degreaser that cleans through the condensation of solvent vapor on colder workload surfaces (MDAQMD Regulation XI, Rule 1104).

- *Vapor Level Control Thermostat* - a manually reset safety switch which turns off the sump heater if the thermostat senses the temperature rising above the design operating level at the air-vapor interface (MDAQMD Regulation XI, Rule 1104).

- *Vapor Recovery System* - a system that is designed to collect or capture the vapors released and/or generated during the dispensing, transfer, and/or storage of liquids, and is capable of storage, transferring, and/or disposal of the recovered vapors (MDAQMD Regulation I, Rule 102).

- *Varnishes* - clear coatings formulated with various resins to dry by chemical reaction on exposure to air MDAQMD Regulation XI, Rule 1113).

- *Vehicle* - a device by which any person or property may be propelled, moved, or drawn upon a highway, excepting a device moved by human power or used exclusively upon stationary rails or tracks (MDAQMD Regulation I, Rule 102).

- *Volatile Organic Compound* - any compound containing at least one atom of carbon, except for the following (MDAQMD Regulation IV, Rule 464):
    1. CO
    2. CO2
    3. carbonic acid
    4. metallic carbides or carbonates
    5. ammonium carbonate
    6. 1,1,1-trichloroethane
    7. methylene chloride
    8. trichlorofluoromethane (CFC-11)
    9. dichlorodifluoromethane (CFC-12)
    10. chlorodifluoromethane (HCFC-22)
    11. trifluoromethane (HFC-23)
    12. 1,1,1-trichloro-2,2,2-trifluoroethane (CFC-113)
    13. 1-chloro-1,1-difluoro-2-chloro-2,2-difluoroethane (CFC-114)
    14. chloropentafluoroethane (CFC-115)

15. 2,2-dichloro-1,1,1-trifluoroethane (HCFC-123)
16. 2-chloro-1,1,1,2-tetrafluoroethane (HCFC 124)
17. pentafluoroethane (HFC-125)
18. 1,1,2,2-tetrafluoroethane (HFC-134)
19. 1,1,1,2-tetrafluoroethane (HFC-134a)
20. 1,1-dichloro-1-fluoroethane (HCFC-141b)
21. 1-chloro-1,1-difluoroethane (HCFC-142b)
22. 1,1,1-trifluoroethane (HFC-143a)
23. 1,1-difluoroethane (HFC-152a),

and the following four classes of perfluorocarbon (PFC) compounds:

1. cyclic, branched, or linear, completely fluorinated alkanes
2. cyclic, branched, or linear, completely fluorinated ethers with no unsaturations
3. cyclic, branched, or linear, completely fluorinated tertiary amines with no unsaturations
4. saturated perfluorocarbons containing sulfur with sulfur bonds only to carbon and fluorine.

- *Wash Coat* - a coating that contains no more than 1.0 lb of solids per gallon, by weight, which is used to seal wood surfaces, prevent undesired staining, and control penetration (MDAQMD Regulation XI, Rule 1114).

- *Waste* - material which may contain dirt, oil, metal particles, and/or other waste products concentrated after heat distillation of the waste solvent either in the degreaser itself or after distillation in a separate still (MDAQMD Regulation XI, Rule 1104).

- *Waste Oil* - any oil that has been used for its intended purpose and is subsequently designated for disposal or recycling (MDAQMD Regulation II, Rule 219).

- *Water Treatment Additives* - any combination of chemicals used to treat cooling tower water. These additives include, but are not limited to, corrosion inhibitors, anti-scalents, dispersants, and biocides (MDAQMD Regulation XV, Rule 1503).

- *Waterproof Sealers* - coatings which are formulated for the sole purpose of protecting porous substrates by preventing the penetration of water; and which do not alter surface appearance or texture (MDAQMD Regulation XI, Rule 1113).

- *Wipe Cleaning* - that method of cleaning which utilizes a material such as a rag, wetted with a solvent, coupled with a physical rubbing process, to remove contaminants from surfaces. For the purposes of this section, wipe cleaning materials are not considered equipment (MDAQMD Regulation XI, Rule 1104).

- *Wood Component/Wooden Cooling Tower* - a cooling tower containing wood components which are exposed to the circulating water (MDAQMD Regulation XV, Rule 1503).

- *Wood Products* - those surface coated room furnishings which include cabinets (kitchen, bath, and vanity), tables, chairs, beds, sofas, shutters, art objects, and any other coated object made of solid wood and/or wood composition and/or made of simulated wood material used in combination with solid wood or wood composition (MDAQMD Regulation XI, Rule 1114).

- *Wood Product Coating Application Operations* - a combination of coating application steps which may include use of spray guns, flash-off areas, spray booths, ovens, conveyors, and/or other equipment operated for the purpose of applying coating materials (MDAQMD Regulation XI, Rule 1114).

- *Workload* - the objects, i.e., parts, put in a cleaner for the purpose of removing oil, grease, soil, a coating, dirt, or other undesirable matter form the surface of the object (MDAQMD Regulation XI, Rule 1104).

- *Workload Area* - either (MDAQMD Regulation XI, Rule 1104):
    1. the plane geometric surface area of the top of the submerged parts basket
    2. when no basket is used, the combined plane geometric surface areas displaced by the submerged workload.

AIR EMISSIONS MANAGEMENT

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COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT Mojave Desert Air Quality Management District (MDAQMD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.5. **STATE-SPECIFIC AIR REQUIREMENTS** **General**	
A.5.1.CA.MD. Installations/CW facilities are prohibited, under certain circumstances, from discharging air contaminants or other materials. (MDAQMD Regulation IV, Rules 402 407, and 409).	(NOTE: Odors emanating from agricultural operations necessary for growing crops or the raising of fowl or animals are exempted.) Verify that any installation/CW facility does not discharge from any source air contaminants or other materials which result in any of the following: - causes injury, detriment, nuisance or annoyance to the public - endangers the comfort, repose, health, or safety of the public - causes, or has a natural tendency to cause, injury or damage to business or property.
A.5.2.CA.MD. Installations/CW facilities are prohibited from concealing an emission (MDAQMD Regulation IV, Rule 408).	Verify that the installation/CW facility has not built, erected, installed, or used any article, machine, equipment, or other contrivance which seems to reduce or conceal an emission in violation of the emission standards of this protocol.
A.5.3.CA.MD. All installations/CW facilities must meet document certification requirements (MDAQMD Regulation I, Rule 107).	Verify that the installation/CW facility includes with all documents submitted to the District a signed certification that the information contained in the documents is accurate to the best knowledge of signer.
A.5.4.CA.MD. Installations/CW facilities operating any facility with the potential to emit air contaminants equal to or in excess of the threshold for a major facility must meet specific emissions requirements (MDAQMD Regulation II, Rule 222(C) and (E)(1)).	(NOTE: These requirements do not apply to the following: - any facility whose actual emissions, throughput, or operation is greater than emissions limitations or alternative operational limits and which meet both of the following conditions: - the District has been notified at least 30 days prior to any exceedence that an application for a Federal operating permit will be submitted, or a federally enforceable voluntary emissions limitation will be obtained - a complete application for a Federal operating permit is received by the District, or the voluntary emissions limitation is approved and included on the permit, within 12 mo of the date of the notification - any facility that has applied for a Federal operating permit in a timely manner and is awaiting final action by the District and/or USEPA **A.5.4.CA.MD. Continued on Next Page**

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A.5.4.CA.MD. (continued)	- any facility required to obtain a Federal operating permit for any reason other than that it qualifies as a major facility - any facility with a valid Federal operating permit - any facility with a valid District permit containing federally enforceable voluntary emissions limitations which limit the potential to emit of the facility to levels below the applicable threshold for a major facility.) Determine whether the facility meets one of the following conditions: - in every 12 mo period, actual emissions are less than or equal to the emissions limitations - in every 12 mo period, at least 90 percent of the emissions are associated with an operation limited by any one of the alternate operational limits. Verify that the facility emits in every 12 mo period no more than the following quantities: - 50 percent of the thresholds for regulated air pollutants (excluding all hazardous air pollutants) - for HAP, one of the following: - 5 tons/yr of a single HAP - 12.5 tons/yr of any combination of HAP - 50 percent of any lesser threshold for a single HAP as the USEPA may promulgate by regulation. (NOTE: The installation/CW facility may select an alternative operational limit provided at least 90 percent of the facility's emissions in every 12 mo period are associated with the operation(s) limited by the applicable alternative operational limit.)
A.5.5.CA.MD. Installations/CW facilities operating any facility with the potential to emit air contaminants equal to or in excess of the threshold for a major facility must meet specific recordkeeping requirements (MDAQMD Regulation II, Rule 222(D) and (F)).	(NOTE: See Appendix 1-1 for a listing of facilities exempt from these recordkeeping requirements.) Verify that the installation/CW facility maintains onsite the following records in a monthly log for at least 5 yr, unless exempt or operating under an alternative operational limit: - for coating and/or solvent emission units: - current list of all coatings, solvents, inks, and adhesives, including the following information: - manufacturer, brand, product name, or code - VOC content in g/L or lb/gal - HAP content in g/L or lb/gal **A.5.5.CA.MD. Continued on Next Page**

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A.5.5.CA.MD. (continued)	- description of any equipment used during and after coating or solvents application, including the following information: - type, make, and model of equipment - maximum design process rate or throughput - control device type and description - description of any coating or solvent application and/or drying method employed - monthly log of consumption of each solvent, coating, ink, and adhesive used, including, but not limited to, solvents used in clean-up and surface preparation - for organic liquid storage units: - monthly log identifying liquid stored and monthly throughput - information on tank design and specifications, including any related control equipment - for combustion emission units: - information regarding the following: - equipment type, make, and model - maximum design process rate or maximum power input/output - minimum operating temperature (for thermal oxidizers only) - equipment capacity - type and description of control devices - all source test information for the equipment - monthly log containing the following: - hours of operation - fuel type, usage, and fuel heating value - percentage of sulfur contained in fuel oil and coal used - percentage of nitrogen contained in coal used - for emission control units: - equipment type, description, make, and model of control unit - information regarding emission units served by the control unit - information regarding equipment design - monthly log of hours of operation, including notation of any control equipment breakdowns, upsets, repairs, maintenance, and any other deviations from design parameters - for general emission units: - information on the process and equipment including the following: - equipment type, description, and make and model - maximum design process rate or throughput - control device type and description - any additional information requested in writing by the District - monthly log of operating hours, including: - each raw material used and its amount - each product produced and its production rate - purchase orders, invoices, and other documents to support information in the monthly log. **A.5.5.CA.MD. Continued on Next Page**

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A.5.5.CA.MD. (continued)	Verify that a process statement is submitted to the District at the time of annual renewal of a permit.
Permit Requirements	
A.5.6.CA.MD. Installations/ CW facilities operating or using any equipment which may cause issuance of air contaminants, or may reduce or control the issuance of air contaminants, must meet specific permit requirements (MDAQMD Regulation II, Rule 201, 202, 203, 206, 207, 209, and 219(D)).	Determine if the installation/CW facility intends to build, erect, install, alter, or currently operates any equipment that might eliminate, reduce, or control the issuance of air contaminants. (NOTE: The equipment listed in Appendix 1-2 are exempt from these permit requirements if they do not emit air contaminants in an amount greater than either: - 10 percent of the applicable threshold for determination of a major facility or 5 tons/yr of any regulated air pollutant, whichever amount is less - any de minimis level for a hazardous air pollutant (HAP), promulgated pursuant to 42 U.S. Code, para. 7412 (Federal Clean Air Act, para. 112), any significance level defined in 40 CFR 52.21(b)(23)(i), or 0.5 tons/yr of such HAP, whichever is less.) Verify that the installation/CW facility has obtained a permit to construct from the APCO prior to beginning construction or modification. Verify that the installation/CW facility has obtained a permit to operate (PTO), or a temporary PTO, before starting these sources. Verify that the installation/CW facility has satisfied the conditions and requirements of the permit to construct. Verify that the PTO, or a legible facsimile, is displayed in one of the following ways: - mounted on the equipment so that the permit number, equipment description, and the specified operating conditions are clearly visible and accessible - mounted and clearly visible and accessible within 26 ft [approximately 7.92 m] of the equipment when it can not be attached to the equipment - displayed in a manner approved by the APCO. Verify that permits issued to the installations/CW facilities have not been willfully defaced, altered, forged, or falsified. Verify that permits are readily available at all times on the operating site and are properly displayed when necessary. Verify that permits issued to the installation/CW facility are not transferred from one location to another, from one piece of equipment to another, or from one person to another.

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A.5.7.CA.MD. Installations/ CW facilities planning on modifying permit units in order to reduce emissions must follow specific permit requirements (MDAQMD Regulation XIII, Rule 1303(a) and 1305).	Verify that the installation/CW facility submits applications for new permits to construct or operate for both basic and control equipment involved in emissions reduction. Verify that the installation/CW facility surrenders any existing permits to operate pertaining to basic and control equipment at the time the new permits to operate are issued.
Breakdown Provisions	
A.5.8.CA.MD. Installations/ CW facilities experiencing a violation due to any breakdown of emission source equipment must take specific steps to avoid enforcement action (MDAQMD Regulation IV, Rule 430(B)).	Determine if the installation/CW facility has experienced any equipment breakdowns. Verify that the installation/CW facility notifies the District of any equipment breakdowns resulting in emissions exceeding a technology-based emission limitation within 1 h of the time the installation/CW facility knew or reasonably should have known of the occurrence. Verify that an estimate of the repair time is provided to the District as soon as possible after the report of the breakdown. Verify that all reasonable steps are immediately taken to minimize the levels of emissions and to correct the condition leading to the excess emission. Verify that the equipment is operated only until the end of a cycle or 24 h, whichever is sooner, at which time it is shut down for repairs, unless a petition for an emergency variance has been filed. (NOTE: If the breakdown occurs outside of normal working hours, the intent to file for a variance is transmitted to the District in a form and manner prescribed by the APCO.) Verify that, within 60 days of the date the breakdown was reported to the District, the installation/CW facility provides the District with signed contemporaneous operating logs and/or other relevant evidence showing the following: - the breakdown occurred and the cause can be identified - the equipment was, at the time of the breakdown, being properly operated - during the period of the breakdown, all reasonable steps were taken to minimize emissions and to correct the condition that lead to the breakdown.

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Continuous Emission Monitoring	
A.5.9.CA.MD. Installations/CW facilities required, as a condition of their PTOs, to continuously monitor air pollution emissions from certain sources must meet specific operating, maintenance, and recordkeeping requirements (MDAQMD Regulation II, Rule 218).	Determine if the installation/CW facility has been required to install, calibrate, operate, and maintain any continuous emission monitoring equipment. Verify that records of concentrations and/or emission rates are maintained for 2 yr. Verify that any violation of emission standards shown by the monitoring system are reported to the APCO within 96 h. Verify that the installation/CW facility notifies the APCO within 48 h of a monitoring equipment shutdown or a breakdown of 1 h or more in length.
Particulate Matter	
A.5.10.CA.MD. Installations/CW facilities must meet specific particulate matter concentration standards (MDAQMD Regulation IV, Rule 404).	(NOTE: Emissions resulting from the combustion of liquid or gaseous fuels in steam generators or gas turbines and emissions of liquid sulfur compounds are exempt.) Verify that the installation/CW facility does not discharge, from any source, particulate matter in excess of the concentrations, at standard conditions, shown in Appendix 1-3. (NOTE: When the volume discharged is between figures listed in Appendix 1-3, the concentration permitted is determined by linear interpolation. The discharged volume is measured over one complete cycle of operation, or 1 h, whichever is the lesser time period.)
A.5.11.CA.MD. Installations/CW facilities must meet specific solid particulate matter standards in regard to weight (MDAQMD Regulation IV, Rule 405).	Verify that the installation/CW facility does not discharge, from any source, solid particulate matter, including lead and lead compounds, in excess of the rates shown in Appendix 1-4. (NOTE: When the process weight per hour is between figures listed in Appendix 1-4, the exact weight of permitted discharge is determined by linear interpolation. Emissions are averaged over one complete cycle of operation or 1 h, whichever is the lesser time.)

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Visible Emissions **A.5.12.CA.MD.** Installations/CW facilities must meet specific visible emissions standards (MDAQMD Regulation IV, Rule 401).	Verify that the installation/CW facility does not discharge into the atmosphere any air contaminants for a period or periods aggregating more than 3 min in any 1 h, and satisfy the following conditions: - emissions as dark or darker in shade as that designated No. 1 on the Ringelmann Chart - emissions of such opacity as to obscure an observer's view to a degree equal to or greater than smoke that is as dark or darker in shade as that designated No. 1 on the Ringelmann Chart.

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A.10. **STEAM GENERATORS**	
A.10.1.CA.MD. Installations/CW facilities operating nonmobile steam generating equipment with a maximum heat input rate of more than 12.5 million kilogram calories/h (50 MBtu/h) must meet specific discharge requirements (MDAQMD Regulation IV, Rule 476).	(NOTE: Steam generating equipment operated less than 200 h within any continuous four consecutive calendar quarter periods is exempt from these emission requirements.) Verify that the steam generator does not exceed the following levels of air contaminant emissions: - NO_x, expressed as nitrogen dioxide, referenced at dry stack-gas conditions and 3 percent oxygen by volume stack-gas oxygen: - 125 ppmv, when operated on gaseous fuel - 225 ppmv, when operated on liquid or solid fuel - heat input weighted average of the above limits, when operated on combinations of both gaseous and liquid and/or solid fuels - particulate matter exceeding both of the following limits: - 5 kg/h (11 lb/h) - 23 mg/m^3 (0.01 gscf). Verify that the installation/CW facility demonstrates compliance through emission compliance testing not less than once ever 12 mo. Verify that required compliance testing follows administrative procedures outlined in the District's "Compliance Test Procedural Manual," and all emission determinations are made as stipulated in the test protocol accepted by the District. Verify that no compliance determination is established based on data obtained from compliance testing, including integrated sampling methods, during a startup or shutdown period. Verify that all emission concentrations and emission rates are based on hourly averages. Verify that all required compliance test reports are submitted to the District.

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A.10.2.CA.MD. Installations/CW facilities located in a Federal Ozone Nonattainment Area and operating a boiler, steam generator, or process heater with a heat input of greater than or equal to 5 MBtu/h which is permitted to emit more than 5 tons/day or more than 250 tons/yr of NO_x must meet specific emissions and operating standards (MDAQMD Regulation XI, Rule 1157(C)(4) and (D)(1)).	Verify that high annual heat input permit units do not emit: - CO in excess of 400 ppmv - NO_x in excess of 30 ppmv, and/or 0.036 lb/MBtu of heat input, when operated on gaseous fuel - NO_x in excess of 40 ppmv, and/or 0.052 lb/MBtu of heat input, when operated on liquid and/or solid fuels - NO_x in excess of the heat-input weighted average of the limits specified above, when operated on combinations of gaseous and liquid and/or solid fuels. Verify that, during periods of unexpected curtailment of normal gaseous fuels, high annual heat input permit units which normally burn only gaseous fuel comply with a NO_x emission limit of either 150 ppmv or 0.215 lb/MBtu of heat input when burning liquid or solid fuel. Verify that low annual heat input permit units are operated and/or maintained in one of the following ways: - operated in a manner that maintains stack-gas oxygen concentration at less than or equal to 3.0 percent by volume on a dry basis - operated with a stack-gas oxygen trim system set at 3.00 plus or minus 0.15 percent oxygen by volume on a dry basis - tuned at least annually in accordance with the procedures outline in Appendix 1-5, a modification of the tuning procedure in Appendix 1-5 as approved by the APCO, or the permit unit manufacturer's specified tune-up procedure, by a technician who is qualified to the satisfaction of the APCO to perform the tune-up - operated in compliance with applicable emission limits.
A.10.3.CA.MD. Installations/CW facilities located in a Federal Ozone Nonattainment Area and operating all other permitted boilers, steam generators, or process heaters with a heat input of greater than or equal to 5 MBtu/h must meet specific emissions and operating standards (MDAQMD Regulation XI, Rule 1157(C)(3) and (D(1)).	Verify that high annual heat input units do not emit: - CO in excess of 400 ppmv - NO_x in excess of 70 ppmv, and/or 0.084 lb/MBtu of heat input, when operated on gaseous fuel - NO_x in excess of 115 ppmv, and/or 0.150 lb/MBtu of heat input, when operated on liquid and/or solid fuels - NO_x in excess of heat-input weighted average of the limits specified above, when operated on combinations of gaseous and liquid and/or solid fuels. Verify that, during periods of unexpected curtailment of normal gaseous fuels, high annual heat input permit units which normally burn only gaseous fuel comply with a NO_x emission limit of either 150 ppmv or 0.215 lb/MBtu of heat input when burning liquid or solid fuel. **A.10.3.CA.MD. Continued on Next Page**

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A.10.3.CA.MD. (continued)	Verify that low annual heat input permit units are operated and maintained in one of the following ways: - operated in manner that maintains stack-gas oxygen concentrations at less than or equal to 3.0 percent by volume on a dry basis - operated with a stack-gas oxygen trim system set at 3.00 plus or minus 0.15 percent oxygen by volume on a dry basis - tuned at least annually in accordance with the procedure outlined in Appendix 1-5, a modification of the tuning procedures outline in Appendix 1-5 as approved by the APCO, or the permit unit manufacturer's specified tune-up procedure, by a technician who is qualified to the satisfaction of the APCO to perform the tune-up - operated in compliance with applicable emission limits.
A.10.4.CA.MD. Installations/CW facilities located in a Federal Ozone Nonattainment Area and operating a permitted boiler, steam generator, or process heater with a heat input of greater than or equal to 5 MBtu/h must meet further general equipment requirements (MDAQMD Regulation XI, Rule 1157(C)(5)).	Verify that installations/CW facilities operating permit units which simultaneously fire combinations of different fuels meet one of the following requirements: - install mass flow rate meters in each fuel line - install volumetric flow rate meters in conjunction with temperature and pressure probes in each fuel line - maintain a fuel log in the form and manner prescribed by the APCO. Verify that installations/CW facilities operating permit units which employ flue-gas NO_x reduction technology meet one of the following requirements: - install meters as applicable to allow instantaneous monitoring of the operational characteristics of the NO_x reduction equipment - maintain a log of NO_x reduction equipment operational characteristics in the form and manner prescribed and approved by the APCO.
A.10.5.CA.MD. Installations/CW facilities located in a Federal Ozone Nonattainment Area and operating a permitted boiler, steam generator, or process heater with a heat input of greater than or equal to 5 MBtu/h must meet specific monitoring and recordkeeping requirements (MDAQMD Regulation XI, Rule 1157(E)).	Verify that these permit units demonstrate compliance through emission compliance testing at least once every 12 mo, unless the unit meets emissions and operating requirements with an annual tune-up. (NOTE: Permit units which normally burn gaseous fuels are not required to perform compliance testing if they, due to curtailment of normal gaseous fuels, burned a secondary fuel for less than 720 cumulative hours in the 12 mo consecutive period prior to testing.) Verify that the installation/CW facility monitors and records for each permit unit the higher heating value and cumulative annual usage of each fuel. **A.10.5.CA.MD. Continued on Next Page**

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A.10.5.CA.MD. (continued)	Verify that a statement of the heat input for the previous calendar year is submitted to the District by 1 March each year. Verify that installations/CW facilities claiming exempt status for permit units record for each unit the cumulative annual hours of operation on each liquid or solid fuel. Verify that all data is kept current and onsite for at least 2 yr, and provided to the District or state personnel on request. Verify that all required compliance test reports are submitted to the District. Verify that the test reports include operational characteristics of all flue-gas NO_x reduction equipment. Verify that records verifying tune-ups have been performed are maintained onsite for 2 yr along with the tune-up procedure if different from that described in Appendix 1-5.
A.10.6.CA.MD. Installations/CW facilities located in the Federal Ozone Nonattainment Area and operating any existing electrical generating steam boilers, combined-cycle turbine, or any replacement units must meet specific emissions standards (MDAQMD Regulation XI, Rule 1158(C)(1), (C)(2), (D)(1), (D)(2), and (D)(3)).	(NOTE: Permit units which have no annual heat input (annual heat input equals zero) are exempt from these emissions requirements. The following classes of facilities, which are subject to the requirements for permitted boilers, steam generators, or process heaters with heat inputs of greater than or equal to 5 MBtu/h or stationary gas turbines of 0.3 MW and larger, are exempt from these requirements for electrical generating steam boilers or combined-cycle turbines: - cogeneration facility - process heater - independent power producers - solar power production facilities.) Verify that these electric utility boilers do not emit oxides of nitrogen in excess of the following levels: - for baseline units - 70 ppmv on gaseous fuels - 115 ppmv on liquid fuels - for cycling units - 100 ppmv on gaseous fuels - 115 ppmv on liquid fuels - for peaking units - 125 ppmv on gaseous fuels - 225 ppmv on liquid fuels. **A.10.6.CA.MD. Continued on Next Page**

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A.10.6.CA.MD. (continued)	(NOTE: All ppmv emission limits for utility boilers are referenced at dry stack-gas conditions and 3.0 percent by volume stack-gas oxygen as an hourly average.) Verify that, during periods of unexpected curtailment of gaseous fuels, utility boiler permit units which normally use gaseous fuels do not exceed an NO_x emission limit of 225 ppmv NO_x when burning liquid fuel. Verify that these combined-cycle turbine units do not emit NO_x in excess of 42 ppmv when using gaseous fuels and 65 ppmv when using liquid fuels. (NOTE: All ppmv emission limits for combined-cycle turbine units are referenced at dry stack-gas conditions and 15.0 percent by volume stack-gas oxygen as an hourly average.)
A.10.7.CA.MD. Installations/CW facilities located in the Federal Ozone Nonattainment Area and operating any existing electrical generating steam boilers, combined-cycle turbine, or any replacement units must meet specific monitoring and recordkeeping requirements (MDAQMD Regulation XI, Rule 1158(C)(4) and (D)(2)).	(NOTE: The following classes of facilities, which are subject to the requirements for permitted boilers, steam generators, or process heaters with heat inputs of greater than or equal to 5 MBtu/h or stationary gas turbines of 0.3 MW and larger, are exempt from these requirements for electrical generating steam boilers or combined-cycle turbines: - cogeneration facility - process heater - independent power producers - solar power production facilities.) Verify that these installations/CW facilities meet one of the following requirements: - install volumetric flow rate meters in each liquid fuel line - install volumetric flow rate meters in conjunction with temperature and pressure probes in each gaseous fuel line - maintain a fuel log in the form and manner prescribed and approved by the APCO. Verify that these installations/CW facilities have continuous emission monitoring system (CEMS) equipment installed, certified, and operating on all emissions points. Verify that these installations/CW facilities submit an Emissions Control Plan for District approval. Verify that the installation/CW facility monitors and records for each unit the following information: - cumulative annual usage of each fuel - the higher heating value for liquid fuels burned determined from daily samples and reported as a monthly average for each month. **A.10.7.CA.MD. Continued on Next Page**

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A.10.7.CA (continued)	Verify that, on a daily basis for each permit unit, the installation/CW facility maintains operating log including, minimally, the following information: - actual startup and stop times - hours of operation per day - hourly averaged NO_x emission concentration for each permit unit - monthly summary of accumulative aggregated annual pounds of NO_x emissions for the facility - type and quantity of fuel used. Verify that an installation/CW facility operating an exempt permit unit monitors and records for that unit the hours of operation on liquid fuel, on a daily basis. Verify that all required data and records are kept current and onsite for a minimum of 3 yr and are provided to District or state personnel on request.

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A.15. **FUEL-BURNING EQUIPMENT**	
A.15.1.CA.MD. Installations/CW facilities must meet specific requirements when using fuel burning equipment (MDAQMD Regulations IV (addendum), Rules 67 and 68).	(NOTE: Fuel burning equipment serving primarily as air pollution control equipment by using a combustion process to destroy air contaminants is exempt.) Verify that the installation/CW facility constructs, installs, or expands new or existing nonmobile fuel-burning equipment only when the discharge of contaminants does not exceed the following rates: - 200 lb/h [approximately 90.72 kg/h] of sulfur compounds, calculated as SO_2 - 140 lb/h [approximately 63.50 kg/h] NO_x, calculated as nitrogen dioxide - 10 lb/h [approximately 4.53 kg/] of combustion contaminants derived from fuel. Verify that the installation/CW facility does not discharge, from either nonmobile fuel burning equipment with a maximum heat input rate of more than 1775 MBtu/h or steam generating equipment with a maximum heat input rate of more than 500 MBtu but less than 11,775 MBtu, the following concentrations of nitrogen dioxide at 3 percent oxygen in the flue gas: - in excess of 125 ppm when fired by a gaseous fuel - 225 ppm when fired by a liquid or solid fuel.
A.15.2.CA.MD. Installations/CW facilities operating natural gas fired air pollution control devices must meet specific fuel requirements (MDAQMD Regulation IV, Rule 480).	Verify that the installation/CW facility is not installing or using a control device operating on natural gas, unless one of the following is provided: - a plan, subject to approval of the APCO that will cause the equipment or source generating the emissions to be taken out of service during a natural gas shortage or curtailment until approved fuel is restored - a fuel system approved by the APCO for use during a natural gas shortage or curtailment.
A.15.3.CA.MD. Installations operating nonmobile fuel burning equipment with a rated heat input of more than 1775 MBtu/h must meet specific emissions, monitoring, and recordkeeping requirements (MDAQMD Regulation IV, Rule 474(C) and (E)).	Verify that the equipment does not emit NO_x, referenced at dry stack-gas conditions and 3.0 percent by volume stack-gas oxygen, in excess of all of the following: - 125 ppm by volume (ppmv), when operated on gaseous fuel - 225 ppmv, when operated on liquid and/or solid fuels - heat input weighted average of the limits specified above, when operated on combinations of both gaseous and liquid and/or solid fuels. (NOTE: Emission concentrations are corrected to 3.00 percent oxygen.) **A.15.3.CA.MD. Continued on Next Page**

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A.15.3.CA.MD. (continued)	Verify that the installation/CW facility demonstrates compliance through emissions testing at least once every 12 mo. Verify that required compliance testing follows the administrative procedures outlined in the District's "Compliance Test Procedural Manual," and all emission determinations are made as stipulated in the test protocol accepted by the District. Verify that no compliance determination is established based on data obtained from compliance testing, including integrated sampling methods, during a startup or shutdown period. Verify that all emission concentrations and emission rates are based on hourly averages. Verify that all required compliance test reports are submitted to the District.
A.15.4.CA.MD. Installations/CW facilities located within the Federal Ozone Nonattainment Area and operating any stationary internal combustion engines rated at 500 or more bhp must meet specific emissions standards (MDAQMD Regulation XI, Rule 1160(C)(1) and (2) and (D)).	(NOTE: The following engines are exempt from these requirements: - all internal combustion engines operated less than 100 h within any continuous four consecutive calendar quarter period - emergency internal combustion engines.) Verify that VOC emissions from these internal combustion engines do not exceed 106 ppmv. Verify that NO_x emissions from these engines do not exceed the following standards: - for rich-burn engines: - NO_x - 50 ppmv - CO - 4500 ppmv - for lean-burn engines: - NO_x - 140 ppmv - CO - 4500 ppmv - for diesel-cycle engines: - NO_x - 700 ppmv - CO - 4500 ppmv. (NOTE: All ppmv limitations are referenced at 15 percent volume stack gas oxygen measured on a dry basis and averaged over 15 consecutive minutes.) (NOTE: Installations/CW facilities may choose to meet NO_x emission standards through development with the District of an alternate NO_x emissions compliance strategy.)

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A.15.5.CA.MD. Certain installations/CW facilities located within the Federal Ozone Nonattainment Area and operating any stationary internal combustion engines rated at 500 or more bhp must meet specific monitoring and recordkeeping requirements (MDAQMD Regulation XI, Rule 1160(D) and (E)).	(NOTE: The following engines are exempt from these requirements: - all internal combustion engines operated less than 100 h within any continuous four consecutive calendar quarter period - emergency internal combustion engines.) Verify that any facility claiming any exemptions maintains records in the manner prescribed by the APCO to provide documentation for determining compliance. Verify that operators of these internal combustion engines conduct inspections at lest every calendar quarter or after every 2000 h of engine operation, whichever is more frequent. Verify that compliance is verified at least once every 12 mo, unless otherwise specified by the District, by an emissions compliance test. Verify that a log is maintained for each engine containing, at a minimum, the following information: - District ATC/PTO number, unit identification number, and emissions control device identification number, when applicable - quarterly fuel use and quarterly hours of operation, on a calendar quarter basis - date and summary of any emissions corrective maintenance taken. Verify that these logs are maintained onsite for 2 yr after the date of each entry and are provided to the District upon request.

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A.20. GAS TURBINES	
A.20.1.CA.MD. Installations/CW facilities located in the Federal Ozone Nonattainment Area and operating stationary gas turbines of 0.3 MW and larger must meet specific emissions requirements (MDAQMD Regulation XI, Rule 1159(C) and (D)).	(NOTE: These requirements do not apply to the following units: - laboratory units used in research and testing for the advancement of gas turbine technology - units operated exclusively for fire fighting and/or flood control - combined-cycle turbines operating as an electric utility - emergency standby units demonstrated to operate less than 200 h per calendar year - units rated less than 4 MW and operating less than 877 h per calendar year.) Verify that these stationary gas turbines are not operated under load conditions, excluding the thermal stabilization period, which results in the measured NO_x emissions concentration exceeding the following limits: - for gas-fired turbines, 42 ppmv NO_x - for oil-fired turbines, 65 ppmv NO_x. Verify that the installation/CW facility submits to the APCO for approval an Emission Control Plan in order to establish compliance with these requirements or to establish an exempt status.
A.20.2.CA.MD. Installations/CW facilities located in the Federal Ozone Nonattainment Area and operating stationary gas turbines of 0.3 MW and larger must meet specific emissions requirements (MDAQMD Regulation XI, Rule 1159(D), (F), and (G)).	(NOTE: These requirements do not apply to the following units: - laboratory units used in research and testing for the advancement of gas turbine technology - units operated exclusively for fire fighting and/or flood control - combined-cycle turbines operating as an electric utility - emergency standby units demonstrated to operate less than 200 h per calendar year, except for the turbine operating log - units rated less than 4 MW and operating less than 877 h per calendar year, except for the turbine operating log.) Verify that the installation/CW facility installs, operates, and maintains in calibration, emission monitoring equipment, as approved by the APCO, that continuously measures and records the following: - emissions control system operating parameters - elapsed time of operation. **A.20.2.CA.MD. Continued on Next Page**

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A.20.2.CA.MD. (continued)	Verify that the installation/CW facility has notified the APCO in writing that the facility has an enhanced emissions monitoring device and specifies its data gathering and retrieval capacities. Verify that the installation/CW facility notifies the APCO in writing, before issuance of the permit to operate, such information which correlates the emission control system operating parameters to the associated measured NO_x emissions output. Verify that the installation/CW facility provides on an annual basis compliance data and information regarding NO_x emissions, corrected to ISO conditions and at 15 percent oxygen on a dry basis and the percent efficiency of each turbine unit. Verify that, for each unit and on a daily basis, the installation/CW facility maintains a turbine operating log including, at a minimum, the following information: - total hours of operation per day - accumulated hours of operation per calendar month - quantity of fuel used. Verify that any installation/CW facility claiming exempt status for any stationary gas turbine unit notifies the APCO within 7 days if the hour-per-year threshold is exceeded and submits an application for a permit to operate within 30 days of that notification.

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A.25. **MISCELLANEOUS INCINERATORS** **A.25.1.CA.MD.** Installations/CW facilities must meet specific requirements when disposing of solid and liquid wastes through incineration (MDAQMD Regulation IV, Rule 473).	Verify that the installation/CW facility only burns combustible refuse in multiple-chamber incinerators or in other equipment found by the APCO to be equally effective for air pollution control. Verify that the installation/CW facility does not discharge from any incinerator, or other equipment used to burn combustible refuse with a design burn rate greater than 50 kg/h (110 lb/h), either of the following: - particulate matter in excess of 0.23 g/m^3 (0.1 gr/ft^3) of gas calculated to 12 percent of CO_2 at standard conditions averaged over a minimum of 15 consecutive minutes - particles that are individually large enough to be visible while suspended in the atmosphere. (NOTE: Any CO_2 produced by combustion of any liquid or gaseous fuels is excluded from the calculation to 12 percent of CO_2.) Verify that the installation/CW facility does not discharge from any incinerator, or other equipment used to burn combustible refuse with a design burn rate of 50 kg/h (110 lb/h) or less, or with a permit, either of the following: - particulate matter in excess of 0.69 g/m^3 (0.3 gr/ft^3) of gas calculated to 12 percent of CO_2 at standard conditions averaged over a minimum of 15 consecutive minutes - any particles that are individually large enough to be visible while suspended in the atmosphere. (NOTE: Any CO_2 produced by combustion of any liquid or gaseous fuels must be excluded from the calculation to 12 percent of CO_2.)

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A.55. GASOLINE/FUELS	
A.55.1.CA.MD. Installations/CW facilities must meet specific combustion contaminant discharge standards when burning fuel (MDAQMD Regulation IV, Rule 409).	(NOTE: Combustion contaminants from jet engine test standards are exempt.) Verify that the installation/CW facility does not discharge, from the burning of fuel, combustion contaminants exceeding 0.23 g/m^3 (0.1 gr/ft^3) of gas calculated to 12 percent of CO_2 at standard conditions, averaged over a minimum of 15 consecutive minutes. (NOTE: The following fuels are exempt from these requirements: - liquid or solid fuel to propel or test any vehicle, aircraft, locomotive, boat, or ship - fuel with a higher sulfur content where process conditions or control equipment remove sulfur compounds from stack gases to the extent that the emission of sulfur compounds is no greater than that which could be emitted by using a fuel complying with these requirements - any liquid or solid fuel having a sulfur content in excess of 0.5 percent by weight for no more than 3 days, provided: - an application for a variance is filed within that period - fuel that complies with sulfur content requirement is not available for use due to accident, strike, sabotage, act of God, act of war, act of the public enemy, or failure of supplier.)
A.55.2.CA.MD. Installations/CW facilities must meet specific requirements for sulfur content in fuels (MDAQMD Regulation IV, Rule 431).	Verify that the installation/CW facility does not burn any gaseous fuel containing sulfur compounds in excess of 800 ppm, or any liquid or solid fuel having a sulfur content in excess of 0.5 percent by weight.
A.55.3.CA.MD. Installations/CW facilities must meet specific gasoline specifications (MDAQMD Regulations IV, Rule 432).	Verify that the installation/CW facility does not sell or supply for use within the District as fuel for motor vehicles gasoline with degree of unsaturation greater than that indicated by a Bromine Number of 30.

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A.60. PRINTING PRESSES AND GRAPHIC ARTS	(NOTE: The following operations are exempt from these requirements: - screen printing - letterpress printing - lithographic printing.)
A.60.1.CA.MD. Installations/CW facilities operating any packaging rotogravure, publication rotogravure, or flexographic printing operation must meet specific emissions standards (MDAQMD Regulation XI, Rule 1117(C) and (D)(1)).	(NOTE: Graphic arts facilities emitting less than 2500 lb of VOC in any month from printing, coating, and adhesive operations are exempt from these VOC emissions limits and emission and capture system requirements.) Verify that the installation/CW facility does not use any inks, coatings, or adhesives in these operations unless the grams of VOC per liter of coating (or ink or adhesive), excluding water and exempt compounds, as applied, is less than 300 g/L (2.5 lb/gal). (NOTE: The installation/CW facility may chooses to reduce emissions with an emission capture and control system rather than comply with the VOC limit.) Verify that, if an emission capture and control system is used, all of the following requirements are met: - averaged over any period of continuous operation not to exceed 24 h, the control device reduces VOC emissions delivered from the capture system to the control device by at least 90 percent, by weight - averaged over any period of continuous operation not to exceed 24 h, the combined effects of the capture and control system provide an overall emission reduction efficiency of at least: - 75 percent, by weight, for publication rotogravure - 65 percent, by weight, for packaging rotogravure - 60 percent, by weight, for flexographic printing operations - the collection system vents all drying oven exhaust to the control device and has one or more inlets for collection of fugitive emissions - during any period of operation of a thermal incinerator, combustion temperature is continuously monitored - during any period of operation of a catalytic incinerator, exhaust gas temperature is continuously monitored - appropriate permits for the emission capture and control system are obtained. Verify that materials containing VOCs are stored in nonabsorbent, nonleaking containers which are kept closed except when adding or removing material or during cleaning operations. Verify the VOC material wastes (including, but not limited to, liquid wastes, rags, and packaging) are disposed of in a manner consistent with Federal, State, and local hazardous waste regulations.

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A.60.2.CA.MD. Installations/CW facilities operating any packaging rotogravure, publication rotogravure, or flexographic printing operation must meet specific recordkeeping standards (MDAQMD Regulation XI, Rule 1117(E)).	Verify that the following records and information are maintained: - for each ink, coating, and adhesive in use and in storage: - a data sheet or material list giving material name, manufacturer identification, specific mixing instructions - VOC content as applied - if only inks, coatings, and adhesives meeting emission limits are used: - records on a daily basis showing the amount of ink used, maintained in one of the following options: - group quantity of all inks used and note the highest VOC content figure and the lowest density figure from all the inks - itemize each ink and pantone color and use the specific VOC content and density value for each - records on a daily basis showing the amount of coatings and adhesives used and itemizes each coating and adhesive using the specific VOC content and density value for each - if inks, coatings, or adhesives which do not meet the emission limits are used and compliance is achieved through the use of add-on emission control equipment: - records on a daily basis showing the type and amount of inks, coatings, and adhesives used, itemizing each ink, coating, and adhesive using the specific VOC content and density value for each - daily records of key system operating and maintenance parameters which demonstrate continuous operation and compliance of the emission control device during periods of emission producing activities. (NOTE: Key system operating parameters are those necessary to ensure compliance with VOC capture and control requirements.) Verify that, if the installation/CW facility claims exempt status based on the amount of VOC emitted a month, it maintains adequate records on a monthly basis to demonstrate this exempt status. Verify that these records are retained onsite for a minimum of 5 yr and are made available to the APCO upon request.

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A.65. **FUGITIVE EMISSIONS**	
A.65.1.CA.MD. Installations/CW facilities must meet specific fugitive dust standards (MDAQMD Regulation IV, Rule 403).	(NOTE: Agricultural operations are exempt from all of these requirements. Emissions emanating from unpaved roadways open to public travel or farm roads are exempt from the requirement regarding causing emissions from transport, handling, or storage activities. When the wind speed is greater than 24 km/h (15 mph), or when the average wind speed is greater than 24 km/h (15 mph), the requirements regarding not causing emissions from transport, handling, or storage activities, or not causing emissions exceeding 100 micrograms/m^3, do not apply.) Verify that the installation/CW facility does not cause or allow emissions of fugitive dust from any transport, handling, or storage activity so that dust remains visible beyond the property line. Verify that the installation/CW facility takes every reasonable precaution to minimize fugitive dust emissions from wrecking, excavation, grading, clearing of land, and solid waste disposal operations. Verify that the installation/CW facility does not cause or allow particulate matter to exceed 100 micrograms/m^3 when determined as the difference between upwind and downwind samples collected on high volume samplers at the property line for a minimum of 5 h. Verify that the installation/CW facility takes every reasonable precaution to prevent visible particulate matter from being deposited on public roadways as a direct result of their operation. (NOTE: Reasonable precautions include, but are not limited to, removal of particulate matter from equipment prior to movement on paved streets or prompt removal of any material from paved streets onto which it has been deposited.)

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A.80. **ACID PRODUCTION UNITS**	
A.80.1.CA.MD. Installations/CW facilities must meet specific requirements when using sulfuric acid units (MDAQMD Regulation IV, Rule 469).	Verify that the installation/CW facility does not discharge into the atmosphere from any sulfuric acid unit effluent process gas containing more than: - 500 ppm of sulfur compounds expressed as SO_2, calculated on a dry basis averaged over a minimum of 15 consecutive minutes - 90 kg/h (196.5 lb/h) of sulfur compounds expressed as SO_2.

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CFCS AND HALONS **A.90.** **Repair/Recycling**	
A.90.1.CA.MD. Installations/CW facilities installing, servicing, modifying, or disposing of motor vehicle air conditions, or performing related automotive repairs that may cause a release of refrigerants must meet specific personnel requirements (MDAQMD Regulation XV, Rule 1511(C)(1)).	Verify that no person performs these activities unless the following steps are taken: - all refrigerant is recovered or recycled with approved refrigerant recovery or recycling equipment - procedures are employed for the use of the equipment as specified by the recovery or recycling equipment manufacturer - refrigerants are not disposed of. Verify that no person operates recovery or recycling equipment unless each individual performing work on motor vehicle air conditions obtain a certificate of training from an approved training program. Verify that the individual's original certificate of training is available for inspection at the place of business where the work is performed.
A.90.2.CA.MD. Installations/CW facilities installing, servicing, modifying, or disposing of motor vehicle air conditions, or performing related automotive repairs that may cause a release of refrigerants must meet specific equipment requirements (MDAQMD Regulation XV, Rule 1511(C)(2)).	Verify that no person operates recovery, recycling, or charging equipment, except for the maintenance and repair of such equipment, unless the equipment has no detectable leaks as determined by one of the following tests: - electronic halogen detector used in accordance to manufacturer's specifications, measured 1 cm away from any portion of the system - alternate method approved by the USEPA. Verify that these leak tests are conducted every 6 mo. Verify that leaks are repaired within two business days after a leak is first detected, unless the equipment is removed from service.

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A.90.3.CA.MD. Installations/CW facilities installing, servicing, modifying, or disposing of motor vehicle air conditions, or performing related automotive repairs that may cause a release of refrigerants must meet specific procedural requirements (MDAQMD Regulation XV, Rule 1511(C)(3)).	Verify that no person adds refrigerant to a vehicle unless the air conditioning system has no detectable leaks as determined by both of the following test procedure: - operator completes a visual inspection for obvious indications of leaks - system maintains a vacuum for a minimum of 10 min. Verify that, after completing these test procedures, refrigerant is added in an amount not to exceed 25 percent of the motor vehicle air conditioner system capacity to test for leaks using one of the following methods: - an electronic halogen detector used in accordance to manufacturer's specifications, measured 1 cm away from any portion of the system - fluorescent tracer dyes injected through the system according to manufacturer's specifications and scanned with an ultra-violet lamp - an alternate method approved by the USEPA.

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CFCS AND HALONS **A.95.** **Recordkeeping** **A.95.1.CA.MD.** Installations/CW facilities installing, servicing, modifying, or disposing of motor vehicle air conditions, or performing related automotive repairs that may cause a release of refrigerants must meet specific recordkeeping requirements (MDAQMD Regulation XV, Rule 1511(E)).	Verify that records are maintained for a minimum of 2 yr and made available to the APCO on request. Verify that records include the following information: - materials - lb of refrigerants purchased, used, stored, and shipped-offsite on a daily basis - equipment - maintenance records for any recovery and recycling equipment, including the name of the person performing the maintenance, dates that the maintenance was performed, results of leak tests, and records of what equipment was checked, modified, serviced, or replaced.

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A.100. **COATING OPERATIONS** **Architectural Coating Operations**	
A.100.1.CA.MD. Installation that apply architectural coatings must ensure the coatings meet specific requirements regarding volatile organic compounds (VOC) (MDAQMD Regulation XI, Rule 1113(C)(1) through (C)(3), (C)(8), and (D)).	(NOTE: The following architectural coatings are exempt from these requirements: - coatings sold only in containers of 1 L [approximately 0.26 gal] or less - emulsion-type bituminous pavement sealers.) Verify that the installation/CW facility does not apply architectural coatings containing, in general, more than 250 g of VOCs/L of coating, excluding water and any colorant added to tint bases, and, specifically, containing VOCs in excess of the quantities specified in Appendix 1-6. Verify that, if any representation is made that a coating may be used as, or is suitable for use as, a coating for which a lower VOC standard is specified, the lowest VOC standard applies. (NOTE: This requirement regarding using the lowest VOC coating standard does not apply to representation of the following coatings in the manner specified herein: - high temperature industrial maintenance coatings, which may be represented as metallic-pigmented coatings for use consistent with the definition of high temperature industrial maintenance coatings - lacquer sanding sealers, which may be recommended for use as sanding sealers in conjunction with clear lacquer topcoats - metallic-pigmented coatings, which may be recommended for use as primers, sealers, undercoaters, roof coatings, or industrial maintenance coatings - shellacs - fire retardant coatings.) Verify that fresh or spent solvent and architectural coating products are stored in closed containers.
Automotive Refinishing Operations	(NOTE: These requirements do not apply under the following circumstances: - installations/CW facilities using a total of less than 1 gal of coating, including any VOC-containing materials added to the original coating as supplied by the manufacturer in any one day - surface coating operations emitting no more than 3 lb of VOCs per day and no more than 200 lb of VOCs per calendar year.)

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A.100.2.CA.MD. Installations/CW facilities refinishing Group I or II vehicles must meet specific emission standards (MDAQMD Regulation XI, Rule 1116(C)(1) and (D)(2)).	Verify that, when refinishing group I vehicles and equipment or their parts and components where a color match is not required, the installation/CW facility does not use any coating with a VOC content in excess of the limits listed in Appendix 1-7. Verify that the installation/CW facility, when refinishing Group II vehicles, their parts and components, or Group I vehicles and mobile equipment where color match is required, does not use any coating with a VOC content in excess of the limits listed in Appendix 1-10. (NOTE: The installation/CW facility may choose to control the emissions by using approved air pollution abatement equipment with combine efficiency and control efficiency of the abatement device of at least 85 percent.) (NOTE: The July 1997 VOC limits in Appendix 1-7 do not apply to the following: - automotive refinishing operations emitting no more than 3 lb of VOC per hour, before add-on controls - automotive refinishing operations emitting no more than 15 lb of VOC per day, before add-on controls - facilities not exceeding 10 tons/yr theoretical potential emissions. Theoretical potential emissions is defined as the greater of design capacity, or maximum production (based on 8760 h/yr before add-on controls.) Verify that, if the installation/CW facility uses solvent for surface preparation and cleanup, the following requirements are met: - an organic compound with a VOC content in excess of 200 g of VOC/L of material (1.67 lb/gal) is not used for surface preparation - closed, nonabsorbent containers are used for storage or disposal of any applicator (including brushes, swabs, cloth, or paper) used for solvent surface preparation and cleanup - fresh or spent solvent is stored in closed containers - organic compounds are not used for cleanup of spray equipment, including paint lines, unless an enclosed system is used. Verify that the installation/CW facility does not use any specialty coating with a VOC content, as applied, in excess of 840 g/L (7.0 lb/gal), excluding water and exempt solvents. Verify that the use of all specialty coatings, except anti-glare/safety coatings does not exceed 5.0 percent of all coatings applied, averaged on a monthly basis. (NOTE: Installations/CW facilities must submit a petition in order to use an extreme performance coating for automotive refinishing.)

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A.100.3.CA.MD. Installations/CW facilities refinishing Group I or II vehicles must meet specific operating standards (MDAQMD Regulation XI, Rule 1116(C)(2)).	Verify that the installation/CW facility uses one of the following methods: - electrostatic application equipment, operating in accordance with the manufacturer's recommendations - high volume low pressure spray equipment, operated in accordance with the manufacturer's recommendations - any other coating application methods as demonstrated to the APCO to be capable of achieving at least 65 percent transfer efficiency and for which written approval of the APCO has been received.
A.100.4.CA.MD. Installations/CW facilities refinishing Group I or II vehicles must meet specific monitoring and recordkeeping standards (MDAQMD Regulation XI, Rule 1116(F)).	Verify that the installation/CW facility, whether exempt or nonexempt, maintains a current list of coatings in use which provides all coating data necessary to evaluate compliance, including the following information: - additive, coating, catalyst, and reducer used - x ratio of components used - VOC content of coating as applied. Verify that this information is maintained separately for Group I and Group II vehicles. Verify that the following information is maintained on a daily basis: - coating and mix ratio of components used in the coating - quantity of each coating applied - if an add-on emission control device/system is used, records of key system operating and maintenance data. Verify that the installation/CW facility maintains records on a monthly basis showing the type and amount of solvent used for cleanup and surface preparation. Verify that all of these records are retained and available for inspection by the APCO for the previous 24 mo.

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Metal Parts and Products Coating Operations **A.100.5.CA.MD.** Installations/CW facilities conducting metal parts and products coating operations must specific emissions limitations (MDAQMD Regulation XI, Rule 1115(C)(2), (C)(3), (C)(4), and (D)(1)).	(NOTE: The emissions limits outlined in Appendix 1-8 do not apply to the following coating operations: - stencil coatings - the facility uses a total of less than 1 gal of coating, including any VOC-containing materials added to the original coating as suppled by the manufacturer, in any one day - surface coating operations emitting no more than 3 lb of VOCs per day and no more than 200 lb of VOCs per calendar year, as determined by the VOC content and the actual emissions used at the facility - pretreatment wash primer - safety-indicating coatings - aerosol-spray coatings - magnetic data storage disk coatings - solid-film lubricants - adhesives - coating of motor vehicle bodies at motor vehicle rework facilities - perchloroethylene operations.) Verify that the installation/CW facility does not apply to metal parts and products any coatings, including any VOC-containing materials added to the original coating supplied by the manufacturer, containing VOC in excess of the limits specified in Appendix 1-8. (NOTE: The installation/CW facility may choose to control the emissions by using air pollution abatement equipment with an overall abatement efficiency of at least 85 percent.) Verify that, if the installation/CW facility uses solvent for surface preparation, cleanup, or paint removal, the following requirements are met: - an organic compound with a VOC content in excess of 200 g of VOC/L of material (1.67 lb/gal) is not used for surface preparation - closed, nonabsorbent containers are used for storage or disposal of cloth or paper used for solvent surface preparation and cleanup - fresh or spent solvent is stored in closed containers - organic compounds are not used for cleanup of spray equipment, including paint lines, unless an enclosed system is used. (NOTE: Coatings containing reactive diluents have their VOC content determined after curing.) (NOTE: Installations/CW facilities must submit a petition in order to use an extreme performance coating for coating metal parts and products.)

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A.100.6.CA.MD. Installations/CW facilities conducting metal parts and products coating operations must specific operating requirements (MDAQMD Regulation XI, Rule 1115(C)(1), (D)(1), (D)(2), and (D)(5)).	(NOTE: These operating requirements do not apply to the following coating operations: - stencil coatings - the facility uses a total of less than 1 gal of coating, including any VOC-containing materials added to the original coating as suppled by the manufacturer, in any one day - surface coating operations emitting no more than 3 lb of VOCs per day and no more than 200 lb of VOCs per calendar year, as determined by the VOC content and the actual emissions used at the facility - pretreatment wash primer - safety-indicating coatings - aerosol-spray coatings - magnetic data storage disk coatings - solid-film lubricants - adhesives - coating of motor vehicle bodies at motor vehicle rework facilities - perchloroethylene operations - any coating operation that, because of physical and/or chemical properties of the substrate or safety conditions, cannot meet a 65 percent transfer efficiency, provided a written petition is submitted to, and approved by, the APCO - application of touch-up coatings, repair coatings, textured coatings, metallic coatings which have a metallic content of more than 30 g/L, mold-seal coatings, and to facilities using less than 3 gal of such coatings, as applied, including any VOC-containing materials added to the original coatings as supplied by the manufacturer, per day.) Verify that the installation/CW facility uses properly operating equipment and the following methods when coating metal parts and products: - electrostatic attraction - high volume low pressure spray equipment - dip coat - such coating application methods as are demonstrated to the APCO to be capable of achieving at least 65 percent transfer efficiency and for which written approval of the APCO has been received.

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A.100.7.CA.MD. Installations/CW facilities conducting metal parts and products coating operations must specific monitoring and recordkeeping requirements (MDAQMD Regulation XI, Rule 1115(C)(8) and (F)).	Verify that each metal parts and product coating operation has an approved continuous monitor for any add-on control device used to meet emissions limitations. Verify that records of the monitoring devices and other data necessary to demonstrate compliance with the control requirement are maintained on the premises and made accessible for a period of 2 yr to the APCO. Verify that the installation/CW facility maintains and has available during an inspection a current list of coatings in use which provides all of the coating data necessary to evaluate compliance or exemption, including, as applicable: - coating, catalyst, and reducer used - mix ratio of components used - VOC content of coating as applied. Verify that, on a daily basis, the installation/CW facility maintains records, by permit unit, with the following information: - coating and mix ratio of components used in the coating - quantity of each coating applied. Verify that records are maintained on a daily basis showing the type and amount of solvent used for cleanup, surface preparation, and paint removal. Verify that these records are retained and available for inspection by the APCO for the previous 24 mo period.
Wood Coating Operations **A.100.8.CA.MD.** Installations/CW facilities conducting wood coating operations must meet specific emissions requirements (MDAQMD Regulation XI, Rule 1114(C)(1), (C)(3), (C)(7), (D)(1), (D)(2), and (D)(4)).	(NOTE: The emissions limits outlined in Appendix 1-9 do not apply to the following coating operations: - aerosol-spray coatings for touch up and repair - facilities using a total of less than 1 gal of wood coating, including any VOC-containing materials added to the original coating as supplied by the manufacturer in any one day - surface coating operations emitting not more than 3 lb of VOCs per day and not more than 200 lb of VOCs per calendar year - laminating of fiberglass, metal, or plastic sheets to wood panels - application of coatings to musical instruments. **A.100.8.CA.MD. Continued on Next Page**

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A.100.8.CA.MD(continued)	The January 1996 and January 1997 limits outlined in Appendix 1-9 do not apply to the following: - wood products coating operations which emit not more than 3 lb of VOC per hour, before add-on controls - wood products coating operations which emit not more than 15 lb of VOC per day, before add-on controls - facilities that do not exceed 10 tons/yr theoretical potential emissions. Theoretical potential emission is defined as the greater of design capacity or maximum production (based on 8760 h/yr) before add-on controls. Once the 3 or 15 lb limit is exceeded, facilities remain subject to the 1996 and 1997 limits even if emissions later fall below these levels.) Verify that the installation/CW facility does not apply to a wood product any coating which has a VOC content, including any VOC-containing material added to the original coating supplied by the manufacturer, exceeding the applicable limit specified in Appendix 1-9. (NOTE: The installation/CW facility may choose to control the emissions by using air pollution abatement equipment with an overall capture and abatement efficiency of at least 85 percent.) Verify that, if the installation/CW facility uses solvent for surface preparation or cleanup, the following requirements are met: - an organic compound with a VOC content in excess of 200 g of VOC/L of material (1.67 lb/gal) is not used for surface preparation, except for strippers - closed, nonabsorbent containers are used for storage or disposal of cloth or paper used for solvent surface preparation and cleanup - fresh or spent solvent is stored in closed containers - organic compounds are not used for cleanup of spray equipment, including paint lines, unless an enclosed system is used. Verify that the installation/CW facility does not increase the use of Group II exempt compounds methylene chloride and/or 1,1,1-trichloroethane to meet the VOC content standards.
A.100.9.CA.MD. Installations/CW facilities conducting wood coating operations must meet specific operating requirements (MDAQMD Regulation XI, Rule 1114(C)(2) and (D)(1)).	(NOTE: The application requirement does not apply to the following coating operations: - aerosol-spray coatings for touch up and repair - facilities using a total of less than 1 gal of wood coating, including any VOC-containing materials added to the original coating as supplied by the manufacturer in any one day - surface coating operations emitting not more than 3 lb of VOCs per day and not more than 200 lb of VOCs per calendar year **A.100.9.CA.MD. Continued on Next Page**

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A.100.9.CA.MD(continued)	- laminating of fiberglass, metal, or plastic sheets to wood panels - application os coatings to musical instruments.) Verify that the installation/CW facility applies coatings to wood products only with properly operating equipment, according to manufacturer's suggested guidelines, and by using one of the following methods: - flow coat - dip coat - high-volume low-pressure (HVLP) spray - paint brush - hand roller - roll coater - such other coating application methods as are demonstrated to the APCO to be capable of achieving at least 65 percent transfer efficiency and for which written approval of the APCO has been obtained.
A.100.10.CA.MD. Installations/CW facilities conducting wood coating operations must meet specific monitoring and recordkeeping requirements (MDAQMD Regulation XI, Rule 1114(C)(5) and (F)).	Verify that each wood product coating operation has an approved continuous monitor for any add-on control device used to meet emissions limitations. Verify that records of the monitoring devices and other data necessary to demonstrate compliance with the control requirement are maintained on the premises and made accessible for a period of 2 yr to the APCO. Verify that installations/CW facilities subject to the emissions limitations requirement, facilities using organic stripper for surface preparation, and facilities claiming exemption status based on the amount of coating used meet the following recordkeeping requirements: - maintains and has available during an inspection, a current list of coatings in use which provides all of the coating data necessary to evaluate compliance, including the following information, as applicable: - coating, catalyst, and reducer used - mix ratio of components used - VOC content of coating as applied - quantity of Group II exempt compounds used - maintains records on a daily basis, including: - coating and mix ratio of components used in the coating - quantity of each coating applied - maintains records on a daily basis showing the type and amount of solvent used for cleanup, surface preparation, and paint removal. Verify that these records are retained and available for inspection by the APCO for the previous 24 mo period.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.105. **COOLING TOWERS**	
A.105.1.CA.MD. Installations/CW facilities must not construct or operate a cooling tower unless certain requirements are met (MDAQMD Regulation XV, Rule 1503(B) and (F)(1)).	Verify that the installation/CW facility does not add hexavalent chromium-containing water treatment chemicals to cooling tower circulating water. Verify that the installation/CW facility tests the hexavalent chromium concentration in circulating water of a nonwooden cooling tower every 6 mo and that the concentration does not exceed 0.15 mg/L. Verify that the installation/CW facility operating a wooden cooling tower tests the hexavalent chromium concentration of circulating water monthly and that the concentration does not exceed 8 mg/L. (NOTE: The APCO may, upon written request, grant an exemption from these testing requirements if two consecutive tests show that the concentration of hexavalent chromium is less than 0.15 mg/L of circulating water or if hexavalent chromium-containing water treatment chemicals have not been used for at least 1 yr.)
A.105.2.CA.MD. Installations/CW facilities operating cooling towers must meet specific recordkeeping requirements (MDAQMD Regulation XV, Rule 1503(E)).	Verify that records are retained for 2 yr and consist of the following type of information: - name, address, and phone number of the owner and operator - cooling tower location - materials used in the cooling tower construction - trade and chemical names of water treatment additives proposed to be used or currently in use - name and address of the manufacturer and supplier - date when hexavalent chromium-containing water treatment chemicals were last added - hexavalent chromium concentration test results including date of the test and name and address of the laboratory performing the test. Verify that the operator maintains records regarding all cooling towers in one location, with current originals or copies at the facility site.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.110. **CHROME PLATING/ CHROMIC ACID ANODIZING**	
A.110.1.CA.MD. Installations/CW facilities must meet specific standards for decorative chrome plating facilities (MDAQMD Regulation XV, Rule 1502(B)(1)).	Verify that the installation/CW facility does not operate a decorative chrome plating tank unless one of the following steps is taken: - an anti-mist additive is continuously maintained in the plating tank - control equipment is installed and used in a manner approved by the District APCO. Verify that the control measures reduce chromium emissions by 95 percent or more.
A.110.2.CA.MD. Installations/CW facilities must meet specific standards for hard chrome plating and chromic acid anodizing facilities (MDAQMD Regulation XV, Rule 1502(B)(2)).	Verify that the installation/CW facility does not operate a plating tank for hard chrome plating or chromic acid anodizing unless the tank has an emissions collection system. Verify that the installation/CW facility does not operate a hard chrome plating or chromic acid anodizing tank which emits less than 2 lb/yr [approximately 0.91 kg/yr], unless one of the following conditions exists: - chromium emissions from the emissions collection system serving the plating tank are reduced by 95 percent or more of uncontrolled chromium emissions - chromium emissions from the emissions collection system serving the plating tank are reduced to less than 0.15 mg of chromium per ampere-hour of electrical charge applied to the plating tank. Verify that the installation/CW facility does not operate a hard chrome plating tank or chromic acid anodizing tank if facility-wide chromium emissions are greater than 2 lb/yr [approximately 1 kg/yr], but less than 10 lb/yr [approximately 4.5 kg/yr], unless one of the following conditions exists: - chromium emissions from emissions collection systems serving the plating tank are reduced by at least 99 percent of uncontrolled chromium emissions - chromium emissions from emissions collection systems are reduced to less than 0.03 mg of chromium per ampere-hour of electrical charge applied to the tanks. Verify that the installation/CW facility does not operate a hard chrome plating or chromic acid anodizing tank if facility-wide chromium emissions are 10 lb/yr [approximately 4.5 kg/yr] or greater, unless one of the following conditions exists: - chromium emissions from emissions collection systems serving the plating tanks are reduced by at least 99.8 percent of uncontrolled chromium emissions - chromium emissions from emissions collection systems are reduced to less than 0.006 mg of chromium per ampere-hour electrical charge applied to the tanks.

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A.110.3.CA.MD. Installations/CW facilities operating decorative chrome plating, hard chrome plating, and chromic acid anodizing facilities must meet specific recordkeeping requirements (MDAQMD Regulation XV, Rule 1502(C)).	Verify that the installation/CW facility maintains a continuous record of anti-mist additive concentrations, and/or control equipment maintenance logs, and ampere-hour readings integrated over time for all plating tanks. Verify that the records are maintained for each collection system for a minimum of 2 yr and are available upon request to the District.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
DEGREASING OPERATIONS **A.115.** **General**	(NOTE: These requirements, excluding recordkeeping requirements, do not apply to the following operations: - solvent cleaning/degreasing operations using total liquid solvent containing less than 2 percent by weight of VOC - any cold solvent degreaser with a solvent surface area of less than 929 cm^2 (1 ft^2), except for the requirement to have a cover and to maintain records proving exempt status - consumer products such as aerosol cans or small containers (1 qt or smaller), unless total accumulative use is greater than 160 oz (5 qt) of solvent per day, and except for requirements regarding handling of solvents and wipe cleaning materials and for maintaining the following records onsite: - records to prove exempt status - name and total volume applied of wipe cleaning solvents used, on a monthly basis - documentation of disposal or onsite recycling of waste solvent or residues.)
A.115.1.CA.MD. Installations/CW facilities using volatile organic solvents for degreasing must meet specific equipment requirements (MDAQMD Regulation XI, Rule 1104(C)(1)(a), (C)(1)(b) and (D)).	Verify that all degreasers are equipped with the following: - an apparatus or cover which reduces solvent evaporation, except for remote reservoirs - a permanent, conspicuous label summarizing applicable operating requirements. (NOTE: In lieu of a label, operating instructions may be posted near the degreaser where operators can access the proper operating requirements.) Verify that remote reservoir degreasers are equipped with the following: - a sink, platform, or work area which is sloped sufficiently towards a drain to prevent pooling of solvent within the work area - a single or total drain hole area, not larger than 100 cm^2 (15.5 $in.^2$) in area, for the solvent to flow from the sink (platform/work area) into the enclosed reservoir - if high volatility solvent is used, a drain cover/plug/closure device or a cover for placement over the top of the sink (platform/work area), when the equipment is not being used, cleaned, or repaired - a minimum sink depth of 6 in., as measured from the top of the drain to the top of the side of the sink. Verify that a lip exhaust system is not used on any degreaser unless it is vented to a hood or enclosure system.

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A.115.2.CA.MD. Installations/CW facilities using volatile organic solvents for degreasing must meet specific operating requirements (MDAQMD Regulation XI, Rule 1104(C)(2)).	Verify that installations/CW facilities using any degreasers meet the following operating requirements: - operate and maintain any solvent cleaning equipment and any emission control device in strict accord with the recommendations of the manufacturer - degreasers do not operate with any detectable solvent leak - all solvent, including waste solvent and waste solvent residues, are stored in closed containers at all times - all containers for any solvent has a label indicating the name of the solvent/material they contain - waste solvent and any residues are disposed of by one of the following methods: - a commercial waste solvent reclamation service licensed by the State of California - a federally or state licensed facility to treat, store, or dispose of such waste - the originating facility recycles the waste solvent and materials in conformance with requirements of Section 25143.2 of the California Health and Safety Code - degreasers are covered to prevent fugitive leaks of vapors, except when processing work or to perform maintenance - solvent carry-out is minimized by the following methods: - rack workload arranged to promote complete drainage - limit vertical speed of the power hoist to 3.3 m/min (11 ft/min) or less when such a hoist is used - retain workload inside of the vapor zone until condensation ceases - tip out any pools of solvent remaining on the cleaned parts before removing them from the degreaser if the degreasers are operated manually - do not remove parts from the degreaser until the parts are visually dry and not dripping/leaking solvent (does not apply to an emulsion cleaner workload that is rinsed with water within the degreaser immediately after cleaning - porous or absorbent materials such as cloth, leather, wood, or rope is not cleaned - except for sealed chamber degreasers, all solvent agitation is by either pump recirculation, a mixer, or ultrasonics - the solvent spray system is used in a manner such that liquid solvent does not splash outside of the container - solvent spray is a continuous stream, not atomized or shower type, unless the spray is conducted in a totally enclosed space, separated from the environment - for those degreasers equipped with a water separator, no solvent is visually detectable in the water in the separator - wipe cleaning materials containing solvent are kept in closed containers at all times, except during use **A.115.2.CA.MD. Continued on Next Page**

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A.115.2.CA.MD(continued)	- a degreaser is located so as to minimize drafts being directed across the cleaning equipment, the exposed solvent surface, or the top surface of the vapor blanket - a method for draining cleaned material, such as a drying rack suspended above the solvent and within the freeboard area, are used so that the drained solvent is returned to the degreaser or container. Verify that installations/CW facilities operating batch-loaded and conveyorized degreasers also meet the following operating requirements: - when starting the degreaser, the cooling system is turned on before, or simultaneously with, the sump heater - when shutting down the degreaser, the sump heater is turned off before, or simultaneously with the cooling system - the workload area does not occupy more than half of the evaporative surface area of the degreaser - except for sealed chambers, the spray is kept at least 10 cm (4 in.) below the top of the vapor level and pointed downward to prevent turbulence at the air-solvent vapor interface. Verify that installations/CW facilities operating remote reservoir degreasers also meet the following operating requirements: - solvent pump does not circulate solvent into the sink unless a workload is being actively processed - the sink of a remote reservoir degreaser or any container placed therein is not used to soak a workload - parts are visually dry and not dripping/leaking solvent before being removed from the sink - parts are tipped to release any trapped pools of solvent before being removed from the sink - the workload drip-dries while being contained completely within the sink.
A.115.3.CA.MD. Installations/CW facilities using volatile organic solvents for degreasing must meet specific recordkeeping requirements (MDAQMD Regulation XI, Rule 1104(E)(2) and (G)).	Verify that the installation/CW facility maintains and has available during an inspection, a current list of solvents in use at the facility which provides all data necessary to evaluate compliance, including the following information separately for each degreaser, as applicable: - product name used in the degreaser - mix ratio of solvent compounds when mixtures of solvents are used - VOC content of solvent or mixture of compounds as used - total volume of solvents used, on a monthly basis - name and total volume applied of wipe cleaning solvents used, on a monthly basis. **A.115.3.CA.MD. Continued on Next Page**

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.115.3.CA.MD(continued)	Verify that, for any degreaser using an add-on emission control device/system as a means of complying with these requirements, on a monthly basis the installation/CW facility maintains records of key system operating and maintenance data. Verify that documentation is maintained onsite of the disposal or onsite recycling of any waste solvent or residues. Verify that these records are retained onsite and available for inspection by the APCO for the previous 24 mo period.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
DEGREASING OPERATIONS **A.116.** **Cold Cleaning** **A.116.1.CA.MD.** Installations/CW facilities using a cold solvent degreaser must meet specific equipment requirements (MDAQMD Regulation XI, Rule 1104(C)(1)(c) and (C)(1)(d)).	Verify that cold solvent degreasers using only low volatility solvents, which are not agitated, operate with a freeboard height of not less than 6 in. Verify that cold solvent degreasers using only low volatility solvents operate with a freeboard ratio equal to or greater than 0.5 when the cold solvent degreaser has a cover which remains closed during the cleaning operation. Verify that any cold solvent degreasers using solvent which is agitated, or heated above 50 °C (120 °F), operate with a freeboard ratio equal to or greater than 0.75. (NOTE: A water cover may be used as an acceptable control method to meet freeboard requirements when the solvent is insoluble in water and has a specific gravity greater than 1.) Verify that cold solvent degreasers using high volatility solvent have a cover that is a sliding, rolling, or guillotine (bi-parting) type designed to easily open and close without disturbing the vapor zone. Verify that the degreaser has a permanent, conspicuous mark locating the maximum allowable solvent level conforming to the applicable freeboard requirements. Verify that conveyorized cold solvent degreasers are equipped with the following: - rotating basket, or other method, to prevent cleaned parts from carrying out solvent liquid - minimized entrance and exit openings which silhouette work loads so that the average clearance between material and edges of cleaner openings are less than 10 cm (4 in.) or less than 10 percent of the opening width, whichever is greater - a freeboard ratio equal to or greater than 0.75.

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DEGREASING OPERATIONS **A.117.** **Vapor Cleaning** **A.117.1.CA.MD.** Installations/CW facilities using vapor degreasers must meet specific equipment requirements (MDAQMD Regulation XI, Rule 1104(C)(1)(e)).	Verify that batch-loaded vapor degreasers are equipped with the following: - cover that is a sliding, rolling, or guillotine (bi-parting) type designed to easily open and close without disturbing the vapor zone - vapor level control thermostat, condenser flow switch, and spray safety switch - freeboard ratio greater than or equal to 0.75 - primary condenser - for degreasers with an evaporative surface area greater than or equal to 1 m^2: - refrigerated freeboard chiller for which the chilled air blanket temperature at the coldest point on the vertical axis in the center of the air-vapor interface is no greater than 30 percent of the initial boiling point of the solvent used, or 40 °F, whichever is greater - if the chiller operates below the freezing temperature of water, an automatic defrost. Verify that conveyorized vapor degreasers are equipped with the following: - an enclosed drying tunnel or other method, such as a rotating basket, sufficient to prevent cleaned parts from carrying out solvent liquid or vapor - minimized entrance and exit openings which silhouette work loads so that the average clearance between material and edges of degreaser openings are less than 10 cm (4 in.) or less than 10 percent of the opening, whichever is greater - a primary condenser - a freeboard ratio equal to or greater than 0.75 - a vapor control thermostat, a condenser flow switch, and a spray safety switch - a refrigerated freeboard chiller for which the chilled air blanket temperature at the coldest point on the vertical axis in the center of the air-vapor interface is no greater than 30 percent of the initial boiling point of the solvent used, or 40 °F, whichever is greater - if the chiller operates below the freezing temperature of water, an automatic defrost. (NOTE: Alternately, a hood or enclosure to collect emissions which are vented to a control device may be used to satisfy the freeboard requirements for conveyorized vapor degreasers, provided overall efficiency (collection efficiency multiplied by control efficiency) of the total system is not less than 85 percent by weight. The collection system must have a ventilation rate of 15-20 $m^3/min/m^2$ of degreaser opening (at each air-vapor interface), unless the rate is changed to meet Federal and State Occupational Safety and Health Administration requirements, and is approved in writing by the District APCO.)

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A.120. **OIL/WATER SEPARATORS**	
A.120.1.CA.MD. Installations/CW facilities must meet specific equipment requirements for process effluent water separators that recover 760 L (201 gal) a day or more of petroleum products with a Reid vapor pressure of 25 mm Hg (0.5 psi) or greater. (MDAQMD Regulation IV, Rule 464(C)(1), (C)(2), and (D)).	(NOTE: These requirements do not apply to segregated stormwater runoff drain systems or to noncontact cooling water systems, where applicable.) Verify that these separators are equipped with one of the following vapor loss control devices or methods: - a fixed cover with all openings sealed and totally enclosing the liquid contents of the compartments, except for such breathing vents as are structurally necessary - a floating cover, equipped with seals to enclose any space between the cover's edge and compartment wall - route all vapors to a control device with an overall control efficiency (collection and control efficiencies) of at least 90 percent by weight of VOCs, measured according to the test method specific in Appendix 1-10. Verify that these separators provide a fixed cover for all forebays, such that no liquid surface is exposed to the atmosphere. Verify that covers for these oil-water separators meet the following requirements: - cover material is impermeable to VOCs and free from holes or openings - any gauging or sampling devices on the compartment cover are covered and kept closed with no visible gaps between the cover and the compartment, except when the sampling device is being used - hatches on covers are kept closed and free of gaps, except when opened for inspection, maintenance, or repair - the perimeter of a cover, except for a floating cover, forms a seal free of gaps with the foundation to which it is installed.
A.120.2.CA.MD. Installations/CW facilities must meet specific monitoring requirements for process effluent water separators that recover 760 L (201 gal) a day or more of petroleum products with a Reid vapor pressure of 25 mm Hg (0.5 psi) or greater. (MDAQMD Regulation IV, Rule 464(C)(3), (D), and (E)).	(NOTE: These requirements do not apply to segregated stormwater runoff drain systems or to noncontact cooling water systems, where applicable.) Verify that monitoring for fugitive leaks is performed on a monthly basis and in accordance with the test method specified in Appendix 1-10. Verify that monitoring of the control device is performed on an annual basis and in accordance with the test method specified in Appendix 1-10. (NOTE: When an instrument reading of 10,000 ppm or greater is measured, a leak has been detected and the reading constitutes a violation.)

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.120.3.CA.MD. Installations/CW facilities must meet specific recordkeeping requirements for process effluent water separators that recover 760 L (201 gal) a day or more of petroleum products with a Reid vapor pressure of 25 mm Hg (0.5 psi) or greater. (MDAQMD Regulation IV, Rule 464(D) and (F)).	(NOTE: These requirements do not apply to segregated stormwater runoff drain systems or to noncontact cooling water systems, where applicable.) Verify that a log of the monthly leak inspection is kept on file at the facility, minimally recording the following information: - date of inspection - findings, including instrument readings - leak determination method - corrective action taken (date of leak repair and a written justification for any repair interval in excess of 15 calendar days) - inspector's name and signature. Verify that any installation/CW facility using an emission control device/system as a means of meeting these requirements maintain records of key system operating and maintenance data in order to demonstrate continuous compliance during periods of emission producing activities. Verify that any facility claiming exemption keeps records to substantiate the claim. Verify that any record required or produced pursuant to these requirements is retained onsite for at least 2 yr and made available to the APCO upon request.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.125. MISCELLANEOUS VOC OPERATIONS **A.125.1.CA.MD.** Installations/CW facilities must meet specific standards when using solvents (MDAQMD Regulation IV, Rule 442).	(NOTE: See Appendix 1-11 for conditions that are exempt from these requirements.) Verify that the installation/CW facility does not discharge organic materials from equipment using organic solvents or materials containing organic solvents, unless emissions have been reduced by at least 85 percent or one of the following conditions is met: - organic materials that come into contact with flame, or are baked, heat cured, or heat polymerized, are limited to 1.4 kg/h (3.1 lb/h), not to exceed 6.5 kg/day (14.3 lb/day) - organic materials emitted into the atmosphere from the use of photochemically reactive solvents are limited to 3.6 kg/h (7.9 lb/h), not to exceed 18 kg/day (39.6 lb/day), except as provided for in the previous provision - organic materials emitted into the atmosphere from the use of nonphotochemically reactive solvents are limited to 36.8 kg/h (81 lb/h), not to exceed 272 kg/day (600 lb/day). Verify that the installation/CW facility, when using equipment for processing in a continuous web, strip, or wire calculates emissions collectively. Verify that, if the installation/CW facility controls organic emissions to comply with emissions limits, one of the following methods is used: - incineration, provided 90 percent or more of the carbon is oxidized to nonorganic materials - incineration, provided the concentration of organic material following incineration is less than 50 ppm, calculated as carbon and with no dilution - absorption - processing in a manner approved by the APCO. Verify that the installation/CW facility does not use for dry cleaning any organic solvent containing 4 percent or more, by volume, photochemically reactive solvents, unless emissions are reduced by at least 90 percent by weight. **A.125.1.CA.MD. Continued on Next Page**

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A.125.1.CA.MD(continued)	Verify that the installation/CW facility does not use photochemically reactive solvents in the following ways: - to thin, reduce, or dilute industrial and commercial metal surface coatings, unless the emission of organic materials into the atmosphere is reduced by at least 85 percent by weight - in industrial and commercial surface cleaning or degreasing operations, unless the emission of organic materials into the atmosphere is reduced by at least 85 percent by weight. Verify that the installation/CW facility does not dispose of more than 1.3 gal [approximately 5 L] of any photochemically reactive solvent, or any material containing more than 1.3 gal [approximately 5 L] of any photochemically reactive solvent in any one day by any means which permits evaporation.

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A.130. **OPEN BURNING**	
A.130.1.CA.MD. Installations/CW facilities must meet specific permit requirements for open fires (MDAQMD Regulation II, Rule 208 and Regulation IV, Rule 444(a)).	Determine if the installation/CW facility does any open outdoor burning. Verify that the installation/CW facility does not burn or permit the burning of combustible refuse in an open outdoor fire without first obtaining a permit from the APCO and, when required, from the local fire protection agency.
A.130.2.CA.MD. Installations/CW facilities conducting certain types of burning must follow other specific requirements (MDAQMD Regulation IV, Rule 444(b)).	Determine if burning permit has been granted for any of the following reasons: - instruction of public or industrial employees in fighting fires - removing forest debris as a part of a forest management or wildlife or game habitat improvement - backfires necessary to save life or valuable property Verify that these fires are set by, or under the jurisdiction of, a fire protection agency. Verify that the APCO is notified prior to burning for fire fighting instruction and for removing forest debris. Verify that no burning, other than backfires to save life or property, is allowed during times of adverse meteorological conditions as declared by the APCO.

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A.145. **ASPHALT PAVING MATERIALS/ OPERATIONS**	
A.145.1.CA.MD. Installations/CW facilities must meet specific requirements when operating equipment to melt, heat, or hold asphalt or coal tar pitch for onsite construction, installation, or repair of roofs (MDAQMD Regulation IV, Rule 471).	(NOTE: The following equipment used for melting, heating, or holding asphalt or coal tar pitch is exempt from these requirements: - has a capacity of 100 L (26.4 gal) or less - has a capacity of 600 L (159 gal) or less and is equipped with a tightly fitted lid or cover which is kept closed except for loading or when the material in the roofing kettle is less than 150 ºF.) Verify that this equipment is not used for melting, heating, or holding asphalt or coal tar pitch unless the following conditions are met: - vapors from such equipment are contained by one or more close fitting lids which are not opened except for loading the kettle with solid roofing material or unless the material in the roofing kettle is less than 150 ºF - for roofing kettles, the temperature of the material inside is no greater than 500 ºF for asphalt and 400 ºF for coal tar pitch. Verify that, during a roofing kettle draining operation, VOC vapors from the kettle are contained by a close fitting lid. Verify that, within 2 min after a draining operation has been completed, the vessel receiving the hot roofing material is covered with a close fitting lid or capped to prevent release of visible smoke. Verify that any kettle vent remains closed except during a pressure release caused by flashing of the roofing material. Verify that the operator of this equipment provides, properly installs, and maintains in good working order, devices capable of correctly indicating and controlling operating temperatures of such equipment.
A.145.2.CA.MD. Installations/CW facilities using asphalt for paving, road construction, or road maintenance must meet specific requirements (MDAQMD Regulation XI, Rule 1103).	(NOTE: The following uses of medium cure and slow cure cutback asphalt containing more than 0.5 percent by volume of VOC are exempt from these requirements: - as a penetrating prime coat for aggregate bases prior to paving - for the manufacture of asphalt for long-period storage or stockpiling of patching mixes used in pavement maintenance but not for general paving - when the National Weather Service official forecast of the high temperature for the 24 h period following application is below 10 ºC (50 ºF). **A.145.2.CA.MD. Continued on Next Page**

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A.145.2.CA.MD(continued)	Verify that the installation/CW facility does not use any of the following materials for paving, road construction, or road maintenance: - rapid cure cutback asphalt - medium cure cutback asphalt - slow cure cutback asphalt containing more than 0.5 percent by volume of VOC which evaporate at 260 °C (500 °F) as determined by ASTM Method D402-76 - emulsified asphalt containing more than 3 percent by volume of VOC which evaporate at 250 °C (500 °F) as determined by ASTM Method D244-92. Verify that, for cutback asphalts and emulsified asphalts containing solvents, records showing the types, amounts received, and amounts used are maintained on a daily basis and retained for at least 2 yr in such a manner as to be easily accessible and available for inspection by the APCO.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.150. **ETHYLENE OXIDE SOURCES**	(NOTE: Sterilizers of liner-bag design used with ampules of EtO, are exempt from all of these requirements provided no more than 1 oz [approximately 28 g] is used in any one charge, and no more than 25 lb [approximately 11 kg] is used annually.)
A.150.1.CA.MD. Installations/CW facilities using ethylene oxide (EtO) sterilization chambers must meet specific emissions requirements (MDAQMD Regulation XV, Rule 1501(B) and (F)).	(NOTE: Facilities using less than 25 lb/yr [approximately 11 kg/yr] of EtO are exempt from these emissions requirements.) Verify that the installation/CW facility does not operate an EtO sterilization chamber, unless the sterilizer and aerator exhaust stream emissions are reduced to less than the following levels by a District approved control device: - if facility-wide usage of EtO is at least 25 lb/yr [approximately 11 kg/yr], but less than or equal to 600 lb/yr [approximately 272 kg/yr], emissions are reduced by at least 99 percent (by weight) - if facility-wide usage of EtO is more than 600 lb/yr [approximately 272 kg/yr] and less than or equal to 5000 lb/yr [approximately 2268 kg/yr], emissions are reduced by at least 99.9 percent (by weight) from sterilizers and by at least 95 percent (by weight) from aerators - if facility-wide usage of EtO is more than 5000 lb/yr [approximately 2268 kg/yr], emissions are reduced by at least 99.9 percent (by weight) and any sterilizer door hood exhaust stream is ducted to the control device used to control aerator exhaust stream emissions by at least 99 percent (by weight). (NOTE: If a reduction in the amount of EtO across the control device is sampled and the concentration is measured in the outlet below 0.2 ppm, the facility is considered in compliance with this requirement.) Verify that the installation/CW facility does not operate any EtO sterilization chambers unless one of the following two conditions is met: - the vacuum pump is of a recirculating design - chamber evacuation is designed so that no EtO is released in the wastewater stream. (NOTE: If a reduction in the amount of EtO across the control device is sampled and the concentration is measured in the outlet below 0.2 ppm, the facility is considered in compliance with this requirement.) Verify that any sterilizer or aerator exhaust stream is continuously vented to, and does not bypass, the control device. Verify that the installation/CW facility does not operate an EtO sterilization chamber or aerator unless the entire exhaust system, through which EtO contaminated air is conveyed, is leak-free.

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A.150.2.CA.MD. Installations/CW facilities must meet specific recordkeeping requirements if operating EtO sterilizers (MDAQMD Regulation XV, Rule 1501(C)).	Verify that the installation/CW facility maintains an operations log, including the following information: - date and time of each sterilization operation cycle - quantity of EtO and/or sterilant gas used - the District's designated company number, facility number, and permit to operate number(s). Verify that the installation/CW facility maintains records of all purchases of EtO and CFC-12. Verify that the installation/CW facility maintains records demonstrating proper operation and maintenance of emission control equipment. Verify that all records are retained at the facility for a minimum of 2 yr and are available for inspection upon request.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.155. OTHER EMISSIONS/ SOURCES **General**	
A.155.1.CA.MD. Installations/CW facilities must meet certain emissions standards for specific contaminants (MDAQMD Regulation IV, Rule 406).	Verify that the installation/CW facility does not discharge, from any single source of emission, one or more of the following contaminants in any state, or combination thereof, exceeding the following concentration levels: Sulfur compounds, calculated as SO_2: 500 ppm by volume Hydrogen Fluoride: 400 ppm by volume Hydrogen Chloride: 800 ppm by volume Hydrogen Bromide: 50 ppm by volume Bromine: 50 ppm by volume Chlorine: 450 ppm by volume Fluorine: 50 ppm by volume (NOTE: This requirement does not apply to combined fluorides, chlorides, or bromides, other than the acid version. With respect to fluorides, the requirement applies only to combustion of hydrogen-containing fuels and fluorine-containing oxidizers to form hydrogen fluoride.)
Carbon Monoxide	
A.155.2.CA.MD. Installations/CW facilities must meet specific liquid and gaseous air contaminant discharge standards (MDAQMD Regulation IV, Rule 407).	(NOTE: Emissions from internal combustion engines are exempt.) Verify that the installation/CW facility does not discharge into the atmosphere from any source CO exceeding 2000 ppm measured on a dry basis, averaged over a minimum of 15 consecutive minutes.
Oxides of Nitrogen and Reactive Organic Compounds	
A.155.3.CA.MD. Stationary sources emitting oxides of nitrogen or reactive organic compounds must submit an emissions statement (MDAQMD Regulation I, Rule 107).	Verify that the installation/CW facility submits annually a written statement showing actual emissions of oxides of nitrogen and reactive organic compounds from each stationary source. Verify that the statement contains emission data for the time period specified by the APCO.

COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT Mojave Desert Air Quality Management District (MDAQMD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
Sulfur Compounds and Hydrogen Sulfide **A.155.4.CA.MD.** Installations/CW facilities must meet specific requirements when using sulfur recovery units (MDAQMD Regulation IV, Rule 468).	Verify that the installation/CW facility does not discharge from any sulfur recovery unit producing elemental sulfur, effluent process gas containing more than: - 500 ppm of sulfur compounds expressed as SO_2, calculated on a dry basis averaged over a minimum of 15 consecutive minutes - 10 ppm of hydrogen sulfide averaged over a minimum of 15 consecutive minutes and calculated on a dry basis - 90 kg/h (198.5 lb/h) of sulfur compounds expressed as SO_2.

COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT Mojave Desert Air Quality Management District (MDAQMD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.160. COUNTY/CITY-SPECIFIC REQUIREMENTS	
Searles Valley Planning Acres	(NOTE: The following operations are exempt from these requirements: - agricultural operations - actions required by Federal or State endangered species legislation - residential property - active operations conducted during emergency life-threatening situations, or in conjunction with any officially declared disaster or state of emergency - active operations conducted by essential service utilities to provide electricity, natural gas, telephone, water, and sewer during periods of service outages and emergency disruptions - nonperiodic (occurring no more than three times per year and lasting less than 30 cumulative days per year) or emergency maintenance of flood control channels and water spreading basins - blasting operations as permitted by the California Division of Industrial Safety.)
A.160.1.CA.MD. Installations/CW facilities maintaining roads within the San Bernardino County portion of the Searles Valley Planning Area must meet specific requirements regarding the control of fugitive dust (MDAQMD Regulation IV, Rule 403.1(C)(2)).	Verify that a minimum of 12 mi of heavily traveled unpaved roads on Searles Dry Lake, used for industrial activity, are treated in a manner sufficient to maintain Road Surface Silt Loading less than or equal to 0.58 oz/yd^2. Verify that a minimum of 8 mi of certain heavily traveled unpaved roads, as identified in the Searles Valley PM_{10} Plan, on the Searles Dry Lake, used for industrial activity, are treated in a manner sufficient to maintain Road Surface Silt Loading less than or equal to 0.17 oz/yd^2. Verify that paved roads used for industrial activity are cleaned on a biweekly basis, or more often as needed, to ensure that spilled and tracked-on bulk material is removed rapidly. Verify that heavily traveled paved roads and areas used for industrial activity are treated or cleaned in a manner sufficient to maintain a Road Surface Silt Loading less than or equal to 2.94 oz/yd^2. Verify that heavily traveled unpaved/paved road access points are treated in a manner sufficient to maintain a Road Surface Silt Loading of 2.94 oz/yd^2 on the paved road surface adjacent to the unpaved road. Verify that the installation/CW facility maintains for at least 2 yr records of treatment or cleaning activity, sufficient to establish location, type, and timing of such treatment or cleaning.

COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT Mojave Desert Air Quality Management District (MDAQMD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.160.2.CA.MD. Installations/CW facilities operating construction or demolition projects within the San Bernardino County portion of the Searles Valley Planning Area must meet specific requirements regarding the control of fugitive dust (MDAQMD Regulation IV, Rule 403.1(C)(3)).	Verify that the installation/CW facility has and follows a District approved Dust Control Plan. Verify that the Plan contains the following elements: - provisions to maintain the natural topography to the extent possible during grading and other earth movement - construction schedule that specifies construction of parking lots and paved roads first, and upwind structures prior to downwind structures - provisions to cover or otherwise contain bulk material carried on haul trucks operating on paved roads - provisions to remove bulk material tracked onto paved road surfaces.
A.160.3.CA.MD. Installations/CW facilities creating and emitting industrial fugitive dust within the San Bernardino County portion of the Searles Valley Planning Area must meet specific requirements regarding the control of fugitive dust (MDAQMD Regulation IV, Rule 403.1(C)(4)).	Verify that exterior transfer lines greater than 30 ft in length are enclosed sufficient to cover the top and sides of the bulk material being transferred. Verify that at least 2750 ft^2 of bulk material storage pile surface area that was exposed during 1990 is permanently eliminated, and records of storage pile reduction or limitation are maintained. Verify that bulk material carried on haul trucks are covered or otherwise contained while operating on paved roads. (NOTE: Fly and bottom ash haul trucks maintaining moisture content of at least 12 percent need not be covered.)
A.160.4.CA.MD. Installations/CW facilities conducting activities on Bureau of Land Management (BLM) land within the San Bernardino County portion of the Searles Valley Planning Area must prepare a dust control plan (MDAQMD Regulation IV, Rule 403.1(C)(5)).	Verify that the installation/CW facility and the BLM jointly prepare a dust control plan to reduce BLM PM_{10} emissions by at least 20 percent relative to 1990 levels. (NOTE: The plan may include, but not be limited to, the following measures: - reduce PM10 emissions associated with activities on BLM land by 20 percent relative to 1990 levels - provide wind and water erosion controls sufficient to minimize deposition of silt on paved roads - provide for paving or other stabilization of major unpaved/paved road access points - provide for paving or other stabilization of major vehicle staging and parking areas - provide for signage that reduces vehicular speeds, particularly during high wind episodes.)

Appendix 1-1

Exemptions from Recordkeeping and Reporting Requirements for Stationary Sources with the Potential to Emit in Excess of the Limits for Major Facilities

(Source: MDAQMD Regulation II, Rule 222(F))

- Facilities with De Minimis Emissions, meeting one of the following criteria:
  1. emits less than or equal to the following quantities of emissions in every 12 mo period:
     a. 5 tons/yr of a regulated air pollutant excluding hazardous air pollutants
     b. for HAP:
        i. 2 tons/yr of single HAP
        ii. 5 tons/yr of any combination of HAP, or
        iii. 20 percent of any lesser threshold for a single HAP that the USEPA may promulgate by regulation
  2. at least 90 percent of the facility's emissions are associated with an operation for which the throughput is less than or equal to one of the following quantities for every 12 mo period:
     a. 1400 gal of any combination of solvent containing materials but no more than 550 gal of any one solvent containing material, provided that the materials do not contain methyl chloroform (1,1,1-trichloroethane), methylene chloride (dichloromethane), tetrachloroethylene (perchloroethylene), or trichlorethylene
     b. 750 gal of any combination of solvent containing materials where the materials contain methyl chloroform (1,1,1-trichloroethane), methylene chloride (dichloromethane), tetrachloroethylene (perchloroethylene), or trichlorethylene
     c. 597 gal of a VOC containing material used at a paint spray unit
        i. the VOC content of the material used at a paint spray unit does not exceed 6.7 lb solvent per gallon coating, as applied, less water and exempt compounds
     d. 4,400,000 gal of gasoline dispensed from equipment with Phase I and Phase II vapor recovery systems
     e. 470,000 gal of gasoline dispensed from equipment without Phase I and Phase II vapor recovery systems
     f. 1400 gal of gasoline combusted
     g. 16,600 gal of diesel fuel combusted
     h. 500,000 gal of distillate oil combusted
     i. 71,400,000 ft^3 of natural gas combusted.

- Small Facilities with Greater than De Minimis Emissions, meeting the following criteria:
  1. the facility emits less than or equal to the following quantities of emissions in ever 12 mo period:
     a. for any regulated air pollutant, excluding HAP:
        i. 25 tons/yr of a regulated air pollutant for which the District has a Federal area designation of attainment, unclassified, transitional, or moderate nonattainment
        ii. 15 tons/yr of a regulated air pollutant for which the District has a Federal area designation of serious nonattainment
        iii. 6.25 tons/yr of a regulated air pollutant for which the District has a Federal area designation of severe nonattainment
     b. for HAP:
        i. 2.50 tons/yr of a single HAP
        ii. 6.50 tons/yr of any combination of HAP
        iii. 25 percent of any lesser threshold for a single HAP that the USEPA may promulgate by regulation.

Appendix 1-2

Exemptions to Emission Sources Permit Requirements

(Source: MDAQMD Regulation II, Rule 219(E))

- Vehicles and Transportation Equipment -
  1. motor vehicles as defined by Section 415 of the Vehicle Code of the State of California, but not including any article, machine, equipment, or other contrivance mounted on such vehicle, that would otherwise require a permit
  2. equipment mounted upon vehicles that are used exclusively to transport materials on streets or highways including, but not limited to, cement trucks, and gasoline tanker trucks (does not include asphalt or coal tar pitch roofing kettles).
- Combustion and Heat Transfer Equipment:
  1. Internal Combustion Engines and Gas Turbines - piston type internal combustion engines with a manufacturer's maximum continuous rating of less than 100 bhp, or gas turbine engines with a maximum heat input rate of less than 3 MBtu/h (756,300 kg calories/h) at International Standardization Organization (ISO) Standard Day Conditions.
     (NOTE: The ratings of all engines or turbines used in the same process are accumulated to determine whether this exemption applies).
  2. General Combustion Source - any combustion equipment with a maximum heat input rate of less than 2 MBtu (504,000 kg calories)/h (gross) and equipped to be fired exclusively with Public Utilities Commission regulated natural gas, liquefied petroleum gas, or any combination thereof.
     (NOTE: The ratings of all combustion equipment used in the same process are accumulated to determine whether this exemption applies).
- Structures and Equipment (General):
  1. structural changes which cannot change the quality, nature, or quantity of air contaminant emissions
  2. repairs or maintenance not involving structural changes to any equipment for which a permit has been granted
  3. equipment used exclusively in connection with any structure designed for, and used exclusively as, a dwelling for not more than four families
  4. laboratory equipment used exclusively for chemical and physical analysis and bench scale or laboratory test equipment
  5. vacuum-producing devices used in laboratory operations or in connection with other exempt equipment
  6. vacuum-cleaning systems used exclusively for industrial, commercial, or residential housekeeping purposes
  7. natural-draft hoods, natural-draft stacks, or natural-draft ventilators
  8. bench scale experiments or research operations and equipment used exclusively for investigation, experimentation, or research to advance the state of air pollution control knowledge or to improve techniques. Prior approval, which may include limitation of time, is obtained from the APCO.
- General Utility Equipment:
  1. comfort air conditioning or ventilation systems not designed or used to remove air contaminants generated by, or released from, specific units of equipment
  2. refrigeration units, except those used as, or in conjunction with, air pollution control equipment
  3. water cooling towers or ponds with a circulation rate of less than 10,000 gal/min [37,854.12 L/min] and which are not used for: evaporative cooling of process water, aqueous solutions used

(continued)

for evaporative cooling of barometric jets or barometric condensers; and into which no chromium compounds are added
4. equipment used exclusively for steam cleaning
5. equipment used exclusively for space heating other than boilers.

- Glass, Ceramic, Metallurgical Processing and Fabrication Equipment:
  1. crucible-type or pot-type furnaces with a brimful capacity of less than 452 in.^{3} (7400 cm^3) of any molten metal
  2. crucible furnaces, pot furnaces. or induction furnaces with a capacity of less than 992 lb (450 kg) each, in which no sweating or distilling is conducted and from which only the following metals are poured, or in which only the following metals are held in a molten state. Percent by weight of such metals is determined by the referenced method approved by the APCO:
     a. aluminum or any alloy containing over 50 percent aluminum by weight. ASTM E 34-88
     b. magnesium or any alloy containing over 50 percent magnesium by weight ASTM E 35-88
     c. lead or any alloy containing over 50 percent lead by weight. ASTM E 46-87
     d. tin or any alloy containing over 50 percent tin by weight. ASTM E 536-84
     e. zinc or any alloy containing over 50 percent zinc by weight. ASTM E 536-84
     f. copper. ASTM E 34-88
     g. precious metals (gold, silver, palladium, and platinum). ASTM E 1335-90
  3. molds used for the casting of metals
  4. equipment used exclusively for inspection of metal products and control equipment venting exclusively such equipment
  5. brazing, hand-held soldering, and hot-air solder leveling, (but NOT INCLUDING hot-oil or vapor phase solder levelings), and control equipment venting exclusively such equipment. Also, welding or oxygen fuel-cutting equipment and control equipment venting such equipment. (Does NOT INCLUDE plasma arc-cutting equipment with an electrical power input rating greater than 30 KVA and control equipment venting such equipment.)
  6. equipment used for washing products fabricated from metal or glass, provided no organic washing agents are used in the process
  7. equipment used exclusively for forging, pressing, rolling, or drawing of metals or for heating metals exclusively with electricity prior to forging, pressing, rolling, or drawing
  8. equipment used exclusively for heat treating glass or metals (provided no organic compounds are present) or used exclusively for case hardening, carburizing, cyaniding, nitriding, carbonitriding, siliconizing, or diffusion treating of metal objects, provided any combustion equipment involved is exempt
  9. ladles used in pouring molten metals
  10. tumblers used for cleaning or deburring metal products without abrasive blasting
  11. die casting machines, EXCEPT those used for copper base alloys, those with an integral furnace having a brimful capacity of more than 992 lb (450 kg), or those using a nonexempt furnace
  12. wax burnout kilns where the total internal volume is less than 7 ft^3 (0.2 m^3), or kilns used exclusively for firing ceramic ware, provided such kilns are exempt
  13. shell core and shell-mold manufacturing machines.
- Abrasive Blasting Equipment as follows:
  1. blast cleaning cabinets in which a suspension of abrasive in water is used and control equipment venting exclusively such equipment
  2. abrasive blast cabinet dust-filter combination units where the total internal volume of the blast section is less than 53 ft^3 (1.5 m^3)
  3. enclosed equipment used exclusively for shot blast removal of flashing from rubber and plastics at sub-zero temperatures and control equipment venting exclusively such equipment
  4. shot peening operations on nonferrous materials, provided no surface material is removed, and control equipment venting exclusively such equipment.

(continued)

- Machining Equipment as follows:
  1. equipment used exclusively for buffing (EXCEPT automatic and semi-automatic tire buffers), polishing, carving, mechanical, cutting, drilling, machining, pressing, routing, sanding, surface grinding, or turning of ceramic art work, ceramic precision parts, leather, metals, plastics, rubber, fiberboard, masonry, carbon, or graphite, and control equipment exclusively venting such equipment
  2. equipment used exclusively for carving, cutting, drilling, planing, routing, sanding, sawing, shredding, or turning wood of the extruding, pressing, or storage of wood chips, sawdust, wood shavings, and control equipment exclusively venting such equipment
  3. equipment used exclusively to mill or grind coatings and molding compounds where all materials charged are in paste form.
- Printing and Reproduction equipment including:
  1. printing and related coating or laminating equipment, without dryers, using less than 2 gal [approximately 7.5 L] of combined graphic arts material (inks, coatings, adhesives, fountain solutions, thinners, retarders, or cleaning solutions used in printing or related coating or laminating processes) per day. Dryers include, but are not limited to, UV lights and infrared lamps.
  2. photographic process equipment by which an image is reproduced upon material sensitized by radiant energy and control equipment venting exclusively such equipment
  3. platen presses used in laminating
  4. silk screening where the product is manually positioned.
- Food Processing and Preparation Equipment including:
  1. smokehouses for preparing food in which the maximum horizontal inside cross-sectional area does not exceed 21.5 ft^2 (2 m^2)
  2. confection cookers where products are edible and intended for human consumption and control equipment venting exclusively such equipment
  3. equipment used exclusively to grind, blend, or package tea, cocoa, spices, or roasted coffee, and control equipment venting exclusively such equipment
  4. equipment used in eating establishments preparing food for human consumption, EXCLUDING commercial direct-fired charbroilers (regardless of Btu rating). Direct-fired includes but is not limited to gas, electric, wood, or charcoal-fired.
  5. ovens, mixers, scales, and blenders used in bakeries where products are edible and intended for human consumption and control equipment venting exclusively such equipment whose total production is less than 1000 lb [approximately 453.5 kg] of product per operating day
  6. smokehouses using exclusively liquid smoke and which are completely enclosed with no vents to any control device or the atmosphere
  7. barbecue equipment which is not used for commercial purposes
  8. barbecue equipment which is used for commercial purposes within the District for not more than a combined total of 14 days in any calendar year.
- Plastics and Rubber Processing Equipment including:
  1. any equipment/process listed below that have uncontrolled emissions of VOCs not exceeding 5 lb [approximately 2 kg] in any 1 day
     a. presses used for curing rubber and plastic products where no blowing agent is present
     b. ovens used exclusively for forming plastics, which are concurrently being vacuum-held to a mold, and where no foam forming or expanding process is involved, provided such equipment is exempt. Equipment used exclusively for softening or annealing plastics, provided such equipment is exempt.
  2. presses used exclusively for extruding rubber products or plastics where no plasticizer is present, or for pelletizing polystyrene foam scrap, or to extrude or pelletize acrylics (EXCEPT those used to pelletize polyvinyl chloride, polystyrene, and their copolymers)

(continued)

3. equipment used for compression molding or injection molding of plastics where no blowing agent is present and control equipment venting exclusively such equipment
4. mixers, roll mills, and colanders for rubber or plastics where no material in powder form is added and no organic solvents, diluents, or thinners are used
5. ovens used exclusively for curing vinyl plastisols by the closed-mold curing process, provided such ovens are exempt
6. equipment used exclusively for conveying and storing plastic pellets

- Mixing and Blending Equipment including:
  1. batch mixers which have a brimful capacity of 55 gal [approximately 208 L] or less
  2. equipment used exclusively for mixing and blending of materials to make adhesives where no organic solvents are used and no materials in powder form are added
  3. equipment used exclusively for mixing and blending of materials to make water emulsions of asphalt, grease, oils, or waxes where no materials in powder or fiber form are added
  4. mills, mixers, post mixing stations, and dispensers with a capacity of less than 251 gal (950 L) used exclusively to mix, grind, or thin liquid surface coating, where none of the ingredients exceed 125 ° F [approximately 50 °C] and no VOCs or solvents are used and no supplemental heat is added
  5. concrete mixers, with a rated working capacity of less than 1 yd^3 [approximately 0.91 m^3].
- Fabric Cleaning and Dyeing Equipment including:
  1. equipment used exclusively for dyeing, stripping, or bleaching of textiles where no organic solvents, diluents, or thinners are used
  2. laundry dryers, extractors, or tumblers used for fabrics cleaned only with water solutions of bleach or detergent, and control equipment exclusively venting such equipment.
- Miscellaneous Process Equipment including:
  1. equipment used exclusively for bonding lining to brake shoes where no organic solvents are used
  2 equipment used exclusively to liquefy or separate oxygen, nitrogen, or the rare gases from air, EXCEPT equipment not exempt pursuant to equipment specified under Combustion and Heat Transfer Equipment exemptions
  3. porcelain enameling furnaces, porcelain enameling drying ovens, or vitreous enameling drying ovens, EXCEPT those units fired with fuel oil provided such ovens are exempt
  4. equipment used exclusively for surface preparation, cleaning, and/or stripping which uses acetic acid, alkaline oxidizing agents, hydrogen peroxide, salt solutions, sodium hydroxide, and/or water (DOES NOT INCLUDE chemical milling, circuit board etching, or stripping of chromium)
  5. equipment used exclusively for electrolytic plating (EXCLUDING use of chromic, hydrochloric, nitric, or sulfuric acid) or electrolytic stripping (EXCLUDING use of chromic, hydrochloric, nitric, or sulfuric acid) of brass, bronze, copper iron, tin, zinc, precious metals, and associated rinse tanks
  6. equipment used exclusively for packaging of lubricants or grease
  7. kilns with a rating of less than 2 MBtu (504,000 kg calories)/h used exclusively for firing ceramic ware, except those fired by fuel oil (DOES NOT INCLUDE wax burnout kilns)
  8. equipment used exclusively for coating objects with oils, melted waxes, or grease and which contain no organic solvents, diluents, or thinners
  9. equipment used exclusively for coating objects by dipping in waxes or natural and synthetic resins that contain no organic solvents, diluents, or thinners
  10. unheated, nonconveyorized, nonagitated solvent rinsing containers and unheated, coating dip tanks with:
      a. an open surface area of less than 10.8 ft^2 (1 m^2) and an internal volume of less than 92.5 gal (350 L); and
      b. only organic solvents with an initial boiling point of 302 °F [150 °C] or greater; and

(continued)

c. less than 25 gal/yr [approximately 95 L/yr] of solvent are lost to the atmosphere from all such equipment. Solvent lost does not include solvent that is recycled or disposed of properly

11. batch ovens of less than 53 ft^3 (1.5 m^3) of internal volume where no melting occurs, except ovens used to cure vinyl plastisols or debond brake shoes, provided these ovens are exempt under the combustion and heat transfer equipment criteria
12. equipment used exclusively for washing or drying materials, provided no volatile organic materials are used in the process or fuel oil or solid fuel is burned
13. spray coating equipment operated within control enclosures
14. airless spray coating equipment used exclusively for water reducible coatings using less than 3 gal [approximately 11 L] per day
15. surface coating and spray coating equipment using a combined total of less than 1 gal [approximately 4 L] per day of paint and solvent (DOES NOT INCLUDE control enclosures)
16. spray coating equipment and control enclosure used exclusively in primary and secondary schools; for instructional purposes only
17. inert gas generators, EXCEPT equipment not exempt under combustion and heat transfer equipment exemptions
18. hammermills used exclusively to process aluminum cans
19. heated degreasers with a liquid surface area of less than 1 ft^2 [approximately 0.3 m^2]
20. paper baling and associated shredding equipment and conveying systems serving such equipment and control equipment venting it
21. architectural surface coatings equipment used for business and residential structures.

- Storage and Transfer Equipment as follows:
  1. equipment used exclusively for storage and transfer of fresh, commercial, or purer grades of:
     a. sulfuric acid or phosphoric acid with an acid strength of less than 99 percent by weight
     b. nitric acid with an acid strength of less than 70 percent by weight
  2. equipment used exclusively for storage of Public Utilities Commission regulated natural gas and liquefied gases
  3. equipment used exclusively for transfer of less than 20,000 gal/day (75,700 L/day) of organic material or equipment used exclusively for storage of the following:
     a. unheated organic material with an initial boiling point of 302 °F [150 °C] or greater, or with an organic vapor pressure of 5 mm Hg (0.1 psia) or less at 70 °F (21.1 °C)
     b. fuel oils with 0.9042 specific gravity or higher (25 ° API or lower)
     c. fuel oils with 0.8251 specific gravity of higher (40 ° API or lower) and having a storage capacity of less than 40,000 gal (151,415 L)
  4. equipment used exclusively for transferring organic liquids, materials containing organic liquids, or compressed gases into containers of less than 60 gal (225 L) capacity, EXCEPT equipment used for transferring more than 1057 gal/day (4000 L/day) of materials with a vapor pressure greater than 25.8 mm Hg (0.5 psia) at operating conditions
  5. equipment used exclusively for storage and transfer of waste oil with a capacity of less than 793 gal (3000 L)
  6. unheated underground equipment used exclusively for storage of less than 6077 gal (23,000 L) of organic liquids with a vapor pressure of less than 77.5 mm Hg (1.5 psi) absolute under actual storage conditions and equipment used exclusively for the transfer from such storage
  7. equipment used exclusively for storage and transfer of liquid soaps, liquid detergents, vegetable oils, fatty acids, waxes, and wax emulsions
  8. equipment used exclusively for storage and transfer of refined lubricating oils
  9. equipment used exclusively for storage and transfer of gasoline having a storage capacity of less than 250 gal (946 L)

(continued)

10. equipment used exclusively for storage and transfer of "top white" (Fancy) or cosmetic grade tallow or edible animal fats intended for human consumption and of sufficient quality to be certifiable for United States markets
11. equipment used exclusively for storage, holding, melting, and transfer of asphalt or coal tar pitch with a capacity of less than 148 gal (560 L)
12. unheated solvent dispensing containers with capacity not more than 250 gal (946 L)
13. mobile transport tanks or delivery tanks or cargo tanks on vehicles for delivery of VOCs, EXCEPT asphalt tankers, used to transport and transfer hot asphalt for roofing application.

Appendix 1-3

Limits for the Discharge of Solid Particulate Matter

(Source: MDAQMD Regulation IV, Rule 404)

Volume Discharged Calculated as Dry Gas at Standard Conditions		Maximum Concentration of Particulate Matter Allowed in Discharged Gas Calculated as Dry Gas at Standard Conditions	
m^3/min	ft^3/min	mg/m^3	Grains/ft^3
25 or less	883 or less	450	0.196
30	1059	420	.183
35	1236	397	.173
40	1413	377	.165
45	1589	361	.158
50	1766	347	.152
60	2119	324	.141
70	2472	306	.134
80	2825	291	.127
90	3178	279	.122
100	3531	267	.117
125	4414	246	.107
150	5297	230	.100
175	6180	217	.0947
200	7063	206	.0900
250	8829	190	.0830
300	10,590	177	.0773
350	12,360	167	.0730
400	14,130	159	.0694
450	15,890	152	.0664
500	17,660	146	.0637
600	21,190	137	.0598
700	24,720	129	.0563
800	28,250	123	.0537
900	31,780	118	.05115
1000	35,310	113	.0493
1100	38,850	109	.0476
1200	42,380	106	.0463
1300	45,910	102	.0445

(continued)

Appendix 1-3 (continued)

Volume Discharged Calculated as Dry Gas at Standard Conditions		Maximum Concentration of Particulate Matter Allowed in Discharged Gas Calculated as Dry Gas at Standard Conditions	
m^3/min	ft^3/min	mg/m^3	Grains/ft^3
1400	49,440	100	.0437
1500	52,970	97	.0424
1750	61,800	92	.0402
2000	70,630	87	.0380
2250	79,460	83	.0362
2500	88,290	80	.0349
3000	105,900	75	.0327
4000	141,300	67	.0293
5000	176,600	62	.0271
6000	211,900	58	.0253
8000	282,500	52	.0227
10,000	353,100	48	.0210
15,000	529,700	41	.0179
20,000	706,300	37	.0162
25,000	882,900	34	.0148
30,000	1,059,000	32	.0140
40,000	1,413,000	28	.0122
50,000	1,766,000	26	.0114
70,000 or more	2,472,000 or more	23	.0100

Appendix 1-4

Solid Particulate Matter Emissions

(Source: MDAQMD Regulation IV, Rule 405)

Process Weight/h		Maximum Discharge Rate Allowed for Solid Particulate Matter (Aggregate Discharged from all Points of Process) Conditions	
kg/h	lb/h	kg/h	lb/h
100 or less	220 or less	0.450	0.99
150	331	0.585	1.29
200	441	0.703	1.55
250	551	0.804	1.77
300	661	0.897	1.98
350	772	0.983	2.17
400	882	1.063	2.34
450	992	1.138	2.51
500	1102	1.209	2.67
600	1323	1.340	2.95
700	1543	1.461	3.22
800	1764	1.573	3.47
900	1984	1.678	3.70
1000	2205	1.777	3.92
1250	2756	2.003	4.42
1500	3307	2.206	4.86
1750	3858	2.392	5.27
2000	4409	2.563	5.65
2250	4960	2.723	6.00
2500	5512	2.874	6.34
2750	6063	3.016	6.65
3000	6614	3.151	6.95
3250	7165	3.280	8.02
4000	8818	3.637	8.02

(continued)

Appendix 1-4 (continued)

Process Weight/h		Maximum Discharge Rate Allowed for Solid Particulate Matter (Aggregate Discharged from all Points of Process) Conditions	
kg/h	lb/h	kg/h	lb/h
4500	9921	3.855	8.50
5000	11020	4.059	8.95
6000	13230	4.434	9.78
7000	15430	4.775	10.5
8000	17640	5.089	11.2
9000	19840	5.308	11.7
10000	22050	5.440	12.0
12500	27560	5.732	12.6
15000	33070	5.982	13.2
17500	38580	6.202	13.7
20000	44090	6.399	14.1
25000	55120	6.743	14.9
30000	66140	7.037	15.5
35000	77160	7.296	16.1
40000	88180	7.527	16.6
45000	99210	7.738	17.1
50000	110200	7.931	17.5
60000	132300	8.277	18.2
70000	154300	8.582	18.9
80000	176400	8.854	19.5
90000	198400	9.102	20.1
100000	220500	9.329	20.6
125000	275600	9.830	21.7
150000	330700	10.26	22.6
175000	385800	10.64	23.5
200000	440900	10.97	24.2
225000	496000	11.28	24.9
250000	551200	11.56	25.5

(continued)

Appendix 1-4 (continued)

Process Weight/h		Maximum Discharge Rate Allowed for Solid Particulate Matter (Aggregate Discharged from all Points of Process) Conditions	
kg/h	**lb/h**	**kg/h**	**lb/h**
275000	606300	11.82	26.1
300000	661400	12.07	26.6
325000	716500	12.30	27.1
350000	771600	12.51	27.6
400000	992100	13.27	29.3
450000	992100	13.27	29.3
500000 or more	1102000 or more	13.60	30.0

Appendix 1-5

Tuning Procedures

(Source: MDAQMD Regulation XI, Rule 1157(I))

- Tuning Procedure for Force-Draft Permit Units -

1. Operate the permit unit at the firing rate most typical of normal operation. If the permit unit experiences significant load variations operate it at its average firing rate.
2. At this firing rate, record stack gas temperature, oxygen concentration, and CO concentration (for gaseous fuels) or smoke-spot number (for liquid fuels), and observe flame conditions after permit unit operation stabilizes at the firing rate selected. If the excess oxygen in the stack gas is at the lower end of the range of typical minimum values, and if the CO emissions are low and there is no smoke, the permit unit is probably operating at near optimum efficiency - at this particular firing rate. However, complete the remaining portion of this procedure to determine whether still lower oxygen levels are practical.
3. Increase combustion air flow to the furnace until stack gas oxygen levels increase by one to two percent over the level measured in Step 2. As in Step 2, record the stack gas temperature, CO concentration (for gaseous fuels), or smoke-spot number (for liquid fuels), and observe flame conditions for these higher oxygen levels after boiler operation stabilizes.
4. Decrease combustion air flow until the stack gas oxygen concentration is at the level measured in Step 2. fro this level gradually reduce the combustion air flow, in small increments. After each increment, record the stack gas temperature, oxygen concentration, CO concentration (for gaseous fuels) and smoke-spot number (for liquid fuels). Also, observe the flame and record any changes in its condition.
5. Continue to reduce combustion air flow stepwise, until one of these limits is reached:
   a. Unacceptable flame conditions - such as flame impingement on furnace walls or burner parts, excessive flame carryover, or flame instability
   b. Stack gas CO concentrations greater than 400 ppmv
   c. Smoking at the stack
   d. Equipment-related limitations - such as low windbox/furnace pressure differential, built in air-flow limits, etc.
6. Develop an O_2/CO curve (for gaseous fuels) or O_2/smoke curve (for liquid fuels) using the excess oxygen and CO for smoke-spot number data obtained at each combustion air flow setting.
7. From the curves prepared in Step 6, find the stack gas oxygen levels where the CO emissions or smoke-spot number equal the following values:

Fuel	Measurement	Value
Gaseous	CO Emissions	400 ppmv
#1 and #2 Oils	smoke-spot number	number 1
#4 Oil	smoke-spot number	number 2
#5 Oil	smoke-spot number	number 3
Other Oils	smoke-spot number	number 4

(continued)

The above conditions are referred to as the CO or smoke thresholds, or as the minimum excess oxygen levels.

Compare this minimum value of excess oxygen to the expected value provided by the combustion permit unit manufacturer. If the minimum level found is substantially higher than the value provided by the combustion permit unit manufacturer, burner adjustments can probably be made to improve fuel and air mix, thereby allowing operations with less air.

8. Add 0.5 to 2.0 percent to the minimum excess oxygen level found in Step 7 and reset burner controls to operate automatically at this higher stack gas oxygen level. This margin above the minimum oxygen level accounts for fuel variations, variations in atmospheric conditions, load changes, and nonrepeatability or play in automatic controls.
9. If the load of the combustion permit unit varies significantly during normal operation, repeat Steps 1-8 for firing rates that represent the upper and lower limits of the range of the load. Because control adjustments at one firing rate may affect conditions at other firing rates, it may not be possible to establish the optimum excess oxygen level at all firing rates. If this is the case, choose the burner control settings that give the best performance over the range of firing rates. If one firing rate predominates, setting should optimize conditions at the rate.
10. Verify that the new settings can accommodate the sudden load changes that may occur in daily operation without adverse effects. Do this by increasing and decreasing load rapidly while observing the flame and stack. If any of the conditions in Step 5 result, reset the combustion controls to provide a slightly higher level of excess oxygen at the affected firing rates. Next, verify these new settings in a similar fashion. Then make sure that the final control settings are recorded at steady-state operating conditions for future reference.
11. When the above checks and adjustments have been made, record data and attach combustion analysis to permit unit records. Indicate the name and title of the person performing the tune-up, the date the tune-up was performed, and sign the record.

- Equipment Tuning Procedure for Natural Draft Fired Permit Units -

1. Preliminary Analysis
   a. CHECK THE OPERATING PRESSURE OR TEMPERATURE. Operate the permit unit at the lowest acceptable pressure or temperature that will satisfy the load demand. This will minimize heat and radiation losses. Determine the pressure or temperature that will be used as a basis for comparative combustion analysis before and after tuneup.
   b. COMBUSTION ANALYSIS. Perform an "as is" combustion analysis (CO_2, oxygen, etc.) with a warmed up permit unit at high and low fire, if possible. In addition to data obtained form combustion analysis, also record the following:
      - inlet fuel pressure at burner (at high and low fire)
      - draft above draft hood or barometric damper (at high, medium, and low settings)
      - steam pressure, water temperature, or process fluid pressure or temperature entering and leaving the permit unit
      - permit unit rate if meter is available
2. Adjustments: while taking combustion readings with a warmed up permit unit operated at the rated heat input, perform checks and adjustments as follows:
   a. Adjust permit unit to fire at rate; record fuel manifold pressure
   b. Adjust draft and/or fuel pressure to obtain acceptable, clean combustion at high, medium, and low firing rates. The CO value should always be below 400 ppmv at 3 percent oxygen. If CO is high make necessary adjustments.
   c. Check to ensure permit unit light offs are smooth and safe. A reduced fuel pressure test at both high and low fire should be conducted in accordance with the manufacturer's instructions and maintenance manuals.

(continued)

d. Check and adjust operations of modulation controller. Ensure proper, efficient and clean combustion through the range of firing rates.

When the above adjustments and corrections have been made, record all data.

3. Final Test: Perform a final combustion analysis with a warmed up permit unit at high, medium, and low firing rates, whenever possible. In addition to data from combustion analysis, also check and record:
   a. fuel pressure at burner (at high, medium, and low setting)
   b. draft above draft hood or barometric damper (at high, medium, and low settings)
   c. steam pressure, water temperature, or process fluid pressure or temperature entering and leaving the permit unit
   d. permit unit rate if meter is available.

   When the above checks and adjustments have been made, record data and attach combustion analysis to permit unit records. Indicate the name and title of the person performing the tune-up, the date the tune-up was performed, and sign the record.

Appendix 1-6

VOC Limits for Architectural Coatings
(Source: MDAQMD Regulation XI, Rule 1113)

Coating	VOC (g/L)
Belowground Wood Preservatives	600
Bond Breaker	350
Concrete Curing Compounds	350
Dry-Fog Coatings	400
Fire Retardant Coatings	
Clear	650
Pigmented	350
Flat Coatings	250
General Primers, Sealers, and Undercoaters	350
Industrial Maintenance Coatings	
Anti-Graffiti Coatings	600
General Coatings	420
High Temperature Coatings	550
Lacquer	680
Magnesite Cement Coatings	600
Mastic Texture Coatings	300
Metallic-Pigmented Coatings	500
Multi-Color Coatings	580
Opaque Stains	350
Opaque Wood Preservatives	350
Pretreatment (Wash) Primer	780
Quick Dry Enamels	400
Quick Dry Primers, Sealers, and Undercoaters	450
Roof Coatings	300
Sanding Sealers	550
Semi-transparent Stains	350
Semi-transparent and Clear Wood Preservatives	350
Shellac	
Clear	730
Pigmented	550
Swimming Pool Coatings	650
Swimming Pool Repair and Maintenance Coatings	650
Traffic Paints	
For Other Surfaces	250
Black Traffic Coatings	650
Varnish	350

(continued)

Appendix 1-6 (continued)

Coating	VOC (g/L)
Waterproof Sealers	400

Appendix 1-7

VOC Limits for Automotive Coatings

(Source: MDAQMD Regulation XI, Rule 1116(C))

Group 1 Vehicles and Mobile Equipment

Coating	Limits (grams of VOC per liter of coating (lb/gal), less water and exempt compounds)	
	22 February 1995	1 July 1997
Pretreatment Wash Primer	780 (6.5)	780 (6.5)
Primer	250 (2.1)	250 (2.1)
Primer Sealer	340 (2.8)	250 (2.1)
Topcoat	420 (3.5)	340 (2.8)
Metallic Topcoat	420 (3.5)	420 (3.5)
Extreme Performance	420 (3.5)	420 (3.5)

Group 1I Vehicles

Coating	Limits (grams of VOC per liter of coating (lb/gal), less water and exempt compounds)	
	22 February 1995	1 July 1997
Pretreatment Wash Primer	780 (6.5)	780 (6.5)
Primer/Primer Surfacer	250 (2.1)	250 (2.1)
Primer Sealer	420 (3.5)	340 (2.8)
Topcoat	420 (3.5)	420 (3.5)
Metallic Topcoat	520 (4.3)	420 (3.5)
Multi-Stage Topcoat	540 (4.5)	420 (3.5)

Appendix 1-8

VOC Limits for Metal Parts and Products Coatings

(Source: MDAQMD Regulation XI, Rule 1115(C))

Coating	Limits (grams of VOC per liter of coating, less water and exempt compounds)	
	Air Dried	Baked
	g/L (lb/gal)	g/L (lb/gal)
General	420 (3.5)	360 (3.0)
Military Specification	420 (3.5)	360 (3.0)
Etching Filler	720 (6.0)	720 (6.0)
Solar-Absorbent	420 (3.5)	360 (3.0)
Heat-Resistant	420 (3.5)	360 (3.0)
Extreme High-Gloss	420 (3.5)	360 (3.0)
Metallic	420 (3.5)	360 (3.0)
Extreme Performance	750 (6.3)	750 (6.3)
Prefabricated Architectural Component	420 (3.5)	275 (2.3)
Touch Up	420 (3.5)	360 (3.0)
Repair	420 (3.5)	360 (3.0)
Silicone Release	420 (3.5)	420 (3.5)
High Performance Architectural	750 (6.3)	750 (6.3)
Camouflage	420 (3.5)	420 (3.5)
Vacuum-Metalizing	800 (6.7)	800 (6.7)
Mold-Seal	750 (6.3)	750 (6.3)
High-Temperature	720 (6.0)	720 (6.0)
Electric-Insulating Varnish	620 (5.2)	620 (5.2)
Pan Backing	480 (4.0)	480 (4.0)

Appendix 1-9

VOC Limits for Wood Products Coatings
(Source: MDAQMD Regulation XI, Rule 1114(C))

Coating	Limits (grams of VOC per liter of coating, less water and exempt compounds)		
	on and after 9/1/92	on and after 1/1/96	on and after 1/1/97
	g/L (lb/gal)	g/L (lb/gal)	g/L (lb/gal)
Clear Topcoats			
containing Group II exempt compounds	550 (4.6)	275 (2.3)	275 (2.3)
containing Group III exempt compounds	680 (5.7)	275 (2.3)	275 (2.3)
Fillers	500 (4.2)	500 (4.2)	275 (2.3)
High-Solid Stains	700 (5.8)	700 (5.8)	240 (2.0)
Inks	500 (4.2)	500 (4.2)	500 (4.2)
Mold-Seal Coatings	750 (6.3)	750(6.3)	750 (6.3)
Multi-Colored Coatings	685 (5.7)	275 (2.3)	275 (2.3)
Pigmented Coatings	600 (5.0)	275 (2.3)	275 (2.3)
Sealers			
containing Group II exempt compounds	550 (4.6)	550 (4.6)	240 (2.0)
containing Group III exempt compounds	680 (5.7)	680 (5.7)	240 (2.0)
Strippers	800 (6.7)	350 (2.9)	350 (2.9)
Adhesives	250 (2.1)	250 (2.1)	250 (2.1)
Low-Solids Stains, Toners, or Wash Coats			
containing Group II exempt compounds		480 (4.0)	120 (1.0)
containing Group III exempt compounds		800 (6.7)	120 (1.0)

Appendix 1-10

Test Methods for Compliance Verification

(Source: MDAQMD Regulation IV, Rule 464(G))

- Fugitive Vapor Leaks - Detection of VOCs - USEPA Method 21 is used to determine compliance in regards to fugitive or VOC leaks. Instrument is calibrated with Method 21 using zero air (less than 10 ppm of hydrocarbon in air) with a mixture of methane or n-hexane.

- Determination of Exempt Compounds Content - the content of exempt compounds in solvents or any diluents is determined by ASTM D 4457-85. Perfluorocarbon compounds are assumed to be absent from a product or process unless a manufacturer or facility operator identifies the specific individual compounds (from the broad classes of perfluorocarbon compounds) and the amounts present in the product or process and identifies a validated test method which can be used to quantify the specific compounds.

- Determination of Reid Vapor Pressure - is determined by measuring the Reid vapor pressure in accordance with Test Method for Vapor Pressure for Petroleum Products, ASTM D 323-82.

- Control Device Efficiency - determining the destruction or removal efficiency of a control device is:
  1. for systems using add-on control equipment - USEPA Method 25 or 25A, as applicable
  2. for incinerators or catalytic incinerators - USEPA Method 25, unless the concentration of VOC in the outlet stream is below 50 ppm as carbon, in which case USEPA Method 25A is used.

Appendix 1-11

Exemptions to Standards on the Use of Solvents

(Source: MDAQMD Regulation IV, Rule 442)

- Transport or storage of organic solvents, or transport or storage of materials containing organic solvents.
- Use of equipment for which requirements or exemptions are specified under Gasoline Transfer and Dispensing, Organic Liquid Loading, Storage of Organic Liquids, and Oil-Effluent Water Separator.
- The spraying or other employment of organic solvents as insecticides, pesticides, or herbicides.
- The use of water reducible materials, provided:
    1. the volatile content is not photochemically reactive and consists of at least 80 percent water by volume
    2. the organic solvent, or any material containing organic solvent, does not come into contact with flame
- Use of high solid materials, provided:
    1. the volatile content is not photochemically reactive and does not exceed 20 percent by volume
    2. more than 50 percent by volume of the material is evaporated before entering a chamber heated above ambient application temperature
    3. the organic solvent, or any material containing organic solvent, does not come into contact with flame
- Use of ultra high solid materials, provided:
    1. the volatile content is not photochemically reactive and does not exceed 5 percent by volume
    2. the organic solvent or any material containing organic solvent does not come into contact with flame
- Use of equipment or materials for which other requirements are specified in source specific sections of these requirements
- Use of 1-1-1 Trichloroethane.

INSTALLATION:	COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT MDAQMD - California Supplement	DATE:	REVIEWER(S):
STATUS NA C RMA	REVIEWER COMMENTS:		

SECTION 10

STORAGE TANK MANAGEMENT

Mojave Desert Air Quality Management District (MDAQMD) - California Supplement

SECTION 10

STORAGE TANK MANAGEMENT

Mojave Desert Air Pollution Control District (MDAQMD)

California Supplement

This section covers the state requirements for Storage Tank Management and is intended to supplement the U.S. TEAM Guide. Refer to the U.S. TEAM Guide and the DOD Component Supplements for Federal, DOD, and service-specific requirements.

The San Bernardino Area is that portion of San Bernardino County which is within the South Coast Air Basin, specifically that area lying southerly of the township line common to R3E and R2E, S. B. B. and M. The San Bernardino Area is administered, for purposes of air quality management, by the South Coast Air Quality Management District.

Except as otherwise specifically provided in these rules and except where the context otherwise indicates, words used in these rules are used in exactly the same sense as the same words are used in Division 26 of the Health and Safety Code.

Regulations Adopted by Reference

The MDAQMD adopts by reference the following regulations from 40 Code of Federal Regulations, Part 60 (40 CFR 60):

- 40 CFR 60, Subpart K - Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After June 11, 1973 and Prior to May 19, 1978
- 40 CFR 60, Subpart Ka - Standards of Performance for Storage Vessels for Petroleum Liquids for Which Construction, Reconstruction, or Modification Commenced After May 18, 1978
- 40 CFR 60, Subpart Kb - Standard of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984
- 40 CFR 60, Subpart XX - Standards of Performance for Bulk Gasoline Terminals

Definitions

- *Certified Vapor Recovery System* - a system to limit emissions of gasoline which has been certified by the California Air Resources Board (CARB) in accordance with specific criteria listed within the California Administrative Code (MDAQMD Regulation I, Rule 102).

- *Class A Facility* - any organic liquid loading facility with a valid permit to operate and loading 5,000,000 gal/yr [18,925,000 L/yr] or more and/or 20,000 gal/day [75,700 L/day] or more on any day of organic liquids with a true vapor pressure, as determined at actual storage conditions, of 77.5 mm Hg (1.5 psia) or greater into any tank truck, trailer, or railroad tank car (MDAQMD Regulation IV, Rule 462).

- *Class B Facility* - any organic liquid loading facility with a valid permit to operate and loading less than 5,000,000 gal/yr [18,925,000 L/yr] with a true vapor pressure, determined at actual storage conditions, of 77.5 mm Hg (1.5 psia) or greater into any tank truck, trailer, or railroad tank car (MDAQMD Regulation IV, Rule 462).

- *Fugitive Liquid Leak* - a dripping of liquid organic compounds at a rate in excess of 3 drops per minute from any single leak source other than the disconnect operations of liquid fill line and vapor line (MDAQMD Regulation I, Rule 102).

- *Fugitive Vapor Leak* - an escape of organic vapors from a source other than the tank truck, trailer, or railroad tank car when measured in excess of 3000 ppm (instrument calibrated with propane) above background at a distance of 2 cm (0.8 in.) from the source for more than 10 s duration, or equivalent test method as determined by the APCO. (Background is the ambient concentration of organic compounds determined at least 3 m upwind of the potential source and uninfluenced by any specific emission source.) A fugitive vapor leak source does not include liquid spillage or condensate resulting from fugitive liquid leaks (MDAQMD Regulation I, Rule 102).

- *Gasoline* - any organic liquid, including petroleum distillate and methanol having a Reid Vapor Pressure of 200 mm Hg (3.9 lb/in.^{2}), or greater, and used as a motor vehicle fuel, or any fuel that is commonly or commercially known or sold as gasoline (MDAQMD Regulation I, Rule 102).

- *Gasoline Storage and Dispensing Facility* - any aggregate of one or more stationary storage containers, together with, but not limited to, dispensers, pumps, loading racks, and/or control equipment used to store and transfer gasoline (MDAQMD Regulation I, Rule 102).

- *Gasoline Vapors* - the organic compounds of gasoline which exist in a vapor state including, where present, entrained liquid gasoline (MDAQMD Regulation I, Rule 102).

- *Modification* - any physical change in, or any change in the method of operation of, a stationary source. For the purpose of this definition (MDAPCD Regulation II, Rule 213.2):
  1. routine maintenance or repair is not considered to be physical changes, and
  2. an increase in production rate or operating hours is not considered to be a change in the method of operation, provided these increases are not contrary to any existing permit to operate conditions.

- *Modified Facility* - any facility that undergoes a physical revision to replace equipment, expand capacity, significantly revise methods of operation, or modernize its processes, except that a replacement identical to the previous unit, and routine maintenance and/or repair do not constitute a modification. Replacement of storage tanks designed to store hazardous or toxic materials, or the replacement of, or the exposing of, the majority of the attendant plumbing, is considered a modification (MDAQMD Regulation I, Rule 102).

- *Motor Vehicle* - A vehicle that is self-propelled (MDAQMD Regulation I, Rule 102).

- *Organic Liquid* - any chemical compound of carbon, including organic materials, organic solvents, and gasoline, which is in a liquid phase at ambient or storage conditions (MDAQMD Regulation IV, Rule 462).

- *Organic Materials* - chemical compounds of carbon, excluding CO, CO_2, carbonic acid, metallic carbides, metallic carbonates, and ammonium carbonate (MDAQMD Regulation IV, Rule 462).

- *Organic Solvents* - includes diluents and thinners and are defined as organic materials which are liquids at standard conditions and which are used as dissolves, viscosity reducers or cleaning agents, except that such material exhibiting a boiling point higher than 104 °C (219 °F) at 0.5 mm Hg absolute pressure or having an equivalent vapor pressure is not considered to be solvents unless exposed to temperatures exceeding 104 °C (219 °F) (MDAQMD Regulation IV, Rule 426).

- *Retail Gasoline Station* - any motor vehicle refueling facility subject to payment of California sales tax on gasoline sales (MDAQMD Regulation I, Rule 102).

- *Submerged Fill Pipe* - Any fill pipe the discharge opening of which is completely submerged whin the liquid level is 15 cm (6 in.) above the bottom of the container or when applied to a container which is loaded from the side. It is any fill pipe the discharge opening of which is entirely submerged when the liquid level is 45 cm (18 in.) above the bottom of the container (MDAQMD Regulation I, Rule 102).

- *Switch Loading* - a transfer of organic liquids with a vapor pressure of less than 77.5 mm Hg (1.5 psia) under actual loading condition into any tank truck, trailer or railroad tank car that was previously loaded with an organic liquid with a vapor pressure of 77.5 mm Hg (1.5 psia) or greater (MDAQMD Regulation I, Rule 102).

- *Throughput* - the mass or volume of a material or substance that is handled, or processed, by a system in a given time period, such as gallons per year, tons per hour, etc. (MDAQMD Regulation I, Rule 102).

- *Vapor Recovery System* - a system that is designed to collect or capture the vapors released and/or generated during the dispensing, transfer, and/or storage of liquids, and is capable of storage, transferring, and/or disposal of the recovered vapors (MDAQMD Regulation I, Rule 102).

- *Vapor Reduction Device* - methods of reduction include, but are not limited to, thermal destruction (incineration), and absorption, adsorption, and condensation (MDAQMD Regulation IV, Rule 462).

- *Vapor Tight (Fugitive Vapor Leak)* - the detection of less than 10,000 ppm, as methane, using an appropriate hydrocarbon analyzer when sampling is performed according to the procedures specified in USEPA Method 21 (MDAQMD Regulation IV, 461).

- *Vehicle* - a device by which any person or property may be propelled, moved, or drawn upon a highway, excepting a device moved by human power or used exclusively upon stationary rails or tracks (MDAQMD Regulation I, Rule 102).

STORAGE TANK MANAGEMENT

GUIDANCE FOR MDAQMD CHECKLIST USERS

	REFER TO CHECKLIST ITEMS:	REFER TO PAGE NUMBERS:
Emissions/Discharges From POL Storage Vessels		
Storage	ST.15.1.CA.MD.	10-7
Transferring and Dispensing	ST.15.2.CA.MD. through ST.15.5.CA.MD.	10-7
Emissions/Discharges From VOL Storage Vessels		
Storage	ST.20.1.CA.MD. through	10-11
Transferring and Loading	ST.20.7.CA.MD.	10-15
	ST.20.8.CA.MD. through ST.20.12.CA.MD.	

GUIDANCE FOR APPENDIX USERS

REFER TO APPENDIX NUMBERS:	REFER TO APPENDIX TITLES:	REFER TO PAGE NUMBERS:
10-1	Specifications for Closure Devices	10-19

COMPLIANCE CATEGORY: STORAGE TANK MANAGEMENT Mojave Desert Air Quality Management District (MDAQMD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
ST.15. EMISSIONS/ DISCHARGES FROM POL STORAGE VESSELS **Storage**	
ST.15.1.CA.MD. Installations/CW facilities operating gasoline storage and dispensing facilities or retail gasoline stations must meet specific requirements for storage of gasoline in stationary storage containers with a capacity of more than 950 L (251 gal) (MDAQMD Regulation IV, Rule 461(D)((3)(g)).	Verify that the installation/CW facility does not store, or allow the storage of, gasoline in any such container unless the container complies with one of the following: - general organic liquid storage requirements (see Emissions/Discharges from VOL Storage Vessels) - is equipped with a permanent submerged fill pipe and a certified vapor recovery system.
Transferring and Dispensing	(NOTE: The following transfers are exempt from these gasoline transfer requirements, except for the recordkeeping requirements: - into or from any stationary storage container of less than 550 gal capacity, which is used primarily for fueling implements of husbandry, if the container is equipped with a permanent submerged fill pipe - into or from any underground stationary container using only hand pumping, for the purpose of providing emergency services during loss of commercial power, where the District APCO has certified that such pumping capability is otherwise required by law - into or from any stationary storage container of any retail gasoline station installed prior to 13 October 1988 which meets all of the following conditions: - monthly gasoline throughput does not exceed 10,000 gal and the annual gasoline throughput does not exceed 60,000 gal/yr [227,124.72 L/yr] - the facility has not been modified after 19 December 1988 where modified means the installation of a new tank, replacement of any existing tank, and/or excavation of 50 percent or more of total underground liquid piping from stationary storage tanks to gasoline dispensers - transfer of gasoline from any delivery vehicle into stationary storage containers with a capacity of more than 950 L (251 gal) is limited to containers which are equipped with permanent submerged fill pipes - all dispensing nozzles are equipped with a hold-open latch, unless prohibited by the local fire code **ST.15.CA.MD. Continued on Next Page**

COMPLIANCE CATEGORY: STORAGE TANK MANAGEMENT Mojave Desert Air Quality Management District (MDAQMD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
ST.15.CA.MD. (continued)	- the installation/CW facility provides adequate evidence that all of the following conditions apply: - compliance would be economically prohibitive and the alternative would be closure of the station - the facility provides essential emergency fueling for motor vehicles and closure would result in a lessening of public safety - no other nonexempt retail facility open during reasonable hours exists within a driving distance of 5 mi [approximately 8.05 km] - the installation/CW facility receives written approval from the District APCO in response to a formal request for exemption.)
ST.15.2.CA.MD. Installations/CW facilities must meet specific requirements for gasoline transfer into or from any tank truck, trailer, or railroad tank car into any stationary storage container with a capacity of more than 950 L (251 gal) (MDAQMD Regulation IV, Rule 461(C)(1)).	Verify that the installation/CW facility does not transfer, permit the transfer, or provide equipment for the transfer, unless the storage container is equipped as required for the general storage of organic liquids (see Emissions/Discharges from VOL Storage Vessels) or all of the following conditions are met: - the container is equipped with a permanent submerged fill pipe - the delivery vessel or container is equipped with a CARB-certified vapor recovery system capable of recovering or processing 95 percent of the displaced gasoline vapors - all vapor return lines are connected between the dispensing tank and the stationary container, the vapor recovery system is in operation in accordance with manufacturer's specifications, the delivery vehicle, including all hoses, fittings, and couplings, is maintained in a vapor-tight condition, and all equipment is operated and maintained according to manufacturer's specifications - visual inspections of hatch openings are limited to no more than 3 min, provided pumping has been stopped for at least 3 min prior to opening, and the hatch is closed fully before pumping is resumed - except for aboveground tanks, all lines are gravity drained, so that no gasoline is spilled when they are disconnected - aboveground tanks are equipped with dry breaks, so that liquid spills upon disconnect do not exceed 10 mL - equipment is operated and maintained with no defects as listed below: - all fill tubes are equipped and maintained with vapor-tight covers, including gaskets - all dry breaks have vapor-tight seals and are equipped and maintained with vapor-tight or dust covers - coaxial fill tubes are operated so there is no obstruction of vapor passage from the storage tank back to the delivery vehicle - fill tube assembly, including fill tube, fittings, and gaskets, is maintained to prevent vapor leakage from any portion of the vapor recovery system - all storage tank vapor return pipes without dry breaks are equipped with vapor-tight covers, including gaskets.

COMPLIANCE CATEGORY: STORAGE TANK MANAGEMENT Mojave Desert Air Quality Management District (MDAQMD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
ST.15.3.CA.MD. Installations/CW facilities transferring gasoline from a stationary storage tank with a capacity of more than 950 L (251 gal), or from a storage container to which gasoline was transferred from that type of tank, must meet specific requirements for gasoline transfers into motor vehicle fuel tanks (MDAQMD Regulation IV, Rule 461(C)(2) and (C)(3)(h)).	Verify that the installation/CW facility does not transfer, permit transfer, or provide equipment for transfer of gasoline from these stationary storage containers into any motor vehicle tanks of greater than 19 L (5 gal) capacity, unless all of the following conditions are met: - the dispensing unit used to transfer gasoline from the storage container to the fuel tank is equipped with a CARB-certified vapor recovery system capable of recovering 95 percent of displaced gasoline vapors - the vapor recovery system is operating in accordance with manufacturer's specifications - all gasoline transfer equipment is operated and maintained with none of the following defects: - torn or cut boots - torn or cut face seals or face cones - loose or broken retractors - boots clamped or otherwise held in an open position - leaking nozzles - loose, missing, or disconnected nozzle components - defective shutoff mechanisms - loose, missing, or disconnected vapor fuel hoses and associated components - crimped, cut, severed, or otherwise damaged vapor or fuel hoses - missing, turned off, or otherwise not operating assist type vapor recovery systems, or any components of such systems - improper or non-CARB-certified equipment or components - inoperative, severely malfunctioning, or missing vacuum producing device - inoperative, loose, missing or disconnected pressure/vacuum relief valves, vapor check valves, or dry breaks. Verify that operating instructions, the District's toll-free telephone number for complaints, and a District-specified warning sign are conspicuously posted in the gasoline dispensing area.
ST.15.4.CA.MD. Installations/CW facilities operating gasoline storage and dispensing facilities or retail gasoline stations must meet specific vapor recovery system requirements for gasoline transfer (MDAQMD Section IV, Rule 461(C)(3)(a) through (f)).	Verify that newly installed vapor recovery systems: - are limited to those systems certified by CARB as latest generation equipment at the time installation is initiated - utilize only equipment identified by CARB as achieving highest reliability and maintainability compatible with the system selected - utilize dispensing nozzles equipped with a hold-open latch, unless prohibited by local fire code. Verify that vapor processing or vapor recovery systems meet all safety, fire, weights, and measures, and other applicable codes and/or regulations. **ST.15.4.CA.MD. Continued on Next Page**

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
ST.15.4.CA.MD(continued)	Verify that the installation/CW facility does not buy or install new or rebuilt vapor recovery systems unless the components and parts clearly identify the certified manufacturing company and/or certified rebuilding company. Verify that vapor recovery systems are maintained at all times in accordance with manufacturer's specifications and the State's certification. Verify that, when problems or defects arise associated with any vapor recovery, storage, or delivery vessel or dispensing equipment, other than a breakdown of the central vapor incineration or processing unit, the installation/CW facility removes the equipment from service at the end of the cycle and does not use the equipment until it has been repaired, replaced, or adjusted as necessary. (NOTE: End of the cycle means: - for delivery vehicles, when the delivery vehicle is emptied or, if not emptied, before taking on more gasoline - for transferring gasoline to a motor vehicle, at the time the problem is detected, or at the end of refueling the current vehicle.) Verify that bulk transfers of gasoline from a storage container with a capacity of more than 950 L (251 gal) are performed using a vapor recovery system capable of returning displaced vapors from the delivery vessel or other container being filled back to the stationary storage container. (NOTE: This vapor transfer is not required where the container is to be removed or filled with water for testing.)
ST.15.5.CA.MD. Installations/CW facilities operating gasoline storage and dispensing facilities or retail gasoline stations must meet specific recordkeeping and reporting requirements (MDAQMD Regulation IV, Rule 461(E)).	Verify that the installation/CW facility maintains a log of all inspections, repairs, and maintenance on equipment. Verify that installations/facilities operating exempt facilities, in order to determine the exemption, prepare a log showing monthly throughput and a summary of throughput for the calendar year to date Verify that a daily log of product throughput is maintained by each facility. Verify that all required records and logs are maintained at the facility for at least 2 yr and made available to the APCO upon request.

COMPLIANCE CATEGORY: STORAGE TANK MANAGEMENT Mojave Desert Air Quality Management District (MDAQMD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
ST.20. **EMISSIONS/ DISCHARGES FROM VOL STORAGE VESSELS** **Storage** **ST.20.1.CA.MD.** Installations/CW facilities storing organic liquids in tanks with a capacity over 150,000 L (39,650 gal) must meet specific equipment requirements (MDAQMD Regulation IV, Rule 463(C)(1) and (C)(3)(b)).	Determine whether the organic liquid has a true vapor pressure of 77.5 mm Hg (1.5 psia) or greater under actual storage conditions. Verify that the tank meets one of the following conditions: - it is a pressure tank maintaining working pressures sufficient at all times to prevent organic vapor or gas loss to the atmosphere - it is designed and equipped with one of the following vapor loss control devices, properly installed, properly maintained, and in good operating order: - external floating roof, consisting of a pontoon-type or double-deck-type cover - fixed roof with an internal-floating-type cover resting on the surface of the liquid contents at all times - fixed roof with a vapor recovery system capable of collecting all organic vapors and gases and a vapor return or disposal system capable of processing such vapors and gases at an efficiency of at least 95 percent by weight - other approved equipment having a vapor loss control efficiency of at least 95 percent by weight, provided an application for installation is submitted and written approval from the APCO is received prior to beginning construction and/or operation. (NOTE: Efficiency means a comparison of controlled emissions to those emissions which would occur from a fixed or cone roof tank in the same product service without a vapor control system. Base line emissions are calculated by using the criteria in American Petroleum Institute (API) Bulletin 2518.)

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
ST.20.2.CA.MD. Installations/CW facilities storing organic liquids in tanks with a capacity over 150,000 L (39,650 gal) and with an external floating roof consisting of a pontoon-type or double-deck-type cover must meet specific standards (MDAQMD Regulation IV, Rule 463(C)(1)(a)).	Verify that the cover rests on the surface of the liquid contents at all times, except when the tank is being completely emptied for cleaning or repair, and is equipped with a closure device between the tank shell and roof edge. Verify that the closure device consists of two seals, one above the other; the one below is referred to as the primary seal, and the one above is referred to as the secondary seal. Verify that seal designs are submitted to the APCO and are not installed or used unless approved by the APCO as meeting the criteria set forth in Appendix 1-1, as applicable. (NOTE: The requirements of Appendix 1-1 do not apply if the installation/CW facility is able to demonstrate to the APCO that a closure device has been installed, or is available for installation, which by itself or in conjunction with other vapor loss control devices, controls vapor loss at all tank levels with an effectiveness equivalent to a closure device meeting the requirements for such a device on a welded tank.) Verify that the following requirements regarding inspections of seals are met: - the primary seal envelope is available for unobstructed inspection by the APCO on an annual basis at locations selected randomly along its circumference - for all tanks with secondary seals, the primary seal envelope is available for inspection for its full length either before installation of the secondary seal or every 5 yr, unless the secondary seal is voluntarily removed by the installation/CW facility, and, at that time the APCO is notified no less than seven working days prior to removal in order to conduct an inspection. (NOTE: The APCO selected four locations for inspection. However, the APCO selects eight locations for inspection on riveted tanks with toroid-type seals.) Verify that all openings in the roof, except for pressure-vacuum valves which are set to within 10 percent of the maximum allowable working pressure of the roof, project below the liquid surface to prevent entrained or formed organic vapor from escaping, and are equipped with a cover, seal, or lid kept closed with no visible gaps except when in use. Verify that any emergency roof drain has a slotted membrane fabric cover, or equivalent, that covers at least nine-tenths of the opening. Verify that a floating roof is not used if the organic liquid stored has a true vapor pressure of 569 mm Hg (11 psi) absolute or greater under storage conditions.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
ST.20.3.CA.MD. Installations/CW facilities storing organic liquids in tanks with a capacity over 150,000 L (39,650 gal) and with an internal-floating-type cover must meet specific standards (MDAQMD Regulation IV, Rule 463(C)(1)(b)).	Verify that the cover rests on the surface of the liquid contents at all times, except when the tank is being completely emptied for cleaning or repair, and is equipped with a closure device. Verify that the installations/CW facilities meet the following standards for fixed roof tanks: - the closure device consists of either a liquid mounted primary seal only or two seals, a primary and secondary - all openings and fittings are fully gasketed and/or controlled in a manner specified by the APCO - the closure device controls vapor loss with an effectiveness equivalent to a closure device meeting the requirements listed in Appendix 1-1 for a closure device on a welded tank shell using a metallic-shoe-type seal as its primary seal - a fixed roof container with an internal-floating-type cover is not used if the organic liquid stored has a true vapor pressure of 569 mm Hg (11 psi) absolute, or greater, under actual storage conditions. Verify that internal floating roof and seal designs are submitted to the APCO and not installed or used unless approved by the APCO. Verify that compliance is verified by measuring with an explosimeter the concentration of organic compound in the vapor space above the internal floating roof, in terms of the lower explosive limit (LEL), and the reading does not exceed the following: - 50 percent of the LEL for internal floating roofs installed prior to 19 December 1988 - 30 percent of the LEL for internal floating roofs installed after 19 December 1988. Verify that visual inspection of the secondary seal is performed and recorded by tank operators semi-annually with records available upon request by the APCO. Verify that primary and secondary seals are inspected and repaired, if necessary, each time the tank is emptied and gas-freed. Verify that the APCO is notified at least 48 h in advance of each gas-freeing.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
ST.20.4.CA.MD. Installations/CW facilities storing organic liquids in tanks with a capacity over 150,000 L (39,650 gal), a fixed roof and a vapor recovery system must meet specific standards (Rule 463(C)(1)(c) and (C)(3)(b)).	Verify that the vapor recovery system meets all of the following requirements: - capable of collecting all organic vapors and gases - has a vapor return or disposal system capable of processing such vapors and gases, so as to prevent their emission to the atmosphere at an efficiency of at least 95 percent by weight - any tank gauging or sampling device on a tank vented to the vapor recovery system is equipped with a gas-tight cover which remains closed at all times except during sampling - all piping, valves, and fittings are constructed and maintained in a gas tight condition, so that no organic vapor or gas leaks are detectable. (NOTE: Efficiency means a comparison of controlled emissions to those emissions which would occur from a fixed or cone roof tank in the same product service without a vapor control system. Base line emissions are calculated by using the criteria in API Bulletin 2518.)
ST.20.5.CA.MD. Installations/CW facilities must meet specific requirements for storage of organic liquids in above-ground stationary tanks, or other container, with a capacity equal to or less than 150,000 L (39,630 gal) (MDAQMD Regulation IV, Rule 463(C)(2)).	(NOTE: The provisions of this rule do not apply to any container of 950 L (251 gal) or less in capacity.) Verify that the installation/CW facility does not place, store, or hold in such tanks any organic liquid with a true vapor pressure of 77.5 mm Hg (1.5 psia) or greater under actual storage conditions, unless the tank is equipped with one of the following: - a pressure-vacuum valve set to within 10 percent of maximum allowable working pressure of the container - a vapor loss control device meeting with the design and operating standards outlined above for tanks with a capacity over 150,000 L (39,650 gal).
ST.20.6.CA.MD. Installations/CW facilities storing, transferring, and dispensing organic liquids must meet additional requirements (MDAQMD Regulation IV, Rule 463(C)(3)(a) and (C)(3)(C), and (E)).	Verify that all components of a facility, including, but not limited to tanks, flanges, seals, pipes, pumps, valves, meters, and connectors, are maintained and operated so as to prevent fugitive vapor leaks, fugitive liquid leaks, and excess organic liquid drainage during transfer, storage, and handling operations. Verify that the roof of any internal or external floating roof tank is floating on the liquid at all times except when the tank is being completely emptied for cleaning or repair. Verify that the process of emptying, and/or refilling, when the roof is resting on the leg supports, is continuous and accomplished as rapidly as possible. **ST.20.6.CA.MD. Continued on Next Page**

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
ST.20.6.CA.MD(continued)	(NOTE: If the tank has been gas-freed and is to be refilled with gasoline, the roof is refloated with water, or an equivalent procedure approved by the APCO. Bulk gasoline distribution terminals which do not have either existing facilities for treatment of wastewater used to refloat the tank roof or facilities for equivalent emission control when refloating the roof with product are exempt from this requirement.) (NOTE: Notwithstanding secondary and primary seal requirements listed in Appendix 1-1, a secondary or primary seal may be loosened or removed for preventive maintenance, inspection, and/or repair upon prior notification and subject to the prior written approval of the APCO and for a period not exceeding 72 h.)
ST.20.7.CA.MD. Installations/CW facilities storing, transferring, and dispensing organic liquids must meet specific recordkeeping and recording requirements (MDAQMD Regulation IV, Rule 463(D)).	Verify that the installation/CW facility maintains an accurate record of liquids stored and their true vapor pressure ranges. Verify that the installation/CW facility maintains a log of all inspections, repairs, and maintenance on equipment subject to these requirements and retains these logs for at least 2 yr.
Transferring and Loading	
ST.20.8.CA.MD. Installations/CW facilities classified as Class A Facilities must meet the following requirements when loading organic liquids from the facility into any tank truck, trailer, or railroad car (MDAQMD Regulation IV, Rule 462(C)(1)).	Determine whether the organic liquids have a true vapor pressure of 77.5 mm Hg (1.5 psia) or greater under actual loading conditions. Verify that the loading facility is equipped with a vapor recovery system. Verify that loading is done so that displaced vapor and air are vented only to the vapor collection system. Verify that all connections and vapor lines are maintained in a vapor tight condition to prevent fugitive vapor leaks. Verify that measures are taken to prevent fugitive liquid leaks from the loading device when it is not in use or to complete drainage before the loading device is disconnected.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
ST.20.9.CA.MD. Installations/CW facilities classified as a Class B Facility must meet the following requirements when loading organic liquids from the facility into any tank truck, trailer, or railroad car (MDAQMD Regulation IV, Rule 462(C)(2)).	Determine whether the organic liquids have a true vapor pressure of 77.5 mm Hg (1.5 psia) or greater under actual loading conditions. Verify that the facility is equipped with a vapor recovery system to prevent release of fugitive vapor emissions during the filling of organic liquid delivery vehicle. Verify that the facility is equipped with a vapor recovery system to prevent the release of fugitive vapor emissions displaced during the filling of the facility's stationary storage containers with all connections and vapor lines maintained vapor tight. Verify that the facility is equipped with a pressure-vacuum valve on aboveground stationary storage containers with a minimum pressure valve setting of 8 oz/in.^{2}, provided the setting will not exceed the container's maximum pressure rating.
ST.20.10.CA.MD. All installations/CW facilities loading organic liquids from its facilities into any tank truck, trailer, or railroad car must meet specific operating requirements (MDAQMD Regulation IV, Rule 462(D)(1) and (2)).	Verify that vapor recovery systems meet all safety, fire, weights and measures, and other applicable codes or regulations. Verify that all of the components of the facility including, but not limited to, tanks, flanges, seals, pipes, pumps, valves, meters, and connectors are maintained and operated so as to prevent fugitive vapor leaks, fugitive liquid leaks, and excess organic liquid drainage during transfer, storage, and handling operations.
ST.20.11.CA.MD. All installations/CW facilities operating an organic liquid transport vehicle must meet specific operating requirements (MDAQMD Regulation IV, Rule 462(D)(3)).	Verify that loading or unloading of gasoline is not allowed unless the designated transporting vessel has a valid certification of vapor integrity. Verify that vapor leaks from dome covers, pressure vacuum vents, or other sources are determined in accordance with USEPA Method 21. Verify that transport equipment is operated so that there are no fugitive leaks. Verify that uncontrolled switch loading is prohibited, unless one of the following conditions are met: - any vapors vented to the atmosphere do not at any point during the transfer exceed 10,000 ppmv, measured as equivalent methane, with a portable hydrocarbon analyzer in accordance with USEPA Method 21 - emissions are controlled by a vapor recovery system.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
ST.20.12.CA.MD. Installations/CW facilities transporting organic liquids between facilities and transferring organic liquids into motor vehicle fuel tanks, tank trucks, trailers, or railroad cars must meet specific recordkeeping and reporting requirements (MDAQMD Regulation IV, Rule 462(E)).	Verify that a log is maintained of all inspections, repairs, and maintenance on equipment. Verify that these logs or records are maintained for at least 2 yr and made available to the APCO upon request. Verify that installations/CW facilities operating a Class A or Class B facility prepares a log showing the following information on a daily basis: - input - output - average stored volume over a 24 h period (midnight to midnight) - storage and transfer temperatures of the organic liquid - stored product's name and Chemical Abstract Service number - monthly summary of throughput for the calendar year to date.

Appendix 10-1

Specifications for Closure Devices

(Source: MDAQMD Regulation IV, Rule 463(F)(1) through (4))

- A closure device on a welded tank shell using a metallic-shoe-type seal as its primary seal:

  1. gaps between the tank shell and primary seal do not exceed 3.8 cm (1.5 in.) for an accumulative length of 10 percent, 0.32 cm (0.5 in.) for another 30 percent, and 0.32 cm (0.125 in.) for the remaining 60 percent of the circumference of the tank
  2. no gap between the tank shell and primary seal exceeds 3.8 cm (1.5 in.)
  3. no continuous gap, between the tank shell and primary seal, greater than 0.32 cm (0.125 in.) exceeds 10 percent of the circumference of the tank
  4. gaps between the tank shell and secondary seal do not exceed 0.32 cm (0.125 in.) for an accumulative length of 95 percent of the circumference of the tank, and do not exceed 1.3 cm (0.5 in.) for an accumulative length of the remaining 5 percent of the circumference of the tank
  5. no gap between the tank shell and secondary seal exceeds 1.3 cm (0.5 in.)
  6. metallic-shoe-type seals installed on or after 20 February 1979 is installed so that one end of the shoe extends into the stored liquid and the other end extends a minimum vertical distance of 61 cm (24 in.) above the stored liquid surface.
  7. the geometry of the metallic-shoe-type seal is such that the maximum gap between the shoe and the tank shell is not greater than double the gap allowed by the seal gap criteria for a length of at least 46 cm (18 in.) in the vertical plane above the liquid surface
  8. there are no holes or tears in, or openings which allow emission of organic vapors through the secondary seal or in the primary seal envelope surrounding the annular vapor space enclosed by the roof edge, stored liquid surface, shoe, and seal fabric
  9. the secondary seal allows easy insertion of probes up to 3.8 cm (1.5 in.) in width in order to measure gaps in the primary seal
  10. the secondary seal extends from the roof to the tank shell and is not attached to the primary seal.

- A closure device using a resilient-toroid-type seal as its primary seal:

  1. if installation began prior to 20 February 1980:
     a. gaps between the tank shell and primary seal do not exceed 0.32 cm (0.125 in.) for an accumulative length of 95 percent of the circumference of the tank, and do not exceed 1.3 cm (0.5 in.) for an accumulative length of the remaining 5 percent of the tank circumference
     b. no gap between the tank shell and primary seal exceeds 1.3 cm (0.5 in.)
     c. gaps between the tank shell and secondary seal do not exceed 0.32 cm (0.125 in.) for an accumulative length of 95 percent of the circumference of the tank, and do not exceed 1.3 cm (0.5 in.) for an accumulative length of the remaining 5 percent of the tank circumference
     d. no gap between the tank shell and secondary seal exceeds 1.3 cm (0.5 in.)
  2. if installation began after 20 February 1980:
     a. the installation/CW facility, prior to installation, demonstrated to the APCO that the closure device controls vapor loss with an effectiveness equivalent to a closure device on a welded tank

(continued)

3. there are no holes or tears in, or openings, which allow emission of organic vapors through the secondary seal or in the primary seal envelope surrounding the annular vapor space enclosed by the roof edge, seal fabric, and secondary seal
4. the secondary seal allows easy insertion of probes up to 3.8 cm (1.5 in.) in width in order to measure gaps in the primary seal
5. the secondary seal extends from the roof of the tank shell and is not attached to the primary seal.

- A closure device on a riveted tank using a metallic-shoe-type seal as its primary seal:

1. closure device consists of two seals, one above the other; the one below is referred to as the primary seal, and the one above is referred to as the secondary seal
2 closure device controls vapor loss with an effectiveness equivalent to a closure device on a welded tank meeting the requirements for closure devices on welded tank shells using metallic-shoe-type seals
3. gaps between the primary and secondary seals do not exceed the gaps (if any) associated with the closure device approved as equivalent by the APCO
4. metallic-shoe-type seals installed on or after 20 February 1979:
   a. are installed so that one end of the shoe extends into the stored liquid and the other end extends a minimum vertical distance of 61 cm (24 in.) above the stored liquid surface
   b. the geometry of the shoe is such that the maximum gap between the shoe and the tank shell is not greater than double the gap allowed by the seal gap criteria for a length of at least 46 cm (18 in.) in the vertical plane
5. there are no holes or tears in, or openings, which allow emission of organic vapors through the envelope surrounding the annular vapor space enclosed by the roof edge, stored liquid surface, shoe, and seal fabric
6. any secondary seal allows easy insertion of probes up to 6.4 cm (2.5 in.) in width in order to measure gaps in the primary seal
7. any secondary seal extends from the roof to the tank shell and is not attached to the primary seal.

INSTALLATION:	COMPLIANCE CATEGORY: STORAGE TANK MANAGEMENT MDAQMD - California Supplement	DATE:	REVIEWER(S):
STATUS NA C RMA	REVIEWER COMMENTS:		

SECTION 1

AIR EMISSIONS MANAGEMENT

Sacramento Metropolitan Air Quality Management District (SMAQMD) - California Supplement

SECTION 1

AIR EMISSIONS MANAGEMENT

Sacramento Metropolitan Air Quality Management District (SMAQMD)

California Supplement

This section covers the District requirements for Air Emissions Management and is intended to supplement the TEAM Guide. Refer to the TEAM Guide and the DOD Component Supplements for Federal, DOD, and service-specific requirements.

The SMAQMD includes Sacramento County and Placer County.

SMAQMD adopts by reference the Title 40 of the Code of Federal Regulations (40 CFR), Part 60 in SMAQMD Rule 801, with the following amendment: The 30-day emissions averaging periods or 6-mo rolling average periods specified in the Federal regulations are deleted and replaced with 24-h maximum emission averaging periods.

Definitions

- *Actual Emissions* - the measured or estimated emissions most accurately representing real emissions from an emissions unit (SMAQMD Rule 105).

- *Actual Operating Days* - any day of operation that results in the emission of an affected pollutant from the emissions unit (SMAQMD Rule 202).

- *Affected Pollutants* - air contaminants for which there are ambient air quality standards, including all of the following (SMAQMD Rule 105):
    1. reactive organic compounds (ROC)
    2. NO_x
    3. sulfur oxides (SO_x)
    4. Particulate Matter (PM_{10})
    5. CO
    6. lead
    7. asbestos
    8. beryllium
    9. mercury
    10. vinyl chloride
    11. fluorides
    12. sulfuric acid mist
    13. hydrogen sulfide
    14. total reduced sulfur
    15. reduced sulfur compounds
    16. municipal waste organics
    17. municipal waste metals

18. municipal waste acid gases.

- *Agricultural Burning* - (see also "open burning in agricultural operations") includes open outdoor fires used in any of the following ways (SMAQMD Rule 501):
  1. in agricultural operations in the growing of crops or raising of fowl or animals
  2. in forest management
  3. in range improvement
  4. in improvement of land for wildlife and game habitat
  5. for disease or pest prevention
  6. in the operation or maintenance of a system for delivery of water for any of the purposes mentioned above.

- *Air-Dried Coating* - a coating that is cured or dried at a temperature no greater than 90 °C (194 °F) (SMAQMD Rule 451).

- *Air Pollution Control Officer (APCO)* - See "control officer".

- *Ambient Air Quality Standards* - those standards set by the State and Federal governments (SMAQMD Rule 202).

- *APCO* - Air Pollution Control Officer. See "control officer" (SMAQMD Rule 207).

- *Appurtenances* - accessories to a stationary structure, including, but not limited to: hand railings, cabinets, bathroom and kitchen fixtures, fences, rain-gutters and down-spouts, window screens, lamp posts, heating and air conditioning equipment, other mechanical equipment, large fixed stationary tools, and concrete forms (SMAQMD Rule 442).

- *Architectural Coating* - any coating applied to stationary structures and their appurtenances, to mobile homes, to pavements, or to curbs (SMAQMD Rule 442).

- *Asphalt* - the dark-brown to black cementitious material (solid, semi-solid, or liquid in consistency) of which the main constituents are bitumens that occur naturally or as a residue of petroleum refining (SMAQMD Rule 453).

- *Atmosphere* - the air that envelopes or surrounds the earth; when air pollutants are emitted into a building not designed specifically as a piece of air pollution control equipment, such emissions are considered to be emissions into the atmosphere (SMAQMD Rule 101).

- *Baked Coating* - any coating that is heated to a temperature greater than 90 °C (194 °F) for the purpose of curing or drying (SMAQMD Rule 451).

- *Belowground Wood Preservatives* - coatings formulated to protect belowground wood from decay or insect attack and which contain a wood preservative chemical registered by the California Department of Food and Agriculture (SMAQMD Rule 442).

- *Bituminous Coating Materials* - black or brownish coating materials that are soluble in carbon disulfide, that consist mainly of hydrocarbons, and that are obtained from natural deposits or from residues from the distillation of crude petroleum oils or of low grades of coal (SMAQMD Rule 442).

- *Board* - the Air Pollution Control Board of the Air Pollution Control District of Sacramento County (SMAQMD Rule 101).

- *Boiler or Steam Generator* - any unit fired with any fuel used to produce steam or water heat that is not used exclusively to produce electricity for sale (SMAQMD Rule 411).

- *Breakdown Condition* - an unforeseeable failure or malfunction of any air pollution control equipment or related operating equipment that causes a violation of an emission limitation or restriction; or any in-stack continuous monitoring equipment, provided that any such failure or malfunction that is not the result of neglect or disregard of any air pollution control law, rule, or regulation, is not intentional or the result of negligence, is not the result of improper maintenance, does not constitute a public nuisance, or is not a recurrent breakdown of the same equipment (SMAQMD Rule 602).

- *Brush Treated* - refers to material that, prior to being burned, has been felled, crushed, or uprooted with mechanical equipment, has been desiccated with herbicides, or is dead (SMAQMD Rule 501).

- *Btu* - British thermal unit (SMAQMD Rule 411).

- *Cleanup Material* - a volatile organic compound (VOC)-containing material used to clean application equipment used in miscellaneous metal parts and products coating operations (SMAQMD Rule 451).

- *Coating* -
    1. with reference to the requirements of the Graphic Arts Operations section, the application of a uniform layer of material across the entire width of a substrate; those machines that have both coating and printing units are considered to be performing a graphic arts operation (SMAQMD Rule 450);
    2. with reference to the requirements of the Surface Coating - Miscellaneous Metal Parts and Products section, a material applied to a surface to identify, beautify, protect, or minimize detection of such surface (SMAQMD Rule 451).

- *Combustible Refuse* - any solid or liquid combustible waste material containing carbon in a free or combined state (SMAQMD Rule 407).

- *Combustion Contaminants* - particulate matter discharged into the atmosphere from the burning of any kind of material containing carbon in a free or combined state (SMAQMD Rule 406).

- *Condensed Fumes* - minute solid particles generated by the condensation of vapors from solid matter after volatilization from the molten state or generated by sublimation, distillation, calcination, or chemical reaction, when these processes create airborne particles (SMAQMD Rule 405).

- *Control Officer* - the APCO of the SMAQMD.

- *Control System Operating Parameter* - the operating parameters that the APCO deems necessary to analyze when determining compliance, including, but not limited to, ammonia and exhaust gas flow rates, the exhaust gas temperature, and the water or steam injection rate (SMAQMD Rule 413).

- *Conveyorized Degreaser* - any continually loaded, conveyorized solvent degreaser using solvent that is maintained either above or below the initial boiling point temperature of the solvent (SMAQMD Rule 454).

- *Cooling Tower* - any open water recirculation device that uses fans or natural draft to draw or force air to contact and cool water by evaporation, except those devices in use in single family residences (SMAQMD Rule 481).

- *Cutback Asphalt* - paving grade asphalts liquefied with petroleum distillate and further defined by American Society for Testing and Materials (ASTM) specifications as follows (SMAQMD Rule 453):
    1. rapid cure type (ASTM D2028-76)
    2. medium cure type (ASTM D2027-76)
    3. slow cure type (ASTM D2026-76).

- *Degreaser* - a container that contains solvent or into which solvent is sprayed and concurrently drained, used to remove oil, grease, soil, coating, dirt, or other undesirable matter from workloads (SMAQMD Rule 454).

- *Designated Agency* - the public fire protection or other agency designated by the CARB as having authority to issue permits for agricultural burning (SMAQMD Rule 501).

- *District* - the Sacramento Metropolitan Air Quality Management District.

- *Dusts* - minute solid particles released in the air by natural forces or by mechanical processes such as crushing, grinding, milling, drilling, demolishing, shoveling, conveying, covering, bagging, sweeping, etc. (SMAQMD Rule 442).

- *Emergency Fuel* - with reference to the requirements of the Gas Turbine Engines section, a fuel used in a gas turbine only during circumstances such as natural gas supply curtailment or breakdown of the delivery system that make it impossible to use natural gas in the gas turbine (SMAQMD Rule 413).

- *Emergency Gas Turbine* - any gas turbine that operates as a mechanical or electrical power source only when the primary power source for a facility has been rendered inoperable by an emergency (SMAQMD Rule 413).

- *Emissions Unit* - an identifiable process, operation, or piece of process equipment, such as an article, machine, or other contrivance which controls, emits may emit, or results in the emission of any affected pollutant or hazardous air pollutant (HAP), directly or as fugitive emission. Emissions unit does not include the open burning of agricultural biomass (SMAQMD Rule 202).

- *Emulsified Asphalt* - rapid, medium, or slow setting grade as described under Section 94 of the January 1981, State of California Dept. of Transportation Standard Specifications (SMAQMD Rule 453).

- *Enclosed Gun Cleaner* - a device that is used for the cleaning of spray guns that is not open to; the ambient air when in use and has a mechanism to force the cleanup material through the gun while the cleaner is in operation (SMAQMD Rule 456).

- *Flexographic Printing* - a printing operation in which words, designs, or pictures are applied to a substrate by means of a roll printing technique in which a raised pattern is applied to an image carrier made of rubber or other elastomeric materials mounted on a steel matting cylinder. The image is then printed directly from the raised pattern to the substrate (SMAQMD Rule 450).

- *Fluorides* - elemental fluorine and all fluoride compounds (SMAQMD Rule 202).

- *Fountain Solution* - the solution applied to the image plate to maintain the hydrophilic properties of the nonimage areas and to keep the nonimage area free from ink (SMAQMD Rule 450).

- *Freeboard Height* - (SMAQMD Rule 454):
  1. for a nonvapor degreaser: the distance from the top of the solvent to the top of the tank
  2. for a vapor degreasing tank: the distance from the solvent vapor-air interface to the top of the basic degreaser tank.

- *Freeboard Ratio* - the freeboard height divided by the smaller of the inside length or the inside width of the degreaser's evaporative surface area (SMAQMD Rule 454).

- *Fugitive Dust* - solid airborne matter emitted from any noncombustion sources (SMAQMD Rule 403).

- *Fugitive Emissions* - those emissions of pollutants that could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening (SMAQMD Rule 202).

- *Graphic Arts Coatings (Sign Paints)* - coatings formulated for and hand-applied by artists using brush or roller techniques to indoor and outdoor signs (excluding structural components) and murals, including lettering enamels, poster colors, copy blockers, and bulletin enamels (SMAQMD Rule 441).

- *Graphic Arts Operations* - publication gravure, packaging gravure, web-feed wallpaper screen printing, specialty gravure, flexographic printing operations, lithographic printing operations, letterpress printing operations, or any coating or laminating operation that manufactures flexible packaging material for the packaging industry. Coating operations that are performed by a machine having only coating units and no printing units are not graphic arts operations (SMAQMD Rule).

- *Gravure Printing* - an intaglio printing operation in which the ink is transferred from minute etched wells that comprise the image on a plate to the substrate which is supported by an impression roller with excess ink removed from the plate by a doctor blade (SMAQMD Rule 450).

- *Group I Vehicles* - passenger cars, heavy duty vehicle cabs and chassis, light/medium duty vehicles (including utility bodies), and motorcycles (SMAQMD Rule 459).

- *Group II Vehicles* - Public transit buses and mobile equipment (SMAQMD Rule 459).

- *Hand Application Equipment* - manually held nonmechanically operated equipment (SMAQMD Rule 451).

- *Heat Input* - the chemical heat released due to fuel combustion in a combustion unit, using the higher heating value of the fuel (SMAQMD Rule 411).

- *Heavy Duty Vehicles* - any vehicle having a manufacturer's gross vehicle weight rating of over 10,000 lb (SMAQMD Rule 459).

- *Hexavalent Chromium-Containing Water Treatment Chemicals* - water treatment additives that contain hexavalent chromium (Chromium VI) alone or in combination with other water treatment chemicals (SMAQMD Rule 481).

- *High-Volume Low-Pressure Application Equipment* - application equipment with air pressure between 0.1 and 10.0 psig [0.69 and 68.95 kPa] and air volume greater than 15.5 cfm [0.44 m^3/min] per spray

gun and that operates at a maximum fluid delivery pressure of 50 psig [344.75 kPa] (SMAQMD Rule 451).

- *High Heat Value* - the total heat liberated per mass of fuel burned when fuel and dry air at standard conditions undergo complete combustion and all resultant products are brought to their standard states at standard conditions (SMAQMD Rule 411).

- *Intaglio Printing* - a printing operation done from a plate in which the image is etched or engraved into the surface (SMAQMD Rule 450).

- *Leak* - with reference to the perchloroethylene dry cleaning regulation, the visible presence of a liquid containing perchloroethylene on the external surface of any equipment, or the concentration of perchloroethylene vapor in excess of 100 ppm (SMAQMD Rule 445); with reference to the requirements of the Degreasing section, three or more drops of liquid solvent per minute (SMAQMD Rule 454).

- *Letterpress Printing* - a printing operation in which the image area is raised relative to the nonimage area and the ink is transferred to the paper directly from the image surface (SMAQMD Rule 450).

- *Light/Medium Duty Vehicles* - any vehicle having a manufacturer's gross vehicle weight of 10,000 lb or less (SMAQMD Rule 459).

- *Line* - with reference to the requirements of the Graphic Arts Operations section, the minimum equipment that is required for the application and/or curing of inks and/or coatings on a substrate, including the ink and/or coating applicators and heating oven(s) and associated ink and coating mixing equipment (SMAQMD Rule 450).

- *Lithographic Printing* - a printing operation in which the image and nonimage areas exist in the same plane. The nonimage area is treated chemically so that only the image areas will be printed onto the substrate (SMAQMD Rule 450).

- *Low Volatility Solvent* - any solvent with an initial boiling point that is greater than 248°F (120°C) (SMAQMD Rule 454).

- *Low-Volume Low-Pressure Application Equipment* - application equipment with air pressure between 0.1 and 10.0 psig [0.69 and 68.95 kPa] and air volume less than 15.5 cfm [0.44 m^3/min] per spray gun and that operates at a maximum fluid delivery pressure of 50 psig [344.75 kPa] (SMAQMD Rule 451).

- *Makeup Solvent* - a VOC-containing material added to the original coating supplied by the manufacturer to reduce the viscosity of the coating: also known as a reducer or thinner (SMAQMD Rule 451). With regard to the Degreasing section, solvent added to the degreaser to replace solvent lost through evaporation of other means (SMAQMD Rule 454).

- *Malfunction* - any sudden and unavoidable failure of air pollution control equipment, of process equipment, or of a process to operate in a normal or usual manner, except for those failures that are caused entirely or in part by poor maintenance, careless operation, or any other preventable upset condition or preventable equipment breakdown (SMAQMD Rule 602).

- *Miscellaneous Metal Parts and Products* - any metal part or product, except for the following (SMAQMD Rule 451):
    1. prefabricated metal architectural components or structures

2. light-duty and medium-duty motor vehicles (original equipment manufacturing)
3. aircraft or aerospace vehicles and their components
4. cans, coils, or magnetic wire
5. refinishing of nonmilitary motor vehicles and military vehicles coated with other than camouflage coatings
6. magnetic data storage discs.

- *Modification* -
  1. with reference to air pollution sources subject to SMAQMD Regulation 2, Rule 202 New Source Review, "modification" includes all of the following:
     a. for an emissions unit: any physical change, change in method or hours of operation (including change in fuel characteristics), addition, or change in production rate that meets any of the following conditions:
        1. it would necessitate a change in permit conditions
        2. it is not specifically limited by a permit condition
        3. it results in an increase in emissions not subject to a daily emissions limitation;
     b. for a stationary source: a modification of its emissions unit, or addition of any new emissions unit; but "modification" does not include any of the following:
        1. a change in ownership
        2. routine maintenance and repair
        3. a reconstructed stationary source or emissions unit; these must be treated as a new stationary source or emissions unit, not as a modification.
  2. with reference to air pollution sources subject to SMAQMD Regulation 9, General Requirements, "modification" is defined as: any physical change in, or change in the method of operation of, an affected facility that increases the amount of any air pollutant (to which a standard applies) emitted by any such facility or which results in the emission of any air pollutant not previously emitted, except that:
     a. routine maintenance, repair, and replacement are not considered physical changes, and
     b. the following are not considered a change in the method of operation:
        1. an increase in the production rate, if such increase does not exceed the operating design capacity of the affected facility;
        2. an increase in hours of operation;
        3. use of an alternative fuel or raw material if, prior to the date any New Source Performance Standard under 40 CFR 60 becomes applicable to such facility, the affected facility is designed to accommodate such alternative use

- *No-Burn Day* - any day on which the State Board or a District prohibits agricultural burning (SMAQMD Rule 501).

- *Nonattainment Pollutant* - any pollutant as well as any precursors of such pollutants that has been designated "nonattainment" by the USEPA in the Federal Register or that has been designated nonattainment by the CARB pursuant to Section 39607 of the Health and Safety Code (SMAQMD Rule 202).

- *Nonvapor Degreaser* - any degreaser using solvent that, if heated, is maintained below the initial boiling point temperature of the solvent (SMAQMD Rule 454).

- *Open Burning in Agricultural Operations* - (see also "agricultural burning") includes all of the following (SMAQMD Rule 501):

1. the burning in the open of materials produced wholly from operations in the growing and harvesting of crops or raising of fowl or animals for the primary purpose of making a profit, providing of livelihood, or conducting agricultural research or instruction by an educational institution
2. the open burning of grass and weeds in or adjacent to fields in cultivation or being prepared for cultivation
3. the open burning of material not produced wholly from these operations, but which are intimately related to the growing or harvesting of crops and which are used in the field, such as fertilizer and pesticide sacks or containers, where the sacks or containers are emptied and burned in the field, and except as prohibited by District rules.

- *Open-top Vapor Degreaser* - any batch-loaded degreaser using solvent that is maintained above the initial boiling point temperature of the solvent. Degreasing occurs through the condensation of the resultant solvent vapor onto the surface of the workload (SMAQMD Rule 454).

- *Organic Materials* - chemical compounds of carbon excluding CO, CO_2, carbonic acid, metallic carbides, metallic carbonates, and ammonium carbonate (SMAQMD Rule 441).

- *Organic Solvents* - organic materials, including diluents and thinners, that are liquid at standard conditions and that are used as dissolvers, viscosity reducers, or cleaning agents, but not including materials which exhibit a boiling point higher than 105 °C (221 °F) at 0.5 mmHg absolute or that have an equivalent vapor pressure unless they are exposed to temperatures exceeding 105 °C (221 °F) (SMAQMD Rule 441).

- *Particulate Matter* - any material that is emitted as liquid or solid particles, or gaseous material that becomes liquid or solid particles when collected at standard conditions (SMAQMD Rule 404).

- *Phase II Acid Rain Facility* - a facility that includes any affected unit listed in 40 CFR 72.6 that is subject to the Acid Rain Program (SMAQMD Rule 207).

- *Photochemically Reactive Solvent* - any solvent that contains, in aggregate, more than 20 percent by volume of compounds in any of the following chemical compound classes, or that contains compounds in any single one of those classes in concentrations that exceed the values listed, where compounds which can be classed as members of more than one of these classes are considered to be members of the most reactive group, i.e., that group whose allowable concentration is lowest (SMAQMD Rule 441):
  1. hydrocarbons, alcohols, aldehydes, esters, ethers, or ketones having an olefinic or cyclo-olefinic type of unsaturation; 5 percent by volume
  2. aromatic compounds with eight or more carbon atoms to the molecule, except ethylbenzene; 8 percent by volume
  3. ethylbenzene, ketones having branched hydrocarbon structures, trichloroethylene or toluene; 20 percent by volume.

- *PM_{10}* - particulate matter with an aerodynamic diameter smaller than or equal to a nominal 10 microns as measured by an applicable reference test method or methods found in Article 2, Subchapter 6, 17 CCR (commencing with Section 94100). Total suspended particulate matter emissions from a stationary source occurring after 1 January 1977 must be recalculated as PM_{10}, except as provided in SMAQMD Regulation 2, Rule 202, Section 302.7 (SMAQMD Rule 202).

- *Precursor* - a pollutant that, when emitted into the atmosphere, may undergo either a chemical or physical change which then produces another pollutant for which an ambient air quality standard has been

adopted, or whose presence in the atmosphere will contribute to the violation of one or more ambient air quality standards, including all of the following (SMAQMD Rule 202):

1. reactive organic compounds (ROC)
2. NO_x
3. SO_x.

- *Primers* - coatings formulated and applied to substrates to provide a firm bond between the substrate and subsequent coats (SMAQMD Rule 441).

- *Process Heaters* - any unit fired with any fuel which transfers heat from combustion gases to water or process streams (SMAQMD Rule 411).

- *Publication Gravure Printing* - gravure printing on paper that is subsequently formed into books, magazines, catalogs, brochures, directories, newspaper supplements, or other types of printed material (SMAQMD Rule 450).

- *Range Improvement Burning* - the use of open fires to remove vegetation for wildlife, game, or livestock habitat or for the initial establishment of an agricultural practice on previously uncultivated land (SMAQMD Rule 501).

- *Reactive Organic Compound (ROC)* - any volatile compound containing at least one atom of carbon, except (SMAQMD Rule 202):
    a. methylene chloride (dichloromethane)
    b. 1,1,1-trichloroethane (methyl chloroform)
    c. 1,1,2-trichlorotrifluoroethane (CFC-113)
    d. trichlorofluoromethane (CFC-11)
    e. dichlorodifluoromethane (CFC-12)
    f. dichlorotetrafluoroethane (CFC-114)
    g. chloropentafluoroethane (CFC-115)
    h. chlorodifluoromethane (HCFC-22)
    i. trifluoromethane (HFC-23)
    j. 1-chloro 1,1-difluoroethane (HCFC-142b)
    k. 1,1,1-trifluoro 2,2-dichloroethane (HFC-123)
    l. 1,1,1,2-tetrafluoroethane (HFC-134a)
    m. 1,1-dichloro 1-fluoroethane (HFC-141b)
    n. 2-chloro-1,1,1,2-tetrafluoroethane (HCFC-124)
    o. pentafluoroethane (HCFC-125)
    p. 1,1,2,2-tetrafluoroethane (HFC-134)
    q. 1,1,1-trifluoroethane (HFC-143a)
    r. 1,1-difluoroethane (HFC-152a)
    s. cyclic, branched or linear completely fluorinated alkanes
    t. cyclic, branched or linear completely fluorinated saturated ethers
    u. cyclic, branched or linear completely fluorinated saturated tertiary amines
    v saturated perfluorocarbons with sulfur bonding only to carbon and/or fluorine
    w. methane
    x. CO, CO_2
    y. carbonic acid
    z. metallic carbides or carbonates
    1. ammonium carbonates
    2. acetone

3. ethane
4. parachlorobenzotrfluoride, and
5. perchloroethylene.

- *Reconstructed Source* - (see also "reconstruction") with reference to air pollution sources subject to SMAQMD Regulation 2, Rule 202 New Source Review, "reconstructed source" is defined as any stationary source or emissions unit undergoing physical modification where the fixed capital cost of the new components exceeds 50 percent of the fixed capital cost of a comparable entirely new stationary source or emissions unit, where "fixed capital cost" means that capital needed to provide all the depreciable components; a reconstructed source shall be treated as a new stationary source or emissions unit (SMAQMD Rule 202).

- *Reduced Sulfur Compounds* - hydrogen sulfide, carbon disulfide, and carbonyl sulfide (SMAQMD Rule 202).

- *Refrigerated Freeboard Chiller* - a secondary cooling coil mounted above the primary condenser that provides a chilled air blanket above the solvent vapor-air interface to cause the condensation of additional solvent vapor, thereby increasing vapor control efficiency (SMAQMD Rule 454).

- *Regenerative Cycle Gas Turbine* - any gas turbine that recovers thermal energy from the exhaust gases and utilizes that thermal energy to preheat air prior to its entering the combustor (SMAQMD Rule 413).

- *Regulation* - one of the major subdivisions of the rules of the SMAQMD.

- *Remote Reservoir Degreaser* - a nonvapor degreaser with a tank that is completely enclosed except for a solvent return opening no larger than 15.50 $in.^2$ (100 cm^2) that allows used solvent to drain into it from a separate solvent sink or work area and which is not accessible for soaking workloads (SMAQMD Rule 454).

- *Repair* - recoating of previously coated product due to mechanical damage to the coating following normal painting operations (SMAQMD Rule 451).

- *Replacement Equipment* - a replacement of a piece of equipment with an identical piece of equipment with emissions less than or equal to those from the original piece of equipment (SMAQMD Rule).

- *Rule* - refers to one of the SMAQMD Rules.

- *Safety-Indicating Coating* - a coating that is designed to have a color change when it is exposed to an unsafe condition, such as a high temperature or an unsafe concentration of gas (SMAQMD Rule 202).

- *SCR (Selective Catalytic Reduction)* - a postcombustion reduction technique, where a reducing agent is used in a gas-phase reaction with oxides of nitrogen in the presence of a catalyst to form nitrogen and water (SMAQMD Rule 413).

- *Screen Printing* - a printing operation in which the printing ink passes through a refined form of stencil to a web or fabric. The stencil openings determine the form and dimension of the imprint (SMAQMD Rule 450).

- *Sealers* - coatings formulated for and applied to a substrate to prevent subsequent coatings from being absorbed by the substrate or to prevent harm to subsequent coatings by materials in the substrate (SMAQMD Rule 441).

- *Shop Environment* - a commercial, government, or educational stationary source where coatings are applied, excluding those locations at which coatings subject to the Architectural Coatings section are applied to items at the point of final assembly (SMAQMD Rule 451).

- *Silviculture* - the establishment, development, care, and reproduction of stands of trees (SMAQMD Rule 501).

- *SMAQMD* - the Sacramento Metropolitan Air Quality Management District.

- *Solvent* - VOC-containing compounds that are used as diluents, thinners, dissolvers, viscosity reducers, or cleaning agents (SMAQMD Rule 454).

- *Standard Conditions* - for gases, a temperature of 15 °C (59 °F) and a gas pressure of 760 mmHg (14.7 psia) (SMAQMD Rule 202).

- *State Board* - the CARB (SMAQMD Rule 501).

- *Stationary Gas Turbine* - any simple cycle gas turbine, regenerative cycle gas turbine, or any gas turbine portion of a combined cycle steam electric generating system, that is not self-propelled (it may, however, be mounted on a vehicle for portability) (SMAQMD Rule 413).

- *Stationary Source* - any building, structure, facility, or emissions unit that emits or may emit any affected pollutant directly or as a fugitive emission (SMAQMD Rule 202).

- *Stencil Coating* - an ink or a coating that is applied by a template or stamp in order to add designs, letters, and/or numbers to the product (SMAQMD Rule 451).

- *Stripper* - a type of surface preparation material applied to the surface of any miscellaneous metal part or product to completely remove maskants, coatings, or coating residues (SMAQMD Rule 451).

- *Surface Preparation Material* - a VOC-containing material applied to the surface of any miscellaneous metal part or product prior to the application of coatings to clean the substrate or to promote adhesion of subsequent coatings (SMAQMD Rule 451).

- *Total Reduced Sulfur Compounds* - hydrogen sulfide, methyl mercaptan, dimethyl sulfide, and dimethyl disulfide (SMAQMD Rule 202).

- *Touch Up* - that portion of the coating operation that is incidental to the main coating process but necessary to cover minor imperfections or to achieve coverage as required (SMAQMD Rule 451).

- *USEPA* - the United States Environmental Protection Agency.

- *Volatile Organic Compound* -
    1. with reference to the requirements of the Surface Coating - Miscellaneous Metal Parts and Products section, any compound containing at least one atom of carbon except for the following exempt compounds (SMAQMD Rule 451):

a. methane
b. CO
c. CO_2
d. carbonic acid
e. metallic carbides or carbonates
f. ammonium carbonates
g. 1,1,1-trichloroethane (methyl chloroform)
h. methylene chloride (dichloromethane)
i. trichlorofluoromethane (CFC-11)
j. dichlorodifluoromethane (CFC-12)
k. chlorodifluoromethane (HCFC-22)
l. trifluoromethane (FC-23)
m. trichlorotrifluoroethane (CFC-113)
n. dichlorotetrafluoroethane (CFC-114)
o. chloropentafluoroethane (CFC-115).

2. with reference to the requirements of the Architectural Coatings, Degreasing, Organic Liquid Loading, and Graphic Arts Printing sections, any compound containing at least one atom of carbon except for the following exempt compounds (refer to the individual Rules, Section 200, for complete citations):
   a. methane
   b. CO
   c. CO_2
   d. carbonic acid
   e. ammonium carbonate
   f. metallic carbides or carbonates
   g. trichlorofluoromethane (CFC-11)
   h. methylene chloride (dichloromethane)
   i. dichlorodifluoromethane (CFC-12)
   j. chlorodifluoromethane (HCFC-22)
   k. 1,1,1-trichloroethane
   l. trifluoromethane (FC-23)
   m. trichlorotrifluoroethane (CFC-113)
   n. dichlorotetrafluoroethane (CFC-114)
   o. chloropentafluoroethane (CFC-115).
   p. dichlorotrifluoroethane (HCFC-123)
   q. 2-chloro-1,1,1,2-tetrafluoroethane (HCFC-124)
   r. pentafluoroethane (HFC-125)
   s. 1,1,2,2-tetrafluoroethane (HFC-134)
   t. tetrafluoroethane (HFC-134a)
   u. dichlorofluoroethane (HCFC-141b)
   v. chlorodifluoroethane (HCFC-142b)
   w. 1,1,1-trifluoroethane (HFC-143a)
   x. 1,1-difluoroethane (HFC-152a)
   y. the following four classes of perfluorocarbon compounds:
      1. cyclic, branched, or linear, completely fluorinated alkanes
      2. cyclic, branched, or linear, completely fluorinated ethers, with no unsaturations
      3. cyclic, branched, or linear, completely fluorinated tertiary amines with no unsaturations
      4. sulfur-containing perfluorocarbons with no unsaturations and with sulfur bonds only to carbon and fluorine.

3. with reference to the requirements of all other sections, compounds and mixtures of compounds of carbon excluding (see the pertinent Rule):
   a. methane
   b. CO
   c. CO_2
   d. carbonic acid
   e. metallic carbides or carbonates
   f. ammonium carbonates
   g. 1,1,1-trichloroethane (methyl chloroform)
   h. methylene chloride (dichloromethane)
   i. trichlorofluoromethane (CFC-11)
   j. dichlorodifluoromethane (CFC-12)
   k. chlorodifluoromethane (CFC-22)
   l. trifluoromethane (FC-23)
   m. trichlorotrifluoroethane (CFC-113)
   n. dichlorotetrafluoroethane (CFC-114)
   o. chloropentafluoroethane (CFC-115)
   p. dichlorotrifluoroethane (HCFC-123)
   q. tetrafluoroethane (HCFC-134a)
   r. dichlorofluoroethane (HCFC-141b)
   s. chlorodifluoroethane (HCFC-142b).

- *Water Treatment Chemicals* - any combination of chemicals used to treat circulating water, including tracers, corrosion inhibitors, antiscalants, dispersants, and biocides (SMAQMD Rule 481).

- *Web* - a continuous sheet of substrate that is printed on web-fed printing presses (SMAQMD Rule 450).

- *Web-Feed* - an automatic system on a printing press that supplies a web substrate to the printing unit (SMAQMD Rule 450).

- *Wipe Cleaning* - that method of cleaning that utilizes a material such as a rag wetted with a solvent, coupled with a physical rubbing process to remove contaminants from metal surfaces (SMAQMD Rule 454).

- *Workload* - the objects put in a degreaser for the purpose of removing oil, grease, soil, coating, dirt, or other undesirable matter from the surface of the objects (SMAQMD Rule 454).

AIR EMISSIONS MANAGEMENT

GUIDANCE FOR SMAQMD CHECKLIST USERS

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AIR EMISSIONS MANAGEMENT

GUIDANCE FOR SMAQMD CHECKLIST USERS

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AIR EMISSIONS MANAGEMENT

GUIDANCE FOR APPENDIX USERS

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COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT Sacramento Metropolitan Air Quality Managment District (SMAQMD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
STATE SPECIFIC AIR REQUIREMENTS **A.5.** **General**	
A.5.1.CA.SM. Installations/ CW facilities are prohibited, under certain circumstances, from discharging air contaminants or other materials that constitute a nuisance (SMAQMD, Rule 402).	Verify that the installation/CW facility does not discharge from any source such quantities of air contaminants or other materials that result in any of the following: - injury, detriment, nuisance or annoyance to the public - endanger the comfort, repose, health, or safety of the public - cause, or have a natural tendency to cause, injury or damage to business or property. (NOTE: Odors from agricultural operations that are necessary for the growing of crops or raising of fowls or animals are exempt from this requirement.)
A.5.2.CA.SM. Installations/ CW facilities are prohibited from circumventing any of these air emission requirements (SMAQMD, Rule 102).	Verify that the installation/CW facility has not built, erected, installed, or used any article, machine, equipment, or other contrivance that, without actually reducing the total release of air contaminants to the atmosphere, seems to reduce or conceals an emission that is in violation of these emission standards. Verify that the total emitted quantity of any air contaminant from a single source operation that emits through two or more emission points is measured as the highest concentration in any of the emission points and the combined exhaust gas volume from all emission points. Verify that if air contaminants from two or more source operations are combined prior to emission, all applicable requirements will apply to the combined emission as if it were a single source, unless the APCO approves treating each source as separate.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
Permits **A.5.3.CA.SM.** Installations/ CW facilities that use any equipment or conduct any activities or operations which cause or control the emission of air contaminants must meet specific permit requirements (SMAQMD, Rule 201, Sections 100, 301, 302, 304, 305, 401, 402, and 405).	(NOTE: See Appendix 1-1 for a list of equipment exempt from these permit requirements.) Determine if the installation/CW facility intends to build, erect, alter, or replace, or currently operates or uses any article, machine, equipment, or other contrivance that may cause, eliminate, reduce, or control the issuance of air contaminants. Verify that the installation/CW facility obtains an Authority to Construct permit from the Control Officer before beginning any construction or alteration of these sources. Verify that the installation/CW facility has obtained Permits to Operate before starting these sources. Verify that no permit is transferred between locations, pieces of equipment, or persons unless a new application is filed with and approved by the APCO. Verify that the installation/CW facility meets all the specific written conditions and requirements of the permit. Verify that the installation/CW facility has copies of its Permits to Operate on the operating premises of the permitted equipment. Verify that Permits to Operate are renewed annually. Verify that Permits to Operate, facsimiles, or identifications have not been defaced, altered, forged, or counterfeited.

COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT Sacramento Metropolitan Air Quality Managment District (SMAQMD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
Title V Operating Permits	(NOTE: This Rule establishes a permitting system consistent with the Federal requirements of 40 CFR Part 70 (major facility review). This Rule applies to: - major stationary sources - any stationary source with a potential to emit 100 tons/yr of any regulated air pollutant - affected sources under the acid rain provisions of Title IV of the Federal Clean Act - any source subject to PSD regulations - any solid waste incineration unit required to obtain a Title V operating permit - any other stationary source in a source category designated by USEPA pursuant to 40 CFR 70.3 - any stationary source that is subject to standards or other requirements promulgated by USEPA pursuant to 40 CFR 70.3 at the time the requirement is promulgated.) (NOTE: This Rule does not apply to residential wood heater and asbestos demolition and renovation.)
A.5.4.CA.SM. Installations/ CW facilities with sources subject to this Rule must apply for Title V operating permits according to a specific schedule (SMAQMD Rule 207, Sections 301.1 through 301.5).	Verify that the installation/CW facility has applied for a Title V permit for existing sources subject to this Rule within 12 mo after the effective date of the Rule, or by the date required by the APCO (NOTE: Installations/CW facilities with stationary sources that have a potential to emit at or above the major source trigger levels but that actually have emissions below the following emission levels for each pollutant, may submit to the APCO a complete application for a Title V operating permit within 3 yrs after the USEPA approval of the District's operating permit program: - less than 25 tons/yr or half of the Title I major source thresholds corresponding to the nonattainment designation of the District, whichever is lower, of NO_x or VOCs - less than 50 tons/yr or half the major source thresholds listed in 40 CFR Part 52 which corresponds to the nonattainment designation of the District, whichever is lower, of PM_{10} or SO_2 - less than 50 tons/yr or half the major source thresholds listed in 40 CFR Part 51 which corresponds to the nonattainment designation of the District, whichever is lower, of CO - less than 7 tons/yr of any single hazardous air pollutant - less than 15 tons/yr of any combination of hazardous air pollutants.) Verify that the installation/CW facility submits an application for any new stationary source which is subject to this Rule within 12 mo of commencing operation of the source. **A.5.4.CA.SM. Continued on Next Page**

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.5.4.CA.SM. (continued)	Verify that the installation/CW facility submits an application for an existing stationary source which becomes subject to this Rule due to a modification to its operation within 12 mo of commencing operation of the modified source. Verify that the installation/CW facility submits an application for a permit renewal no later than 12 mo prior to the expiration of an existing permit. Determine if the installation/CW facility has any Phase II acid rain facilities. Verify that the installation/CW facility submits an application for initial Phase II acid rain SO_x permits by 1 January 1996, and an application for initial Phase II acid rain NO_x permits by 1 January 1998. (NOTE: Installations/CW facilities may be able to limit emissions or apply for synthetic minor operating permits to avoid having to apply for a Title V operating permit.)
A.5.5.CA.SM. Installations/CW facilities with sources subject to this Rule must meet specific reporting requirements (SMAQMD Rule 207, Section 501).	Verify that the installation/CW facility complies with the following reporting requirements: - submits reports of any required monitoring at least every 6 mo, with all deviations from permit conditions clearly identified - notifies the APCO of any emergency conditions as soon as reasonably possible, but no later than 1 h after detection - reports to the APCO within 24 h any deviation from permit conditions not caused by emergencies.
A.5.6.CA.SM. Installations/CW facilities with sources subject to this Rule must meet specific recordkeeping requirements (SMAQMD Rule 207, Section 502).	Verify that the installation/CW facility maintains the following monitoring records onsite for at least 5 yr from the monitoring date: - the date, place, and time of sampling or measurements - the date(s) analyses were performed - the company or entity that performed the analyses - the analytical techniques or methods used - the results of such analyses - the operating conditions existing at the time of the measurement. Verify that the installation/CW facility maintains records for process weight, fuel usage, and operating hours as specified in the Title V operating permit.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
Equipment Breakdown Conditions	
A.5.7.CA.SM. Installations/ CW facilities that have equipment breakdowns must meet specific requirements (SMAQMD, Rule 602).	Verify that, in the event of a breakdown, the installation/CW facility notifies the APCO as soon as reasonably possible, but no later than 1 h after its detection, unless the APCO cannot be contacted, in which case it notifies him at the beginning of the next regular working day. Verify that, in the event of a breakdown, the installation/CW facility takes one of the following actions: - immediate appropriate corrective measures achieving compliance within 24 h or before the beginning of the next production run, whichever is sooner (or within 96 h for breakdowns of continuous monitoring equipment) - shuts-down for corrective measures and whatever steps possible to minimize the impact of the breakdown within 24 h or before the beginning of the next production run, whichever is sooner (or within 96 h for breakdowns of continuous monitoring equipment) - obtains an emergency variance if the breakdown can not be corrected before the end of the production run or within 24 h (or within 96 h for breakdowns of continuous monitoring equipment). Verify that within 1 wk after a breakdown has been corrected, the installation/CW facility submits a written report to the APCO with all of the following information: - statement that the breakdown condition has been corrected along with the date of the correction and proof of compliance - the causes of the breakdown - the corrective measures taken - estimated emissions caused by the breakdown.
Particulate Matter	
A.5.8.CA.SM. Installations/ CW facilities must meet specific particulate matter discharge standards (SMAQMD, Rule 404).	Verify that the installation/CW facility does not discharge into the atmosphere from any source, particulate matter in excess of 0.23 g/dscm (0.1 gr/dscf). (NOTE: See the Combustion Contaminants section for an exception to this requirement.)

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
Sulfur Emissions **A.5.9.CA.SM.** Installations/ CW facilities must meet specific sulfur compound emission standards (SMAQMD, Rule 406, Section 301).	Verify that the installation/CW facility does not emit, from any single source, sulfur compounds in concentrations that at the point of discharge exceed 0.2 percent by volume, calculated as SO_2.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.10. STEAM GENERATORS	(NOTE: This purpose of this Rule is to limit NO_x and CO emissions from existing industrial, institutional, and commercial boilers, steam generators and process heaters. This Rule applies to all such units with a rated heat input of 5 MBtu/h or more. This Rule does not apply to: - units with a rated heat input capacity of less than 5 MBtu/h - units used exclusively by an electric utility to generate electricity - process heaters, kilns and furnaces where the produces of combustion come into direct contact with the material to be heated - waste heat recovery boilers used to recover heat from the exhaust of combustion turbines or reciprocating internal combustion engines.)
A.10.1.CA.SM. Boilers, steam generators, and process heaters must meet RACT emission limits (SMAQMD Rule 411, Sections 301, 302, and 303).	Verify that units firing gaseous fuel meet the following limits: - NO_x emissions are not to exceed 70 ppmv on a dry basis, corrected to 3 percent O_2 - CO emissions are not to exceed 400 ppmv on a dry basis, corrected to 3 percent O_2. Verify that units firing nongaseous fuel meet the following limits: - NO_x emissions are not to exceed 115 ppmv on a dry basis, corrected to 3 percent O_2 - CO emissions are not to exceed 400 ppmv on a dry basis, corrected to 3 percent O_2. Verify that units firing biomass fuel meet the following limits: - NO_x emissions are not to exceed 110 ppmv on a dry basis, corrected to 12 percent O_2 - CO emissions are not to exceed 400 ppmv on a dry basis, corrected to 12 percent O_2. (NOTE: Units with an annual heat input of less than 90,000 therms may qualify for the low fuel exemption; see below for requirements.) (NOTE: Units that must be retrofitted to meet these requirements must meet the BARCT requirements; see the next checklist item.)

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.10.2.CA.SM. Boilers, steam generators, and process heaters that must be retrofitted must meet BARCT emission limits (SMAQMD Rule 411, Sections 304, 305, and 306).	Verify that units firing gaseous fuel meet the following limits: - NO_x emissions are not to exceed 30 ppmv on a dry basis, corrected to 3 percent O_2 - CO emissions are not to exceed 400 ppmv on a dry basis, corrected to 3 percent O_2. Verify that units firing nongaseous fuel meet the following limits: - NO_x emissions are not to exceed 40 ppmv on a dry basis, corrected to 3 percent O_2 - CO emissions are not to exceed 400 ppmv on a dry basis, corrected to 3 percent O_2. Verify that units firing biomass fuel meet the following limits: - NO_x emissions are not to exceed 70 ppmv on a dry basis, corrected to 12 percent O_2 - CO emissions are not to exceed 400 ppmv on a dry basis, corrected to 12 percent O_2. (NOTE: Units with an annual heat input of less than 90,000 therms may qualify for the low fuel exemption; see A.10.4.CA.SM. below for requirements.)
A.10.3.CA.SM. Emissions from units burning nongaseous fuel during emergency interruption of gaseous fuel supplies must meet specific limits (SMAQMD Regulation 411, Sections 307 and 502.1).	Verify that NO_x emission from any unit which normally burns gaseous fuels but burns nongaseous fuel only during emergency interruption of gaseous fuel supply by the serving utility do not exceed 150 ppmv on a dry basis (corrected to 3 percent O_2) when firing nongaseous fuels. (NOTE: Operation of the unit under this exemption may not exceed 168 h/calendar year, excluding equipment and emission testing time not exceeding 48 h/calendar year.) Verify that owners/operators keep records of the cumulative hours of operation on nongaseous fuels.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.10.4.CA.SM. Units with an annual heat input of less than 90,000 therms must meet specific operating and equipment requirements (SMAQMD Regulation 411, Sections 308, 309.2, and 502.2).	Verify that any unit with an annual heat input of less than 90,000 therms, or any unit that will be operated with annual heat input of less than 90,000 therms, or any unit that will be taken out of service by 31 May 1997, meets one of the following conditions: - the unit is operated in a manner that maintains stack-gas oxygen concentrations at less than or equal to 3 percent by volume on a dry basis, or - the unit is tuned at least once per year by a qualified technician, or - the unit is operated in compliance with applicable RACT or BARCT emission limits (see above). Verify that owners/operators: - install a nonresetting totalizing fuel meter in the fuel line for each fuel burned (if a volumetric flow meter is installed, it must be equipped with pressure and temperature gauges), or - install a nonresetting totalizing hour meter. Verify that owners/operators monitor and record for each unit the high heat value (HHV) and cumulative gaseous and nongaseous fuel usage for 2 yr.
A.10.5.CA.SM. Units must meet specific equipment requirements (SMAQMD Regulation 411, Section 309.1).	Verify that owners/operators of units subject to this Rule install a nonresetting totalizing hour meter on each unit.
A.10.6.CA.SM. Owners/operators must conduct source testing (SMAQMD Regulation 411, Section 401.7)	Verify that owners/operators of units rated at 25 MBtu/h or more test annually, while other units are tested biennially.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.15. **FUEL-BURNING EQUIPMENT**	
A.15.1.CA.SM. Installations/CW facilities are allowed to burn only those fuels that meet specific sulfur content standards (SMAQMD, Rule 420).	Determine if the installation/CW facility burns any fuels containing sulfur compounds, other than in the following situations which are exempt from these standards: - the incineration of waste gases, provided all of the following conditions are met: - the gross heating value is less than 2.14 kg-cal/m^3 (300 Btu/ft^3) at standard conditions - the fuel used to incinerate the gases meets the sulfur standards set forth in these requirements - the use of fuels where the gaseous products of combustion are used as raw materials for other processes - the use of liquid or solid fuel to propel or test any vehicle, aircraft, missile, locomotive, boat, or ship - the use of an out-of-compliance fuel in cases where process conditions or control equipment remove sulfur compounds from the stack gases so that the sulfur compound emission is no greater than what it would be if an in-compliance fuel were used - the use of out-of-compliance liquid fuel whenever the supply of gaseous fuel is unavailable due to accident, act of war, act of God, act of the public enemy, or other conditions of emergency - the burning and incineration of sewage treatment plant waste gases provided the fuel used to incinerate these gases meets these sulfur standards. Verify that the installation/CW facility does not burn any fuels meeting either of the following conditions: - gaseous fuels containing sulfur compounds in excess of 1.14 g/m^3 (50 gr/100 ft^3), calculated as hydrogen sulfide at standard conditions - liquid or solid fuels with a sulfur content in excess of 0.5 percent by weight.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.20. GAS TURBINES	(NOTE: The purpose of this rule is to limit emissions of NO_x from stationary gas turbines. This Rule applies to all stationary gas turbines with ratings equal to or greater than 0.3 megawatt (MW) output, or 3 MMBtu/h input and operated on gaseous and/or liquid fuel. The RACT and BARCT requirements of this Rule do not apply to: - stationary gas turbines with a power rating less than 0.3 megawatts (MW) - emergency standby gas turbines - laboratory units - units that will be removed from service prior to 31 May 1997 - startup and shutdown times (not to exceed 1 h for startup or shutdown).)
A.20.1.CA.SM. Stationary gas turbines must comply with RACT emission limits for NO_x (SMAQMD Regulation 413, Section 301).	Verify that no person operates a stationary gas turbine unless NO_x emission concentrations, corrected to 15 percent O_2 (dry basis), do not exceed the compliance limit listed below: - emissions from stationary gas turbines firing gaseous fuel do not exceed 42 ppmv - emissions from stationary gas turbines firing liquid fuel do not exceed 65 ppmv. (NOTE: Stationary gas turbines that require retrofitting to meet emissions limits must comply with the BARCT requirements of the next checklist item.)
A.20.2.CA.SM. Owners/ operators of stationary gas turbines that must retrofit the turbines to meet emissions limits must comply with BARCT emission limits for NO_x (SMAQMD Regulation 413, Section 302).	Verify that no person operates a stationary gas turbine requiring retrofitting unless NO_x emission concentrations, corrected to 15 percent O_2 (dry basis), do not exceed the compliance limits listed below: - emissions from stationary gas turbines firing gaseous fuel: - with a rated unit size output less than 2.9 MW, or any unit greater than or equal to 2.9 MW operating less than 877 h/yr, do not exceed 25 ppmv - with a rated unit size output greater than 2.9 MW but less than 10 MW do not exceed 42 ppmv - with a rated unit size greater than or equal to 10 MW without SCR installed do not exceed 15 ppmv - with a rated unit size greater than or equal to 10 MW with SCR installed do not exceed 9 ppmv - emissions from stationary gas turbines firing liquid fuel: - with a rated unit size output less than 10 MW, or any unit greater than or equal to 2.9 MW operating less than 877 h/yr, do not exceed 65 ppmv - with a rated unit size greater than or equal to 10 MW without SCR installed do not exceed 42 ppmv - with a rated unit size greater than or equal to 10 MW with SCR installed do not exceed 25 ppmv.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.20.3.CA.SM. Operators of stationary gas turbines must meet equipment requirements (SMAQMD Regulation 413, Section 303).	Verify that the owner/operator of any unit with a rated unit size output of less than 10 MW installs, operates, and maintains in calibration, equipment approved by the APCO that continuously monitors and records Control System Operating Parameters and Elapsed Time of Operation. Verify that the owner/operator of any unit with a rated unit size output greater than or equal to 10 MW and operated more than 4000 h in any one calendar year during the 3 yr prior to 6 April 1995 installs, operates, and maintains in calibration, equipment approved by the APCO that continuously monitors and records Control System Operating Parameters, Elapsed Time of Operation, and continuous exhaust gas NO_x concentrations. Verify that the owner/operator of any unit subject to this Rule installs a nonresettable totalizing hour meter on each turbine.
A.20.4.CA.SM. Owners/ operators of stationary gas turbines must meet testing requirements (SMAQMD Regulation 413, Sections 501 and 503).	Verify that any person operating a stationary gas turbine subject to any provisions of this Rule tests the unit annually for oxides of nitrogen using EPA Method 20, and for oxygen content using ARB Method 100 or EPA Method 3A.
A.20.5.CA.SM. Owners/ operators of stationary gas turbines must meet record-keeping requirements (SMAQMD Regulation 413, Section 502).	Verify that any person operating a stationary gas turbine subject to any provisions of this Rule maintains the following records for 2 yr, and makes them available to the APCO upon request: - permit number of each gas turbine - manufacturer, model number and rating in megawatts of each gas turbine - actual startup and shutdown time, daily hours of operation, and cumulative hours of operation to date for the calendar year - actual daily fuel usage of each unit - date and results of most recent emission test reported as ppmv at 15 percent O_2 and pound per unit time.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.25. MISCELLANEOUS INCINERATORS	
A.25.1.CA.SM. Installations/CW facilities must meet specific combustion contaminant emission standards (SMAQMD, Rule 406, Section 302).	Determine if the installation/CW facility operates any sources of combustion contaminants. Verify that incinerators installed before 1 July 1978 and rated less than or equal to 100 lb/h [45.36 kg/h] capacity do not discharge more than 0.69 g/dscm (0.3 gr/dscf) of gas calculated at 12 percent CO_2. (NOTE: For incinerators other than pathological incinerators, the CO_2 produced by combustion of any liquid or gaseous fuels is excluded from the calculation to 12 percent CO_2.) Verify that all other sources do not discharge more than 0.23 g/dscm (0.1 gr/dscf) of gas.
A.25.2.CA.SM. Installations/CW facilities must follow specific requirements regarding burning combustible refuse in any incinerator (SMAQMD, Rule 408).	Verify that combustible refuse is not burned in any incinerator or other enclosure except where: - the installation/CW facility burns refuse generated and burned on the premises of a single or two-family dwelling located in any of the following areas: - the unincorporated area of Sacramento County situated south of the center line of Township 7 North - any incorporated city whose boundaries are situated south of the center line of Township 7 North. - the installation/CW facility burns combustible in an approved multiple-chamber incinerator or other approved equipment. Verify that the following materials are never burned in an incinerator: - putrescible waste - bedding - rubber products.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.45. **SEWAGE SLUDGE INCINERATORS**	
A.45.1.CA.SM. Installations/CW facilities that operate sludge incineration plants, sludge drying plants, or a combination of these that process wastewater treatment plant sludges must follow specific testing and reporting requirements (SMAQMD, Rule 903, Section 400 and 504.)	Verify that the APCO is notified of the actual date of initial start up of a new source within 15 days after the start up. Verify that, unless waived by the APCO, emissions are tested within 90 days of the startup of a new source. Verify that the APCO is notified at least 30 days prior to an emission test. Verify that all test samples are analyzed and mercury emissions determined within 30 days after the test. Verify that the APCO is notified by registered letter before the close of the business day following receipt of the test results. Verify that records of emission test results and other data needed to determine total emissions are retained at the source and made available for inspection for at least 2 yr. Verify that installations/CW facilities, where mercury emissions exceed 1600 g/day [3.53 lb/day], monitor these emissions at least once a year.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.65. **FUGITIVE EMISSIONS**	
A.65.1.CA.SM. Installations/CW facilities must meet specific discharge standards for dust and condensed fumes (SMAQMD, Rule 405).	Verify that the installation/CW facility does not discharge in any 1 h from any source, dust or condensed fumes in total quantities in excess of the amounts shown in Appendix 1-2.
A.65.2.CA.SM. Installations/CW facilities must regulate operations that may cause fugitive dust emissions (SMAQMD, Rule 403).	Determine if the installation/CW facility conducts operations that periodically result in fugitive dust emissions, other than any of the following which are exempt from this requirement: - emissions emanating from agricultural operations or currently unworked land designated as reclaimed for agriculture - emissions from unpaved roads open to public travel outside of industrial or commercial facilities. Verify that the installation/CW facility, in order to prevent fugitive dust emissions from traveling beyond the emission source property line, takes every reasonable precaution including, but not limited, to the following: - use of water or chemicals to control dust in demolition, construction, or land-clearing operations - application of asphalt, water, or suitable chemicals on dirt roads, materials stockpiles, and other surfaces that can give rise to airborne dusts - other methods approved by the APCO.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.100 **COATING OPERATIONS**	
Aerospace Coatings	(NOTE: This purpose of this Rule is to limit the emission of volatile organic compounds from the surface preparation, cleanup, and application of coating to aerospace components. This Rule does not apply to: - paper, fabric, or film adhesives - coatings in nonrefillable aerosol containers having a capacity of 1 L (1.1 quart) or less - coatings that are applies through a template, stencil, or stamp to add designs, letters, or numbers to an aerospace component.) (NOTE: There is a low-usage exemption for installations/CW facilities that use less than 200 gal of noncompliant coatings over a 12-mo period. In order to obtain this exemption, the installation/CW facility must petition the APCO and comply with the recordkeeping requirements of A.100.4.CA.SM.)
A.100.1.CA.SM. Aerospace coatings must meet specific VOC content limits requirements (SMAQMD Rule 456, Sections 301 and 302).	Verify that coatings containing VOCs in excess of the limits listed in Appendix 1-3 are not used unless emissions are controlled by an air pollution abatement device that has a control device efficiency of at least 95 percent on a mass basis and an emissions collection efficiency of at least 90 percent on a mass basis.
A.100.2.CA.SM. The application of aerospace coatings must meet specific requirements (SMAQMD Rule 456, Section 303).	Verify that the installation/CW facility uses one of the following surface coating methods: - electrostatic application - flow coating - dip coating - an application method that provides a transfer efficiency greater than or equal to 65 percent - approved alternative methods if the 65 percent transfer efficiency cannot be achieved by any acceptable means. (NOTE: Touchup and repair operations and the use of detailing guns are not subject to these methods requirements.)

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.100.3.CA.SM. Cleanup and surface preparation materials must meet specific requirements (SMAQMD Rule 456, Section 304).	Verify that any person or stationary source using surface preparation and cleanup materials for aerospace coating operations complies with all of the following requirements: - except for electrostatic spray guns, no one uses VOC-containing materials for cleaning spray guns unless the spray gun is cleaned in an enclosed gun cleaner - closed containers are used for the disposal of cloth or paper used for surface preparation, cleanup and coating removal - VOC-containing materials are stored in closed containers when not in use. (NOTE: A person may use an alternative gun cleaning systems, provided the emission loss from the system is demonstrated to be less than or equivalent to the emission loss from an enclosed gun cleaner.)
A.100.4.CA.SM. Aerospace component operations must meet specific record-keeping requirements (SMAQMD Rule 456, Section 501).	Verify that the installation/CW facility keeps a current list of coatings and makeup solvents in use, including: - the product name/code and type of material, including the category types listed in Appendix 1-3 - the VOC content of the material - the actual mixing ratio used for the coating - method of application of the material - a designation of which materials are used pursuant to the low-usage exemption. Verify that persons using materials that comply with the VOC content limits of Appendix 1-3, or who are claiming the low-usage exemption, records must be maintained that show on a monthly basis the type and volume of coatings and makeup solvents used. Verify that persons using materials that exceed the VOC limits in Appendix 1-3 and using an approved emission control system, records must be maintained showing on a daily basis the type and volume of coatings and makeup solvents used. Verify that persons using an emission control system to meet the requirements of this Rule maintain the records required by the approved Operation and Maintenance Plan. Verify that all records are retained for 2 yr and made available to the APCO for inspection upon request.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
Architectural Coatings	
A.100.5.CA.SM. Installations/CW facilities that apply certain types of architectural coatings must meet specific requirements (SMAQMD, Rule 442, Section 100).	Determine if the installation/CW facility uses any architectural coatings, other than the following which are exempt from these requirements: - coatings supplied in containers of 1 L (1.1 qt) or less - coatings sold in nonrefillable aerosol containers of 1 L (1.1 qt) or less - coatings recommended by the manufacturer for use solely as emulsion-type bituminous pavement sealers.
A.100.6.CA.SM. Installations/CW facilities that apply nonexempt architectural coatings must ensure that those coatings meet specific VOC content limits (SMAQMD, Rule 442, Sections 301 through 303).	Verify that the installation/CW facility does not use any of the architectural coatings listed in Appendix 1-4 if they exceed the VOC limits listed. (NOTE: Architectural coatings manufactured prior to any VOC emission limit effective date, listed in Appendix 1-4, that do not meet the new limit may be used without penalty for 3 yr after that date.) Verify that every other architectural coating used by the installation/CW facility does not contain more than 250 g [0.55 lb] of VOC/L of coating, less water and exempt solvents, and excluding colorant added to tint bases. Verify that in any instance where a coating listed in Appendix 1-4 is recommended for use as a coating for which a lower VOC standard is specified, then the most restrictive standard is met, except for the following when they are represented as coatings that would otherwise have to meet a lower VOC standard in the manner specified: - Industrial Maintenance Coatings, High-Temperature, represented as metallic pigmented coatings for use consistent with the definition of the Industrial Maintenance Coatings - Lacquer Sanding Sealers, recommended for use as sanding sealers in conjunction with clear lacquer topcoats - Metallic Pigmented Coatings, recommended for use as any of the following: - primers, sealers or undercoaters - roof coatings - industrial maintenance coatings - Shellacs, represented in any other manner.
A.100.7.CA.SM. Installations/CW facilities that apply nonexempt architectural coatings must meet specific storage requirements (SMAQMD, Rule 442, Section 304).	Verify that all VOC-containing materials are stored in closed containers when not in use.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.100.8.CA.SM. Installations/CW facilities that apply nonexempt architectural coatings must meet specific cleanup requirements (SMAQMD, Rule 442, Section 305).	Verify that no person uses VOCs for the cleanup of spray equipment unless equipment for the collection of the cleaning compounds and minimizing of its evaporation to the atmosphere is used.
Automotive, Truck and Heavy Equipment Finishing and Refinishing	(NOTE: This purpose of this Rule is to limit the emission of volatile organic compounds from automotive, truck, or heavy equipment finishing or refinishing. This Rule does not apply to: - stencil coatings - coatings in nonrefillable aerosol containers having a capacity of 1 L (1.1 quart) or less.) (NOTE: Operations subject to this Rule are not subject to the requirements of the Organic Solvents section; see A.155.)
A.100.9.CA.SM. Coatings used in vehicle finishing/ refinishing must meet specific VOC content limits requirements (SMAQMD Rule 459, Sections 301 and 302).	Verify that coatings containing VOCs in excess of the limits listed in Appendix 1-5 are not used unless emissions are controlled by air pollution control equipment approved by the APCO that has an overall system efficiency of at least 85 percent.
A.100.10.CA.SM. Application equipment must meet specific requirements (SMAQMD Rule 459, Section 303).	Verify no person applies coating to any Group I or Group II vehicles or their parts unless one of the following methods is used: - electrostatic application - high volume low pressure spray equipment - any other equivalent method which has been approved in writing by the APCO. (NOTE: These requirements will apply to the application of primers, pretreatment wash primers, precoats, primer surfacers, and primer sealers after 1 January 1997. These requirements will apply to the application of all coatings subject to this Rule after 1 January 1998.) Verify that the installation/CW facility has a training program for the use of application equipment.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.100.11.CA.SM. Cleanup and surface preparation materials must meet specific requirements (SMAQMD Rule 459, Section 306).	Verify that any person or stationary source using surface preparation and cleanup materials complies with all of the following requirements: - closed containers are used for the disposal of cloth or paper used for surface preparation, cleanup and coating removal - VOC-containing materials are stored in closed containers when not in use - effective 1 January 1997, no one uses VOC-containing materials to clean equipment unless the equipment is disassembled and cleaned in an enclosed system - effective 1 January 1997, no one uses materials for surface preparation, cleanup or coating removal that has a VOC content in excess of 72 g/L, less exempt compounds and water. (NOTE: The VOC content limits do not apply to hand-held spray bottles used for the removal of road tar from the vehicle, or to materials used to clean plastic parts. The VOC content limit on the latter is 780 g/L.)
A.100.12.CA.SM. The use of certain coatings must meet specific limits (SMAQMD Rule 459, Sections 307 and 308).	Verify that the use of specialty coatings (except antiglare/safety coatings) does not exceed five percent of all coatings applied on a monthly basis. Verify that the use of precoat does not exceed 25 percent, by volume, of the amount of primer surfacer applied in conjunction with the precoat, on a monthly basis.
A.100.13.CA.SM. Coating operations must meet specific recordkeeping requirements (SMAQMD Rule 459, Section 502).	Verify that the installation/CW facility keeps a current list of coatings, surface preparation, and cleanup materials in use, including: - the product name/code and type of material, including the category types listed in Appendix 1-5 - the VOC content of the material - the actual mixing ratio used for the coating - method of application of the material - the name and address of the company from which the material was purchased. Verify that records of applied volume of precoat and primer surfacer used in conjunction with precoat are maintained on a monthly basis. Verify that purchase invoices of specialty coatings are retained. Verify that records of the type of coatings and surface preparation or cleanup materials used are maintained, with: - coating type designated according to the coating categories of Appendix 1-5 - records of beginning inventory, purchase invoices, amount of manifested waste material, and ending inventory maintained to determine usage - volume of each coating used aggregated and recorded by coating type **A.100.13.CA.SM. Continued on Next Page**

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.100.13.CA.SM(continued)	Verify that usage records are maintained on the following basis: - for sources which have total facility VOC emissions greater than 5 tons/yr, records are maintained on a monthly basis - for sources which have total facility VOC emissions less than or equal to 5 tons/yr, and were constructed after 26 February 1991, records are maintained on a quarterly basis - for sources which have total facility VOC emissions less than or equal to 5 tons/yr, and were constructed before 26 February 1991, records are maintained on a annual basis - for sources using coatings that do not comply with VOC content limits in Appendix 1-5, daily records regarding the use of that noncompliant coating must be maintained. Verify that persons using materials that exceed the VOC limits in Appendix 1-5 and using an approved emission control system, records must be maintained showing on a daily basis the type and volume of coatings and makeup solvents used. Verify that persons using an emission control system to meet the requirements of this Rule maintain the records required by the approved Operation and Maintenance Plan. Verify that all records are retained for 2 yr and made available to the APCO for inspection upon request.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
Miscellaneous Metal Parts and Products	(NOTE: This purpose of this Rule is to limit the emission of volatile organic compounds from the application of coatings to miscellaneous metal parts and products in a shop environment. This Rule does not apply to: - the use of any coating in a volume of less than 20 gal/yr - coatings of prefabricated architectural components or structures not coated in a shop environment - coatings applied to cans, coils, or magnetic wire - the refinishing of motor vehicles - adhesives - magnetic data storage discs - safety indicating coatings - conformal coatings - stencil coatings.)
A.100.14.CA.SM. Installations/CW facilities that conduct metal coating operations must meet specific operational requirements (SMAQMD Rule 451, Sections 103, 301, and 302).	Verify that coatings containing VOCs in excess of the limits listed in Appendix 1-6 are not used unless emissions are controlled by an air pollution abatement device that has been approved by the APCO. Verify that the installation/CW facility uses one of the following surface coating methods: - electrostatic application - flow coating - dip coating - an application method that provides a transfer efficiency greater than or equal to 65 percent - approved alternative methods if the 65 percent transfer efficiency cannot be achieved by any acceptable means. (NOTE: Touchup operations are not subject to these methods requirements.)
A.100.15.CA.SM. Coating operations must meet specific recordkeeping requirements (SMAQMD Rule 451, Section 501).	Verify that the installation/CW facility keeps the following records: - a list of currently used coatings and makeup solvents which includes: - the product name/code and type of material - the actual VOC content of the material - the actual mixing ratio used for the coating - method of application of the material - a designation of which materials are used under the low-usage exemption for noncompliant materials - for materials that comply with VOC limits, monthly records showing the type and volume of coatings and makeup solvents used - for any installation/CW facility using an emission control device to meet the requirements of this Rule, all of the records required by the APCO-approved Operations and Maintenance manual.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.105. COOLING TOWERS	
A.105.1.CA.SM. Installations/CW facilities that operate cooling towers must meet specific requirements in regards to hexavalent chromium concentrations (SMAQMD Rule 481, Section 300).	Verify that it does not add hexavalent chromium-containing water treatment chemicals to the circulating water of any cooling tower. Verify that no person operates a cooling tower unless the hexavalent chromium concentration in the circulating water does not exceed 0.15 mg/L
A.105.2.CA.SM. Installations/CW facilities that operate cooling towers must meet specific recordkeeping requirements (SMAQMD Rule 481, Section 505).	Verify that the installation/CW facility keeps for 2 yr all records of testing of the cooling tower circulating water.
A.105.3.CA.SM. Installations/CW facilities that operate or plan to construct a new cooling tower must follow specific reporting requirements (SMAQMD Rule 481, Section 400).	Verify that the installation/CW facility has submitted a written compliance plan to the District for each of its cooling towers. Verify that if the installation/CW facility plans to construct a new cooling tower, then it submits a compliance plan to the District at least 90 days before the tower is constructed. (NOTE: The compliance plan will contain details of cooling tower location, and construction materials and water treatment chemicals that are being or will be used.)

COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT Sacramento Metropolitan Air Quality Managment District (SMAQMD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
DEGREASING OPERATIONS **A.115.** **General**	
A.115.1.CA.SM. Installations/CW facilities that conduct degreasing operations using photochemically reactive organic materials must meet specific emission control requirements (SMAQMD, Rule 441, Section 306.2).	Determine if the installation/CW facility conducts any surface degreasing operations using photochemically reactive organic materials. Verify that the emissions are reduced by at least 85 percent.
A.115.2.CA.SM. Installations/CW facilities that conduct degreasing operations using nonphotochemically reactive organic compounds must meet specific equipment design requirements (SMAQMD, Rule 454, Sections 102, 110.1, 301, 302, 303, 304, and 305).	Determine if the installation/CW facility conducts any degreasing operations using nonphotochemically reactive VOCs, apart from wipe cleaning operations which are exempt from these requirements. Verify that each device used in degreasing (solvent metal cleaning) has all of the following equipment: - a container for the solvent and articles being cleaned - a cover that prevents the solvent from evaporating when the degreaser is not being used - a place for draining cleaned parts so that the drained solvent can be returned to the degreasing container. Verify that nonvapor degreasers with a vapor pressure greater than 33 mmHg or 0.6 psi at 38 °C [100.40 °F] or with solvent heated above 50 °C [122 °F] use one of the following control devices: - a freeboard with a ratio greater than or equal to 0.75 - an enclosed sump from which solvent is pumped and into which solvent drains - a water cover over solvents that are insoluble in and heavier than water - any other emission control system that has been approved by the APCO. Verify that nonvapor degreasers have a cover that can be opened and closed easily with one hand if either: - the degreasing solvent used has a vapor pressure greater than 15 mmHg (0.3 psi) at 38 °C (100 °F) - the solvent is agitated. **A.115.2.CA.SM. Continued on Next Page**

COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT Sacramento Metropolitan Air Quality Managment District (SMAQMD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.115.2.CA.SM.(continued)	Verify that open-top vapor degreasers are equipped with a cover designed so that it can be opened or closed easily without disturbing the vapor zone. Verify that open-top degreasers are equipped with one of the following control devices: - a freeboard ratio greater than or equal to 0.75 - a refrigerated freeboard chiller that achieves a minimum of 8.8 watts cooling capacity per meter of air-vapor interface perimeter - a carbon adsorption system that ventilates the air-vapor interface at a minimum rate of 15 $m^3/min/m^2$ [49.21 $ft^3/min/ft^2$], but not greater than 20 $m^3/min/m^2$ [65.62 $ft^3/min/ft^2$], with a solvent vapor concentration exiting the exhaust duct of the carbon adsorber of less than 25 ppm solvent averaged over one complete cycle - any other system approved by the APCO. Verify that open-top degreasers have one of the following safety devices: - shuts off sump heat if either the condenser coolant stops circulating or becomes warmer than specified - prevents spray pump operation unless the solvent vapor level is at the designed operating level - shuts off sump heat if the solvent vapor level rises above the designed operating level.
A.115.3.CA.SM. All degreasers must meet specific operating requirements (SMAQMD, Rule 454, Sections 301.3 and 306).	Verify that the degreasing equipment and emission control equipment are operated and maintained in proper working order. Verify that solvents are not allowed to leak from any portion of the degreasing equipment. Verify that solvents from metal cleaning operations, including waste solvents, are not stored or disposed of in ways that will result in their evaporation. Verify that if distillation recovery of waste solvent is performed, then residues left after distillation do not contain more than 10 percent solvent by volume. Verify that covers over solvents are not removed or opened except as necessary for operation or maintenance of the degreasing equipment. Verify that cleaned parts are drained until dripping ceases (nonvapor degreasers only). **A.115.3.CA.SM. Continued on Next Page**

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.115.3.CA.SM.(continued)	Verify that solvent flow when using a continuous, fluid stream (not a fine, atomized, fan or shower-type spray) is used at a pressure that does not cause the liquid solvent to escape the container. Verify that porous or absorbent materials such as cloth, leather, wood, or rope are not degreased. Verify that air agitation of the solvent bath is not used. Verify that each piece of degreasing equipment is equipped with a conspicuously displayed, permanent label that lists its applicable operating requirements. Verify that, for vapor degreasers: - workloads do not occupy more than half of the degreaser's evaporative surface area - solvent spray is kept at least 4 in. below the air-vapor interface - upon starting, the cooling system is turned on before or at the same time as the sump heater - upon shutdown, the sump heater is turned off before or at the same time as the cooling system - the degreaser is covered whenever the cooling system is off. Verify that operators minimize carry-out by using the following measures (as applicable): - rack workload to facilitate drainage - move workload in and out of the degreaser at less than 3.3 m/min (11 ft/min) - the workload is degreased in the vapor zone until condensation ceases - the workload is allowed to visually dry within the degreaser - for manual operation, the operator tips out any pools of solvent remaining on the workload prior to removing it from the degreaser.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.125. **MISCELLANEOUS VOC OPERATIONS** **A.125.1.CA.SM.** Installations/CW facilities that use organic solvents or materials containing organic solvents must meet specific emissions requirements (SMAQMD, Rule 441, Section 100, 301, 302, 303, 305, 307, and 401; and Rule 454, Section 401).	Determine if the installation/CW facility uses any organic solvents or materials containing organic solvents, other than the following operations which are exempt from these requirements: - the transport or storage of organic solvents or materials containing organic solvents - the spraying or other use of insecticides, pesticides, or herbicides - the employment, application, evaporation, or drying of saturated halogenated hydrocarbons or perchloroethylene - the use of any material that meets all of the following requirements: - the volatile content consists only of water and organic solvents - the organic solvents comprise not more than 20 percent by volume of the total volatile content - the volatile content is not photochemically reactive - the organic solvents or any material that contains them does not come into contact with flame - the use of any material that meets all of the following requirements: - the organic solvent content does not exceed 20 percent by volume - the volatile content is not photochemically reactive - the organic solvents or any material containing them does not come into contact with flame. Verify that the installation/CW facility does not discharge organic materials in excess of the following rates: - greater than 6.8 kg (15 lb)/day or 1.4 kg (3.1 lb)/h from equipment in which any organic solvent or material containing organic solvent comes into contact with flame, or is baked, heat-cured, or heat-polymerized in the presence of oxygen, unless reduced by 85 percent - greater than 18 kg (39.7 lb)/day or 3.6 kg (7.9 lb)/h from equipment using photochemically reactive solvent that does not come into contact with flame or heat, unless the discharge is reduced by 85 percent - greater than 1350 kg (2970 lb)/day or 200 kg (441 lb)/h from equipment using any nonphotochemically reactive organic solvent, unless reduced by 85 percent excluding emissions from baking, heat-curing, or heat-polymerizing. Verify that emissions are reduced by one of the following methods: - incineration, provided 90 percent of the carbon is oxidized to CO_2 - absorption - a method approved by the APCO.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.125.2.CA.SM. Installations/CW facilities that use photochemically reactive solvents or materials containing photochemically reactive solvents in any non-exempt operations must meet specific requirements (SMAQMD, Rule 441, Section 304).	Verify that the installation/CW facility does not, during any 1 day, dispose of more than 5 L (1.3 gal) of photochemically reactive solvent, or of any material containing more than 5 L (1.3 gal) of the solvent, by any means resulting in evaporation. Verify that installations/CW facilities do not use any photochemically reactive solvent to thin or dilute any metal surface coating.
A.125.3.CA.SM. Installations/CW facilities that use organic solvents or materials containing organic solvents must meet specific record-keeping requirements (SMAQMD, Rule 441, Section 501).	Verify that the installation/CW facility keeps the following records for each organic solvent used: - the chemical composition - physical properties - amount consumed.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.130. OPEN BURNING	
A.130.1.CA.SM. Installations/CW facilities are prohibited from burning any combustible refuse in any open fire except under certain circumstances (SMAQMD, Rule 407).	Verify that the installation/CW facility does not burn any combustible refuse in any open fire within District boundaries, except for the following fires which are exempt from this prohibition: - fires set or permitted by the Health Officer, the Agricultural Commissioner, or any fire protection agency officer for any of the following reasons: - to prevent a fire hazard that cannot be abated by any other means - for instruction of public employees in the methods of fighting fires - to control or abate a public health hazard - to dispose of or control plant or animal pests and diseases - permit-authorized fires set on industrial property for training employees in fire-fighting methods - fires set and used wholly for recreational purposes - fires that meet the requirements of the Agricultural Burning section - the burning of residential rubbish that originates and is burned on the premises of a single or two-family dwelling if the locational requirements listed in Appendix 1-7 are met. Verify that prior to setting any exempt open fire, the installation/CW facility consults with the local fire protection agency to determine whether there are any open burning restrictions or permit requirements. Verify that open fires are not used to burn any of the following materials at any time: - putrescible waste - bedding - asphaltic products - rubber products.
A.130.2.CA.SM. Installations/CW facilities that conduct agricultural burning must meet specific permit requirements (SMAQMD, Rule 501, Sections 301, 302, 330.3, and 400).	Verify that the installation/CW facility does not set fires to dispose of agricultural waste without obtaining the following: - a valid Sacramento County Agricultural Commissioner's authorization to burn agricultural waste - a valid agricultural burning permit issued by one of the following agencies: - any public fire protection agency having an area of jurisdiction within the County of Sacramento - the APCO. Verify that the permit is available at the burn site during the burning. **A.130.2.CA.SM. Continued on Next Page**

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.130.2.CA.SM.(continued)	Verify that the installation/CW facility, on the day of the intended burning, obtains verbal authorization from the local fire protection agency before beginning. Verify that the installation/CW facility meets all the conditions contained in an agricultural burning permit, including, but not limited to, all of the following: - the location of the proposed burning - the acreage or estimated tonnage of the material to be burned - the nature of the waste to be burned - limitations as to hours of burning and acreage to be burned per day.
A.130.3.CA.SM. Installations/CW facilities that conduct range improvement burning must meet specific additional agricultural burning requirements (SMAQMD, Rule 501, Section 331.7).	Verify that burning is done on declared burn days only unless authorized by the APCO. Verify that fires are ignited with approved ignition devices only. Verify that all unwanted trees over 6 in. in diameter are felled and allowed to dry at least 30 days prior to the burn. Verify that brush is treated as required by the conditions of the permit. Verify that burns are ignited as rapidly as practicable with applicable fire control restrictions. Verify that the installation/CW facility, on the day of the intended burning, obtains verbal authorization from the APCO before beginning the burn.
A.130.4.CA.SM. Installations/CW facilities must conduct all agricultural burning in compliance with specific requirements (SMAQMD, Rule 501, Sections 303, 310, 315, 320, and 331.1 through 331.5).	Verify that no agricultural burning is performed on no burn days unless a special permit has been issued by the APCO. Verify that empty sacks or containers of pesticides or other toxic substances used in conjunction with agricultural operations are not burned on no burn days unless the burning is both: - conducted at the site of application - downwind from any susceptible crops or persons. **A.130.4.CA.SM. Continued on Next Page**

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.130.4.CA.SM (continued)	Verify that all agricultural burning conducted on installation/CW facility premises meets all of the following requirements: - it is conducted during the following hours unless specified otherwise by the APCO: - between 10 AM and 5 PM from 1 December through 14 September - between 10 AM and 3 PM from 15 September through 30 November - it is ignited using an approved ignition device - except under special permit, all field crops are ignited only by stripfiring into the wind or by backfiring. Verify that the agricultural waste to be burned meets all of the following conditions: - free of other material including, but not limited to, putrescible waste, refuse, livestock bedding, and asphaltic and rubber products - reasonably free of soil and visible surface moisture - physically arranged so as to burn with a minimum of pollutants - has been dried for the following minimum periods: - for tree stumps and large branches greater than 6 in. [15.24 cm] in diameter, 30 days - for prunings, small branches, and wastes from field crops, time sufficient to provide effective combustion. Verify that field crop acreage harvested prior to 10 September is not burned during the period 1 October through 15 November of each year without written authority from the District.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.145. **ASPHALT PAVING MATERIALS/ OPERATIONS**	
A.145.1.CA.SM. Installations/CW facilities that apply asphalt paving materials must meet specific requirements (SMAQMD Regulation 4, Rule 453)	Determine if the installation/CW facility uses cutback or emulsified asphalt for paving, road construction or road maintenance. Verify that the installation/CW facility does not use any of the following kinds of asphalt paving materials for paving, road construction or road maintenance: - rapid cure cutback asphalt - medium cure cutback asphalt, except as a penetrating prime coat - slow cure cutback asphalt containing organic compounds that evaporate at 500 °F (260 °C) or lower.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
OTHER EMISSIONS/ SOURCES **A.155.** **Visible Emissions** **A.155.1.CA.SM.** Installations/CW facilities must meet specific visible emission standards (SMAQMD, Rule 401).	Determine if the installation/CW facility operates any air contaminant emission sources, other than the following which are exempt from these visible emission standards: - fires set or permitted by a public officer in the performance of official duty for either of the following reasons: - to prevent a fire or health hazard - for the instruction of public employees in firefighting methods - permitted fires on industrial property set for the instruction of employees in firefighting methods - agricultural operations in the growing of crops or raising of fowl or animals - orchard and citrus grove heaters that do not produce unconsumed solid carbonaceous matter at a rate in excess of 1 g/min [0.032 oz/min] - agricultural burning for which a permit has been granted (see the Agricultural Burning section) - aircraft used to distribute seed, fertilizer, insecticides, or other agricultural aides over lands devoted to the growing of crops or raising of fowl or animals - open outdoor fires used only for cooking food for human beings or for recreational purposes - smoke-producing devices used for training in the art of visual opacity determinations. Verify that the installation/CW facility does not discharge into the atmosphere from any single source of emissions for a period or periods totaling more than 3 min in any 1 h, any air contaminants, other than uncombined water vapor, that meet either of the following conditions: - emissions as dark or darker than No. 1 on the Ringelmann Chart - emissions so opaque that they obscure the observer's view or to a degree equal to or greater than smoke that is as dark or darker than No. 1 on the Ringelmann Chart. (NOTE: A certified, calibrated, in-stack opacity monitoring system may be used.)

COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT Sacramento Metropolitan Air Quality Managment District (SMAQMD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
Mercury Emissions **A.155.2.CA.SM.** Installations/CW facilities that operate sludge incineration plants, sludge drying plants, or a combination of these that process wastewater treatment plant sludges must meet specific mercury emission standards (SMAQMD, Rule 903, Section 300).	Verify that emissions do not exceed 3200 g [7.05 lb] of mercury over any 24-h period. Verify that if any other requirement under Sacramento Air Emissions is more restrictive than these mercury emissions requirements, the other requirement will be followed.

Appendix 1-1

Exemptions to the Permit Requirements

(Source: SMAQMD, Rule 201, Sections 110 through 122)

Notwithstanding any exemptions granted in this appendix, sources the fall into one of the following categories must meet the requirements of the Permits section:

- sources that are subject to the New Source Performance Standards or the National Emission Standards for Hazardous Air Pollutants of these air requirements
- sources that emit toxic air contaminant in levels considered appropriate for review
- sources that the APCO has determined that they must meet the permit requirements.

The following kinds of equipment, operations, and activities are exempt from the requirements of the Permits section of this manual:

- vehicles used to transport passengers or freight, excluding any article, machine, or equipment requiring a permit that is mounted on the vehicles
- locomotives, watercraft, and aircraft used to transport passengers or freight; but this exemption does not apply to equipment used for the dredging of waterways or to equipment used in pile driving next to or in waterways
- internal combustion engines with a combined continuous rating of 50 brake horsepower (bhp) or less
- gas turbine engines with a combined heat input rating of 3 MBtu/h or less
- any combustion equipment with a combined heat input of less than 1 MBtu/h using exclusively purchased quality natural gas, LPG, or any combination thereof
- equipment used exclusively for a residential structure designed for and used exclusively as a dwelling for not more than four families
- equipment used exclusively in the growing of agricultural crops, or in the commercial raising of fowl or other animals
- any of the following kinds of equipment, unless designed to remove air contaminants generated by or released from equipment requiring permits:
  - refrigeration, air conditioning, or ventilating systems
  - water cooling towers
  - vacuum cleaning systems
  - ovens, kilns, or furnaces that meet all of the following conditions:
  - fired by electricity
  - used exclusively for the heating, curing, softening, or annealing of plastics or ceramics
  - not used for heating or curing fiberglass reinforced plastics
  - do not emit more than 5 lb [2.27 kg] of VOCs in any 1 day
- tanks, reservoirs, vessels, or other containers and their associated dispensing, pumping, and compression systems, used exclusively for the storage of:
  - liquefied or compressed gases
  - unheated organic material with an initial boiling point of 150 °C (302 °F) or greater or organic vapor pressure of 5 mm Hg (0.1 psia) or less at 20 °C [68 °F]
  - unheated organic material with an organic vapor pressure of 5 mmHg (0.1 psia) or less at 20 °C [68 °F]

(continued)

- tanks, reservoirs, vessels, or other containers and their associated dispensing, pumping, and compression systems that meet both of the following conditions:
  - used exclusively for the storage of organic liquids with a vapor pressure of 77.5 mmHg (1.5 psia) or less at 20 °C [68 °F]
- tanks, reservoirs, vessels, or other containers and their associated dispensing, pumping and compression systems with a capacity of 23,000 L (6,076 gal) or less
- tanks, reservoirs, vessels, or other containers and their associated dispensing, pumping, and compression systems used exclusively for the transfer of organic liquids with a vapor pressure of 77.5 mmHg (1.5 psia) at 20 °C [68 °F] to or from storage
- unheated solvent dispensing container of capacity 380 L (100 gal) or less
- equipment using aqueous solutions for the surface preparation, cleaning, stripping, or etching (not including chemical milling), or for the electrolytic plating with electrolytic polishing, or for the electrolytic stripping, of the following base metals: brass, bronze, cadmium, copper, iron, lead, nickel, tin, zinc, or precious metals
- surface coating operations provided that the combined total amount of coatings and solvents used does not exceed 1 gal/day [3.79 L/day]
- unheated nonconveyorized solvent rinsing containers, or unheated nonconveyorized coating dip tanks, having a capacity of 380 L (100 gal) or less
- any of the following kinds of food processing equipment, including the exhaust systems or collectors that exclusively serve such equipment:
  - equipment used in eating establishments for the purpose of preparing food for human consumption
  - smokehouses in which the maximum horizontal inside cross-sectional area does not exceed 2 m^2 (21.5 ft^2)
  - mixers and blenders used in bakeries
  - confection cookers
  - equipment used exclusively to grind, blend, or package tea, cocoa, spices, or roasted coffee
- laboratory equipment used exclusively for chemical or physical analyses and bench scale tests, including associated vacuum-producing equipment
- repairs or maintenance not involving structural changes to any equipment for which a permit has been granted
- any other equipment for which an exemption has been granted by the APCO.

Appendix 1-2

Allowable Rates of Discharge for Dust or Condensed Fumes Based on Process Weight

(Source: SMAQMD Regulation 4, Rule 405)

Process Weight Rate lb/h [kg/h]	Maximum Discharge Rate lb/h [kg/h]	Process Weight Rate lb/h [kg/h]	Maximum Discharge Rate lb/h [kg/h]
250 [114]	1.00 [0.45]	8000 [3,636]	8.70 [3.95]
300 [136]	1.12 [0.51]	8500 [3,864]	9.04 [4.11]
350 [159]	1.23 [0.56]	9000 [4,091]	9.36 [4.25]
400 [182]	1.34 [0.61]	9500 [4,318]	9.67 [4.40]
450 [205]	1.44 [0.65]	10,000 [4,545]	10.0 [4.55]
500 [227]	1.54 [0.70]	12,000 [5,455]	10.4 [4.73]
600 [273]	1.73 [0.79]	14,000 [6,364]	10.8 [4.91]
700 [318]	1.90 [0.86]	16,000 [7,273]	11.2 [5.09]
800 [364]	2.07 [0.94]	18,000 [8,182]	11.5 [5.23]
900 [409]	2.22 [1.01]	20,000 [9,091]	11.8 [5.36]
1000 [455]	2.38 [1.08]	30,000 [13,636]	13.0 [5.91]
1200 [545]	2.66 [1.21]	40,000 [18,182]	13.9 [6.32]
1400 [636]	2.93 [1.33]	50,000 [22,727]	14.7 [6.68]
1600 [727]	3.19 [1.45]	60,000 [27,273]	15.3 [6.95]
1800 [818]	3.43 [1.56]	70,000 [31,818]	15.9 [7.23]
2000 [909]	3.66 [1.66]	80,000 [36,364]	16.4 [7.45]
2500 [1,136]	4.21 [1.91]	90,000 [40,909]	16.9 [7.68]
3000 [1,364]	4.72 [2.15]	100,000 [45,455]	17.3 [7.86]
3500 [1,591]	5.19 [2.36]	200,000 [90,909]	20.4 [9.27]
4000 [1,818]	5.64 [2.56]	300,000 [136,364]	22.5 [10.23]
4500 [2,045]	6.07 [2.76]	400,000 [181,818]	24.1 [10.95]
5000 [2,273]	6.49 [2.95]	500,000 [227,273]	25.4 [11.55]
5500 [2,500]	6.89 [3.13]	600,000 [272,727]	26.6 [12.09]
6000 [2,727]	7.27 [3.30]	700,000 [318,182]	27.6 [12.55]
6500 [2,955]	7.64 [3.47]	800,000 [363,636]	28.4 [12.91]
7000 [3,182]	8.00 [3.64]	900,000 [409,091]	29.3 [13.32]
7500 [3,409]	8.36 [3.80]	1,000,000 [454,545] or more	30.0 [13.64] or more

(continued)

To use this Appendix, proceed as follows:

- calculate the "Process Weight", i.e., the total weight of all materials introduced into any specific, dust- and/or condensed fumes-emitting process, including the weight of any solid fuels, but not including the weights of liquid or gaseous fuels or of combustion air
- calculate the "Process Weight Rate", i.e., the process weight per hour, by dividing the total process weight by the number of hours in one complete operation from the beginning of any given process to its completion, excluding any time during which the process equipment is idle, in either lb/h or kg/h
- find this figure in the appropriate column of the table
- opposite this figure, in the "Maximum Discharge Rate" column, is the maximum number of pounds or kilograms of contaminants that may be discharged into the atmosphere in any 1 h for the given process weight rate
- where the calculated Process Weight Rate falls between the figures given in this Appendix, interpolate to calculate the exact Maximum Discharge Rate.

Appendix 1-3

VOC Content Limits for Coatings Used on Aerospace Components
(Source: SMAQMD Rule 456, Section 301)

Effective Date: 24 February 1995.

Coating	Maximum VOC Content (in grams per liter)
Ablative	600
Adhesive	600
Adhesive Bonding Agent	780
Conformal	600
Electrostatic Discharge	612
Extreme Performance	750
Fire Resistant/Retardant	600
Flight Test	420
Fuel Tank	650
High Temperature	420
Maskant	850
Pretreatment Wash Primer	780
Primer	350
Radiation Effect	600
Rain Erosion Resistant: Fluoroelastomer	800
Rain Erosion Resistant: All Others	600
Sealant	750
Sealant Adhesion Promoter	750
Self-priming Topcoat	420
Thermal Expansion Release	762
Solid Film Lubricant	880
Space Vehicle: Electrostatic Discharge	880
Space Vehicle: All Other	1000
Temporary Protective	250
Thermocontrol	600
Topcoat: Acrylic Lacquer for F-111	780
Topcoat: All Other	420
Wet Seal Primer	620

Appendix 1-4

Allowable Limits of VOC in Various Architectural Coatings

(Source: SMAQMD Regulation 4, Rule 442, Sections 115 and 302)

Coating	VOC (g/L of coating, as applied, less water and exempt solvents, and excluding any colorant added to tint bases) Current	Effective 1 September 1992	Effective 1 September 1994
Below-Ground Wood Preservatives	{600}	350	
Bond Breakers	{350}		
Clear Wood Finishes			
Lacquer	680		
Sanding Sealers	{550}	350	
Varnish	350		
Concrete Curing Compounds	350		
Dry Fog Coatings	{400}		
Fire Retardant Coatings			
Clear	{650}		
Pigmented	{350}		
Form-Release Compounds	{250}		
Graphic Arts (Sign) Coatings	{500}		
Industrial Maintenance Coatings:			
Anti-Graffiti Coatings	{600}	340	
High Temperature Coatings	{650}	550	420
Other Industrial Maintenance Coatings	{420}	340	

(continued)

Appendix 1-4 (continued)

Coating	VOC (g/L of coating, as applied, less water and exempt solvents, and excluding any colorant added to tint bases) Current	Effective 1 September 1992	Effective 1 September 1994
Magnesite Cement Coatings	{600}	450	
Mastic Texture Coatings	{300}		
Metallic Pigmented Coatings	{500}		
Multi-Color Coatings	{580}	420	
Opaque Stains	350		
Opaque Wood Preservatives	350		
Pre-Treatment Wash Primers	{780}	780	420
Primers, Sealers and Undercoaters	350		
Quick Dry Enamels	400		
Quick Dry Primers & Sealers	{450}		
Roof Coatings	300		
Semi-Transparent and Clear Wood Preservatives	350		
Semi-Transparent Stains	350		
Shellac			
Clear	{730}		
Pigmented	{550}		

(continued)

Coating	VOC (g/L of coating, as applied, less water and exempt solvents, and excluding any colorant added to tint bases) Current	Effective 1 September 1992	Effective 1 September 1994
Specialty Flats	400		
Swimming Pool Coatings	{650}	340	
			(1 September 1997)
Swimming Pool Repair & Maintenance Coatings	{650}		340
Traffic Coatings			
for public streets and highways	250		
for other surfaces	250		
black traffic coatings	250		
Waterproofing Sealers	400		

(NOTE: Architectural coatings that are manufactured prior to any VOC emission limit effective date and that do not meet the new VOC limit put into effect on that date may be used without penalty for 3 yr after that effective date. Current VOC limits that came into effect on 2 April 1991 are {braced}.)

Appendix 1-5

VOC Content Limits for Coatings Applied to Automotive, Truck, and Heavy Equipment
(Source: SMAQMD Rule 459, Section 301)

Part A. For Group I motor vehicles, their parts and components, or for Group II vehicles and equipment where color match is required:

	VOC Limit (in g/L [lb/gal] as applied) (less water and exempt compounds)	
	Effective Dates	
Coating	**1 January 1997**	**1 January 1998**
Pretreatment Wash Primers	780 [6.5]	780 [6.5]
Precoat	600 [5.0]	600 [5.0]
Primer/Primer Surfacer	340 [2.8]	250 [2.1]
Primer Sealer	600 [5.0]	420 [3.5]
Solid Color Topcoat	600 [5.0]	420 [3.5]
Metallic/Iridescent Topcoat	600 [5.0]	520 [4.3]
Multi-stage Topcoat System	600 [5.0]	540 [4.5]
Specialty Coating	840 [7.0]	840 [7.0]
Temporary Protective Coating	60 [0.5]	60 [0.5]

Part B. For Group II Motor Vehicles and Mobile Equipment, their parts and components, where color match is not required:

	VOC Limit (in g/L [lb/gal] as applied) (less water and exempt compounds)	
	Effective Dates	
Coating	**1 January 1997**	**1 January 1998**
Pretreatment Wash Primers	780 [6.5]	780 [6.5]
Precoat	600 [5.0]	600 [5.0]
Primer	340 [2.8]	250 [2.1]
Topcoat	420 [3.5]	420 [3.5]
Metallic/Iridescent Topcoat	420 [3.5]	420 [3.5]
Specialty Coating	840 [7.0]	840 [7.0]
Camouflage Coating	420 [3.5]	420 [3.5]
Temporary Protective Coating	60 [0.5]	60 [0.5]

(continued)

NOTE: The requirements of Part A apply to the coating of utility bodies, provided that the coating is required to match that of the vehicles upon which they will be mounted, and the coating of utility bodies is less than or equal to 20 bodies per day. Otherwise, the requirements of Part B apply.

Appendix 1-6

Allowable Limits of VOC in Various Metal Surface Coatings

(Source: SMAQMD, Rule 451, Section 301)

Coating	Maximum VOC Content (in g/L [lb/gal] of coating, as applied, excluding water and exempt solvents)	
	Baked Coatings	Air-Dried Coatings
Camouflage	360 [3.0]	420 [3.5]
Electrical Insulating	480 [4.0]	540 [4.5]
Extreme High Gloss	360 [3.0]	420 [3.5]
Extreme Performance	750 [6.34]	750 [6.34]
Heat Resistant	360 [3.0]	420 [3.5]
High Performance Architectural	750 [6.34]	750 [6.34]
Nonskid	360 [3.0]	420 [3.5]
Solar Absorbent	360 [3.0]	420 [3.5]
All Other	275 [2.3]	340 [2.8]

Appendix 1-7

Locations in Sacramento County Where Residential Refuse May Be Burned in Open Fires

(Source: SMAQMD Regulation 4, Rule 407, Section 111)

Residential refuse may be burned in an open fire if that refuse is generated and burned on the premises of a single or two-family dwelling located in the unincorporated area of Sacramento County south of the center line of Township 7 North, except for the areas described below:

- that portion of the north 3/4 of the west 1/2 of Section 32 of Township 6N, Range 4E, that lies east of the Sacramento River (encompassing the unincorporated community of Courtland)
- the Amended Plat of the unincorporated community of Hood, as recorded in Map Book 15, Page 45 of the Sacramento County Office of the Recorder
- the south 1/2 of Section 26 and the north 3/4 of Section 35, Township 5N, Range 4E (encompassing the unincorporated communities of Locke and Walnut Grove)
- the area bounded by a line east along Bond Road from Highway 99 to Waterman Road; thence south along Waterman Road to Grantline Road; thence southwesterly to the Southern Pacific Railroad; thence southeasterly along said railroad to Highway 99; thence northwesterly along Highway 99 to the point of origin (encompassing the unincorporated community of Elk Grove)
- the west 1/2 of Section 33 and such portion of Section 32 that is east of Franklin Boulevard, which sections are in Township 7N, Range 5E (encompassing the unincorporated community of Valley-Hi)
- within the city limits of the City of Galt
- within the city limits of the City of Isleton.

INSTALLATION:	COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT SMAQMD - California Supplement	DATE:	REVIEWER(S):
STATUS NA C RMA	REVIEWER COMMENTS:		

SECTION 10

STORAGE TANK MANAGEMENT

Sacramento Metropolitan Air Quality Management District (SMAQMD) - California Supplement

SECTION 10

STORAGE TANK MANAGEMENT

Sacramento Metropolitan Air Quality Management District (SMAQMD)

California Supplement

This section covers the District requirements for Storage Tank Management and is intended to supplement the U.S. TEAM Guide. Refer to the U.S. TEAM Guide and the DOD Component Supplements for Federal, DOD, and service-specific requirements.

Definitions

- *Bulk Plant* - an organic liquid distribution facility which receives organic liquid refinery or bulk terminal by tank truck and distributes the organic liquid by tank truck to wholesale and retail facilities (SMAQMD Rule 447).

- *Bulk Terminal* - an organic liquid distribution facility which receives organic liquids from a refinery by pipeline, ship, or barge (SMAQMD Rule 447).

- *Gas Tight* - the concentration of organic compounds, measured 1 cm or less from any source, of less than 10,000 ppm (expressed as methane) above background (SMAQMD Rule 446).

- *Leak Free* - for the purposes of Rule 447, Organic Liquid Loading, an organic liquid leak not exceeding three drops per minute, excluding losses which occur upon disconnecting transfer fittings. Such disconnect losses shall not exceed 1 fl oz, averaged over three disconnects (SMAQMD Rule 447). For all other Rules, a liquid leak of less than three drops per minute (SMAQMD Rule 448).

- *Organic Liquid* - compounds and mixtures of compounds of carbon which are liquid under actual storage conditions (SMAQMD Rule 446).

- *Submerged Fill Pipe* - any discharge pipe or nozzle which meets either of the following conditions (SMAQMD Rule 448):
    1. Top Loading: any fill pipe which has the discharge opening totally submerged when the liquid level is 6 in. above the bottom of the tank
    2. Side Loading: any fill pipe which has the discharge opening entirely submerged when the liquid level is 18 in. above the bottom of the tank.

- *Vapor Tight* - a concentration of total organic compounds measured 1 cm from any source, which does not exceed 10,000 ppm, expressed as methane, above background (SMAQMD Rule 447).

STORAGE TANK MANAGEMENT

GUIDANCE FOR SMAQMD CHECKLIST USERS

	REFER TO CHECKLIST ITEMS:	REFER TO PAGE NUMBERS:
Aboveground Storage Tanks	ST.5.1.CA.SM.	10-5
Emissions/Discharges From Bulk Gasoline Terminals		
Emissions from the Transfer of Gasoline	ST.10.1.CA.SM.	10-7
Emissions from Loading Organic Liquids	ST.10.2.CA.SM. through ST.10.5.CA.SM.	10-7
Emissions/Discharges From POL Storage Vessels	ST.15.1.CA.SM.	10-9
Emissions/Discharges From VOL Storage Vessels	ST.20.1.CA.SM. through ST.20.4.CA.SM.	10-11

COMPLIANCE CATEGORY: STORAGE TANK MANAGEMENT Sacramento Metropolitan Air Quality Managment District (SMAQMD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
ST.5. ABOVEGROUND STORAGE TANKS	(NOTE: The purpose of Rule 448 is to limit emissions resulting from the transfer of gasoline into stationary storage containers. This Rule does not apply to the transfer of gasoline into any stationary container which is used primarily for the fueling of implements of husbandry, if the container is equipped with a permanent submerged fill pipe.)
ST.5.1.CA.SM: Gasoline storage containers must meet specific equipment requirements (SMAQMD Rule 448, Section 303).	Verify that for any gasoline storage containers with a capacity of 250 gal or more: - the containers is equipped with vapor tight caps on the fill and vapor adapters - the vapor adapter or space is equipped with a dry break which provides a vapor tight seal - the coaxial fill tube has a functioning spring mechanism which causes the dry break to form a vapor tight seal.

COMPLIANCE CATEGORY: STORAGE TANK MANAGEMENT Sacramento Metropolitan Air Quality Managment District (SMAQMD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
ST.10. EMISSIONS/ DISCHARGES FROM BULK GASOLINE TERMINALS	
Emissions from the Transfer of Gasoline	(NOTE: The purpose of Rule 448 is to limit emissions resulting from the transfer of gasoline into stationary storage containers. This Rule does not apply to the transfer of gasoline into any stationary container which is used primarily for the fueling of implements of husbandry, if the container is equipped with a permanent submerged fill pipe.)
ST.10.1.CA.SM. The transfer of gasoline into stationary storage tanks must meet specific operational requirements (SMAQMD Rule 448, Section 301).	Verify that no person transfers or permits the transfer of gasoline from any tank truck or trailer into any stationary storage tank with a capacity of 250 gal or more unless the container is equipped with a permanent submerged fill pipe, and unless the transfer is made under one of the following conditions: - the displaced gasoline vapors or gases are processed by a vapor recovery system that prevents emission to the atmosphere of at least 95 percent by weight of the gasoline vapors displaced during transfer, or - transfer is made to a storage container that meet the requirement of Rule 446 (see section ST.20 below).
Emissions from Loading Organic Liquids	(NOTE: The purpose of Rule 447 is to limit emissions from the loading of organic liquids. This Rule does not apply to the loading of organic liquids having a vapor pressure less than 0.5 psia under actual loading conditions.)
ST.10.2.CA.SM. Organic liquids must not be loaded into tank trucks, trailers, or railroad tank cars without vapor recovery systems (SMAQMD Rule 447, Section 301).	Verify that all tank trucks, trailers, and railroad cars into which organic liquids are loaded are equipped with California Air Resources Board (CARB) certified vapor collection and disposal systems.
ST.10.3.CA.SM. Vapors must be recovered during loading (SMAQMD Rule 447, Section 302 and 303).	Verify that no transfers of organic liquids into tank trucks, trailers, and railroad cars from bulk terminals take place unless the emissions to the atmosphere do not exceed 0.08 lb VOC/1000 gal of organic liquids transferred. Verify that no transfers of organic liquids into tank trucks, trailers, and railroad cars from bulk plants take place unless the emissions to the atmosphere do not exceed 0.6 lb VOC/1000 gal of organic liquids transferred.

COMPLIANCE CATEGORY: STORAGE TANK MANAGEMENT Sacramento Metropolitan Air Quality Managment District (SMAQMD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
ST.10.4.CA.SM. Equipment at loading facilities must be maintained (SMAQMD Rule 447, Sections 304 and 305).	Verify that all equipment associated with loading facilities are maintained to be leak free and vapor tight. Verify that vapor diaphragms used in vapor storage tanks are maintained such that the VOC concentration in the airspace above the diaphragm does not exceed 3000 ppm, expressed as methane.
ST.10.5.CA.SM. Owners/ operators of storage tanks must maintain specific records (SMAQMD Rule 447, Section 502).	Verify that installations/CW facilities with storage tanks maintain records of any testing performed for 2 yr, and make the records available to the APCO upon request.

COMPLIANCE CATEGORY: STORAGE TANK MANAGEMENT Sacramento Metropolitan Air Quality Managment District (SMAQMD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
ST.15. EMISSIONS/ DISCHARGES FROM POL STORAGE VESSELS **ST.15.1.CA.SM.** Gasoline delivery vessels must meet specific design and operational requirements (SMAQMD Rule 448, Section 302).	(NOTE: The purpose of Rule 448 is to limit emissions resulting from the transfer of gasoline into stationary storage containers. This Rule does not apply to the transfer of gasoline into any stationary container which is used primarily for the fueling of implements of husbandry, if the container is equipped with a permanent submerged fill pipe.) Verify that no person stores gasoline in, or otherwise uses or operates any gasoline delivery vessel unless it is designed and maintained to be leak free and vapor tight. Verify that no person purges gasoline vapors, gases, or hydrocarbon vapors from a delivery vessel to the atmosphere.

COMPLIANCE CATEGORY: STORAGE TANK MANAGEMENT Sacramento Metropolitan Air Quality Managment District (SMAQMD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
ST.20. EMISSIONS/ DISCHARGES FROM VOL STORAGE VESSELS	(NOTE: The purpose of Rule 446 is to limit emission from storage tanks for organic liquids with vapor pressure greater than 1.5 psia (10.3 kPa) under actual storage conditions. This Rule does not apply to stationary storage tanks having a capacity of less than or equal to 150,000 L (40,000 gal).)
ST.20.1.CA.SM. Organic liquid storage tanks with a capacity over 150,000 L (40,000 gal) must meet specific design requirements (SMAQMD Rule 446, Section 301).	Verify that all storage tanks for organic liquids with a capacity over 150,000 L (40,000 gal) are either: - pressure tanks maintaining working pressures sufficient at all times to prevent organic vapor or gas loss to the atmosphere, or - designed and equipped with a vapor loss control device. (NOTE: Tanks involved in periodic scheduled maintenance or replacement operations of seals that cause emissions of VOC are exempt from these requirements, provided the periodic scheduled maintenance is done in accordance with a maintenance plan approved by the APCO.)
ST.20.2.CA.SM. Vapor loss control devices used on storage tanks must meet specific standards (SMAQMD Rule 446, Sections 311, 312, and 313).	Verify that if the storage tank is designed and equipped with a vapor loss control device that it is one of the following: - a floating roof equipped with a closure device, that rests on the surface of the liquid - a fixed roof with an internal floating roof - a vapor recovery system capable of collecting and process all organic vapors and gases.
ST.20.3.CA.SM. Maintenance plans must be submitted to the APCO prior to anticipated maintenance (SMAQMD Rule 446, Section 403).	Verify that the installation/CW facility submits a maintenance plan to the APCO at least 30 days prior to anticipated maintenance. Verify that the maintenance plan state the amount and type of emission anticipated, the method of calculating emissions, and the reason the work is necessary, including the effect of not performing the maintenance.
ST.20.4.CA.SM. Owners/ operators of storage tanks must maintain records of the liquids stored (SMAQMD Rule 446, Section 501).	Verify that the installation/CW facility keeps an accurate record of the liquids stored, the true vapor pressure ranges, and the actual storage temperature of such liquids.

INSTALLATION:	COMPLIANCE CATEGORY: STORAGE TANK MANAGEMENT SMAQMD - California Supplement	DATE:	REVIEWER(S):
STATUS NA C RMA	REVIEWER COMMENTS:		

SECTION 11

TOXIC SUBSTANCES MANAGEMENT

Sacramento Metropolitan Air Quality Management District (SMAQMD) - California Supplement

SECTION 11

TOXIC SUBSTANCES MANAGEMENT

Sacramento Metropolitan Air Quality Management District (SMAQMD)

California Supplement

This section covers the District requirements for Asbestos Management and is intended to supplement the U.S. TEAM Guide. Refer to the U.S. TEAM Guide and the DOD Component Supplements for Federal, DOD, and service-specific requirements.

SMAQMD Rule 902 (Asbestos) does not apply to demolitions or renovations of single-family residential dwellings comprised of four or fewer residential dwelling units, except where the intended use is for residential property with five or more units, or commercial or industrial property. Section 300 of the Rule, which encompasses everything covered in this chapter except for the reporting requirements, does not apply to demolitions where the combined amount of RACM is less than 260 linear feet, or less than 160 ft^2, or less than 35 ft^3.

Definitions

- *Adequately Wetted* - sufficiently mixed or penetrated with liquid to prevent the release of asbestos-containing materials. The absence of dust, debris or particles is not sufficient evidence of being adequately wetted (SMAQMD Rule 902).

- *Asbestos* - actinolite, amosite, anthophyllite, chrysotile, crocidolite, tremolite (SMAQMD Rule 902).

- *Asbestos-Containing Material* - asbestos or any material containing more than one percent asbestos (SMAQMD Rule 902).

- *Asbestos-Containing Waste Material* - any waste that contains commercial asbestos and is generated by a source subject to the provisions of this Rule, including filters from control devices, asbestos mill tailings, friable asbestos waste materials, and bags or containers that previously contained commercial asbestos. Also, any waste from demolition or renovation including but not limited to RACM, waste, disposable equipment and clothing, and other materials contaminated with asbestos (SMAQMD Rule 902).

- *Category I Nonfriable Asbestos-Containing Material* - asbestos-containing packings, gaskets, resilient floor coverings, and asphalt roofing products (SMAQMD Rule 902).

- *Category II Nonfriable Asbestos-Containing Material* - asbestos-containing material, excluding Category I nonfriable asbestos-containing material, that, when dry, and in its present form, cannot be crumbled, pulverized, or reduced to powder by hand pressure (SMAQMD Rule 902).

- *Demolition* - the wrecking, taking out, or burning of any load-supporting structural member of any stationary structure or any related removing or stripping of RACM (SMAQMD Rule 902).

- *Friable Asbestos-Containing Material* - any material that can be crumbled, pulverized, or reduced to powder, when dry, by hand pressure (SMAQMD Rule 902).

- *Glove Bag Technique* - a method of stripping or removing RACM in which the material is totally isolated inside a plastic bag and then manually removed using gloves which are an integral part of the bag (SMAQMD Rule 902).

- *Leak-Tight* - any method of containerization that prevents solids, liquids, or particles from escaping or spilling out (SMAQMD Rule 902).

- *Outside Air* - the air outside buildings and structures (SMAQMD Rule 902).

- *Particulate Asbestos Material* - finely divided particles of asbestos material (SMAQMD Rule 902).

- *Regulated Asbestos-Containing Material (RACM)* - (SMAQMD Rule 902):
  (1) Friable asbestos-containing material,
  (2) Category I nonfriable asbestos-containing material that has or will become friable, or that has been subjected to sanding, drilling, grinding, cutting, or abrading, or,
  (3) Category II nonfriable asbestos-containing material that may become or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation.

- *Waste Generator* - any owner or operator of a source subject to this Rule whose act or process produces asbestos- containing waste material (SMAQMD Rule 902).

- *Waste Shipment Record* - the shipping document, required by the APCO to be originated and signed by the waste generator, used to track and substantiate the disposition of asbestos-containing waste material (SMAQMD Rule 902).

TOXIC SUBSTANCES MANAGEMENT

GUIDANCE FOR SMAQMD CHECKLIST USERS

	REFER TO CHECKLIST ITEMS:	REFER TO PAGE NUMBERS:
Asbestos Management		
Renovation and Demolition of Asbestos-Containing Structures	T2.5.1.CA.SM. through T2.5.7.CA.SM.	11-5
Asbestos Personnel Training/ Certification	T2.10.1.CA.SM.	11-9
Asbestos Disposal	T2.15.1.CA.SM.	11-11

COMPLIANCE CATEGORY: TOXIC SUBSTANCES MANAGEMENT Sacramento Metropolitan Air Quality Management District (SMAQMD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
ASBESTOS MANAGEMENT **T2.5. Renovation and Demolition of Asbestos-Containing Structures**	(NOTE: Many of the following requirements are similar to the Federal requirements in the TEAM Guide, and differ in minor but important ways.)
T2.5.1.CA.SM. Buildings must be surveyed prior to demolition or renovation (SMAQMD Rule 902, Section 301.1)	Verify that prior to commencement of any demolition or renovation, the owner or operator thoroughly surveys the affected stationary structure or portion thereof for the presence of RACM. Verify that the survey is performed by a person who is certified by the Division of Occupational Safety and Health pursuant to regulations required by subdivision (b) of Section 9021.5 of the Labor Code, and who has taken and passed an EPA-approved Building Inspector course and who conforms to the procedures outlined in the course. (NOTE: For ordered demolitions, the survey must be done after demolition but prior to handling, loading, or disposing of any of the demolition debris.)
T2.5.2.CA.SM. Warning signs must be posted during renovation and demolition operations (SMAQMD Rule 902, Section 301.5).	Verify that signs are posted at all points of entry to a demolition or renovation that read: CAUTION ASBESTOS DUST HAZARD AVOID BREATHING DUST
T2.5.3.CA.SM. RACM must be adequately wetted during demolition and renovation operations (SMAQMD Rule 902, Sections 301.3 and 301.7)	Verify that all exposed RACM is adequately wetted and kept wet during cutting, stripping, demolition, renovation, removal and handling operations both inside and outside of a building. (NOTE: Alternate methods may be used for renovations if wetting would cause unavoidable damage. Alternate methods include local HEPA exhaust, ventilation and collection systems, and removal in units that are wetted or encapsulated. Dry removal of RACM using local HEPA systems must be approved by the APCO.) (NOTE: Wetting requirements are suspended when the temperature at the point of wetting is below 0 °C (32 °F) in which case elements of RACM shall be removed in units or in sections to the maximum extent possible.) Verify that for ordered demolition, the portion of the structure being demolished that contains RACM is kept wet during the wrecking operation.

COMPLIANCE CATEGORY: TOXIC SUBSTANCES MANAGEMENT Sacramento Metropolitan Air Quality Management District (SMAQMD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
T2.5.4.CA.SM. RACM being stripped or removed must be isolated from the outside air (SMAQMD Rule 902, Section 301.4)	Verify that any building, structure, room, facility or installation from which RACM is being stripped or removed, is isolated by physical barriers from the outside air to the extent feasible as determined by the APCO, and in a way that meets the following requirements: - such barriers shall include transparent viewing ports which allow observation of all stripping and removal of RACM from outside the barrier - the negative air pressure inside the isolated work area shall be maintained at a pressure differential of at least 0.02 mm of water relative to adjacent, nonisolated areas to the extent feasible - any such local exhaust ventilation system shall filter the air with HEPA filter or equivalent prior to exhausting to the outside air. (NOTE: These provisions do not apply to a removal done entirely by the glovebag method)
T2.5.5.CA.SM. RACM must be handled according to specific requirements (SMAQMD Rule 902, Section 301.8)	Verify that all RACM not removed in units or sections is adequately wetted and kept wet, and transported to the ground in leak-tight chutes or containers, utilizing negative air and HEPA equipment. Verify that all RACM that has been removed is stored in transparent, leaktight containers, labeled with the name of the waste generator and the location at which the waste was generated. Verify that all RACM that has been removed is stored in a locked area until collected for transport to a waste disposal site.
T2.5.6.CA.SM. RACM discovered after demolition begins must be wetted at all times (SMAQMD Rule 902, Section 301.12)	Verify that when RACM is not discovered until after demolition begins and as a result of the demolition cannot be safely removed, the asbestos-contaminated debris is treated as asbestos-containing waste material and kept adequately wet at all times until disposed of properly.

COMPLIANCE CATEGORY: TOXIC SUBSTANCES MANAGEMENT Sacramento Metropolitan Air Quality Management District (SMAQMD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
T2.5.7.CA.SM. Demolition and renovation operations must be reported to the APCO (SMAQMD Rule 902, Section 401.1).	Verify that: for every demolition or renovation, a written plan of intention to demolish is provided to the APCO at least 10 days prior to commencement of set up; for ordered demolitions, the plan is provided at least 24 h prior to commencement of demolition; for emergency renovation, as early as possible; and as soon as possible after demolition due to burning.) Verify that the notification includes the following information: - whether the notification is the original or a revision - the name, address and telephone numbers of both the owner(s) of the structure and the operator of the demolition or renovation - a description of the structure being renovated, including the size, number of floors, age of the oldest portion, and the present and prior use of the structure - an estimate of the approximate amount of RACM to be removed from the structure or portion thereof, in terms of length of pipe in linear feet, surface area in ft^2, or volume in ft^3 if the material is not attached to facility components - estimate of the approximate amount of Category I and Category II nonfriable asbestos-containing material that will not be removed prior to demolition - the procedures used, including the analytical laboratory method employed, to locate and identify the presence of RACM and Category I and Category II nonfriable asbestos-containing material - the address and location (including building number/name and floor/room number, as applicable) of each structure where demolition or renovation will occur - scheduled starting date of set up, scheduled starting date of demolition or renovation, and scheduled completion date of demolition or renovation - a description of planned demolition or renovation and method(s) to be employed - a description of work practices and engineering controls to be used including emission control procedures for asbestos removal and waste handling - the name, address and location of the waste disposal site where the asbestos-containing waste material will be deposited - a copy of the order to demolish (if applicable) - certification that at least one person, trained as required, will supervise the asbestos removal described in this plan - description of the procedures to be followed in the event that unexpected RACM is found or Category II nonfriable asbestos-containing material becomes friable - the name, address and telephone number of the waste transporter. Verify that the installation/CW facility also provides the APCO with the following: - the pressure drop across the fabric filter in inches water gage (if used) - for operations involving asbestos disposal: - the average weight in kg/day of asbestos-containing waste material disposed of - the emission control methods used in all stages of waste disposal - the type of disposal site or incineration site used for ultimate disposal - the name of the site operator - the name and location of the disposal site.

COMPLIANCE CATEGORY: TOXIC SUBSTANCES MANAGEMENT Sacramento Metropolitan Air Quality Management District (SMAQMD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
ASBESTOS MANAGEMENT **T2.10.** **Asbestos Personnel Training/Certification** **T2.10.1.CA.SM.** There must be at least one trained person onsite during RACM stripping or removal operations (SMAQMD Rule 902, Section 301.10).	Verify that no RACM is stripped or removed unless at least one onsite representative, such as a foreman or management-level person or other authorized representative, certifies that he or she is familiar with the provisions of this Rule as it pertains to demolition and renovation and the means of compliance therewith, and is present during all stripping and removing of RACM. Verify that evidence that the required training has been completed is available onsite and made available for inspection by the APCO.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
ASBESTOS MANAGEMENT **T2.15.** **Asbestos Disposal** **T2.15.1.SM.** All asbestos-containing waste material must be disposed of within 90 days (SMAQMD Rule 902, Section 302.5).	Verify that all asbestos-containing waste materials are disposed of within 90 days of the date generated.

INSTALLATION:	COMPLIANCE CATEGORY: TOXIC SUBSTANCES MANAGEMENT SMAQMD - California Supplement	DATE:	REVIEWER(S):
STATUS NA C RMA	REVIEWER COMMENTS:		

SECTION 10

STORAGE TANK MANAGEMENT

San Joaquin Valley Unified Air Pollution Control District (SJVUAPCD) - California Supplement

SECTION 10

STORAGE TANK MANAGEMENT

San Joaquin Valley Unified Air Pollution Control District (SJVUAPCD)

California Supplement

This section covers the District requirements for Storage Tank Management and is intended to supplement the U.S. TEAM Guide. Refer to the U.S. TEAM Guide and the DOD Component Supplements for Federal, DOD, and service-specific requirements.

Definitions

- *Background* - the ambient concentration of organic compounds determined at least 3 m upwind from any valve or flange to be inspected and which is uninfluenced by any specific emission permit unit (SJVUAPCD Regulation 4, Rule 4624).

- *Class 1 Organic Liquid Loading Facility* - any facility loading 20,000 gal or more on any 1 day of organic liquids with a TVP of 1.5 psia or greater into tank trucks, trailers, or railroad tank cars (SJVUAPCD Regulation 4, Rule 4624).

- *Class 2 Organic Liquid Loading Facility* - any facility loading 4000 gal or more but less than 20,000 gal on any 1 day of organic liquids with a TVP of 1.5 psia or greater into tank trucks, trailers, or railroad tank cars (SJVUAPCD Regulation 4, Rule 4624).

- *Crude Oil* - petroleum extracted from the earth which has not been processed in a refining operation (SJVUAPCD Regulation 4, Rule 4623).

- *Delivery Vessel* - any container having a volumetric capacity in excess of 120 gal that is used for the transportation of gasoline. This term includes pumps, meters, valves fittings, pipings, and other appurtenances attached to a tank vehicle and used in connection with the gasoline being transported. Cargo tanks used exclusively for aviation gasoline in agricultural operations, with an annual throughput of 1000 gal or less, will not be considered delivery vessels for the purpose of this rule (SJVUAPCD Regulation 4, Rule 4621).

- *Emergency Standby Tanks* - tanks which are not used (filled or partially filled) more than twice in any 12 month period and such use is reported to the APCO within 24 h of such use (SJVUAPCD Regulation 4, Rule 4623).

- *Excess Organic Liquid Drainage* - more than 10 mL liquid drainage. Such liquid drainage for disconnect operations shall be determined by computing the average drainage from three consecutive disconnects at any one permit unit (SJVUAPCD Regulation 4, Rule 4624).

- *Gas Leak* - a reading of methane on a portable hydrocarbon detection instrument in excess of 10,000 ppm above background when measured at a distance of 1 cm from the potential source with an instru-

ment calibrated with methane in accordance with EPA Method 21 (SJVUAPCD Regulation 4, Rule 4623).

- *Gas-Tight* - any emission of less than or equal to 10,000 ppm of methane measured at a distance of 1 cm from the potential source with an instrument calibrated with methane in accordance with EPA method 21 (SJVUAPCD Regulation 4, Rule 4623).

- *Gasoline* - any petroleum distillate or petroleum distillate/alcohol blend or alcohol having a TVP of 1.5 psia or greater under actual storage conditions used as a motor fuel (SJVUAPCD Regulation 4, Rule 4621).

- *Gasoline Bulk Plant* - any loading facility and associated unloading facilities, storage tanks and vapor recovery system(s) used to load less than 20,000 gal in any 1 day of gasoline to delivery vessels (i.e., tank trucks or trailers) (SJVUAPCD Regulation 4, Rule 4621).

- *Gasoline Vapors* - VOCs in the displaced vapors including any entrained liquids (SJVUAPCD Regulation 4, Rule 4621).

- *Leak* - the dripping of liquid organic compounds at a rate of more than three drops per minute; or the detection of organic compounds in excess of 10,000 ppm above background of methane when measured at a distance of 1 cm of the potential source with a portable hydrocarbon detection instrument calibrated with methane. (Note - A drip rate of less than three drops per minute or detection of less than 10,000 ppm above background as methane is not a leak for the purposes of this rule.) (SJVUAPCD Regulation 4, Rule 4624)

- *Loading Facility* - any aggregate or combination of gasoline loading and vapor control equipment from the connection at the inlet of the gasoline pump to and including the hose end connector at the portable delivery tanks and the discharge of the vapor control device(s) (SJVUAPCD Regulation 4, Rule 4621).

- *Organic Liquid* - any liquid which contains VOCs and has a TVP greater than 1.5 psia at actual at actual storage conditions (SJVUAPCD Regulation 4, Rule 4623).

- *Organic Liquid Loading Facility* - any aggregate or combination of organic liquid loading and vapor control equipment from the connection at the inlet of the organic liquid pump to and including the hose end connector at the portable delivery tanks and the discharge of the vapor control device(s) (SJVUAPCD Regulation 4, Rule 4624).

- *Roof Drain* - any drain located on a roof of a tank which opens directly into the organic liquid content of the tank (SJVUAPCD Regulation 4, Rule 4623).

- *Small Producer* - a person who (SJVUAPCD Regulation 4, Rule 4623):
    1. produces an average of less than 6,000 barrels (bbl)/day of crude oil from all operations within the county; and
    2. does not engage in refining, transportation, or marketing of refined petroleum products.

- *Submerged Fill Pipe* - any fill pipe, the discharge opening of which is entirely submerged when the liquid level is 6 in. above the bottom of the container. "Submerged fill pipe" when applied to a container which is loaded from the side is defined as any fill pipe the discharge opening of which is entirely submerged when the liquid level is 18 in. above the bottom of the container (SJVUAPCD Regulation 4, Rule 4621).

- *Tank* - any stationary storage tank, reservoir or other container having a capacity of 251 gal or greater (SJVUAPCD Regulation 4, Rule 4623).

- *Vapor Tight* - any emission of less than or equal to 10,000 ppm when measured at a distance of 1 cm from the potential source with an instrument calibrated with methane in accordance with EPA Method 21 (SJVUAPCD Regulation 4, Rule 4621).

- *Vapor Leak* - a reading in excess of 10,C00 ppm of methane measured at a distance of 1 cm using a portable hydrocarbon detection instrument in accordance with EPA Method 21 (SJVUAPCD Regulation 4, Rule 4621).

STORAGE TANK MANAGEMENT

GUIDANCE FOR SJVUAPCD CHECKLIST USERS

	REFER TO CHECKLIST ITEMS:	REFER TO PAGE NUMBERS:
Aboveground Storage Tanks	ST.5.1.CA.SJ.	10-7
Emissions/Discharges From Bulk Gasoline Terminals		
Transfer of Gasoline	ST.10.1.CA.SJ. through ST.10.3.CA.SJ.	10-9
Organic Liquid Loading	ST.10.4.CA.SJ. through ST.10.6.CA.SJ.	10-10
Emissions/Discharges From POL Storage Vessels		
Gasoline Delivery Vessels	ST.15.1.CA.SJ.	10-13
Emissions/Discharges From VOL Storage Vessels	ST.20.1.CA.SJ. through ST.20.5.CA.SJ.	10-15

COMPLIANCE CATEGORY: STORAGE TANK MANAGEMENT San Joaquin Valley Unified Air Pollution Control District (SJVUAPCD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
ST.5. ABOVEGROUND STORAGE TANKS	(NOTE: The purpose of Rule 4621 is to limit VOC emissions from the transfer of gasoline into stationary storage containers. This Rule does not apply in the following cases: - the transfer of gasoline into any stationary storage container with a capacity of 550 gal or less used exclusively for fueling of implements of husbandry, if such container is equipped with a permanent submerged fill pipe - the transfer of gasoline into any stationary storage container having a capacity of 2,000 gal or less which was installed prior to 1 July 1975, if such container is equipped with a permanent submerged fill pipe - the transfer of gasoline into any stationary storage container in existence prior to 1 July 1975, which is equipped with an offset fill pipe if such container is equipped with a permanent submerged fill pipe.)
ST.5.1.CA.SJ. Stationary storage tanks that hold gasoline must meet specific equipment requirements (SJVUAPCD Regulation IV, Rule 4621, Section 5.1).	Verify that no person transfers or permits the transfer of gasoline from any delivery vessel (i.e. tank truck or trailer) into any stationary storage container with a capacity of more than 250 gal unless such container is equipped with a permanent submerged fill pipe and a ARB certified Phase I vapor recovery, system which is maintained and operated according to the manufacturers specifications. Verify that no person places, stores, or holds in any aboveground tank with a capacity of more than 250 gal any gasoline unless such tank is equipped with a pressure-vacuum valve set to within 10 percent of the maximum allowable working pressure of the tank.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
ST.10. EMISSIONS/ DISCHARGES FROM BULK GASOLINE TERMINALS	
Transfer of Gasoline	(NOTE: This Rule applies to the transfer of gasoline into stationary storage tanks, gasoline delivery vessels and gasoline bulk plants.)
ST.10.1.CA.SJ. Gasoline bulk plants must meet specific equipment standards (SJVUAPCD Regulation IV, Rule 4621, Section 5.3.2).	Verify that for all gasoline bulk plants: - the facility is equipped with a system or systems to prevent the release to the atmosphere of at least 95 percent by weight of the gasoline vapors displaced during the filling of the facility's stationary storage containers as certified by the ARB - the facility is equipped with a pressure-vacuum valve on the aboveground stationary storage containers with a minimum pressure valve setting of 8 oz/in.^{2}, provided that such setting will not exceed the container's maximum pressure rating. (NOTE: Gasoline bulk plants that do not meet these requirements are subject to the requirements of Rule 4624, Organic Liquid Loading; see ST.10.4.CA.SJ. below.)
ST.10.2.CA.SJ. Gasoline vapors must not be purged (SJVUAPCD Regulation IV, Rule 4621, Section 5.3.3).	Verify that gasoline vapors are not purged into the atmosphere.
ST.10.3.CA.SJ. Vapor recovery systems must meet operational requirements (SJVUAPCD Regulation IV, Rule 4621, Section 5.3.4).	Verify that the vapor recovery system does not cause the pressure in the delivery vessel to exceed 18 in. H_2O or 6 in. H_2O vacuum.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
Organic Liquid Loading	(NOTE: The purpose of Rule 4624 is to limit VOC emissions from organic liquid loading by limiting the vapor pressure and storage temperature. This Rule applies to organic liquid loading facilities which load 4000 gal or more in any 1 day. This Rule does not apply to gasoline bulk plants that meet the requirements of Rule 4621 (see ST.10.1.CA.SJ. through ST.10.3.CA.SJ. above). This Rule also does not apply to the loading of organic liquids with true vapor pressure at actual loading temperature of less than 1.5 psia.)
ST.10.4.CA.SJ. Organic liquid loading facilities must meet emission limit requirements (SJVUAPCD Regulation IV, Rule 4623, Section 5.1, 5.2, 5.3, 5.4).	Verify that all Class 1 organic liquid loading facilities are equipped with bottom loading and a vapor collection and control system such that the emission of VOCs does not exceed 0.08 lb/1000 gal of organic liquid loaded. Verify that all Class 2 organic liquid loading facilities are equipped with a system to prevent the release to the atmosphere of at least 95 percent by weight of the VOCs displaced during the loading of tank trucks, trailers or rail road cars. Verify that the vapor collection and control system operates such that the pressure in the delivery tank being loaded does not exceed 18 in. water column pressure and 6 in. water column vacuum. (NOTE: This requirement does not apply to the loading of liquified petroleum gas.) Verify that all delivery tanks which previously contained organic liquids with a true vapor pressure greater than 1.5 psia at loading conditions are filled only at loading facilities that meet the requirements of the preceding paragraphs. Verify that the loading and vapor collection equipment is designed, installed, maintained and operated such that there are no leaks or no excess organic liquid drainage at disconnections. (NOTE: Notwithstanding any other provision of this Rule, organic liquid loading facilities exclusively handling liquified petroleum gas need not comply with the bottom loading provisions of this Rule (see also ST.10.5.CA.SJ. below), provided the operator complies with the emission limits and requirements for loading and vapor collection equipment.) (NOTE: The requirements of ST.10.4.CA.SJ. and ST.10.5.CA.SJ. do not apply to organic liquid loading facilities which are used exclusively for loading of less than 4,000 gal of organic liquids in any 1 day, provided recordkeeping requirements are met; see ST.10.6.CA.SJ. below.)

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
ST.10.5.CA.SJ. The construction, reconstruction, or expansion of top loading facilities is prohibited (SJVUAPCD Regulation IV, Rule 4623, Section 5.5).	Verify that the installation/CW facility does not construct of any new top loading facility or reconstruct or expand any existing top loading facility with top loading equipment. (NOTE: The requirements of ST.10.4.CA.SJ. and ST.10.5.CA.SJ. do not apply to organic liquid loading facilities which are used exclusively for loading of less than 4,000 gal of organic liquids in any 1 day, provided recordkeeping requirements are met; see ST.10.6.CA.SJ. below.)
ST.10.6.CA.SJ. Organic liquid loading facilities exempt due to low usage must meet recordkeeping requirements (SJVUAPCD Regulation IV, Rule 4623, Section 6.1).	(NOTE: The requirements of ST.10.4.CA.SJ. and ST.10.5.CA.SJ. do not apply to organic liquid loading facilities which are used exclusively for loading of less than 4000 gal of organic liquids in any 1 day.) Verify that facilities which claim an exemption based on loading less than 4000 gal/day maintain accurate daily records of liquid throughput, loading temperature and liquid TVP, and make such records readily available to District staff upon request. Verify that all records are maintained at the facility or a minimum of 2 yr.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
ST.15. EMISSIONS/ DISCHARGES FROM POL STORAGE VESSELS	
Gasoline Delivery Vessels	(NOTE: The purpose of Rule 4621 is to limit VOC emissions from the transfer of gasoline into delivery vessels.)
ST.15.1.CA.SJ. Gasoline delivery vessels must meet specific labeling and design requirements (SJVUAPCD Regulation IV, Rule 4621, Section 5.2).	Verify that the installation/CW facility does not operate, or allow the operation of a gasoline delivery vessel unless valid State of California decals which attest to the vapor integrity of the tank are displayed. Verify that the installation/CW facility does not store gasoline in or otherwise use or operate any gasoline delivery vessel unless such vessel is designed and maintained to be vapor tight. Verify that any delivery vessel into which gasoline vapors have been transferred is filled only at a loading facility that is equipped with a system that prevents at least 95 percent by weight of the gasoline vapors displaced from entering the atmosphere.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
ST.20. EMISSIONS/ DISCHARGES FROM VOL STORAGE VESSELS	(NOTE: Rule 4623 applies to equipment used to store organic liquids, including crude oil and petroleum distillates, with a true vapor pressure (TVP) of greater than 1.5 psia. The provisions of this Rule do not apply to tanks, reservoirs or other containers which are pressure vessels maintaining working pressures sufficient at all times to prevent organic liquid loss or VOC loss to the atmosphere.) (NOTE: The requirements listed in ST.20.1.CA.SJ. through ST.20.3.CA.SJ. do not apply to: - fixed or floating roof tanks, designated for emergency standby, in existence prior to 1 May 1979, which store exclusively petroleum distillates or crude oil. Prior to return to Emergency Standby status, each tank shall be thoroughly drained. Each use of the tank shall not exceed 30 days. After a tank has been used (filled or partially filled) and draining of the tank has begun, any further filling of the tank shall constitute a separate use of the tank. Fixed roof emergency standby tanks shall be equipped with a pressure relief device set to within 10 percent of the maximum allowable working pressure of the tank - tanks with capacities of 84,000 gal (2000 bbl) or less of a small producer providing the daily throughput is less than 6300 gal (150 bbl)/day, and the tank is equipped with a pressure relief device set to within 10 percent of the maximum allowable working pressure of the tank - temporary tanks, with capacities of 21,000 gal (500 bbl) or less, left on site for 6 mo or less.)
ST.20.1.CA.SJ. Fixed roof tanks with internal floating roofs must meet specific design requirements (SJVUAPCD Regulation IV, Rule 4623, Section 5.2).	Verify that a fixed roof tank with an internal floating-type cover is not used if the organic liquid stored has a TVP of 11 psia or greater under storage conditions. Verify that the installation does not place, store or hold in any fixed roof tank with an internal floating roof tank of 19,800 gal (471 bbl) or greater any organic liquid, light crude oil or petroleum distillate unless the internal floating-type roof cover is equipped with a closure device or with equivalent seals.
ST.20.2.CA.SJ. Fixed roof tanks with vapor recovery systems must meet specific design requirements (SJVUAPCD Regulation IV, Rule 4623, Section 5.3).	Verify that the installation/CW facility does not place, store or hold in any fixed roof tank of 19,800 gal (471 bbl) or greater any organic liquid, light crude oil or petroleum distillate unless the tank is equipped with a vapor loss prevention system, consisting of a system capable of collecting all VOCs, and a system for processing and for return to liquid storage or disposal of VOCs, so as to prevent their emission to the atmosphere at an efficiency of at least 95 percent by weight. Verify that any tank gauging or sampling device on a tank vented to the vapor recovery system is equipped with a gas-tight cover which is closed at all times except during gauging or sampling. Verify that AR piping, valves and fittings are constructed and maintained in a gas-tight condition.

COMPLIANCE CATEGORY: STORAGE TANK MANAGEMENT San Joaquin Valley Unified Air Pollution Control District (SJVUAPCD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
ST.20.3.CA.SJ. Floating roofs must meet specific design requirements (SJVUAPCD Regulation IV, Rule 4623, Section 5.1).	Verify that a floating roof is not used if the organic liquid stored has a TVP of 11 psia or greater under storage conditions. Verify that the installation/CW facility does not place, store or hold in any floating roof tank of 19,800 gal (471 bbl) or greater, any organic liquid unless such tank, is equipped with: - a floating roof, consisting of a pontoon-type or double-deck-type cover, that rests on the surface of the liquid contents; and - a closure device between the tank shell and roof edge consisting of two seals, one above the other; the one below shall be referred to as the primary seal, and the one above shall be referred to as the secondary seal Verify that seal designs are submitted to the APCO and not installed or used unless they are approved by the APCO. Verify that all openings in the roof used for sampling or gauging (except pressure-vacuum valves which shall be set to within 10 percent of the maximum allowable working pressure of the roof), provide a projection below the liquid surface to prevent belching of liquid and to prevent entrained or formed organic vapor from escaping from the liquid contents of the tank, and are equipped with a cover, seal, or lid. Verify that the cover, seal, or lid for any opening is at all times in a closed position, with no visible gaps and be gas-tight, except when the device or appurtenance is in use. Verify that any roof drain is provided with a slotted membrane fabric cover, or equivalent, that covers at least 90 percent of the area of the opening.
ST.20.4.CA.SJ. Gasoline storage tanks must meet specific design requirements (SJVUAPCD Regulation IV, Rule 4623, Section 5.4).	Verify that the installation/CW facility does not place, store, or hold in any above-ground tank of 19,800 gal (471 bbl) or less capacity any gasoline unless such tank is equipped with a pressure relief device set to within 10 percent of the maximum allowable working pressure of the container or is equipped with a vapor loss control device.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
ST.20.5.CA.SJ. Owners/ operators of tanks subject to this Rule must meet specific recordkeeping requirements (SJVUAPCD Regulation IV, Rule 4623, Section 6.1).	Verify that installations/CW facilities with tanks subject to the requirements of this Rule keep an accurate record of liquids stored in each container, storage temperature, and the Reid vapor pressure of such liquids. Verify that installations/CW facilities whose emergency standby tanks are exempt from the requirements of ST.20.1.CA.SJ. through ST.20.3.CA.SJ. maintain the records required in the preceding paragraph and the date(s) liquid is first introduced to each tank, and the date(s) the tank is fully drained, and submit them to the APCO 60 days prior to permit renewal. Verify that installations/CW facilities with tanks exempt by virtue of size and throughput maintain monthly records of average daily throughput and submit such information to the APCO 30 days prior to annual permit renewal.

INSTALLATION:	COMPLIANCE CATEGORY: STORAGE TANK MANAGEMENT SJVUAPCD - California Supplement	DATE:	REVIEWER(S):
STATUS NA C RMA	REVIEWER COMMENTS:		

SECTION 11

TOXIC SUBSTANCES MANAGEMENT

San Joaquin Valley Unified Air Pollution Control District (SJVUAPCD) - California Supplement

SECTION 11

TOXIC SUBSTANCES MANAGEMENT

San Joaquin Valley Unified Air Pollution Control District (SJVUAPCD)

California Supplement

This section covers the District requirements for Asbestos Management and is intended to supplement the U.S. TEAM Guide. Refer to the U.S. TEAM Guide and the DOD Component Supplements for Federal, DOD, and service-specific requirements.

The SJVUAPCD has adopted the Federal National Emissions Standards for Asbestos (Title 40 of the Code of Federal Regulations (CFR), Part 61, Subpart M) in effect on 1 July 1994, with the following amendments: Administrator, as used in Part 61, Chapter 1, Title 40, Code of Federal Regulations, shall mean the APCO of the District. The APCO shall not be empowered to approve alternate or equivalent test methods nor alternate standards/work practices.

INSTALLATION:	COMPLIANCE CATEGORY: TOXIC SUBSTANCES MANAGEMENT SJVUAPCD - California Supplement	DATE:	REVIEWER(S):
STATUS NA C RMA	REVIEWER COMMENTS:		

SECTION 1

AIR EMISSIONS MANAGEMENT

Santa Barbara County Air Pollution Control District (StBCAPCD) - California Supplement

SECTION 1

AIR EMISSIONS MANAGEMENT

Santa Barbara County Air Pollution Control District (StBCAPCD)

California Supplement

This section covers the state requirements for Air Emissions Management and is intended to supplement the TEAM Guide. Refer to the TEAM Guide and the DOD Component Supplements for Federal, DOD, and service-specific requirements.

Incorporation by Reference

Santa Barbara County Air Pollution Control District incorporates by reference the provisions of the following:

- Part 60, Chapter I, Title 40 of the Code of Federal Regulations (40 CFR Part 60)
- Part 61, Chapter I, Title 40 of the CFR.

Definitions

- *Adhesive Bonding Primer* - a coating applied in a very thin film to aircraft or aerospace parts or products for the primary purpose of providing a primer for a subsequent coat of structural adhesive (StBCAPCD Regulation III, Rule 337).

- *Affected Pollutants* - include any of the following (StBCAPCD Regulation II, Rule 205):
    1. all pollutants, and the precursors to such pollutants, for which an ambient air quality standard has been established by the U.S. Environmental Protection Agency (USEPA) or the California Air Resources Board (CARB)
    2. all pollutants regulated by the USEPA under the *Clean Air Act* (CAA) or by the CARB under the Health and Safety Code, including all of the following:
        a. reactive organic compounds (ROC)
        b. NO_x
        c. SO_x
        d. PM_{10} (particulate matter with an aerodynamic diameter of 10 micrometers or less as measured by reference method 40 Code of Federal Regulations (CFR) 50 Appendix J)
        e. CO
        f. total suspended particulates (TSP)
        g. ethylene
        h. lead
        i. asbestos
        j. beryllium
        k. mercury
        l. vinyl chloride
        m. fluorides
        n. sulfuric acid mist
        o. hydrogen sulfide

p. total reduced sulfur
q. reduced sulfur compounds

3. all of the pollutants which the USEPA, or the CARB, or the District have determined may have a significant adverse effect on the environment, public health or public welfare.

- *Agricultural Burning* - (See also "Open Burning in Agricultural Operations") means open outdoor fires used in any of the following ways (StBCAPCD Regulation I, Rule 102):
  1. in agricultural operations in the growing of crops or raising of fowl or animals
  2. in forest management
  3. in range improvement
  4. in improvement of land for wildlife and game habitat
  5. for disease or pest prevention
  6. in the operation or maintenance of a system for delivery of water for agricultural purposes.

- *Aircraft* or *Aerospace Vehicle* - a fabricated part, assembly of parts, or completed unit of any aircraft, helicopter, missile, or space vehicle (StBCAPCD Regulation III, Rule 330).

- *Air Contaminant* - includes, but is not limited to, smoke, charred paper, dust, soot, grime, carbon, noxious acids, fumes, gases, odors, or particulate matter, or any combination thereof (StBCAPCD Regulation I, Rule 102).

- *Air Dried* - a process whereby the coated object is cured or dried at a temperature less than 90 °C (194 °F) (StBCAPCD Regulation III, Rule 330).

- *Air Pollution Control Officer (APCO)* - See "Control Officer".

- *Ambient Air Quality Standards* - those standards set by the State and Federal governments (StBCAPCD Regulation I, Rule 102).

- *Ampere-Hours* - the integral of electrical current applied to a plating tank (amperes) over a period of time (hours) (StBCAPCD Regulation III, Rule 334).

- *Annual Heat Input* - the total heat input of fuels burned by a boiler or steam generator or a process heater in a calendar year, as determined from the higher heating value and cumulative annual usage of each fuel (StBCAPCD Regulation III, Rule 342).

- *Anti-Mist Additive* - a chemical, approved by the APCO, which reduces the emission rate from the tank when added to and maintained in the plating tank (StBCAPCD Regulation III, Rule 334).

- *Antiglare/Safety Coating* - a coating that does not reflect light (StBCAPCD Regulation III, Rule 339).

- *APCO* - Air Pollution Control Officer. See "Control Officer".

- *Appurtenances* - accessories to a stationary structure, including, but not limited to hand railings, cabinets, bathroom and kitchen fixtures, fences, rain-gutters and down-spouts, window screens, lamp posts, heating and air conditioning equipment, other mechanical equipment, large fixed stationary tools and concrete forms (StBCAPCD Regulation III, Rule 323).

- *Architectural Coating* - coatings applied to stationary structures and their appurtenances, to mobile homes, to pavements, or to curbs (StBCAPCD Regulation III, Rule 323).

- *Asphalt* - the dark-brown to black cementitious material (solid, semisolid, or liquid in consistency) of which the main constituents are bitumens that occur naturally or as a residue of petroleum refining (StBCAPCD Regulation III, Rule 329).

- *ATC* - Authority to Construct.

- *Atmosphere* - the air that envelopes or surrounds the earth; when air pollutants are emitted into a building not designed specifically as a piece of air pollution control equipment, such emissions are considered to be emissions into the atmosphere (StBCAPCD Regulation I, Rule 102).

- *Baked* - a process whereby the coated object is heated to a temperature of 90 °C (194 °F) or greater for the purpose of curing or drying (StBCAPCD Regulation III, Rule 330).

- *Belowground Wood Preservatives* - coatings formulated to protect belowground wood from decay or insect attack and which contain a wood preservative chemical registered by the California Department of Food and Agriculture (StBCAPCD Regulation III, Rule 323).

- *Binders* - nonvolatile polymeric organic materials (resins) which form the surface film in coating applications (StBCAPCD Regulation III, Rule 351).

- *Bituminous Coatings* - black or brownish coating materials that are soluble in carbon disulfide, which consist mainly of hydrocarbons, and which are obtained from natural deposits or are residues from the distillation of crude oils or of low grades of coal (StBCAPCD Regulation III, Rule 323).

- *Board* - the Air Pollution Control Board of the Air Pollution Control District of Santa Barbara County (StBCAPCD Regulation I, Rule 102).

- *Boiler or Steam Generator* - any external combustion equipment fired with any fuel used to produce hot water or steam (StBCAPCD Regulation III, Rule 342).

- *Bond Breakers* - coatings applied between layers of concrete to prevent the freshly poured top layer of concrete from bonding to the layer over which it is poured (StBCAPCD Regulation III, Rule 323).

- *Breakdown Condition* - an unforeseeable failure or malfunction of (StBCAPCD Regulation V, Rule 505):
    1. any air pollution control equipment or related operating equipment that causes a violation of an emission limitation or restriction
    2. any in-stack continuous monitoring equipment, provided that any such failure or malfunction meets all of the following conditions:
        a. it is not the result of neglect or disregard of any air pollution control law, rule or regulation
        b. it is not the result of an intentional or negligent act or omission on the part of the owner or operator
        c. it is not the result of improper maintenance
        d. it does not constitute a nuisance
        e. it is not a recurrent breakdown of the same equipment.

- *Burn Days* - See "No Burn Day" or "Permissive Burn Day".

- *Camouflage Coating* - a coating applied on military motor vehicles to conceal such vehicles from detection (StBCAPCD Regulation III, Rule 339).

- *CARB* - California Air Resources Board (StBCAPCD Regulation I, Rule 102).

- *CARB-certified Vapor Recovery System* - a vapor recovery system that has been certified by the CARB pursuant to Section 41954 of the Health and Safety Code (StBCAPCD Regulation III, Rule 316).

- *Catalyst* - a substance whose presence affects the rate of reaction between chemical compounds (StBCAPCD Regulation III, Rule 339).

- *Chrome* - metallic chrome (StBCAPCD Regulation III, Rule 334).

- *Chrome Plating* - either hard or decorative chrome plating (StBCAPCD Regulation III, Rule 334).

- *Chromic Acid* - an aqueous solution of chromium trioxide (CrO_3), or a commercial solution containing chromic acid, (H_2CrO_4) dichromic acid ($H_2Cr_2O_7$, or trichromic acid ($H_2Cr_3O_7$) (StBCAPCD Regulation III, Rule 334).

- *Chromic Acid Anodizing* - the electrolytic process by which a metal surface is converted to an oxide surface coating in a solution containing chromic acid (StBCAPCD Regulation III, Rule 334).

- *Chromium* - hexavalent chromium (StBCAPCD Regulation III, Rule 334).

- *Class I Area* - any area having air quality or air quality related values requiring special protection, and which has been designated Class I by a Federal or state authority empowered to make such designation; the following location is mandated by the CAA as a Class I area: San Rafael Wilderness Area (StBCAPCD Regulation II, Rule 205).

- *Clear Topcoat* - a final coating which contains binders, but not opaque pigments, and is specifically formulated to form a transparent or translucent solid protective film (StBCAPCD Regulation III, Rule 351).

- *Clear Wood Finishes* - clear and semitransparent coatings, including lacquers and varnishes, applied to wood substrates to provide a transparent or translucent solid film (StBCAPCD Regulation III, Rule 323).

- *Coating* - a material which is converted to a solid protective, decorative, or functional adherent film after application as a thin layer (StBCAPCD Regulation III, Rule 339).

- *Color Match* - the ability of a repair coating to blend into or match an existing coating so that color differentiation is not visible (StBCAPCD Regulation III, Rule 339).

- *Cold Cleaner* - any batch loaded, nonboiling solvent degreaser (StBCAPCD Regulation III, Rule 321).

- *Combustible Refuse* - any solid or liquid combustible waste material containing carbon in a free or combined state (StBCAPCD Regulation I, Rule 102).

- *Combustion Contaminant* - particulate matter discharged into the atmosphere from the burning of any kind of material containing carbon in a free or combined state (StBCAPCD Regulation I, Rule 102).

- *Composite Partial Vapor Pressure* - The sum of the partial pressures of the compounds defined as VOC (StBCAPCD Regulation III, Rule 354).

- *Concrete Curing Compounds* - coatings applied to freshly poured concrete to retard the evaporation of water (StBCAPCD Regulation III, Rule 323).

- *Condensed Fumes* - particulate matter generated by the condensation of vapors evolved after volatilization from the molten, sublimation, distillation, calcination, or chemical reaction, when these processes create air-borne particles (StBCAPCD Regulation I, Rule 102).

- *Control Equipment* - where used in reference to medical waste incinerators includes any device that reduces emissions from them (StBCAPCD Regulation III, Rule 340).

- *Control Officer* - the Air Pollution Control Officer (APCO) of the Air Pollution Control District of Santa Barbara County (StBCAPCD Regulation I, Rule 102).

- *Conveyorized Degreaser* - any continuously loaded, conveyorized solvent degreaser, either boiling or nonboiling (StBCAPCD Regulation III, Rule 321).

- *Cutback Asphalt* - paving grade asphalts liquefied with petroleum distillate and as further defined by the American Society for Testing and Materials (ASTM) specifications as follows (StBCAPCD Regulation III, Rule 329):
    1. rapid cure type (ASTM D2028)
    2. medium cure type (ASTM D2027)
    3. slow cure type (ASTM D2026).

- *Cyclic Engine* - an engine that under normal operating conditions varies in shaft load by 40 percent or more of rated brake horsepower (bhp) during recurrent periods of 30 s or less, or is used to power an oil well reciprocating pumping unit (StBCAPCD Regulation III, Rule 333).

- *Decorative Chrome Plating* - the process by which chromium is electrodeposited from a solution containing compounds of chromium onto an object resulting in a chrome layer 1 micron (0.04 mil) thick or less (StBCAPCD Regulation III, Rule 334).

- *Degreaser* - a tank, tray, drum, or other container in which objects to be cleaned are exposed to a degreasing solvent or degreasing solvent vapor (StBCAPCD Regulation III, Rule 321).

- *Degreasing solvent* - any organic compound or combination of organic compounds used for the purpose of dissolving oils, grease, waxes, tars or other substances (StBCAPCD Regulation III, Rule 321).

- *Detailing or Touchup Guns* - small air spray equipment, including air brushes, that operate at no greater than 5 CFM air flow and no greater than 50 Psig air pressure and are used to coat small products or portions of products StBCAPCD Regulation III, Rule 337).

- *Diluent* - a compound which is used to thin or reduce a coating. See definitions for thinner or reducer (StBCAPCD Regulation III, Rule 339).

- *Dioxins* - dibenzo-p-dioxins and dibenzofurans chlorinated in the 2,3,7 and 8 positions, containing 4,5,6 or 7 chlorine atoms, and expressed as 2,3,7,8 tetrachlorinated dibenzo-para-dioxin equivalents using current California Department of Health Services toxic equivalency factors (StBCAPCD Regulation III, Rule 340).

- *Dip Coat* - to submerse an object in a vat of coating material and drain off any excess coating (StBCAPCD Regulation III, Rule 351).

- *District* - means the Air Pollution Control District of the County of Santa Barbara unless otherwise specifically indicated (StBCAPCD Regulation I, Rule 102).

- *Dry Fog Coatings* - coatings formulated only for spray application such that overspray droplets dry before subsequent contact with other surfaces (StBCAPCD Regulation III, Rule 323).

- *Drycleaning Operation* - that process by which an organic solvent is used in the commercial cleaning of garments and other fabric materials (StBCAPCD Regulation III, Rule 320).

- *Dust* - minute solid particles released in the air by natural forces or by mechanical processes such as crushing, grinding, milling, drilling, demolishing, shoveling, conveying, covering, bagging, sweeping, etc. (StBCAPCD Regulation I, Rule 102).

- *Electric/Radiation Effect Coatings* - an electrically conductive or insulative coating, or coatings used on radar and antennae enclosures (StBCAPCD Regulation III, Rule 337).

- *Electrostatic Application* - using a sufficient charging of atomized paint droplets to cause deposition by electrostatic attraction. This application requires a minimum of 60 kV power supply (StBCAPCD Regulation III, Rule 330).

- *Emission Control Equipment* - any machinery, apparatus, or device that is installed and used to reduce emissions of organic vapors from a tank vessel (StBCAPCD Regulation III, Rule 327).

- *Emissions Collection System* - a device or apparatus used to gather chromium emissions from the surface of a chrome plating or chromic acid anodizing tank or tanks (StBCAPCD Regulation III, Rule 334).

- *Emulsified Asphalt* - any asphalt liquefied with water containing an emulsifier. The two kinds of emulsions most pertinent are the anionic and cationic types (StBCAPCD Regulation III, Rule 329).

- *Enclosed (Remote) Reservoir* - a liquid solvent container which is completely enclosed except for a drain opening which allows used nonboiling solvent to drain into it from a separate solvent sink or work area and which is not accessible for immersing parts (StBCAPCD Regulation III, Rule 321).

- *Engine* - any spark or compression ignited engine in which the pistons are contained within cylinders and move back and forth in a straight line (StBCAPCD Regulation III, Rule 333).

- *Ethylene Oxide Sterilizer* - any equipment that use ethylene oxide as a biocide to destroy bacteria, viruses, fungus and other unwanted organisms, including any vacuum pump or other equipment used to evacuate ethylene oxide from a sterilization chamber, as well as any aeration activities (StBCAPCD Regulation III, Rule 336).

- *Exempt Organic Compounds* - those compounds listed as exceptions in the definition of "Reactive Organic Compounds" (StBCAPCD Regulation III, Rule 330).

- *Exempt Solvents* - see "Exempt Organic Compounds".

- *Existing Engine* - an engine that by 3 December 1991 has satisfied any of the following conditions (StBCAPCD Regulation III, Rule 333):
    1. it has been issued a valid ATC or permit to operate (PTO)
    2. its owner has submitted an complete application for an ATC
    3. it is a identical replacement for an existing engine.

- *Existing Ethylene Oxide Sterilizer* - one that was operating, constructed, or under construction as of 12 December 1989 (StBCAPCD Regulation III, Rule 336).

- *Extreme Performance Interior Topcoat* - with reference to aircraft, a topcoat used in interior spaces of aircraft areas requiring a fluid, stain or nicotine barrier (StBCAPCD Regulation III, Rule 337).

- *Extreme Performance Coating* - a coating applied to a Group II vehicle or mobile equipment which during intended use is exposed to any of the following conditions (StBCAPCD Regulation III, Rule 339):
    1. chronic exposure to corrosive, caustic, or acidic agents, chemicals, chemical fumes, chemical mixtures, or solutions
    2. repeated exposure to temperatures in excess of 250 °F [approximately 121 °C]
    3. repeated heavy abrasion, including mechanical wear and repeated scrubbing with industrial grade solvents, cleansers, or scouring agents
    4. exterior exposure of steel and nonferrous metal structures.

- *Facility-Wide Emissions From Hard Chrome Plating or Chromic Acid Anodizing* - the total emissions from all hard chrome plating and chromic acid anodizing at the facility over a calendar year. Emissions shall be calculated as the sum of emissions from the emissions collection system at the facility. The emissions from an emissions collection system shall be calculated by multiplying the emission factor for that emissions collection system by the sum of ampere-hours consumed during that year for all of the tanks served by the emissions collection system (StBCAPCD Regulation III, Rule 334).

- *Filler* - a preparation used to fill in the cracks, grain, etc. of wood before applying a coating (StBCAPCD Regulation III, Rule 351).

- Fire Insulation Coating - with reference to aircraft, a coating used to provide a layer of insulation in the event of an aircraft or engine fire (StBCAPCD Regulation III, Rule 337).

- *Fire Retardant Coatings* - coatings that have a flame spread index of less than 25 when tested in accordance with ASTM Designation E-84-87 (Standard Test Method for Surface Burning Characteristics of Building Material) after application to Douglas fir according to the manufacturer's recommendations (StBCAPCD Regulation III, Rule 323).

- *Flexographic Printing* - the application of words, designs, or pictures by roll printing technique in which the pattern to be applied is raised above the printing roll and the image carrier is made of rubber or other elastomeric material (StBCAPCD Regulation III, Rule 354).

- *Flow Coat* - to coat an object by pouring a stream of coating over an object and draining off any excess coating (StBCAPCD Regulation III, Rule 351).

- *Forest Management Burning* - the use of open fires, as part of a forest management practice, to remove forest debris. Forest management practices include timber operations, silvicultural practices and forest protection practices (StBCAPCD Regulation I, Rule 102).

- *Forest Management Practices* - include timber operations, silvicultural practices and forest protection practices (StBCAPCD Regulation I, Rule 102).

- *Form-release Compounds* - coatings applied to a concrete form to prevent the freshly poured concrete from bonding to the form. The form may consist of wood, metal, or some material other than concrete (StBCAPCD Regulation III, Rule 323).

- *Freeboard Height* - means (StBCAPCD Regulation III, Rule 321):
    1. for a cold cleaning degreaser, the distance from the top of the solvent or solvent drain, whichever is less, to the top of the solvent container, based on inside tank dimensions
    2. for vapor degreasing tanks, the distance from the solvent vapor-air interface to the top of the basic degreaser tank based on inside tank dimensions.

- *Freeboard Ratio* - the freeboard height divided by the width (or diameter if applicable) of the degreaser based on inside tank dimensions (StBCAPCD Regulation III, Rule 321).

- *Fuel Burning Equipment Unit* - the minimum number of boilers, furnaces, jet engines or other fuel burning equipment, whose simultaneous operations are required for the production of useful heat or power (StBCAPCD Regulation III, Rule 309).

- *Fuel Tank Coating* - with reference to aircraft, a coating applied to the interior of a fuel tank or to fuel wetted areas of an aircraft to protect it from corrosion (StBCAPCD Regulation III, Rule 337).

- *Fugitive Emissions* - uncollected emissions of VOC from any portion of the printing, coating, or laminating operation (StBCAPCD Regulation III, Rule 354).

- *Gasoline* - any organic liquid (including petroleum distillates and methanol) having a Reid Vapor pressure of 4.0 psi or greater and used as a motor vehicle fuel, or any fuel that is commonly or commercially known or sold as gasoline (StBCAPCD Regulation I, Rule 102).

- *Gasoline Delivery Vessel* - a truck, trailer, or railroad car with a storage device containing gasoline, or gasoline vapors, used to transport fuel or other petroleum products (StBCAPCD Regulation III, Rule 316).

- *Gasoline Vapors* - the ROCs in the displaced vapors including any entrained liquid gasoline (StBCAPCD Regulation III, Rule 316).

- *Grams of ROC per Liter of Coating Less Water and Less Exempt Compounds* - the weight of ROC per combined volume of ROC and coating solids and can be calculated by the following equation (StBCAPCD Regulation III, Rule 330):

$$\text{Exempt Compounds} = \frac{Ws - Wes}{Vm - Vw - Ves}$$

Where: Ws = weight of volatile organic compounds in grams
Wes = weight of exempt compounds in grams
Vm = volume of material in liters
Vw = volume of water in liters
Ves = volume of exempt compounds in liters

- *Graphic Arts* - all packaging rotogravure, publication rotogravure and flexographic processes or related coating or laminating processes (StBCAPCD Regulation III, Rule 354).

- *Graphic Arts Line* - printing application equipment, coating equipment, laminating equipment, flash-off areas, ovens, conveyors or other equipment in an uninterrupted series in a graphic arts operation (StB-CAPCD Regulation III, Rule 354).

- *Graphic Arts Operation* - any packaging or publication rotogravure or flexographic printing operation (StBCAPCD Regulation III, Rule 354).

- *Graphic Arts Coatings* - coatings formulated for and hand-applied by artists using brush or roller techniques to indoor and outdoor signs (excluding structural components) and murals, including lettering enamels, poster colors, copy blockers, and bulletin enamels (StBCAPCD Regulation III, Rule 323).

- *Group I Vehicles* - passenger cars, light and medium-sized trucks and vans, large/heavy duty truck cabs and chassis, and motorcycles (StBCAPCD Regulation III, Rule 339).

- *Group II Vehicles and Mobile Equipment* - public transit buses and mobile equipment (StBCAPCD Regulation III, Rule 339).

- *Halogenated Hydrocarbons* - include any of the following (StBCAPCD Regulation II, Rule 205):
    1. 1,1,1-trichloroethane (methyl chloroform)
    2. methylene chloride (dichloromethane)
    3. trichlorofluoromethane (CFC-11)
    4. dichlorodifluoromethane (CFC-12)
    5. chlorodifluoromethane (HCFC-22)
    6. trifluoromethane (FC-23)
    7. trichlorotrifluoroethane (CFC-113)
    8. dichlorotetrafluoroethane (CFC-114)
    9. chloropentafluoroethane (CFC-115).

- *Hand Application Method* - the application of a surface coating by manually held nonmechanically operated equipment. Such equipment includes paint brush, hand-roller, trowel, spatula, dauber, rag, or sponge (StBCAPCD Regulation III, Rule 330).

- *Hard Chrome Plating* - the process by which chromium is electrodeposited from a solution containing compounds of chromium onto an object resulting in a chrome layer thicker than 1 micron (0.04 mil) (StBCAPCD Regulation III, Rule 334).

- *High-Solid Stains* - stains containing more than 1 lb solids/gal, and can include wiping stains, glazes, and opaque stains (StBCAPCD Regulation III, Rule 351).

- *High Temperature Coating* - a coating that, during normal use, must withstand temperatures in excess of 350 °F [approximately 177 °C] (StBCAPCD Regulation III, Rule 337).

- *High-Temperature Industrial Maintenance Coatings* - industrial maintenance coatings formulated for and applied to substrates exposed continuously or intermittently to temperatures above 400 °F [approximately 204 °C] (StBCAPCD Regulation III, Rule 323).

- *High Volume Low Pressure Spraying* - using spray equipment with air pressure between 0.1 and 10.0 psi and air volume greater than 15.5 cfm per spray gun (StBCAPCD Regulation III, Rule 330).

- *Highway* or *Roadway* - a way or place of whatever nature, publicly maintained and open to the public for purposes of vehicular travel. Highway or roadway includes street (StBCAPCD Regulation III, Rule 339).

- *Industrial Maintenance Anti-graffiti Coatings* - clear industrial maintenance coatings formulated for and applied to exterior walls and murals to resist repeated scrubbing and exposure to harsh solvents (StB-CAPCD Regulation III, Rule 323).

- *Industrial Maintenance Coatings* - high performance coatings which are formulated for the purpose of heavy abrasion, water immersion, chemical, corrosion, temperature, electrical, or solvent resistance (StBCAPCD Regulation III, Rule 323).

- *Ink Additive* - that solvent which is added to printing inks to reduce viscosity (StBCAPCD Regulation III, Rule 354).

- *Interior Topcoat* - with reference to aircraft, a topcoat used in habitable interior spaces (StBCAPCD Regulation III, Rule 337).

- *Lacquers* - clear wood finishes formulated with nitrocellulose or synthetic resins to dry by evaporation without chemical reaction, including clear lacquer sanding sealers (StBCAPCD Regulation III, Rule 323). In regards to motor vehicle coating operations, lacquer means a clear or pigmented coating formulated with nitrocellulose or synthetic resin to dry by evaporation without a chemical reaction and to provide a quick-drying, solid protective film (StBCAPCD Regulation III, Rule 339).

- *Large/Heavy Duty Truck* or *Van* - a truck having a manufacturer's gross vehicular weight (GVW) rating of greater than 10,000 lb [approximately 4535.92 kg] (StBCAPCD Regulation III, Rule 339).

- *Leak Free* - a leak rate of 3 drops/min or less of a liquid containing ROCs (StBCAPCD Regulation III, Rule 316).

- *Light and Medium Duty Truck and Van* - a truck having a manufacturer's GVW rating of less than 10,000 lb [approximately 4535.92 kg] (StBCAPCD Regulation III, Rule 339).

- *Low-Solids Stains* - stains containing 1 lb or less of solids per gallon (StBCAPCD Regulation III, Rule 351).

- *Magnesite Cement Coatings* - coatings formulated for and applied to magnesite cement decking to protect the magnesite cement substrate from erosion by water (StBCAPCD Regulation III, Rule 323).

- *Major Stationary Source* - any stationary source of air pollutants which emits, or has a potential after control to emit, 100 tons/yr [approximately 90.72 metric tons/yr] or more of any pollutant (StBCAPCD Regulation II, Rule 205).

- *Makeup Solvent* - solvent that is added to the degreaser to replace solvent lost through evaporation, carry-out, splashing, leakage or disposal (StBCAPCD Regulation III, Rule 321).

- *Marine Terminal* - any facility used in whole or part to load organic liquid cargo into a tank vessel (StBCAPCD Regulation III, Rule 327).

- *Maskant-Chemical Processing* - a coating applied directly to a part to protect surface areas when chemical milling, anodizing, aging, bonding, plating, etching and/or performing other chemical operations on the surface of the part (StBCAPCD Regulation III, Rule 337).

- *Mastic Texture Coatings* - coatings formulated to cover holes and minor cracks and to conceal surface irregularities, and applied in a thickness of at least 10 mils (dry, single coat) (StBCAPCD Regulation III, Rule 323).

- *Medical Facilities* - any medical and dental offices, clinics and hospitals, skilled nursing facilities, research facilities, research laboratories including classroom laboratories, clinical laboratories, all unlicensed and licensed medical facilities, clinics and hospitals, surgery centers, diagnostic laboratories and other providers of health care (StBCAPCD Regulation III, Rule 340).

- *Medical Waste Incinerator* - all of the furnaces or other closed fire chambers that are used to burn wastes generated at medical facilities (StBCAPCD Regulation III, Rule 340).

- *Metal Part or Product* - any part, assembly of parts, or completed unit fabricated in part or in total from metal (StBCAPCD Regulation III, Rule 330).

- *Metallic Pigmented Coatings* - coatings containing at least 0.4 lb [approximately 0.18 kg] metallic pigment/gal coating as applied (StBCAPCD Regulation III, Rule 323).

- *Metallic/Iridescent Topcoat* - any coating which contains a minimum of 5 g/L of metal, as applied, where the coating has a metallic or iridescent appearance when cured or individual particles having such an appearance are visible in the cured coating (StBCAPCD Regulation III, Rule 339).

- *Mill White Coatings* - see "Dry Fog Coatings".

- *Mobile Equipment* - any equipment which can be drawn or is capable of being driven on a roadway, including but not limited to: truck bodies, truck trailers, utility bodies, camper shells, mobile cranes, all-terrain vehicles, bulldozers, concrete mixers, earth moving equipment, street cleaners, golf carts, implements of husbandry, and miscellaneous hauling or ground support equipment used inside and around airports, docks, depots, construction equipment, and industrial and commercial plants (StBCAPCD Regulation III, Rule 339).

- *Modification* - any physical change in, or change in method of operation of, an existing stationary source, except (StBCAPCD Regulation I, Rule 102):
    1. routine maintenance or repair
    2. an increase in the production rate if such increase does not exceed the operating design capacity of the source and such operation was not previously limited by enforceable permit condition(s)
    3. a change in ownership of a source
    4. the use of an alternate fuel or raw material provided that such use is expressly authorized on the Permit.

- *Mobile Vehicle Fueling Facility* - a gasoline container equipped with a dispensing nozzle or nozzles mounted on a truck, trailer or other conveyance and used to fill motor vehicle fuel tanks (StBCAPCD Regulation III, Rule 316).

- *Mold-Seal Coating* - the initial coating applied to a new mold or repaired mold to provide a smooth surface which, when coating with a mold release coating, prevents products form sticking to the mold (StBCAPCD Regulation III, Rule 351).

- *Motor Vehicle Fueling Facility* - a facility where gasoline is transferred directly into the fuel tanks of motor vehicles (StBCAPCD Regulation III, Rule 316).

- *Motorcycle* - any motorcycle as defined in California Vehicle Code paragraph 400 which is defined as a motor vehicle other than a tractor having a seat or saddle for the use of the rider and designed to travel on not more than three wheels in contact with the ground and weighing less than 1500 lb, except that four wheels may be in contact with the ground when two or the wheels are a functional part of a sidecar (StBCAPCD Regulation III, Rule 339).

- *Multi-Colored Coatings* - coatings that exhibit more than one color when applied and which are packaged in a single container and applied in a single coat (StBCAPCD Regulation III, Rule 323).

- *Multi-Stage Topcoat System* - a topcoat system composed of either a basecoat/clearcoat, a basecoat/midcoat/clearcoat, or a groundcoat/basecoat/midcoat/clearcoat. The ROC content of a basecoat/clearcoat coating system shall be calculated according to the following formula (StBCAPCD Regulation III, Rules 339):

$$\text{ROC Total} = \frac{\text{ROCbc} + 2\text{ROCcc}}{3}$$

The ROC content of a three stage coating system shall be calculated according to the following formula:

$$\text{ROC Total} = \frac{\text{ROCbc} + \text{ROCmc} + 2\text{ROCcc}}{4}$$

$$\text{ROC Total} = \frac{\text{ROCgc} + \text{ROCbc} + 2\text{ROCcc}}{4}$$

The ROC content of a 4 Stage coating system shall be calculated according to the following formula:

$$\text{ROC Total} = \frac{\text{ROCgc} + \text{ROCbc} + \text{ROCmc} + 2\text{ROCcc}}{5}$$

Where:

ROC Total is the sum of the ROC content, as applied, and used to determine compliance with the standards for coating motor vehicles and mobile equipment
ROCbc is the ROC content, as applied, of a pigmented basecoat
2ROCcc is two times the ROC content, as applied, of a transparent clearcoat
ROCmc is the ROC content, as applied, of a translucent midcoat
ROCgc is the ROC content, as applied, of a pigmented groundwater or tinted primer sealer

- *Multiple-Chamber Incinerator* - any article, machine, equipment, contrivance, structure or part of a structure used to dispose of combustible refuse by burning, consisting of three or more refractory lined combustion furnaces in series, physically separated by refractory walls, interconnected by gas passage ports or ducts and employing adequate design parameters necessary for maximum combustion of the material to be burned. The refractories shall have a Pyrometric Cone equivalent of at least 17, tested according to the method described in the American Society for Testing Materials, Method C-24 (StB-CAPCD Regulation I, Rule 102).

- *Net Emissions Increase* - the sum of all increases in emissions of any given pollutant, except PM_{10}, from a new or modified stationary source occurring since 2 July 1979, minus any reduction in emissions of that pollutant at the stationary source occurring since 2 July 1979, excluding mandated reductions; for PM_{10}, the net emissions increase is the sum of the net emissions increase for TSPs from 2 July 1979 to 8 August 1988, multiplied by a factor of 0.5 (unless source specific reference data is available), plus the increases or decreases of PM_{10} since 8 August 1988 (StBCAPCD Regulation II, Rule 205).

- *New Engine* - an engine that is not an existing engine (StBCAPCD Regulation III, Rule 333).

- *New Source* - any stationary source that will emit any air contaminant not previously emitted at that location (StBCAPCD Regulation I, Rule 102).

- *No Burn Day* - any day on which the CARB prohibits agricultural burning, or the District prohibits open burning (StBCAPCD Regulation I, Rule 102).

- *Nonattainment Pollutant* - any pollutant for which an ambient air quality standard was exceeded within the District more than three discontinuous times (or, for annual standards, more than one time) within the 3 yr immediately preceding the date when the application for an ATC was found complete, or which has been designated "nonattainment" pursuant to final rulemaking by the USEPA published in the Federal Register as well as precursors of such pollutants (StBCAPCD Regulation II, Rule 205).

- *Noncyclic Engine* - any engine that is not a cyclic engine (StBCAPCD Regulation III, Rule 333).

- *Opaque Stains* - all stains that are not classified as semitransparent stains (StBCAPCD Regulation III, Rule 323).

- *Opaque Wood Preservatives* - all wood preservatives not classified as clear or semitransparent wood preservatives or as belowground wood preservatives (StBCAPCD Regulation III, Rule 323).

- *Open Burning in Agricultural Operations* - (See also "Agricultural Burning") in the growing of crops or raising of fowl or animals means (StBCAPCD Regulation I, Rule 102):
    1. the burning in the open of materials produced wholly from operations in the growing and harvesting of crops or raising of fowl or animals for the primary purpose of making a profit, or pro-

viding of livelihood, or of conducting agricultural research or instruction by an educational institution
2. the burning of grass and weeds in or adjacent to fields in cultivation or being prepared for cultivation
3. the burning of material not produced wholly from these operations, but which are intimately related to the growing or harvesting of crops and which are used in the field, such as fertilizer and pesticide sacks or containers, where the sacks or containers are emptied and burned in the field.

- *Organic Compound* - any compound containing at least one atom of carbon, except methane, CO, CO_2, carbonic acid, metallic carbides, and carbonates (StBCAPCD Regulation III, Rule 327).

- *Organic Liquid Cargo* - any liquid, including but not limited to crude oil, petroleum residuum, and petroleum distillates, comprised of organic compounds that is loaded into a tank vessel to be transported from one location to another (StBCAPCD Regulation III, Rule 327).

- *Organic Materials* - chemical compounds of carbon excluding CO, CO_2, carbonic acid, metallic carbides, metallic carbonates and ammonium carbonate (StBCAPCD Regulation I, Rule 102).

- *Organic Solvents* - include diluents and thinners and are defined as organic materials which are liquid at standard conditions and which are used as dissolvers, viscosity reducers, or cleaning agents, except that such materials which exhibit a boiling point higher than 220 °F [approximately 105 °C] at 0.5 mm mercury absolute pressure or having an equivalent vapor pressure shall not be considered to be solvents unless exposed to temperatures exceeding 220 °F [approximately 105 °C] (StBCAPCD Regulation I, Rule 102).

- *Organic Vapor* - any evaporated component or components of an organic liquid cargo (StBCAPCD Regulation III, Rule 327).

- *Oven* - a heating chamber which uses heat, ultraviolet (UV) radiation, or electron beam (EB) radiation to bake, cure, polymerize, or dry a surface coating (StBCAPCD Regulation III, Rule 354).

- *Packaging Rotogravure* - rotogravure printing on paper, paperboard, foil, film or other substrates which are to be used to produce containers or packages, and other nonpublication rotogravure printing (StBCAPCD Regulation III, Rule 354).

- *Pantone Color* - a printing ink created for color matching by combination of process inks (StBCAPCD Regulation III, Rule 354).

- *Particulate Matter* - any material, except uncombined water, which exists in a finely divided form as a liquid or solid at standard conditions (StBCAPCD Regulation I, Rule 102).

- *Passenger Car* - a passenger car as defined in California Vehicle Code paragraph 465, which is defined as any motor vehicle designed primarily for transportation of persons and having a design capacity of 12 persons or less (StBCAPCD Regulation III, Rule 339).

- *Per Month* - for sources using quarterly recordkeeping per month means average monthly emissions per calendar year quarter. For sources using daily or monthly recordkeeping per month means emissions per calendar month. If VOC emissions from a graphic arts facility exceed 300 lb/mo during any month

the facility is from then on always subject to rule provisions applicable to facilities with emissions greater than 300 lb/mo (StBCAPCD Regulation III, Rule 354).

- *Permissive Burn Day* - any day on which agricultural burning is not prohibited by the Air Resources Board; however, the District may declare any Permissive Burn Day designated by the State Air Resources Board to be a No Burn Day if necessary to maintain suitable air quality (StBCAPCD Regulation I, Rule 102).

- *Permit to Operate* (PTO) - the written permission, with any specified conditions required, that must be obtained from the APCO before any article, machine, equipment, or other contrivance, the use of which may cause, increase, eliminate, reduce, or control the issuance of air contaminants before it may be operated or used. No PTO shall be granted either by the Control Officer or the Hearing Board unless the applicant provides such information or analysis as will disclose the nature, extent, quantity, or degree of air contaminants which the source may discharge. The Control Officer may require that the disclosure be certified by a professional engineer registered in the State of California (StBCAPCD Regulation I, Rule 102).

- *Phase II Vapor Recovery System* - a gasoline vapor recovery system or equipment that recovers the vapors generated during the fueling of motor vehicles from gasoline storage containers (StBCAPCD Regulation III, Rule 316).

- *Photochemically Reactive Solvent* - any solvent with an aggregate of more than 20 percent of its total volume composed of the chemical compounds classified below or which exceeds any of the following individual percentage composition limitations, referred to the total volume of solvent
  (NOTE: Whenever any organic solvent or any constituent of an organic solvent may be classified from its chemical structure into more than one of these classes, it shall be considered as a member of the most reactive group, i.e., that group having the least allowable percent of the total volume of solvents) (StBCAPCD Regulation I, Rule 102):
  1. a combination of hydrocarbons, alcohols, aldehydes, esters, ethers or ketones, having an olefinic or cyclolefinic type of unsaturation; 5 percent
  2. a combination of aromatic compounds with 8 or more carbon atoms to the molecule, except ethylbenzene; 8 percent
  3. a combination of ethylbenzene, ketones having branched hydrocarbon structures, trichloroethylene or toluene; 20 percent.

- *Pigmented Coatings* - opaque coatings which contain binders and colored pigments which are formulated to hide the wood surface, either as an undercoat or topcoat (StBCAPCD Regulation III, Rule 351).

- *Pollutants* - See "Affected Pollutants."

- *Precoat* - a coating applied to bare metal primarily to deactivate the metal surface for corrosion resistance. For compliance with the requirements for applying coatings to motor vehicles and mobile equipment, any precoat must be followed by a water-based primer coat (StBCAPCD Regulation III, Rule 339).

- *Precursor* - a directly emitted pollutant that, when released to the atmosphere, forms, or causes to be formed, or contributes to the formation of, a secondary pollutant for which an ambient air quality standard has been adopted, or whose presence in the atmosphere will contribute to the violation of one or more national ambient air quality standards, including any of the following (StBCAPCD Regulation II, Rule 205):
    1. ROCs
    2. NO_x
    3. sulfur oxides (SO_x).

- *Prescribed Burning* - the planned application of fire to vegetation on land selected in advance of such application (StBCAPCD Regulation I, Rule 102).

- *Pretreatment Wash Primers* - any coating which contains a minimum of 0.5 percent by weight of acid for etching bare metal to enhance corrosion resistance and adhesion (StBCAPCD Regulation III, Rule 323).

- *Primer* - any coating applied prior to the application of a topcoat for the purpose of corrosion resistance and adhesion of the topcoat (StBCAPCD Regulation III, Rule 323).

- *Primer Sealer* - any coating applied prior to the application of a topcoat for the purpose of corrosion resistance, adhesion of the topcoat, color uniformity, and to promote the ability of an undercoat to resist penetration by the topcoat (StBCAPCD Regulation III, Rule 339).

- *Primer Surfacer* - any coating applied prior to the application of a topcoat for the purpose of corrosion resistance, adhesion of the topcoat, and which promotes a uniform surface by filling in surface imperfections (StBCAPCD Regulation III, Rule 339).

- *Printing Ink* - any fluid or viscous composition used in printing, impressing, or transferring an image onto a substrate (StBCAPCD Regulation III, Rule 354).

- *Process Heater* - any external combustion equipment fired with liquid and/or gaseous fuel and which transfers heat from combustion gases to water or process streams (StBCAPCD Regulation III, Rule 342).

- *Process Ink* - the hues: yellow, magenta, and cyan, plus black used in the four-color print process (StBCAPCD Regulation III, Rule 354).

- *Process Weight* - the total weight of all materials introduced into any specific process which may cause any discharge into the atmosphere; solid fuels charged are considered to be part of the process weight, but liquid and gaseous fuels and combustion air are not (StBCAPCD Regulation I, Rule 102).

- *Process Weight Per Hour* - the total process weight of all materials introduced into any specific process which may cause any discharge into the atmosphere. Solid fuels charged will be considered as part of the process weight, but liquid and gaseous fuels and combustion air will not. The "process weight per hour" will be derived by dividing by the total process weight by the number of hours in one complete operation from the beginning of any given process to the completion thereof, excluding any time during which the equipment is idle (StBCAPCD Regulation I, Rule 102).

- *PSI* - pounds per square inch.

- *PTO* - Permit to Operate.

- *Publication Rotogravure* - rotogravure printing on paper which is subsequently formed into books, magazines, catalogues, brochures, directories, newspaper supplements or other types of printed material (StBCAPCD Regulation III, Rule 354).

- *Quick Dry Enamels* - nonflat coatings which comply with all of the following standards (StBCAPCD Regulation III, Rule 323):
    1. they are capable of being applied directly from the container by brush or roller under normal conditions, normal conditions being ambient temperatures between 60 and 80 °F [approximately 16 and 27 °C]
    2. when tested in accordance with ASTM D 1640, they satisfy all of the following:
        a. set to the touch in 2 h or less
        b. dry hard in 8 h or less
        c. tack free in 4 h or less by the mechanical method test
    3. they have a 60 °F [approximately 16 °C] dried film gloss of no less than 70.

- *Quick Dry Primers and Sealers* - primers, sealers, and undercoaters which are dry to touch in 1/2 h and can be recoated in 2 h (ASTM 1640) (StBCAPCD Regulation III, Rule 323).

- *Radiation Curing Inks* - inks which dry by polymerization reaction induced by either ultraviolet or electron beam radiation (StBCAPCD Regulation III, Rule 354).

- *Range Improvement Burning* - the use of open fires to remove vegetation for a wildlife, game, or livestock habitat or for the initial establishment of an agricultural practice on previously uncultivated land (StBCAPCD Regulation I, Rule 102).

- *Rated Heat Input* - the heat input capacity specified on the nameplate of a combustion unit. If the combustion unit has been physically modified such that its maximum heat input is different than the heat input capacity specified on the nameplate, the modified maximum heat input is considered as the rated heat input. The modified maximum heat input capacity shall be demonstrated to the District by a fuel meter while operating the unit at maximum capacity (StBCAPCD Regulation III, Rule 342).

- *Reactive Organic Compound (ROC)* - any volatile compound containing carbon except (StBCAPCD Regulation I, Rule 102):
    1. methane
    2. CO
    3. CO_2
    4. carbonic acid
    5. metallic carbides or carbonates
    6. ammonium carbonates
    7. halogenated hydrocarbons
    8. dichlorotrifluoroethane (HCFC-123)
    9. tetrafluoroethane (HCFC-134a)
    10. dichlorofluoroethane (HCFC-141b)
    11. chlorodifluoroethane (HCFC-142b).

- *Reducer* - the use of a volatile liquid to reduce the viscosity of a coating. This liquid may contain solvents, diluents, or mixtures of both (StBCAPCD Regulation III, Rule 339).

- *Refinishing* - any coating of vehicles, their exterior parts or components, or mobile equipment, including partial body collision repairs, for the purpose of protection or beautification and which is subsequent to the original coating applied at an Original Equipment Manufacturer plant coating assembly line (StB-CAPCD Regulation III, Rule 339).

- *Regulation* - one of the major subdivisions of the Rule and Regulations of the StBCAPCD (StBCAPCD Regulation I, Rule 102).

- *Remote Reservoir* - see "Enclosed (Remote) Reservoir".

- *Remote Reservoir Cold Cleaner* - a device in which solvent is pumped through a sink-like work area for cleaning parts and drains immediately, without forming a pool, through a single drain hole less than 100 cm^2 (15.5 $in.^2$) in area into an enclosed container which is not accessible for soaking parts (StBCAPCD Regulation III, Rule 354).

- *Repair* - recoating portions of previously coated product due to damage to the coating following normal painting operations (StBCAPCD Regulation III, Rule 330).

- *Repair Coating* - a coating used to recoat portions of a product which has sustained mechanical damage to the coating following normal painting operations (StBCAPCD Regulation III, Rule 351).

- *Residential Use* - use in areas where people reside or lodge including, but not limited to, single and multiple family dwellings, condominiums, mobile homes, apartment complexes, motels, and hotels (StB-CAPCD Regulation III, Rule 323).

- *ROC* - Please see "Reactive Organic Compound".

- *Roll Coater* - a series of mechanical rollers that forms a thin coating film on the surface roller, which is applied to a substrate by moving the substrate underneath the roller (StBCAPCD Regulation III, Rule 351).

- *Roof Coatings* - coatings formulated for application to exterior roofs and for the primary purpose of preventing penetration of the substrate by water, or reflecting heat and reflecting ultraviolet radiation. Metallic pigmented roof coatings which qualify as metallic pigmented coatings are not considered to be in this category, but are considered to be in the metallic pigmented coatings category (StBCAPCD Regulation III, Rule 323).

- *Rotogravure Printing* - a printing method where the image area is etched or engraved relative to the surface of the image cylinder. Ink is transferred from minute etched wells on a plate cylinder to a substrate, which is supported by an impression roller, with excess ink removed by a doctor blade. The substrate is fed through the printing press in continuous rolls (StBCAPCD Regulation III, Rule 354).

- *Rule* - refers to a Rule of the StBCAPCD Rule and Regulations (StBCAPCD Regulation I, Rule 102).

- *Sanding Sealers* - clear wood coatings formulated for and applied to bare wood for sanding and to seal the wood for subsequent application of varnish. To be considered a sanding sealer a coating must be clearly labelled as such (StBCAPCD Regulation III, Rule 323).

- *Sealant* - a coating applied for the purpose of filling voids and providing a barrier against penetration of water, fuel or other fluids or vapors (StBCAPCD Regulation III, Rule 337).

- *Sealant Bonding Primer* - a coating applied in a very thin film to a part or product for the purpose of providing a primer for a subsequent coat of silicone sealant (StBCAPCD Regulation III, Rule 337).

- *Sealers* - coatings formulated for and applied to a substrate to prevent subsequent coatings from being adsorbed by the substrate, or to prevent harm to subsequent coatings by materials in the substrate (StBCAPCD Regulation III, Rule 323).

- *Self Priming Topcoat* - a coating applied directly to a part or product that is not subsequently overcoated (StBCAPCD Regulation III, Rule 337).

- *Semitransparent Stains* - coatings formulated to change the color of a surface but not conceal the surface (StBCAPCD Regulation III, Rule 323).

- *Semitransparent Wood Preservatives* - wood preservative stains formulated and used to protect exposed wood from decay or insect attack by the addition of a wood preservative chemical registered by the California Department of Food and Agriculture, which change the color of a surface but do not conceal the surface, including clear wood preservatives (StBCAPCD Regulation III, Rule 323).

- *Shellacs* - clear or pigmented coatings formulated solely with resinous secretions of the lac beetle (*laccifer lacca*), thinned with alcohol, and formulated to dry by evaporation without a chemical reaction (StBCAPCD Regulation III, Rule 323).

- *Sign Paints* - see "Graphic Arts Coatings".

- *Solid Particulate Matter* - includes any material that would become solid particulate matter if cooled to standard conditions (StBCAPCD Regulation III, Rule 307).

- *Solvent* - a VOC-containing liquid used to perform solvent cleaning operations (StBCAPCD Regulation III, Rule 354).

- *Solvent Flushing* - the use of a solvent to remove uncured adhesives, uncured inks, uncured coatings, or contaminants from the internal surfaces and passages of the equipment by flushing solvent through the equipment (StBCAPCD Regulation III, Rule 354).

- *Solvent Volatility* - the equilibrium vapor pressure of the solvent expressed as millimeters of mercury (mm Hg), pounds per square inch (psi), or kiloPascals (kPa) at a specific temperature (StBCAPCD Regulation III, Rule 321).

- *Space Vehicle Coating* - a coating applied to vehicles designed to travel beyond the earth's atmosphere (StBCAPCD Regulation III, Rule 337).

- *Specialty Coatings* - coatings which are necessary due to unusual job performance, including finish blenders, elastomeric materials, gloss flatteners, bright metal trim repair, and antiglare/safety coatings (StBCAPCD Regulation III, Rule 339).

- *Specialty Flats* - self-priming flat products used only to perform one of the following functions (StBCAPCD Regulation III, Rule 323):
    1. repair fire, smoke or water damage
    2. neutralize odors
    3. block stains

4. coat acoustical materials without affecting their acoustical abilities.

- *Spot/Panel Repair* - the nonassembly line process of repairing and restoring a portion of a motor vehicle to predamaged condition (StBCAPCD Regulation III, Rule 339).

- *Spray Booth* - as defined in the Uniform Fire Code paragraph 9.121, a power ventilated structure of varying dimensions and construction provided to enclose or accommodate a spraying operation and to confine and limit the escape of spray vapor and residue and to exhaust it safely (StBCAPCD Regulation III, Rule 339).

- *Standard Conditions* - for gases, a temperature of 60 °F (approximately 16 °C) and a gas pressure of 14.7 psia (760 mm Hg) (StBCAPCD Regulation I, Rule 102).

- *Stationary Source* - any building, structure, facility, equipment installation, or operation (or aggregation thereof) which (StBCAPCD Regulation I, Rule 102):
    1. meets one of the following:
        a. is located on one or more bordering properties which are owned or operated by the same owner or operator
        b. is not under the same ownership or entitlement to use, where the units are the subject of a contractual or other binding relationship between more than one party providing for the joint or concurrent construction or operations of such units
    2. items of pollutant-emitting equipment shall be considered the same stationary source, and items of non-pollutant-emitting equipment shall be considered associated with pollutant-emitting equipment only if both of the following are met:
        a. the operation of each item of equipment is dependent upon, or affects the process of, the others
        b. the operation of all such items of equipment involves a common raw material or product
    3. emissions from all such aggregated items of pollutant-emitting equipment and all such associated items of non-pollutant-emitting equipment of a stationary source shall be considered emissions of the same stationary source
    4. the emissions from all cargo carriers (excluding vehicles) including marine vessels which load or unload at the source shall be considered as emissions from the stationary source while operating within all of the following:
        a. the air basin, including California Coastal Waters adjacent to the air basin
        b. the Outer Continental Shelf area for which the District is the corresponding onshore area
        c. 25 mi of an Outer Continental Shelf source for which the District is the corresponding onshore area.

- *StBCAPCD* - Santa Barbara County Air Pollution Control District.

- *Steam Generator* - see "Boiler".

- *Stripper* - a precursor organic compound applied to remove a temporary coating, maskant for chemical processing, paint or residue (StBCAPCD Regulation III, Rule 337).

- *Structural Adhesive* - a coating which is applied for the purpose of bonding structural components together (StBCAPCD Regulation III, Rule 337).

- *Surface Preparation* - the use of ROC-containing solvents applied with cloth, sponge, or other medium for the purpose of removing dust, grease, and other contaminants from a surface prior to application of a coating (StBCAPCD Regulation III, Rule 339).

- *Swimming Pool Coatings* - coatings formulated and used to coat the interior of swimming pools and to resist swimming pool chemicals (StBCAPCD Regulation III, Rule 323).

- *Swimming Pool Repair Coatings* - chlorinated rubber based coatings used for the repair and maintenance of swimming pools over existing chlorinated rubber based coatings (StBCAPCD Regulation III, Rule 323).

- *Tank Vessel* - any vessel with a capacity to transport more than 250 barrels [10,500 gal] [approximately 39,746.82 L] per trip of organic liquid cargo in tanks (StBCAPCD Regulation III, Rule 327).

- *Temporary Protective Coating* - a coating applied to a part to protect it from mechanical and environmental damage during manufacturing (StBCAPCD Regulation III, Rule 337).

- *Thinner* - a volatile liquid used to lower the solid concentration or the viscosity of a coating (StBCAPCD Regulation III, Rule 339).

- *Toner* - a wash coat which contains binders and dyes or pigments to add tint to a coated surface (StBCAPCD Regulation III, Rule 351).

- *Topcoat* - a coating applied over primer or an original equipment manufacturer finish for appearance, identification, or protection purposes. Multi-stage coating systems shall be considered topcoats (StBCAPCD Regulation III, Rule 337).

- *Touch Up* - that portion of the coating operation which is separate from the main coating process but necessary to cover minor imperfections or to achieve coverage as required (StBCAPCD Regulation III, Rule 330).

- *Traffic Coatings* - coatings formulated for and applied to public streets, highways, and other surfaces including, but not limited to curbs, berms, driveways, and parking lots (StBCAPCD Regulation III, Rule 323).

- *Transfer Efficiency* - the ratio of the weight of coating solids adhering to the object being coated to the weight of coating solids used in the application process, expressed as a percentage (StBCAPCD Regulation III, Rule 330).

- *Uncontrolled Chromium Emissions* - the chromium emissions from hard chrome plating or chromic acid anodizing tanks collected by an emissions collection system at the facility, calculated as if no control equipment is in use. For the purpose of determining compliance with this rule, the uncontrolled chromium emissions shall be calculated using an emission factor based on tests conducted in accordance with ARB Test Method 425 or 14 mg of chromium per ampere-hour, whichever is less (StBCAPCD Regulation III, Rule 334).

- *Uncontrolled Emissions* - from medical waste incinerators are the dioxin emissions measured from the incinerator at a location downstream of the last combustion chamber, but prior to the air pollution control equipment (StBCAPCD Regulation III, Rule 340).

- *Undercoaters* - coatings formulated and applied to substrates to provide a smooth surface for subsequent coats (StBCAPCD Regulation III, Rule 323).

- *USEPA* - the United States Environmental Protection Agency.

- *Vacuum Pump* - with reference to ethylene oxide sterilizers, any pump used to evacuate the sterilization chamber after the sterilization process is complete, along with any associated heat exchanger (StBCAPCD Regulation III, Rule 336).

- *Vapor Degreaser* - any batch loaded, boiling solvent degreaser (StBCAPCD Regulation III, Rule 321).

- *Vapor Recovery System* - consists of a vapor gathering system capable of collecting the hydrocarbon vapors and gases discharged, and a vapor disposal system capable of processing such hydrocarbon vapors and gases so as to prevent their emission to the atmosphere, with all tank gauging and sampling devices gas-tight except when gauging or sampling is taking place (StBCAPCD Regulation III, Rule 326).

- *Varnishes* - clear wood finishes formulated with various resins to dry by chemical reaction on exposure to air (StBCAPCD Regulation III, Rule 323).

- *Vehicle* - a device by which any person or property may be propelled, moved, or drawn upon a highway, excepting a device moved exclusively by human power or used exclusively upon stationary rails or tracks (StBCAPCD Regulation III, Rule 339).

- *Volatile Organic Compounds (VOC)* - has the same meaning as reactive organic compounds (ROC) (StBCAPCD Regulation III, Rule 354).

- *VOC Materials* - inks, coatings, adhesives, materials used for cleanup or ink, coating, or adhesive removal, solvent, paper and cloth, and waste containing, impregnated with, coated with, or mixed with VOCs (StBCAPCD Regulation III, Rule 354).

- *Wash Coat* - a coating that contains no more than 1.0 lb solids/gal, which is used to seal wood surfaces, prevent undesired staining, and control penetration (StBCAPCD Regulation III, Rule 351).

- *Waste* - with reference to medical waste incinerators, means all materials charged into the incinerator (StBCAPCD Regulation III, Rule 340).

- *Water Separator* - with reference to the requirements of the Degreasing Operations section, a device or container attached below the degreaser cooling coils via a condensate trough, to which solvent-water condensate flows by gravity from the condenser coils, from moisture on work pieces, or from steam and cooling water leaks (StBCAPCD Regulation III, Rule 321).

- *Waterproofing Sealers* - colorless coatings which are formulated and applied for the sole purpose of protecting porous substrates by preventing the penetration of water and which do not alter surface appearance or texture (StBCAPCD Regulation III, Rule 323).

- *Wildland Vegetation Management Burning* - the use of prescribed burning conducted by a public agency, or through a cooperative agreement or contract involving a public agency, to burn land predominantly covered with chaparral, trees, grass or standing brush (StBCAPCD Regulation IV, Rule 401).

- *Wing Coating* - a corrosion-resistant coating that is resilient enough to withstand the flexing of the aircraft wings (StBCAPCD Regulation III, Rule 337).

- *Wipe Cleaning* - the use of a cloth, cotton swab or other material, wetted with a solvent, which is physically rubbed on the surface to be degreased (StBCAPCD Regulation III, Rule 321).

- *Wood Products* - those surface-coated room furnishings which include cabinets (kitchen, bath, and vanity), tables, chairs, beds, sofas, shutters, art objects, and any other coated objects made of solid wood, and/or wood compositions, and/or made of simulated wood material used in combination with solid wood or wood composition (StBCAPCD Regulation III, Rule 351).

- *Workload* - with reference to the requirements of the Degreasing Operations section, the parts to be cleaned exclusive of the wire mesh basket used to convey work into and out of the degreaser (StBCAPCD Regulation III, Rule 321).

AIR EMISSIONS MANAGEMENT

GUIDANCE FOR StBCAPCD CHECKLIST USERS

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GUIDANCE FOR APPENDIX USERS

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
STATE SPECIFIC AIR REQUIREMENTS **A.5.** **General**	
A.5.1.CA.SB. Installations with existing sources of air contaminants must meet specific requirements (StBCAPCD Regulation I, Rule 101).	Verify that these sources meet the requirements of this protocol unless a variance has been granted by the Hearing Board. Verify that, in the event of a conflict between the requirements of this manual and those of the state and/or Federal regulations, the installation meets the latter. Verify that, in the event of a conflict between two or more requirements in this manual, the installation meets the requirement, or combination of requirements, that results in the smallest rate or lowest concentration of air contaminants being emitted.
A.5.2.CA.SB. Installations are prohibited, under certain circumstances, from discharging air contaminants or other materials (StBCAPCD Regulation III, Rule 303).	Verify that the installation does not discharge from any source whatsoever such quantities of air contaminants or other materials which result in any of the following: - cause injury, detriment, nuisance or annoyance to the public - endanger the comfort, repose, health or safety of the public - cause, or have a natural tendency to cause, injury or damage to business or property.
A.5.3.CA.SB. Installations are prohibited from concealing or disguising an emission of air contaminants (StBCAPCD Regulation III, Rule 301).	Verify that the installation has not built, erected, installed, or used any article, machine, equipment, or other contrivance which, without actually reducing the total release of air contaminants to the atmosphere, seems to reduce or conceal an emission that is in violation of the emission standards of this protocol.
A.5.4.CA.SB. Installations with stationary sources that emit permitted emissions, in the aggregate, of 10 tons/yr [approximately 9.07 metric tons/yr] or more of NO_x and reactive organic compound (ROC) must meet specific reporting requirements (StBCAPCD Regulation II, Rule 212).	Verify that, by 1 March of each year, the installation provides the District with the following: - the Annual Emission Inventory questionnaire - a signed statement that the information presented in the questionnaire is accurate and complete.

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A.5.5.CA.SB. Installations operating in the Northern Zone must meet specific discharge standards for fumes (StBCAPCD Regulation III, Rule 306).	Determine if the installation operates in the Northern Zone. Verify that the installation does not discharge, in any 1 h from any source, fumes in total quantities in excess of the amounts shown in Appendix 1-1.
Permits	
A.5.6.CA.SB. Installations operating any equipment or conducting any activities or operations that cause or control the emission of air contaminants must meet specific permit requirements (StBCAPCD Regulation II, Rule 201, 203, 204, 205, and 206).	Determine if the installation intends to build, erect, alter, replace, or currently operates or uses any article, machine, equipment, or other contrivance, the use of which may cause, eliminate, reduce, or control the issuance of air contaminants, other than the equipment listed in Appendix 1-2 which are exempt from these requirements. Verify that the installation obtains an Authority to Construct (ATC) permit from the Air Pollution Control Officer (APCO) before beginning any construction or alteration of these sources. Verify that the installation has obtained Permits to Operate before starting these sources. Verify that no permit is transferred between locations, pieces of equipment, or persons. Verify that the installation meets all the specific written conditions and requirements that are part of the permit. Verify that the installation has met one of the following requirements for its Permits to Operate: - permits, approved facsimiles, or other approved identifications bearing permit numbers, are attached to the permitted equipment so that they are clearly visible and accessible - permits are posted within 25 ft [7.62 m] of the permitted equipment in clearly visible and accessible locations - permits are maintained readily available at all times on the operating premises. Verify that Permits to Operate, facsimiles, or identifications have not been defaced, altered, forged, or counterfeited. **A.5.6.CA.SB. Continued on Next Page**

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.5.6.CA.SB. (continued)	(NOTE: A permit is not required for a stationary source if uncontrolled emissions of each regulated pollutant from the entire source is below 1 ton [approximately 0.91 metric ton] per calendar year, unless: - the source is subject to one of the following: - USEPA promulgated New Source Performance Standards (NSPS) or National Emission Standards for Hazardous Air Pollutants (NESHAP) - Federal operating permit program - Hazardous Air Pollutant requirements of the Federal CAA - a CARB Air Toxic Control Measure - Public Notification or Risk Reduction - the APCO makes a determination that a permit is necessary - the source is new or modified, emits hazardous air emissions, and is located within 1000 ft [304.8 m] from the outer boundary of a school. The installation must keep records to verify their exemption.)
A.5.7.CA.SB. Installations must obtain permits for existing equipment whose exemptions have been removed by revisions in the Santa Barbara County Air Pollution Control District Rules and Regulations (StB-CAPCD Regulation II, Rule 202(B)).	Determine whether the installation has existing equipment whose exemption has been removed by revisions in the District Rules and Regulations. Verify that the installation files an application for a permit within 90 days after adoption of the revised rule.
A.5.8.CA.SB. Exempt articles, machines, equipment, or other contrivances that emit affected pollutants in excess of specific amounts require permits not withstanding any exemptions for which they qualify (StB-CAPCD Regulation II, Rules 202(E) and (F)).	Determine if the installation has any exempt articles, machines, equipment, or other contrivances that emit any of the following affected pollutants in excess of the amounts specified: - CO, 600 lb/day [approximately 272.15 kg/day] - any other affected pollutant, 150 lb/day [approximately 68.04 kg/day]. Verify that the installation meets the requirements of the Permits section for these items.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.5.9.CA.SB. Certain exempt stationary sources that emit specific pollutants require permits notwithstanding any exemptions for which they might qualify (StBCAPCD Regulation II, Rule 202(A)(6)).	Determine if the installation has any new or modified stationary sources that emit any of the following air contaminants in excess of the amounts specified: - lead, 3.28 lb/day [approximately 1.49 kg/day] - asbestos, 0.04 lb/day [approximately 0.09 kg/day] - beryllium, 0.0022 lb/day [approximately 0.98 g/day] - mercury, 0.55 lb/day [approximately 0.25 kg/day] - vinyl chloride, 5.48 lb/day [approximately 2.49 kg/day] - fluorides, 16.44 lb/day [approximately 7.46 kg/day] - sulfuric acid mist, 38.45 lb/day [approximately 17.44 kg/day] - total reduced sulfur or reduced sulfur compounds, 54.79 lb/day [approximately 24.85 kg/day]. Verify that the installation has met the requirements of the Permits section for these sources.
A.5.10.CA.SB. Exemptions for certain kinds of equipment are not applicable to their nonexempt components (StBCAPCD Regulation II, Rule 202(A)(7)).	Determine if the installation has any equipment that meets both of the following conditions: - it qualifies for an exemption from the permit requirements based upon a provision in Appendix 1-2 that describes a general category of equipment - it is made up of one or more components that otherwise would not be exempt. Verify that the installation has met the requirements of the Permits section for all the nonexempt components of this equipment.
A.5.11.CA.SB. Exemptions for engines used exclusively for emergency electrical power generation, or for emergency pumping of water for flood control or firefighting, are valid only if specific recordkeeping requirements are met (StBCAPCD Regulation II, Rule 202(C)(2)(e)).	Determine if the installation claims exemption for any engines used exclusively for emergency electrical power generation, or for emergency pumping of water for flood control or firefighting. Verify that all of the following requirements are met: - the installation keeps records listing all of the following: - identification numbers of the exempted engines - number of operating hours on each day that the engines are operated - cumulative total operating hours of each engine - no exempted engine operates for more than 200 h per calendar year.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.5.12.CA.SB. Exemptions for equipment used in surface coating operations are valid only if specific requirements are met (StBCAPCD Regulation II, Rule 202(E)(14)).	Determine if the installation claims exemption for equipment used in surface coating operations. Verify that all of the following requirements are met: - the installation maintains records of the amount of coating and solvents used during each calendar year for a minimum of 3 yr - the total amount of solvents and coatings used does not exceed 40 gal/yr [approximately 151.42 L/yr]. (NOTE: For surface coating equipment used as part of the operation of a stationary source, the 40 gal/yr [approximately 151.42 L/yr] limitation is based on the total amount of coatings and solvents used by all such equipment at that source.) Verify that the installation has obtained permits for air pollution control equipment used in surface coating operations (i.e., spray booths, carbon absorbers, incinerators, thermal oxiders, dust collectors, etc.).
Continuous Emission Monitoring **A.5.13.CA.SB.** Installations required as a condition of their Permits to Operate to continuously monitor air pollutant emissions from certain sources must meet specific operating, maintenance, and recordkeeping requirements (StBCAPCD Regulation III, Rule 328(C)(4), (F), and (I)).	Determine if the installation has been required to install, calibrate, operate, and maintain any continuous emission monitoring (CEM) equipment. Verify that all monitoring devices are equipped with continuously operating chart recorders that are annotated with the date, time, and operator's initials at each of the following times: - the beginning of each work shift - the beginning of each startup and shut-down of the monitored equipment - anytime a change is made to the monitor and/or its recorder - anytime a change is made in the process rate of the monitored equipment. Verify that the following records are maintained for at least 2 yr: - a permanent recorded log that includes all of the following: - occurrence and duration of any startup, shut-down or malfunction in the operation of any affected facility - performance testing, evaluations, calibrations, checks, adjustments, and maintenance of the monitoring equipment - chart recordings from the monitoring equipment. Verify that monitoring devices are operated, maintained, and calibrated consistent with manufacturer's recommendations, or with changes to those recommended procedures that have been submitted for approval within 10 days of adoption.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.5.14.CA.SB. Installations with CEM equipment must follow specific reporting requirements (StBCAPCD Regulation III, Rule 328 (G)).	Verify that the installation notifies the APCO of any breakdown or shut-down of the monitoring equipment within 4 h of the start of the next business day. Verify that the installation reports to the APCO any violation of a required emission standard within 48 h after the occurrence. Verify that the installation submits a written report, during the first week of each calendar quarter, that includes all of the following information, where applicable: - monitoring system failures, except during: - zero/span checks - monitoring system repair and adjustments - the date, duration, magnitude, and nature of any excess emissions, including the cause of the violation, corrective actions taken, and preventive measures adopted - reports of opacity violations - a negative declaration when no excess emissions have occurred.
Emergency Episode Plans	(NOTE: When the concentration of specific air pollutants reaches certain levels, the APCO is empowered to declare an Air Pollution Episode. These episodes are classified as "Stage 1 Episodes", "Stage 2 Episodes", or "Stage 3 Episodes" depending upon the pollutant concentration levels reached. Emergency Episode Plans form the basis for abatement of the damaging effects of air pollution during these episodes; they include source curtailment plans and traffic abatement plans.)
A.5.15.CA.SB. Certain installations must implement the provisions of approved Stationary Source Curtailment Plans during air pollution episodes (StBCAPCD Regulation VI, Rules 603(A), (C) and (G)).	Determine if the installation operates any stationary sources which can be expected to emit 100 tons/yr [approximately 90.72 metric tons/yr] or more of hydrocarbons, NO_x, CO, or particulate matter. Verify that the installation has an approved stationary source curtailment plan for each such source. Verify that the plan is on file and readily available on the premises. Verify that the installation implements the applicable provisions of that plan during air pollution episodes.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.5.16.CA.SB. Installations must implement the provisions of approved Traffic Abatement Plans during air pollution episodes (StBCAPCD Regulation VI, Rules 603(B), (C) and (G)).	Determine if the installation meets either of the following conditions: - it operates 50 or more fleet vehicles - it employs more than 100 persons per shift at one business address. Verify that the installation has an approved Traffic Abatement Plan. Verify that the plan is on file and readily available on the premises. Verify that the installation implements applicable provisions of that plan during air pollution episodes.
Equipment Breakdown Conditions **A.5.17.CA.SB.** Installations experiencing an equipment breakdown must meet specific requirements (StBCAPCD Regulation V, Rules 505 and 506).	Verify that, in the event of a breakdown, the installation notifies the District as soon as reasonably possible after detection of the breakdown, but no later than 4 h after the start of the next regular business day, with the following information: - the time of the breakdown - specific location - equipment involved - the cause (to the extent known). Verify that the installation takes one of the following actions within 24 h or before commencement of the next production run, whichever is sooner, or within 96 h for breakdowns of continuous monitoring equipment: - immediately undertakes appropriate corrective measures and comes into compliance - shuts down for corrective measures and takes whatever steps are possible to minimize the impact of the breakdown - obtains an emergency variance. Verify that, within 1 week after a breakdown has been corrected, the installation submits a written report to the APCO which includes all of the following information: - verification that the breakdown has been corrected along with the date of the correction - a statement of the reasons or causes of the breakdown - a description of corrective measures taken or about to be taken to avoid future breakdowns - an estimate of the amount of emissions caused - pictures of the equipment or controls which failed, if available.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
Particulate Matter	
A.5.18.CA.SB. Installations operating in the Northern Zone must meet specific particulate matter discharge standards (StBCAPCD Regulation III, Rule 304).	Determine if the installation operates in the Northern Zone. Verify that the installation does not discharge into the atmosphere from any source particulate matter in excess of 0.3 gr/ft^3 of gas at standard conditions. Verify that the installation does not discharge into the atmosphere from any source, solid particulate matter in excess of the rates shown in Appendix 1-3.
A.5.19.CA.SB. Installations operating in the Northern Zone must meet specific discharge standards for dust (StBCAPCD Regulation III, Rule 306).	Determine if the installation operates in the Northern Zone. Verify that the installation does not discharge, in any 1 h from any source, dust in total quantities in excess of the amounts shown in Appendix 1-1.

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REGULATORY REQUIREMENTS:	REVIEWER CHECKS: September 1996
A.10. STEAM GENERATORS **A.10.1.CA.SB.** Installations operating boilers, steam generators, and process heaters with rated heat inputs greater than or equal to 5 MBtu and permitted annual heat input of greater than or equal to 9 billion Btu must meet specific requirements designed to control NO_x emissions (StBCAPCD Regulation III, Rule 342(A), (B), (D), (E), (G), and (K)).	(NOTE: The following units are exempt from these requirements: - boilers used by public electric utilities to generate electricity - process heaters, kilns, and furnaces where the products of combustion come into direct contact with the material to be heated - waste heat recovery boilers used to recover heat from the exhaust of combustion turbines or reciprocating internal combustion engines - equipment that is exempt from the requirements of the Permits section.) Verify that NO_x emissions from nonexempt units do not exceed the following limits: - 30 ppm by volume or 0.036 lb/MBtu of heat input when operated on gas - 40 ppm by volume or 0.052 lb/MBtu of heat input when operated on nongaseous fuel (NOTE: This requirement does not apply to boilers forced to burn nongaseous fuel during times of natural gas curtailment. This exemption must not exceed 168 cumulative hours of operation per calendar year, excluding 24 h for equipment testing time. The hours of operation must be recorded and updated monthly.) - the heat-input weighted average of the above limits when operated on combinations of gas and nongaseous fuels. (NOTE: Emissions must not exceed a CO concentration of 400 ppm by volume.) Verify that nonexempt units are operated in one of the following methods: - a manner that maintains stack-gas oxygen concentrations at less than 3 percent by volume on a dry basis - with a stack gas oxygen trim system set at 3 plus or minus 0.15 percent O_2 by volume on a dry basis - tuned at least once every 12 mo with documentation verifying the tune ups maintained - in compliance with applicable emission levels. Verify that units which simultaneously fire combinations of different fuels have totalizing mass or volumetric flow rate meters in each fuel line. Verify that units employing flue-gas NO_x reduction technology have meters allowing instantaneous monitoring of operational characteristics of NO_x reduction equipment. Verify that anhydrous ammonia is not used to meet these requirements. Verify that units not tuned every 12 mo are tested once every 24 mo. Verify that the installation has applied for a District PTO.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.10.2.CA.SB. Installations operating boilers, steam generators, and process heaters with rated heat inputs greater than or equal to 5 MBtu and permitted annual heat input of greater than or equal to 9 billion Btu must follow specific record-keeping requirements (StB-CAPCD Regulation III, Rule 342(I)).	Verify that the Higher Heating Value and cumulative annual usage is recorded for each unit and fuel used. Verify that all records are kept for 3 yr.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.15. FUEL BURNING EQUIPMENT	
A.15.1.CA.SB. All installations operating fuel burning equipment must meet specific emission standards (StBCAPCD Regulation III, Rule 309(E)).	Verify that the installation has not built, erected, installed, or expanded any nonmobile fuel burning equipment unit whose emission rates of the following contaminants exceed the values listed: - sulfur compounds calculated as SO_2, 200 lb/h [approximately 90.72 kg/h] - NO_x calculated as nitrogen dioxide (NO_2), 140 lb/h [approximately 63.50 kg/h] - combustion contaminants derived from the fuel, 10 lb/h [approximately 4.53 kg/h]. (NOTE: Fuel burning equipment serving primarily as air pollution control equipment may be exempted from this requirement by the APCO.) (NOTE: This requirement does not prevent the maintenance, alteration, or modification of existing fuel burning equipment to reduce its mass rate of air contaminant emissions.)
A.15.2.CA.SB. Installations operating any nonmobile fuel burning article, machine, equipment, or other contrivance in the Southern Zone, with a maximum heat input rate of more than 1775 MBtu/h (gross), must follow specific emission standards (StBCAPCD Regulation III, Rule 309(F)).	Verify that discharged flue gas has a concentration of NO_x (calculated as NO_2 at 3 percent O_2) not exceeding the following values for the fuels listed: - 125 ppm, for equipment fired by gaseous fuels - 225 ppm, for equipment fired by liquid or solid fuels.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.25. **MISCELLANEOUS INCINERATORS**	
A.25.1.CA.SB. Installations must use approved equipment when burning combustible refuse (StBCAPCD Regulation III, Rule 308).	Verify that the installation does not burn any combustible refuse except in an approved multiple-chamber incinerator or in other equipment approved by the APCO.
A.25.2.CA.SB. Installations operating in the Southern Zone must meet specific combustion contaminant emission standards (StBCAPCD Regulation III, Rules 309(A)(2)(b) and 309(D)).	Determine if the installation operates any of the following kinds of equipment in the Southern Zone: - any incinerators or other equipment used to dispose of combustible refuse by burning - any other source of combustion contaminants. Verify that for all incinerators or other equipment used to dispose of combustible refuse by burning, particulate matter emissions per cubic foot of gas (calculated to 12 percent of CO_2 at standard conditions) do not exceed the values listed: - for equipment with burn rates greater than 100 lb/h [approximately 45.36 kg/h], 0.1 gr/ft^3 - for equipment with burn rates of 100 lb/h [approximately 45.36 kg/h] or less, 0.3 gr/ft^3. (NOTE: CO_2 produced by combustion of any liquid or gaseous fuels should be excluded from these calculations to 12 percent of CO_2.) Verify that for every other single source of combustion contaminants, particulate matter emissions do not exceed 0.1 gr/ft^3 of gas (calculated to 12 percent of CO_2 at standard conditions) at the point of discharge.
A.25.3.CA.SB. Installations operating in the Northern Zone must meet specific combustion contaminant emission standards (StBCAPCD Regulation III, Rule 309(A)(2)(a)).	Determine if the installation operates any sources of combustion contaminants in the Northern Zone. Verify that particulate matter emissions do not exceed 0.3 gr/ ft^3 of gas (calculated to 12 percent of CO_2 at standard conditions) at the point of discharge. (NOTE: In measuring combustion contaminants from incinerators, the CO_2 produced by combustion of any liquid or gaseous fuels should be excluded from these calculations to 12 percent of CO_2.)

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.30. **MEDICAL WASTE INCINERATORS**	
A.30.1.CA.SB. Installations operating medical waste incinerators must meet specific emission control, design, and operational requirements (StBCAPCD Regulation III, Rules 340(A), (B), (D) and (E)(1)).	(NOTE: Incinerators that are exclusively crematoria of human or animal remains are exempt from these requirements.) Verify that medical waste incinerators are designed and operated to meet all of the following requirements: - they are multi-chamber incinerators - dioxins emissions have been reduced in either of the following ways: - reduction by 99 percent or more of the uncontrolled emissions - reduction to 10 ng or less per kilogram of waste burned - flue gas temperatures do not exceed 300 °F [approximately 149 °C], unless otherwise specified by the APCO - primary combustion chamber temperature is maintained at no less than 1400 °F [approximately 760 °C] - secondary chamber temperature is maintained at no less than 1800 °F [approximately 982 °C] - furnace residence time is at least 1 s - bottom ash, fly ash and scrubber residuals are handled and stored to prevent their entrainment into ambient air.
A.30.2.CA.SB. Installations operating medical waste incinerators must meet specific operator certification requirements (StBCAPCD Regulation III, Rule 340(E)(2)).	Verify that all individuals who operate or maintain a medical waste incinerator are certified to do so. Verify that copies of the training certificates are submitted to the District and the originals are kept available for inspection at the facility.
A.30.3.CA.SB. Installations operating medical waste incinerators must meet specific monitoring requirements (StBCAPCD Regulation III, Rule 340(F)).	Verify that the installation has installed, operates, and maintains an approved continuous data recording system for each incinerator it operates.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.30.4.CA.SB. Installations operating medical waste incinerators must meet specific source testing requirements (StBCAPCD Regulation III, Rule 340(G)).	Verify that the installation conducts annual source tests for dioxins emissions at least twice within 24 mo of having obtained an ATC, and at a frequency thereafter as determined by the APCO.
A.30.5.CA.SB. Installations operating medical waste incinerators must meet specific recordkeeping requirements (StBCAPCD Regulation III, Rule 340(I)).	Verify that the installation maintains all of the following records for a minimum of 3 yr: - continuous data recording system printouts - maintenance records for incinerators, control equipment, and monitoring equipment - calibration records for the monitoring equipment - records of the weight of waste charged to each incinerator - copies of results from all source tests for dioxins.
A.30.6.CA.SB. Installations operating medical waste incinerators must meet specific reporting requirements (StBCAPCD Regulation III, Rule 340(J)).	Verify that all breakdown conditions are reported to the District within 1 h of occurrence. (NOTE: See also the Equipment Breakdown Conditions section of this manual.)

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.55. **GASOLINE/FUELS** **A.55.1.CA.SB.** Installations are allowed to burn only those fuels meeting specific sulfur content standards (StBCAPCD Regulation III, Rule 311).	(NOTE: Fuels burned in the following activities are exempt from these requirements: - incineration of waste gases, provided all of the following conditions are met: - gross heating value of the gases is less than 300 Btu/ft^3 at standard conditions - the fuel used to incinerate these gases meets the standards set forth in this Gasoline/Fuels section - the use of fuels where the gaseous products of combustion are used as raw materials for other processes - the use of liquid or solid fuel to propel or test any vehicle, aircraft, missile, locomotive, boat, or ship - in cases where, by removal of sulfur compounds from combustion products or by use of a mixture of fuels, the sulfur compound emissions are no greater than if an in-compliance liquid or solid fuel were used - the use of out-of-compliance liquid fuel whenever in-compliance liquid fuel is unavailable due to accident, strike, act of war, sabotage, act of God, failure of the supplier, or a Federal or state regulation prohibiting purchase or use.) Verify that the installation does not burn within any portion of the Southern Zone any fuels meeting either of the following conditions: - gaseous fuels containing sulfur compounds in excess of 15 gr/100 ft^3 (calculated as hydrogen sulfide at standard conditions) - liquid or solid fuels with a sulfur content in excess of 0.5 percent by weight. Verify that the installation does not burn within any portion of the Northern Zone any fuels meeting either of the following conditions: - gaseous fuels containing sulfur compounds in excess of 50 gr/100 ft^3 (calculated as hydrogen sulfide at standard conditions) - liquid or solid fuels with a sulfur content in excess of 0.5 percent by weight. (NOTE: Installations may be exempted by the APCO from this requirement if they have been burning liquid fuel with a sulfur content below 1 percent by weight at a stationary source in operation prior to 1 March 1978.) Verify that whenever, due to unavailability of the low sulfur variety, the installation uses liquid fuel not meeting the sulfur content standards, it files an application for a variance within 3 days. Verify that all other exemptions claimed are supported by proper documentation.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.55.2.CA.SB. Installations are prohibited from fueling motor vehicles with gasoline not meeting specific standards (StBCAPCD Regulation III, Rule 315).	Verify that the installation does not use, as a fuel for motor vehicles, gasoline having a degree of unsaturation greater than that indicated by a Bromine Number of 30 (ASTM Method D1159-57T modified by omission of the mercuric chloride catalyst).

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.60 PRINTING PRESSES AND GRAPHIC ARTS	(NOTE: The following operations are exempt from these requirements: - operations which apply any VOC containing ink, coating, or adhesive on ceramic materials - circuit board printing - operations which apply inks used to indicate that sterilization has occurred - lithographic, letterpress, or screen printing.)
A.60.1.CA.SB. Installations using any ink, coating, adhesive, or solvent containing VOCs while conducting any graphic arts operation or graphic arts line must apply for a District Permit to Operate (StBCAPCD Regulation III, Rule 354(A)).	Verify that these installations have applied for a District Permit to Operate. (NOTE: These graphic arts operations or graphic arts lines are exempt from the requirements found in Other Emissions/Sources - Organic Solvents.)
A.60.2.CA.SB. Installations conducting any graphic arts operation or graphic arts line using any ink, coating, adhesive, or solvent containing VOCs must meet specific VOC emission standards (StBCAPCD Regulation III, Rule 354(B)(1) and (2), and (D)(1), (2), and (4)).	(NOTE: These requirements do not apply to graphic arts facilities which have emitted less than 301 lb VOC/mo from graphic arts printing, coating, adhesive, and solvent cleaning operations.) Verify that the installation does not use any inks, coatings, or adhesives unless the VOC content, as applied, is less than 300 g/L (2.5 lb/gal), less water and less exempt organic compounds. (NOTE: This VOC limit can be met through the use of an emission capture and control system, which reduces VOC emissions to the atmosphere.) Verify that the installation does not use a solvent as an ink additive or to perform cleaning operations unless the solvent has a VOC composite partial vapor pressure of 33 mm Hg or less at 20 ºC (68 ºF) and the solvent VOC content is less the limits in Appendix 1-4.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.60.3.CA.SB. Emission capture and control systems used to meet the VOC content limit must meet specific criteria (StBCAPCD Regulation III, Rule 354(D)(4)).	Verify that, during any period of continuous operation not to exceed 24 h, the capture and control system has a combined efficiency of the following: - at least 75 percent, by weight, for publication rotogravure - at least 67 percent, by weight, for other types of printing operations. Verify that the collection system vents all drying oven exhaust to the control device and has one or more inlets for collection of fugitive emissions. Verify that VOC emissions are not greater than emissions of compliant inks, coatings, and adhesives. Verify that, during any period of operation of a thermal incinerator, combustion temperature is continuously monitored. Verify that, during any period of operation of a catalytic incinerator, exhaust gas temperature is continuously monitored. Verify that the installation has written approval in the form of an Authority to Construct and Permit to Operate from the APCO.
A.60.4.CA.SB. Installations conducting any graphic arts operation or graphic arts line using any ink, coating, adhesive, or solvent containing VOCs must perform cleaning operations according to specific standards (StBCAPCD Regulation III, Rule 354(D)(3)).	Verify that the installation uses one of the following cleaning devices or methods when performing cleaning operations: - wipe cleaning - remote reservoir cold cleaner - spray bottles or containers with a maximum capacity of 16 fl oz from which solvents are applied without propellant-induced force - cleaning equipment using a closable solvent container. Verify that, if a closable solvent container is used, the solvent container remains closed during both: - cleaning operations, except when depositing and removing objects to be cleaned - nonoperation, except when performing maintenance and repair to the cleaning equipment. Verify that, if a solvent flow method is used, the solvent is not atomized. Verify that, if a solvent flushing method is used, the solvent is flushed through the system by pumping.

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A.60.5.CA.SB. VOC materials and waste must be stored and disposed of according to specific requirements (StBCAPCD Regulation III, Rule 354(D)(5) and (6)).	Verify that VOC materials are stored in nonabsorbent, nonleaking containers, which are kept closed except when adding or removing material or during cleaning operations. Verify that VOC material wastes are disposed of in a manner consistent with Federal, State, and local hazardous waste regulations.
A.60.6.CA.SB. Installations conducting any graphic arts operation or graphic arts line using any ink, coating, adhesive, or solvent containing VOCs must meet specific record-keeping requirements (StBCAPCD Regulation III, Rule 354(G)).	Verify that all of these installations maintain the following records: - a current file for each ink, coating, and adhesive in use and storage, including the following information: - data sheet or material list giving material name - manufacturer identification - specific mixing instructions - VOC content as applied - a current file for each solvent in use and storage, including the following information: - data sheet or material list giving material name - manufacturer identification - specific mixing instructions - VOC content - if required, composite partial vapor pressure. Verify that installations not exceeding 300 lb/mo of VOC emissions and using only compliant inks, coatings, adhesives, and solvents maintain the following records and submit an annual report containing these records to the APCO by 1 March of each year: - ink usage records on a calendar quarter basis showing the type and amount of ink used, using one of the following options: - group the quantity of all inks used and use the highest VOC content and the minimum density - report process inks and pantone colors separately and either: - use the specific VOC content and density values for each process ink and the highest VOC and the minimum density for pantone inks - use the highest VOC content and minimum density for both process and pantone inks - itemize each ink and pantone color and use the specific VOC content and density value for each - records on a calendar quarter basis showing the type and amount of coatings, adhesives, and solvents used itemized with specific VOC content and density values. **A.60.6.CA.SB. Continued on Next Page**

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A.60.6.CA.SB. (continued)	Verify that installations exceeding 300 lb/mo of VOC emissions and using only compliant inks, coatings, adhesives, and solvents or installations not exceeding 300 lb/mo of VOC emissions but using any noncompliant ink, coating, adhesive, or solvent maintain the following records: - ink usage records on a monthly basis showing the type and amount of all inks used, using one of the following options: - group the quantity of all inks used and use the highest VOC content and the minimum density - report process inks and pantone colors separately and either: - use the specific VOC content and density values for each process ink and the highest VOC and the minimum density for pantone inks - use the highest VOC content and minimum density for both process and pantone inks - itemize each ink and pantone color and use the specific VOC content and density value for each - records on a monthly basis showing the type and amount of coatings, adhesives, and solvents used itemized with specific VOC content and density values. Verify that, if the installation uses any noncompliant ink, coating, adhesive, or solvent and compliance is achieved through the use of emission control equipment, the following records are maintained: - daily records showing the type and amount of inks, coatings, and adhesives used, itemized with specific VOC content and density value for each - daily records of key system operating maintenance procedures which will demonstrate continuous operation and compliance of the emission control device during periods of emission producing activities (key system parameters are those necessary to ensure compliance with VOC content of coating requirements such as temperatures, pressures, and flow rates) - daily records showing the types of solvents used - monthly records showing the amount of fountain solutions and solvents used itemized with specific VOC content and density value. Verify that required records are retained for a minimum of 2 yr and made available to the APCO upon request.

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DRY CLEANING OPERATIONS **A.70.** **Petroleum Solvent** **A.70.1.CA.SB.** Installations operating drycleaning equipment using petroleum-based solvents must meet specific requirements (StB-CAPCD Regulation III, Rules 320(C), (D), and (E)).	Verify that the installation, on or before 1 February of each year, reports to the APCO the quantity of solvent used in the previous calendar year. Verify that there is no liquid leaking from any portion of the equipment. Verify that solvents are stored in closed containers. (NOTE: Solvent containers may be equipped with vents approved by the APCO.) Verify that all washer lint traps, button traps, access doors, and other parts of the equipment, where solvent may be exposed to the atmosphere, are kept closed except as required for proper operation or maintenance. Verify that the still residue is stored in sealed containers or underground tanks, and is disposed of either at a Class I dump or by other procedures approved of by the APCO. Verify that used filtering material is put into a sealed container immediately after removal from the filter and is disposed of at a Class I dump, unless the equipment uses one of the following kinds of filtering systems maintained as specified: - cartridge filters containing paper or carbon or a combination thereof, that are fully drained in the filter housing for at least 12 h before removal - diatomaceous earth filtering systems connected to a solvent extractor, so that the extracted used material does not contain more than 0.4 lb [approximately 0.18 kg] of solvent per lb [approximately 0.45 kg] of filtering material removed - any other approved type of filtering system. Determine if the installation operates any petroleum solvent drycleaning plants consuming more than 10,000 L (2642 gal) of solvent annually. Verify that all exhaust gases from drying tumblers and cabinets at these drycleaning plants are vented through a carbon adsorber or other control device that reduces total emissions of hydrocarbon vapors by at least 90 percent by weight.

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A.70.2.CA.SB. Drycleaning operations using solvents containing photochemically-reactive solvents must meet specific emission control requirements (StBCAPCD Regulation III, Rule 320(B)).	Determine if the installation operates a drycleaner using solvents containing 4 percent or more by volume of any photochemically-reactive solvent, except perchloroethylene or any saturated halogenated hydrocarbon. Verify that the installation reduces emissions by 90 percent by using activated carbon adsorption or other appropriate means.

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COATING OPERATIONS	
A.100. **Aircraft/Aerospace Vehicles**	(NOTE: Any coating subject to the requirements of this subsection is exempt from the requirements of the following subsections -- Other Emissions/Sources-Organic Solvents and Coating Operations-Thinners and Reducers.)
A.100.1.CA.SB. Coatings used on aircraft or aerospace vehicle parts or products must meet specific ROC emission standards (StB-CAPCD Regulation III, Rules 337(B)(1), (D) and (H)(5)).	(NOTE: Any coatings with separate formulations used in volumes of less than 20 gal in any calendar year are exempt from this requirement, provided the total volume of noncomplying coatings used at a stationary source does not exceed 200 gal annually. Coatings used for touch up and repair or those supplied in nonrefillable, aerosol containers of 18 oz or less are not included in calculating the volume used. These coatings are still subject to recordkeeping requirements. Coatings supplied in nonrefillable aerosol containers with capacities of 18 oz [approximately 532.32 mL] or less are also exempt from this requirement.) Verify that any installation claiming this exemption maintains, on a monthly basis, an annual running total of the volume of each separate formulation of coating used. Verify that the installation does not use any of the following: - coatings of any of the kinds listed in Appendix 1-5 which, as applied, emit or may emit ROCs in excess of the limits listed - any strippers that meet one or both of the following conditions: - ROC content is greater than or equal to 400 g/L - true vapor pressure is greater than or equal to 10 mm Hg at actual usage temperature. Verify that, if the installation has installed approved exhaust control equipment to meet ROC emission limits, all of the following requirements are met: - appropriate permits have been obtained - the control device reduces emissions from an emission collection system by at least 95 percent by weight - the emission collection system collects at least 90 percent by weight of emissions generated. Verify that installations using noncompliant coating materials with compliance achieved by operating emission control equipment maintain daily records of key operating and maintenance procedures which demonstrate continuous operation and compliance of the emission control device during periods of emission producing activities.

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A.100.2.CA.SB. Installations must use specific kinds of application equipment and techniques when applying aircraft or aerospace vehicle surface coatings (StBCAPCD Regulation III, Rules 337(E), and 337(B)(2) and (3)).	(NOTE: The following coating operations and coatings are exempt from these requirements: - touchup and repair operations - coatings supplied in nonrefillable aerosol containers with capacities of 18 oz [approximately 532.32 mL] or less.) Verify that the installation applies these coatings using properly operated equipment and one of the following application methods: - electrostatic application - flow coat application - dip coat application - HVLP spraying - electrodeposition - hand application methods - detailing or touch up guns - any other coating application methods demonstrated to achieve at least 65 percent transfer efficiency.
A.100.3.CA.SB. Installations must store aircraft or aerospace coating materials in closed containers (StBCAPCD Regulation III, Rule 337(F)).	Verify that all ROC containing coating materials, used or unused, including but not limited to all of the following, are stored in closed containers opened only during actual use: - surface coatings - cleanup solvents - thinners - surface preparation materials. Persons subject to this rule shall comply with the following requirements.
A.100.4.CA.SB. Installations must meet specific recordkeeping requirements related to aircraft or aerospace vehicle surface coating operations (StBCAPCD Regulation III, Rule 337(H)(1) through (4) and (6)).	Verify that the installation maintains the following kinds of records: - a current listing of all ROC-containing materials in use at their facility, including: - material name and manufacturer identification - application method - material type and specific use instructions - specific mixing ratio - maximum ROC content of coating, less water and exempt compounds as applied (including thinning solvents) **A.100.4.CA.SB. Continued on Next Page**

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A.100.4.CA.SB. (continued)	- current coating manufacturer specification sheets, MSDS, or current air quality data sheets, which list ROC content of each material in use and is available for review onsite - purchase records identifying the type or name and volume of material purchased for each ROC-containing material. Verify that, on a monthly basis, a record of the following information is summarized for each ROC-containing material used and each calendar year it is submitted to the District by March 1: - volume - ROC content - resulting ROC emissions of each ROC-containing material used. Verify that all required records are retained and available for inspection by the Control Officer or designated representative upon request for the previous 36 mo period.
Architectural **A.100.5.CA.SB.** Installations applying architectural coatings must ensure that these coatings meet specific standards (StBCAPCD Regulation III, Rules 323(A), (B), and (D)).	(NOTE: The following architectural coatings are exempt from these requirements: - coatings manufactured for use outside of the District or for shipment to other manufacturers for repackaging - coatings supplied in containers having capacities of 1 L [approximately 3.79 gal] or less - coatings sold in nonrefillable aerosol containers having capacities of 1 L [approximately 3.79 gal] or less - emulsion-type bituminous pavement sealers.) Verify that if the installation uses any of the coatings listed in Appendix 1-6, the coatings do not exceed the ROC limits listed after the corresponding effective date. (NOTE: Architectural coatings manufactured prior to any ROC emission limit effective date falling on or after 1 September 1990, and not meeting meet new ROC limits put into effect on that date, may be used without penalty for 3 yr after the effective date.) Verify that every other architectural coating used by the installation does not contain more than 250 g ROC/L coating, less water and exempt solvents, and excluding colorant added to tint bases. **A.100.5.CA.SB. Continued on Next Page**

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A.100.5.CA.SB. (continued)	Verify that if the manufacturer of a coating listed in Appendix 1-6 notes on the container that it may be used as, or is suitable for use as, a coating for which a lower ROC standard is specified in the appendix, then the lowest ROC standard applies, except for any of the following coatings when represented as noted: - High-Temperature Industrial Maintenance Coatings which may be represented as metallic pigmented coatings for use consistent with the definition of the former - Lacquer Sanding Sealers which may be recommended for use as sanding sealers in conjunction with clear lacquer topcoats - Metallic Pigmented Coatings which may be recommended for use as primers, sealers, undercoaters, roof coatings, or industrial maintenance coatings - shellacs.
A.100.6.CA.SB. Installations applying nonexempt architectural coatings must meet specific storage requirements (StBCAPCD Regulation III, Rules 323(D)(5)).	Verify that all ROC-containing materials are stored in closed containers when not in use. (NOTE: In use includes, but is not limited to: being accessed, filled, emptied, maintained, or repaired.)
Metal Parts and Products	
A.100.7.CA.SB. Installations applying surface coatings to metal parts and products must meet specific requirements (StBCAPCD Regulation III, Rules 330(A), and 330(B)(3) through (7)).	(NOTE: The following kinds of metal surface coating operations are exempt from these requirements: - residential noncommercial metal parts and products coating operations - coating of metal fasteners, nails, pins, rivets, hinges, hasps and similar devices used to hold nonmetal parts together and not constitute a substantive part of the total surface area - coatings supplied in nonrefillable aerosol containers having capacities of 18 oz or less - surface coating of aircraft or aerospace vehicles (see instead the Coating Operations - Aircraft or Aerospace Vehicles section) - automobile or truck refinishing (see instead the Coating Operations - Motor Vehicles and Mobile Equipment sections) - marine vessel finishing or refinishing (see instead the Miscellaneous VOC Operations section) - surface coating of stationary structures (see instead the Coating Operations - Architectural section).) **A.100.7.CA.SB. Continued on Next Page**

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A.100.7.CA.SB. (continued)	Verify that, in addition to the requirements of this section, the installation meets the applicable requirements of both of the following sections for each nonexempt coating operation: - Miscellaneous VOC Operations - Coating Operations - Thinners And Reducers. (NOTE: These operations then are exempt from other air emission requirements dealing with solvents or coatings.)
A.100.8.CA.SB. Installations conducting nonexempt metal surface coating operations must use coatings that meet specific ROC emissions limits (StBCAPCD Regulation III, Rules 330(D) and 330(B)(1)).	Verify that the installation does not use any of the following coatings which, as applied, emit or may emit ROCs in excess of the limits listed (less water and exempt solvents): - air-dried nonpowder industrial maintenance coatings, 420 g/L - other air-dried nonpowder coatings, 340 g/L - baked nonpowder coatings, 275 g/L - powder coatings, 50 g/L. Verify that, if the installation elects to use add-on exhaust control equipment to achieve compliance with these ROC limits, the installation has obtained an ATC from the District and the control equipment meets the following requirements: - the control equipment is approved in advance by the APCO - the control device reduces emissions from an emission collection system by at least 95 percent by weight - the emission collection system which collects and transports emissions to an air pollution control device collects at least 90 percent by weight of emissions generated. Verify that installations with exemptions from ROC limits for noncomplying coatings meet all of the following requirements: - they use less than 20 gal [approximately 75.71 L] of the noncomplying coating - in any calendar year they maintain records substantiating their exempt status. **A.100.8.CA.SB. Continued on Next Page**

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A.100.8.CA.SB. (continued)	(NOTE: These ROC requirements do not apply to any coatings with separate formulations used in volumes of less than 20 gal in any calendar year, provided the total volume of noncomplying coatings used at a stationary source does not exceed 200 gal annually. The following coatings are not included in calculating the volume of coatings used: - touch up and repair coatings - residential noncommercial metal parts and products coating operations - coating of parts or products where the only metal involved is fasteners, nails, pins, rivets, hinges, hasps, and similar devices used to hold the nonmetal parts together and which do not constitute a substantive part of the total surface area. Any installation claiming this exemption must maintain on a monthly basis an annual running total of the volume of each separate formulation of coating used. The installation must still meet recordkeeping requirements.)
A.100.9.CA.SB. Installations conducting nonexempt metal surface coating operations must use specific kinds of application equipment and techniques when applying these coatings (StBCAPCD Regulation III, Rules 330(E), and 330(B)(2)).	(NOTE: Touchup and repair coating operations are exempt from these application technique requirements.) Verify that the installation applies metal surface coatings using properly operated equipment and any of the following application methods: - electrostatic application - flow coat application - dip coat application - high volume low pressure spraying - electrodeposition - hand application methods - detailing or touchup guns - any other coating application method that achieves at least 65 percent transfer efficiency as demonstrated by the South Coast Air Quality Management District (SCAQMD) Method "Spray Equipment Transfer Efficiency Test Procedure of Equipment User," 24 May 1989.
A.100.10.CA.SB. Installations conducting nonexempt metal surface coating operations must store coating materials in closed containers (StBCAPCD Regulation III, Rule 330(F)).	Verify that all ROC-containing coating materials, used or unused, including but not limited to all of the following, are stored in closed containers opened only during actual use: - surface coatings - cleanup solvents - thinners - surface preparation materials.

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A.100.11.CA.SB. Installations conducting nonexempt metal surface coating operations must meet specific recordkeeping requirements (StBCAPCD Regulation III, Rule 330(H)).	Verify that the installation maintains the following records: - a current listing of all ROC containing materials subject to the requirements in this section, including the following information: - material name and manufacturer identification - application method - material type (i.e., air dried or baked enamel, powdercoating, industrial maintenance coating, cleanup solvent, etc.) - specific mixing ratio - maximum as-applied ROC content of each material, less water and less exempt compounds (including thinning solvents) - for each industrial maintenance coating, a list of each part or product coated on a monthly basis - current coating manufacturer specification sheets, Material Safety Data Sheets (MSDSs), or current air quality data sheets, which list the ROC content of each material in use at the installation, available for review onsite - purchase records identifying the type or name and the volume of material purchased for each ROC-containing material - on a monthly basis, a record of the volume, ROC content, and resulting ROC emissions of each ROC-containing material used. Verify that all permitted installations and users of noncompliant coatings, summarize the current listing of ROC containing materials and related information (as noted above) for each calendar year and submit it to the District by 1 March of the following year. Verify that installations using noncompliant coating materials with compliance achieved through the operation of emission control equipment maintain daily records of key operating and maintenance procedures which demonstrate continuous operation and compliance of the emission control device during periods of emission producing activities. Verify that all required records are retained and available for inspection by the Control Officer or designated representative upon request for the previous 36 mo period.

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Motor Vehicles and Mobile Equipment.	(NOTE: The use of hand-held nonrefillable aerosol cans, 18 oz [approximately 532.32 mL] or less, to repair minor surface damage and imperfections on motor vehicles, mobile equipment, and their exterior parts are exempt from these requirements, provided the area to be painted does not exceed 9 ft^2 [approximately 2.74 m^2]. Any coating subject to these requirements is exempt from the requirements of the following sections: - Other Emissions/Sources - Organic Solvents - Coating Operations - Thinners And Reducers.) Any coating exempt from the requirements of this section must comply with the applicable requirements of all other sections. The following coating operations are also exempt from these requirements, except for the ROC limits: - painting of no more than one vehicle per year, by the registered owner of the vehicle being painted, provided the surface coating used does not contain lead or chromium compounds - application of touchup coatings - lettering and striping applied using hand application methods.)
A.100.12.CA.SB. Installations storing coatings for finishing or refinishing motor vehicles, mobile equipment, and their exterior parts and components must meet specific requirements (StBCAPCD Regulation III, Rule 339(D)(10)).	Verify that all ROC-containing coating materials, used or unused, including but not limited to all of the following, are stored in closed containers opened only during actual use: - surface coatings - cleanup solvents - thinners - surface preparation materials.
A.100.13.CA.SB. Installations using ROC-containing materials in nonexempt motor vehicle and mobile equipment coating operations must meet specific surface preparation and cleanup requirements (StBCAPCD Regulation III, Rules 339(B)(4) and (D)(8) and (9)).	Determine whether the installation uses any ROC-containing material for surface preparation and cleanup. Verify that the installation does not use precoat in excess of 25 percent, by volume, of the amount of primer/primer surface used on a monthly basis; compliance is based on purchase or daily coating records. Verify that the containers used for the storage or disposal of ROC-containing cloth or paper used for surface preparation and cleanup are closed, nonabsorbent, and fire resistant. Verify that the installation does not use for surface-preparation any material whose ROC content exceeds 200 g/L (1.67 lb/gal). **A.100.13.CA.SB. Continued on Next Page**

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A.100.13.CA.SB(continued)	Verify that, if the installation uses ROC-containing materials for spray equipment cleanup, it uses one of the following: - an enclosed system with totally enclosed spray guns, cups, nozzles, bowls, and other parts during washing, rinsing, and draining procedures - equipment which has been demonstrated to the satisfaction of the Control Officer to be as effective in minimizing the loss of ROC-containing materials to the atmosphere according to the SCAQMD General Test Method for Determining Solvent Losses From Spay Gun Cleaning Systems, Dated 3 october 1989. Verify that, if prerinse and final rinse of internal components of spray guns using ROC-containing materials is conducted into a sealable container, a continuous, fluid (nonatomized) stream is used.
A.100.14.CA.SB. Installations conducting nonexempt motor vehicle and mobile equipment coating operations must use specific kinds of application equipment and techniques (StBCAPCD Regulation III, Rules 339(B)(2) and (3), (D)(2), and (D)(7)).	Verify that the installation conducts each nonexempt motor vehicle/mobile equipment surface coating operation in a permitted, properly maintained and operated spray booth, except for the following operations, all of which are exempt from this requirement: - painting a motor vehicle engine compartment and mating assemblies of engine and suspension components, where such components are replaced in the engine compartment - the application of any undercoat which contains no lead or chromium compounds and is limited to one major panel per vehicle, or equivalent area, not to exceed an aggregate of 16 ft^2 per vehicle. - any coating operation where the vehicle, due to shape or size, cannot reasonably be contained in a spray booth and has been granted an exemption in writing by the APCO. Verify that the installation applies coatings to all Group I and/or II vehicles, mobile equipment or their parts and components using properly operated equipment and one of the following application methods: - electrostatic application, in accordance with the manufacturer's recommendations - flow coat application - dip coat application - HVLP spraying, in accordance with the manufacturer's recommendations - hand application methods - any other coating application methods that achieves at least 65 percent transfer efficiency as demonstrated by the SCAQMD Method "Spray Equipment Transfer Efficiency Test Procedure for Equipment User," 24 May 1989.

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A.100.15.CA.SB. Installations conducting nonexempt motor vehicle and mobile equipment coating operations must use coatings that meet specific ROC emission standards (StBCAPCD Regulation III, Rules 339(D)(1) and (5)).	Verify that the installation does not use any of the coatings listed in Appendix 1-7 with ROCs in excess of the limits listed. Verify that, if the installation installs approved exhaust control equipment to meet ROC emission limits, all of the following requirements are met: - appropriate permits have been obtained - the control device reduces emission from an emission collection system by at least 95 percent by weight - the emission collection system collects at least 90 percent by weight of emissions generated.
A.100.16.CA.SB. Installations using extreme performance coatings in nonexempt motor vehicle and mobile equipment coating operations must meet specific requirements (StBCAPCD Regulation III, Rule 339(D)(3)).	Determine if the installation uses extreme performance coatings on motor vehicles, mobile equipment, or their exterior parts and components. Verify that the installation has obtained prior written approval from the APCO, and operates within the limiting conditions contained in that approval.
A.100.17.CA.SB. Installations using specialty coatings in nonexempt motor vehicle and mobile equipment coating operations must meet must meet specific requirements (StBCAPCD Regulation III, Rule 339(D)(4)).	Verify that the installation does not use specialty coatings with a ROC content in excess of 840 g/L (7.0 lb/gal), excluding water and exempt solvents. Verify that its use of topcoats containing a specialty coating as an additive meets the requirements for topcoats listed in Appendix 1-7.

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A.100.18.CA.SB. Installations conducting nonexempt motor vehicle and mobile equipment coating operations must meet specific recordkeeping requirements (StBCAPCD Regulation III, Rule 339(F)).	Verify that the installation maintains the following kinds of records for at least 3 yr: - a current listing of all as-applied ROC containing materials in use, including the following: - material name and manufacturer identification - application method - material type and specific use instructions (such as Group I or Group II, or precoat must be applied to bare metal and followed with a compliant primer) - specific mixing instructions - maximum ROC content of coatings as applied (including thinning solvents) - current coating manufacturer specification sheets, MSDSs, or current air quality data sheets, which list the ROC content of each material, available for review onsite - purchase records identifying the type or name and volume of material purchased for each ROC containing material, available for inspection by the Control Officer or a designated representative - records of the total installation ROC emissions maintained on a monthly basis, summarized and submitted to the District each 1 March. Verify that installations using noncompliant coating materials with compliance achieved through the operation of emission control equipment maintain daily records of key operating and maintenance procedures which will demonstrate continuous operation and compliance of the emission control device.
Thinners and Reducers **A.100.19.CA.SB.** Installations are prohibited from using photochemically reactive metal surface coating thinners and reducers (StBCAPCD Regulation III, Rule 322).	Verify that the composition of organics in thinners and reducers used is not photochemically reactive.

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Wood Products	(NOTE: These requirements do not apply to the following wood coating operations: - residential noncommercial wood products coating operations - application of coatings to stationary structures and their appurtenances subject to the requirements of Coating Operations - Architectural. Installations may use up to 20 gal of coatings per year which do not exceed the ROC limits found in Appendix 1-8 before meeting these requirements. Touchup or repair coatings and refinishing operations necessary for preservation, to return the wood product to original condition, or to replace missing furniture to produce a matching set are not included in calculating the 20 gal. Installations using this 20 gal limit exemption must maintain purchase records of the total volume of coatings used under the exemption.)
A.100.20.CA.SB. Installations coating wood products must meet specific ROC emission limits (StBCAPCD Regulation, Rule 351(B)(3) and (4) and (D)).	(NOTE: These emission limit requirements do not apply to touchup or repair coatings and refinishing operations necessary for preservation, to return the wood product to original condition, or to replace missing furniture to produce a matching set.) Verify that the installation does not apply to a wood product any coating with a ROC content exceeding the limits specified in Appendix 1-8. Verify that, if a coating exceeding the ROC content limits is used, add-on exhaust control equipment which reduces uncontrolled emissions by at least 85 percent and are approved in advance by the Control Officer are also used.
A.100.21.CA.SB. Installations coating wood products must meet specific application requirements (StBCAPCD Regulation III, Rule 351(B)(3) and (E)).	(NOTE: These requirements do not apply to a touchup or repair coating sold in non-refillable aerosol-spray containers with a capacity of 18 oz of less.) Verify that wood products coatings are applied with properly operating equipment, according to proper operating procedures, and by the use of one of the following methods: - electrostatic application - flow coat - dip coat - high-volume, low-pressure (HVLP) spray - paint brush - hand roller - roll coater - detailing or touchup guns - such other coating application methods as are demonstrated to the Control Officer to be capable of achieving at least 65 percent transfer efficiency, and for which written approval of the Control Officer has been obtained.

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A.100.22.CA.SB. Installations coating of wood products must store all ROC-containing materials in closed containers (StBCAPCD Regulation III, Rule 351(G)).	Verify that all ROC-containing materials, used or unused, including, but not limited to, surface coatings, thinners, cleanup solvents, or surface preparation materials are stored in closed containers and opened only during extraction or introduction of material for mixing, use, or storage.
A.100.23.CA.SB. Installations coating of wood products must meet specific recordkeeping requirements (StBCAPCD Regulation III, Rule 351(I)).	Verify that the installations maintain a current listing of all materials in use, including the following: - material and manufacturing identification - coating type (i.e., clear, topcoat, filler, high solid stains) - specific mixing ratio used to arrive at maximum ROC content - maximum ROC content of coatings as applied, less water and exempt solvents (including thinning solvents), or ROC content of materials as applied, whichever is applicable. Verify that installations using noncompliant coating materials which compliance achieved through the operation of emission control equipment maintain the following records: - a current listing of ROC containing materials used, including the information outlined above - on a daily basis, consumption data and key operating parameters for emission control equipment. Verify that all required records are retained and available for inspection by the Control Officer for 36 mo.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.105. **COOLING TOWERS**	
A.105.1.CA.SB. Installations operating cooling towers must follow specific guidelines regarding hexavalent chromium use in cooling tower waters (StBCAPCD Regulation III, Rule 335 (C)).	Verify that hexavalent chromium is not used for cooling towers with circulating water exposed to the atmosphere. Verify that hexavalent chromium containing compounds are not added to the circulating water of any cooling tower. Verify that no cooling tower is operated if the circulating water contains a concentration of hexavalent chromium equal to or greater than 0.15 mg/L.
A.105.2.CA.SB. Installations operating cooling towers must follow specific testing and recordkeeping requirements (StBCAPCD Regulation III, Rule 335(D)).	(NOTE: These requirements may be waived by the District if the installation can show that hexavalent chromium has not been used in a cooling tower since 1 July 1989 or has never been used in the cooling tower.) Verify that the installation tests the cooling water in every tower semiannually for the concentration of hexavalent chromium in milligrams per liter. (NOTE: If two consecutive semiannual tests show concentrations less than 0.15 mg/L, then testing is no longer required.) Verify that results of all testing are maintained on site for a minimum of 3 yr. Verify that results of testing are submitted to the District annually, not later than 60 days after the start of each calendar year. If testing will be suspended, verify that the last annual report contains a statement to that effect.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.110 CHROME PLATING/ CHROMIC ACID ANODIZING	
A.110.1.CA.SB. Installations operating decorative chrome plating facilities using hexavalent chromium must meet requirements to control chromium emissions (StBCAPCD Regulation III, Rule 334(C)).	Verify that a decorative chrome plating tank is not operated unless one of the following criteria are met in a manner which has been demonstrated to and approved by the APCO as reducing chromium emissions by 95 percent or more relative to chromium emission when these steps are not taken: - an anti-mist additive is continuously maintained in the plating tank - control equipment is installed and used.
A.110.2.CA.SB. Installations operating hard chrome plating and chromic acid anodizing facilities using hexavalent chromium must meet specific requirements to control chromium emissions (StBCAPCD Regulation III, Rule 334(D)).	Verify that a tank for hard chrome plating or chromic acid anodizing is not operated unless the following equipment requirements are met: - the tank has an emissions collection system - a continuous recording ampere-hour meter is installed for each emissions collection system and is operating on electrical power lines connected to each tank or group of tanks served by an emissions collection system. Verify that a tank for hard chrome plating or chromic acid anodizing is not operated unless the following chromium emission reductions are achieved: - emissions from the emissions collection system serving the tank have been reduced by 95 percent or more of the uncontrolled chromium emissions - emissions from the emissions collection system serving the plating tank have been reduced to less than 0.15 mg of chromium per ampere-hour of electrical charge applied to the plating tank. Verify that a tank for hard chrome plating or chromic acid anodizing is not operated if facility-wide chromium emissions from these sources are equal to or greater than 2 lb/yr, but less than 10 lb/yr, unless one of the following conditions is met: - chromium emissions from each emissions collection system serving the plating tanks have been reduced by at least 90 percent of the uncontrolled chromium emissions - chromium emissions from each emissions collection system are reduced to less than 0.03 mg of chromium per ampere-hour of electrical charge applied to the tanks. **A.110.2.CA.SB. Continued on Next Page**

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.100.2.CA.SB. (continued)	Verify that a tank for hard chrome plating or chromic acid anodizing is not operated if facility chromium emissions from these sources are 10 lb/yr or greater, unless one of the following conditions is met: - chromium emissions from each emissions collection system serving the plating tanks have been reduced by at least 99.8 percent of the uncontrolled chromium emissions - chromium emissions from each emissions collection system are reduced to less than 0.006 mg of chromium per ampere-hour electrical charge applied to the tanks.
A.110.3.CA.SB. Installations operating chrome plating and chromic acid anodizing facilities using hexavalent chromium must meet specific recordkeeping requirements (StBCAPCD Regulation III, Rule 334(E)).	Verify that any installation operating a decorative plating tank maintains a record of anti-mist additive concentrations or any other measurements recommended by the manufacturer's specification or the APCO. Verify that any installation operating a hard chrome plating or chromic acid anodizing facility maintains a continuous record of current, integrated over time (ampere-hours), for each group of tanks whose emissions are collected by an emissions collection system with a separate record maintained for each emissions control system. Verify that these records are submitted to the District not later than 60 days after the close of each calendar year.

COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT Santa Barbara County Air Pollution Control District (StBCAPCD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
DEGREASING OPERATIONS **A.115.** **General**	
A.115.1.CA.SB. Installations conducting degreasing operations must meet specific emission control requirements (StBCAPCD Regulation III, Rules 321(A), (C)(1), (J), and (K)).	(NOTE: The following degreasing equipment or organic solvent degreasing operations are exempt from these requirements: - wipe cleaning - drycleaning operations of clothing or other fabrics - wood stripping or coil stripping operations - single pieces of degreasing equipment using unheated solvent with a liquid surface area of less than 929 cm^2 (1 ft^2), except when all such degreasers at a stationary source have an aggregate liquid surface area greater than 0.93 m^2 (10 ft^2) - cleaning of assembled rock engines on launch pads or test stands where required by the Department of Defence (DOD) and the National Aeronautical and Space Agency (NASA) launch operations if carried out in accordance with approved procedures. Verify that the installation does not use solvents containing ROCs in surface cleaning or degreasing operations unless overall emissions of ROCs into the atmosphere are reduced at least 85 percent by weight using an approved vapor control device.
A.115.2.CA.SB. Installations conducting nonexempt degreasing operations must meet specific equipment requirements (StBCAPCD Regulation III, Rule 321(C)(3), (4), (5), and (6)).	Verify that the installation meets all of the following equipment requirements: - parts are drained so that solvent is returned to the degreaser - the freeboard ratio is greater than or equal to 0.75 for all types of degreasers - a container is provided for the solvent and articles being cleaned - a cover is kept on the degreaser when not processing work.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.115.3.CA.SB. Installations operating conveyorized degreasers must meet specific equipment requirements (StBCAPCD Regulation III, Rule 321(F)).	Verify that covers close off the degreaser entrance and exit when the degreaser is not operating. Verify that one or a combination of the following control devices is used: - a refrigerated freeboard chiller that maintains a temperature below -25 °C (-13 °F) for below freezing chillers and below 5 °C (40 °F) for above freezing chillers - a carbon adsorption system that meets the following requirements: - it ventilates the air-vapor interface at a minimum rate of 15 $m^3/min/m^2$, but not greater than 20 $m^3/min/m^2$ of air vapor interface - it has a control efficiency of 95 percent by weight - any other approved, equivalent system. Verify that both of the following control devices are used: - either a drying tunnel, or another means such as a rotating basket, sufficient to prevent cleaned parts from carrying out solvent liquid or vapor - minimized openings. Verify that one of the following is used for conveyorized degreasers with greater than 2 m^2 air/vapor interface: - a hood or enclosure with a delivery system or ductwork to collect degreaser emissions, exhausting to the carbon adsorber, whenever the primary condenser is off - an equivalent control device. Verify that both of the following control equipment are used, if applicable: - a device that shuts off the sump heat if either - the condenser coolant stops circulating - the condenser coolant becomes warmer than specified by the manufacturer - for spray degreasers, a device that prevents spray pump operation unless the solvent vapor level is at the design operating level.
A.115.4.CA.SB. Installations conducting nonexempt degreasing operations must meet specific operation and maintenance requirements (StBCAPCD Regulation III, Rule 321(C)(2) and (G)).	Verify that the maintenance manual for each piece of degreasing equipment is available on site. Verify that the degreasing equipment and emission control equipment is operated and maintained in ways that minimize emissions. Verify that solvent leaks are either repaired immediately, or the solvent is removed to a sealed container and the leaking equipment is shut down. **A.115.4.CA.SB. Continued on Next Page**

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.115.4.CA.SB. (continued)	Verify that solvents, including waste solvents, are stored or disposed of in ways that prevent their evaporation into the atmosphere. Verify that covers over solvents are not removed or opened except as necessary for operation or maintenance of the degreasing equipment. Verify that air agitation of the solvent bath is not used. Verify that porous or absorbent materials such as cloth, leather, wood, or rope are not degreased. Verify that the solvent exiting the water separator does not contain any visible water. Verify that new and used solvents are stored in covered containers. Verify that solvent flow is used only if one of the following conditions is met: - a continuous, fluid stream is used, not a fine, atomized, fan or shower-type spray - spraying is conducted inside a chamber equipped with a vapor control system, and at a pressure that does not cause the solvent to splash outside of the container. Verify that articles are blown dry only after they have been drained and appear to be dry, and then only in a chamber equipped with a vapor control system. Verify that the operating requirements for specific types of degreasers found in Appendix 1-9 are followed. Verify that each piece of degreasing equipment is equipped with a conspicuously displayed, permanent label listing its applicable operating requirements, including both the general operating requirements listed above and particular operating requirements listed in Appendix 1-9.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
DEGREASING OPERATIONS **A.116.** **Cold Cleaning** **A.116.1.CA.SB.** Installations operating cold cleaning operations must meet specific equipment requirements (StBCAPCD Regulation III, Rule 321(D)).	Verify that the degreaser cover is designed to be easily operated with one hand if either of the following conditions apply: - solvent vapor pressure is greater than 2 kPa (15 mm of mercury or 0.3 psi) measured at 38 °C (100 °F) - the solvent is agitated. Verify that if solvent volatility is greater than 4.3 kPa (32 mm Hg or 0.6 psi) measure at 38 °C (100 °F), then parts must be drained under cover. (NOTE: If internal drainage is not possible, external drainage is acceptable provided the drainage is returned to the degreaser.) Verify that if solvent vapor pressure is greater than 4.3 kPa (32 mm Hg or 0.6 psi) at 38 °C (100 °F) or, if the solvent is heated above 50 °C) (122 °F), one of the following control devices is used: - a water cover if the solvent is insoluble in and heavier than water - an equivalent, approved control system with an overall efficiency of 85 percent by weight.

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DEGREASING OPERATIONS **A.117.** **Vapor Cleaning** **A.117.1.CA.SB.** Installations operating vapor degreasers must meet specific equipment requirements (StBCAPCD Regulation III, Rule 321(E)).	Verify that the degreaser cover can be opened and closed easily without disturbing the vapor zone. Verify that, if the degreaser opening is greater than 1 m^2 [approximately 32.8^2 ft], the cover meets one of the following requirements: - it is pneumatically or electrically powered - it can be easily operated with one hand. Verify that both of the following control equipment are used, if applicable: - a device that shuts off the sump heat if the condenser coolant either - stops circulating - becomes warmer than specified by the manufacturer - for spray degreasers, a device that prevents the spray pump operation unless the solvent vapor level is at the design operating level. Verify that one or a combination of the following major control devices is installed and used: - a refrigerated freeboard chiller that maintains a coolant temperature below -25 °C (-13 °F) for below freezing chillers and below 5 °C (40 °F) for above freezing chillers - a carbon adsorption system that meets the following requirements: - ventilates the air-vapor interface at a minimum rate of 15 $m^3/min/m^2$, but not greater than 20 $m^3/min/m^2$ of air-vapor interface - has a control efficiency of 95 percent by weight - any other approved, equivalent system.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
DEGREASING OPERATIONS **A.118.** **Reporting** **A.118.1.CA.SB.** Installations conducting nonexempt degreasing operations must meet specific recordkeeping requirements (StBCAPCD Regulation III, Rules 321(H)).	Verify that the installation has solvent manufacturer specification sheets for each solvent used. Verify that the installation maintains the following kinds of records for at least 3 yr: - records that show on a quarterly basis the following information for each solvent: - type of solvent - solvent vapor pressure at 100 °F (38 °C) in mm Hg, kPa, or psi - volume of solvent used - records that show on a quarterly basis the following information for each nonexempt degreaser or nonexempt group of smaller degreasers: - type of degreaser - type of solvent used - volume of new makeup solvent added to the degreaser - volume of waste solvent removed from the degreaser - volume of recycled solvent added to the degreaser - purchase records that may be order-forms, requisition forms, or receipts, showing the type and amount of each solvent acquired.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.120. **OIL/WATER SEPARATORS**	
A.120.1.CA.SB. Installations operating effluent oil water separators must meet specific requirements (StB-CAPCD Regulation III, Rule 326).	Determine if the installation uses any compartment of any vessel or device operated for the recovery of oil from effluent water and recovers 200 gal/day [approximately 757.08 L/day] or more of petroleum products from any equipment storing or handling hydrocarbons with a Reid vapor pressure of 0.5 lb [approximately 0.23 kg] or greater. Verify that the compartment is equipped with one of the following vapor loss control devices: - a solid cover with all openings sealed and totally enclosing the liquid contents - a floating pontoon or double-deck type cover equipped with closure seals to enclose any space between the cover's edge and the compartment wall - a vapor recovery system - other equipment that has been approved by the APCO.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.125 **MISCELLANEOUS VOC OPERATIONS**	
A.125.1.CA.SB. Installations using photochemically reactive solvents or materials containing photochemically reactive solvents must meet specific disposal requirements (StBCAPCD Regulation III, Rule 324).	Verify that, in the course of one day, the installation does not dispose of more than 1.5 gal [approximately 5.68 L] of any photochemically reactive solvent, or of any material containing more than 1.5 gal [approximately 5.68 L] of the solvent, by any means which will result in evaporation.
A.125.2.CA.SB. Installations using organic solvents or materials containing organic solvents must meet specific emission control requirements (StBCAPCD Regulation III, Rules 317, and 339(D)(13)).	(NOTE: These requirements do not apply to the following activities or materials: - transport or storage of organic solvents or materials containing organic solvents - use of equipment meeting the requirements specified in the following sections or that are listed as exempt from air pollution control requirements in those sections - Gasoline/Fuels - Oil/Water Separators - spraying or other employment of insecticides, pesticides, or herbicides - any coating subject to the requirements in the Coating Operations - Motor Vehicles and Mobile Equipment section - employment, application, evaporation, or drying of saturated halogenated hydrocarbons or perchloroethylene - use of any material meeting all of the following requirements: - the volatile content consists only of water and organic solvents - the organic solvents comprise not more than 20 percent by volume of the total volatile content - the volatile content is not photochemically reactive - the organic solvents or any material that contains them does not come into contact with flame.) **A.125.2.CA.SB. Continued on Next Page**

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A.125.2.CA.SB. (continued)	Verify that the installation does not discharge organic materials in quantities greater than the following, unless reduced by 85 percent or more: - 15 lb/day [approximately 6.8 kg/day] or 3 lb/h [approximately 1.36 kg/h] from equipment in which any organic solvent or material containing organic solvent comes into contact with a flame, or is baked, heat-cured, or heat-polymerized in the presence of oxygen - 40 lb/day [approximately 18.14 kg/day] or 8 lb/h [approximately 3.62 kg/h] from equipment using photochemically reactive solvents that do not come into contact with a flame and are not baked, heat-cured, or heat-polymerized in the presence of oxygen - 3000 lb/day [approximately 1360.78 kg/day] or 450 lb/h [approximately 154.22 kg/h] from equipment using nonphotochemically reactive organic solvents. (NOTE: Emissions of organic materials from cleaning equipment with photochemically reactive solvents must be included with other emissions from that equipment when determining compliance.) Verify that, if the installation controls organic emissions to comply with emissions limits, one of the following methods is used: - incineration, provided 90 percent or more of the carbon is oxidized to CO_2 - adsorption - processing in a manner approved by the APCO. Verify that the installation has installed approved air pollution control equipment designed to reduce these emissions. Verify that the installation keeps records of the chemical composition, physical properties, and amount consumed of each organic solvent used.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.130. **OPEN BURNING**	
A.130.1.CA.SB. Installations are prohibited from burning any combustible refuse in any open outdoor fire except under certain circumstances (StBCAPCD Regulation I, Rule 104, and Regulation III, Rules 312(A) and 313).	(NOTE: Fires set under public authority, including all of the following, are exempt from these requirements: - fires set or permitted by any public officer for any of the following reasons, except on "no-burn days": - to preserve life - to prevent a fire hazard that cannot be abated by any other reasonable means - for instruction in the methods of fighting fires - backfires set to save lives or valuable property - fires set in order to abate fires.) Verify that the installation does not burn any combustible refuse in any open outdoor fire within District boundaries, except as allowed by and in compliance with the requirements of this section.
A.130.2.CA.SB. Installations must meet specific requirements in order to conduct open burning of residential dry vegetation within the Northern Zone (StBCAPCD Regulation III, Rules 302(A)(6) and 312(B)).	Verify that, whenever the installation burns residential dry vegetation, it meets all of the following requirements: - burning occurs only within the Northern Zone, but not in the incorporated cities of Santa Maria and Lompoc - materials burned are leaves, weeds, grass clippings, shrubbery, and tree prunings, all of which are adequately dried - burning is conducted by occupants of one and two-family dwellings on their premises in open outdoor fires - burning takes place on a Permissive Burn Day in February, May, August, or November - the local public fire protection agency has issued a permit for the burning - burning is conducted in compliance with local fire protection regulations. (NOTE: Smoke from residential dry vegetation burning is exempt from the requirements of the Visible Emissions section of this manual.)

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A.130.3.CA.SB. Installations must meet specific requirements in order to conduct outdoor burning in High Fire Hazard Areas (StBCAPCD Regulation III, Rule 312(D)).	Determine if installation premises include any areas designated as High Fire Hazard Areas by Santa Barbara County fire protection regulations. Verify that whenever the installation conducts outdoor burning in one of these areas, it meets all of the following requirements: - it first obtains permits from the local Fire Protection Agency and from the APCO - it conducts the burning in compliance with state, county, and local requirements - it does not conduct the burning at any of the following times: - during fire hazard seasons as declared by the County Fire Chief - on days when agricultural burning is prohibited - on days when the APCO determines ambient air quality standards are likely to be exceeded by the proposed burning - on Sundays - it burns only cuttings from trees, vines, or bushes that have been adequately dried.
A.130.4.CA.SB. Installations must have a permit in order to conduct agricultural, forest management, or range improvement burning (StBCAPCD Regulation IV, Rules 401(C)(1) and (2)).	Verify that the installation does not conduct any burning without a valid permit issued by an agency designated by the Air Resources Board. (NOTE: The APCO has a list of agencies designated to issue agricultural burning permits.)
A.130.5.CA.SB. Installations must conduct all agricultural, forest management, or range improvement burning in compliance with specific requirements (StBCAPCD Regulation IV, Rule 401(C)(4)).	Verify that all agricultural burning is conducted only on days permitted by the local fire protection agency and designated as Permissive Burn Days, unless issued a permit to burn on a no-burn day. Verify that materials to be burned meet all of the following conditions: - they do not include tires, rubbish, tar paper, plastic, construction debris, weeds, shrubs, trees from nonproductive areas, and waste foreign to land cleared for agricultural use - they are arranged so as to burn with a minimum of smoke - they are free of dirt and soil that might hinder burning or be carried into the air as particulate matter - they are reasonably free of visible surface moisture **A.130.5.CA.SB. Continued on Next Page**

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A.130.5.CA.SB. (continued)	- they have been dried for the following minimum periods: - for trees and large branches, 6 weeks - for prunings and small branches, 3 weeks - for wastes from field crops, 10 days - they are ignited with approved ignition devices, not with tires, tar paper, plastic, dirty oils, or similar materials. Verify that, except for range improvement, forest management, and wildland vegetation management burning, agricultural burning may begin at any time after the announcement of a burn-day, but not before sunrise, and no additional materials or ignition fuel may be ignited or added to any fire after 2 h before sunset. Verify that the wind direction at the burn site is such that smoke will not cause a public nuisance.
A.130.6.CA.SB. Installations must conduct forest management and range improvement burning in compliance with specific additional requirements (StBCAPCD Regulation IV, Rule 401(C)(4)(e), (f), and (g)).	Verify that forest management and range improvement burns are ignited as rapidly as practicable within applicable fire control restrictions. Verify that all range improvement burning conducted on installation premises meets both of the following requirements: - brush is treated at least 6 mo prior to the burn, when feasible - unwanted trees over 6 in. [15.24 cm] in diameter are felled and dried prior to the burn. Verify that, when range improvement burning is done primarily for improvement of land for wildlife and game habitat, the installation files with the District a statement from the State Department of Fish and Game certifying the burn is desirable and proper.
A.130.7.CA.SB. Installations must conduct wildland vegetation management burning in compliance with specific additional requirements (StBCAPCD Regulation IV, Rules 401(D)).	Verify that materials to be burned are ignited only by approved devices. Verify that, when smoke creates or contributes to a violation of air quality standards, or causes a public nuisance due to unanticipated meteorological conditions, the smoke is mitigated. Verify that materials to be burned are free of tires, rubbish, tar paper, or construction debris, and reasonably free of dirt and soil. Verify that vegetation to be burned is in a condition which will facilitate combustion and minimize the amount of smoke emitted. **A.130.7.CA.SB. Continued on Next Page**

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A.130.7.CA.SB. (continued)	Verify that the total amount of material burned each day is in compliance with criteria approved by the APCO. Verify that a burn plan has been submitted to the APCO at least 30 days before the proposed burning.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.145. **ASPHALT PAVING MATERIALS/ OPERATIONS**	
A.145.1.CA.SB. Installations applying asphalt paving materials must meet specific requirements (StBCAPCD Regulation III, Rule 329).	Determine if the installation uses cutback or emulsified asphalt materials for the paving, construction, or maintenance of streets, highways, parking lots, or driveways. Verify that any cutback asphalt material used contains no more than 0.5 percent by volume ROCs that evaporate at 260 °C (500 °F) or less. Verify that any emulsified asphalt material used contains no more than 3.0 percent by volume ROCs that evaporate at 260 °C (500 °F) or less. Verify that, if the installation uses cutback or emulsified asphalts containing solvents, it keeps records for 2 yr showing the types and amounts of cutback and emulsified asphalts used.
A.145.2.CA.SB. Installations operating an article, machine, equipment, or other contrivance for the air blowing of asphalt must meet specific emission requirements (StBCAPCD Regulation III, Rule 319).	Verify that the installation does not operate such article, machine, equipment, or other contrivance unless all gases, vapors, and gas-entrained effluents from these items are either: - incinerated at temperatures of not less than 1400 °F for at least 0.3 s - processed in a manner determined by the Control Officer to be equally, or more, effective for air pollution control than incineration, and is considered Best Available Control Technology.

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A.150. **ETHYLENE OXIDE SOURCES**	
A.150.1.CA.SB. Installations operating sources using or emitting ethylene oxide (EtO) must meet specific emission standards (StBCAPCD Regulation III, Rules 336(A), (C)(5) and (H)(4)).	Determine if the installation operates any sources that use or emit EtO. Verify that no such source emits greater than 0.5 lb/h [approximately 0.23 kg/h], or 1.5 lb/day [approximately 0.68 kg/day] of EtO.
A.150.2.CA.SB. Installations operating EtO sterilizers must meet specific operating requirements (StBCAPCD Regulation III, Rules 336(C)(1) and (H)).	Determine if the installation operates any EtO sterilizers. Verify that the sterilization chamber sterilant gas evacuation process meets one of the following requirements: - for sterilizers equipped with liquid sealed vacuum pumps to evacuate the chamber, the pump is a mechanically sealed closed loop (recirculating) pump using oil as the recirculating fluid - for other sterilizers, the process is designed to ensure that EtO is not released into wastewater.
A.150.3.CA.SB. Installations operating EtO sterilizers must meet specific emission control requirements (StBCAPCD Regulation III, Rules 336(C)(2) through (4), and (D)).	Determine if the installation operates an EtO sterilizer at any stationary source where total EtO emissions amount to 4 lb/yr [approximately 1.81 kg/yr] or more. Verify that all emissions from any EtO sterilizer at the source are not vented to a single emission control device, unless emission reduction is 99.8 percent by weight or greater. Verify that all EtO evacuated from the sterilization chamber is vented to an emission control device with an emission reduction efficiency of 99.9 percent by weight or greater. Verify that all EtO emissions at a stationary source, other than the emissions evacuated from the sterilization chamber, are vented to an emission control device with a reduction efficiency of 99 percent by weight or greater.

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A.150.4.CA.SB. Installations operating sources which use or emit EtO must meet specific emission source testing requirements (StBCAPCD Regulation III, Rule 336(E)).	Verify that emission source testing is conducted at least annually in compliance with a District-approved emission source test plan.
A.150.5.CA.SB. Installations operating EtO sterilizers must meet specific recordkeeping requirements (StBCAPCD Regulation III, Rule 336(F)).	Verify that the installation maintains, at every EtO sterilizer, a log which contains the following information for each sterilization cycle: - date and time the sterilizer was loaded - date and time the sterilizer was unloaded - description of the sterilized items, including materials of construction - number and duration of EtO evacuation operations - date and time aeration of the sterilized items was completed - amounts, in pounds, of total sterilant gas and EtO used. Verify that each log is retained on site for a minimum of 3 yr after the date of the last entry in it.
A.150.6.CA.SB. Installations operating EtO sterilizers must meet specific reporting requirements (StBCAPCD Regulation III, Rule 336(G)).	Verify that the installation files written reports on or before 1 February, 1 May, 1 August, and 1 November each year detailing the following information for the previous quarter: - amount of total sterilant gas purchased, in pounds - composition of the sterilant gas - total amount of EtO in the sterilant gas, in pounds - amount, location, and intended purpose of any EtO stored within the District - information on each sterilization cycle as it was entered in the sterilizer logs.

COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT Santa Barbara County Air Pollution Control District (StBCAPCD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
OTHER EMISSIONS/ SOURCES **A.155. Carbon Monoxide Emulsions-Southern Zone**	
A.155.1.CA.SB. Installations operating in the Southern Zone must meet specific CO emission standards (StB-CAPCD Regulation III, Rule 309(G)).	Verify that the installation does not discharge from any source in the Southern Zone, CO in concentrations exceeding 2000 ppm by volume measured on a dry basis. (NOTE: This requirement does not apply to emissions from internal combustion engines.)
Reciprocating Internal Combustion Engines	
A.155.2.CA.SB. Installations operating reciprocating internal combustion engines must meet specific emission control requirements (StB-CAPCD Regulation III, Rules 333(A), (B), and (H)(1)(b)).	Determine if the installation operates any engines meeting all of the following conditions: - they have a rated bhp of 50 or greater - they are fueled by natural gas, field gas, liquefied petroleum gas (LPG), diesel fuel, gasoline, or any other liquid fuel. Identify those engines that are conditionally exempt from these requirements: - engines operating on fuel consisting of 75 percent or more of landfill gas on a volume basis determined by annual total fuel use - engines operating less than 200 h per calendar year - engines that are exempt from the requirements of the Permits section. Verify that installations claiming exemption for landfill gas-fueled engines have documentation supporting this claim as approved by the APCO. Verify that installations claiming exemption for engines operating less than 200 h/yr meet all of the following requirements: - a written engine operating log is maintained in which the location and engine hour meter readings of each of those engines is recorded on the first working day of each calendar quarter - engine operating logs are retained for at least 2 yr after the date of the last entry.

COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT Santa Barbara County Air Pollution Control District (StBCAPCD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.155.3.CA.SB. Installations operating nonexempt engines must meet specific emission limit requirements (StBCAPCD Regulation III, Rule 333(D)).	(NOTE: Installations may meet emission limit requirements by controlling additional existing engines at the same stationary source not subject to this requirement, provided they have an approved Alternative Emission Control Plan.) Verify that noncyclic rich burn engines do not exceed the following concentration limits corrected for oxygen: - NO_x at 15 percent oxygen, 50 ppmV - NO_x at 3 percent oxygen, 152 ppmV - ROC at 15 percent oxygen, 250 ppmV - ROC at 3 percent oxygen, 758 ppmV - CO at 15 percent oxygen, 4500 ppmV - CO at 3 percent oxygen, 13,653 ppmV. (NOTE: These NO_x emission limits may be met by reducing the NO_x by at least 90 percent across a control device.) Verify that lean burn noncyclic engines do not exceed the following concentration limits as corrected for oxygen: - NO_x at 15 percent oxygen, 125 ppmV - NO_x at 3 percent oxygen, 380 ppmV - ROC at 15 percent oxygen, 750 ppmV - ROC at 3 percent oxygen, 2275 ppmV - CO at 15 percent oxygen, 4500 ppmV - CO at 3 percent oxygen, 13,653 ppmV (NOTE: These NO_x emission limits may be met by reducing the NO_x by at least 80 percent across a control device.) Verify that installations operating cyclic engines maintain an exhaust stream oxygen concentration of 6.5 percent or greater, by volume, monitored on a monthly basis. Verify that cyclic engines do not exceed the following concentration limits as corrected for oxygen: - NO_x at 15 percent oxygen, 50 ppmV - NO_x at 3 percent oxygen, 152 ppmV - ROC at 15 percent oxygen, 250 ppmV - ROC at 3 percent oxygen, 758 ppmV - CO at 15 percent oxygen, 4500 ppmV - CO at 3 percent oxygen, 13653 ppmV. (NOTE: NO_x emission limits may be met by reducing NO_x by at least 90 percent across a control device.) **A.155.3.CA.SB. Continued on Next Page**

COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT Santa Barbara County Air Pollution Control District (StBCAPCD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.155.3.CA.SB. (continued)	(NOTE: Cyclic engines may be designated as a noncyclic engine and comply with the noncyclic engine requirements. The installation must notify the District in writing of this designation.) Verify that diesel engines do not exceed 8.4 g/Bhp of NO_x or the following limits as corrected for oxygen: - NO_x at 15 percent oxygen, 797 ppmV - NO_x at 3 percent oxygen, 2400 ppmV.
A.155.4.CA.SB. Installations operating nonexempt engines must follow specific inspection requirements (StBCAPCD Regulation III, Rule 333(E)).	Verify that the installation has an approved engine inspection and maintenance plan for each stationary source.
A.155.5.CA.SB. Installations with existing, nonexempt engines must follow a specific compliance schedule (StBCAPCD Regulation III, Rule 333(F) and (I)).	Verify that the installation has an approved compliance plan. Verify that the installation controls a sufficient number of noncyclic engines to meet the emission requirements for these engines. Verify that all cyclic engines are controlled to the established limits. Verify that the installation applies for an ATC for each existing engine that must be modified in order to meet the emission limits.
A.155.6.CA.SB. Installations operating any nonexempt engines must follow specific testing requirements (StBCAPCD Regulation III, Rule 333(G)).	Verify that the installation has an approved source test plan at least 30 days before the start of the testing. Verify that the District is notified of the date of source testing 14 days before the test date. Verify that a source test is performed biennially and within 30 days of the anniversary date of the initial test, unless authorized otherwise by the APCO.

COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT Santa Barbara County Air Pollution Control District (StBCAPCD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.155.7.CA.SB. Installations with nonexempt engines must meet specific recordkeeping requirements (StBCAPCD Regulation III, Rule 333(H)).	Verify that the installation maintains a written engine operation log with all of the following information: - hours of operation each month for each engine - a summary of any maintenance performed on an emission control device - a summary of any maintenance performed on an engine which affects the emission control device - observations made in each monthly or quarterly inspection. Verify that the installation retains copies of all engine inspection and maintenance logs for at least 2 yr after the date of the last entry.
Sulfur Compound Emissions	
A.155.8.CA.SB. Installations must meet specific sulfur compound emission standards (StBCAPCD Regulation III, Rules 309(A)(1) and 310).	Verify that the installation does not emit sulfur compounds (calculated as SO_2) in excess of 0.2 percent concentration by volume at the point of discharge, from any single source. Verify that the installation does not emit hydrogen sulfide or organic sulfides or any combination of them, that result in ground level concentrations, at any point at or beyond the installation property line, in excess of the following amounts (expressed in ppm by volume of hydrogen sulfide) for the averaging times listed: - 0.06 ppm, for 3 min - 0.03 ppm, for 1 h.
A.155.9.CA.SB. Installations that operate sulfur recovery units must meet specific sulfur compound emission standards (StBCAPCD Regulation III, Rule 309(B)).	Verify that the installation does not emit into the atmosphere from any sulfur recovery unit producing elemental sulfur, effluent process gas whose concentration of any of the following contaminants exceeds the values listed: - sulfur compounds calculated as SO_2, 500 ppm by volume - hydrogen sulfide, 10 ppm by volume. (NOTE: The installations with effluent process gas discharge containing less than 10 lb/h [approximately 4.53 kg/h] of sulfur compounds calculated as SO_2 may dilute to meet the sulfur compound concentration limit.)

COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT Santa Barbara County Air Pollution Control District (StBCAPCD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.155.10.CA.SB. Installations that operate sulfuric acid units must meet specific sulfur compound emission standards (StBCAPCD Regulation III, Rule 309(C)).	Verify that the installation does not emit into the atmosphere from any sulfuric acid unit, effluent process gas containing sulfur compounds (calculated as SO_2) in excess of either of the following standards: - 500 ppm by volume - 200 lb/h [approximately 90.72 kg/h].
Vacuum Producing Devices or Systems	
A.155.11.CA.SB. Installations operating any vacuum producing device or system must meet specific standards regarding the emission of organic materials (StBCAPCD Regulation III, Rule 318).	Verify that the installation does not discharge into the atmosphere more than 3 lb of organic materials in any 1 h from any volume producing device or system, including hot wells and accumulators, unless the discharge has been reduced by at least 90 percent.
Visible Emissions	
A.155.12.CA.SB. Installations must meet specific visible emission standards (StBCAPCD Regulation III, Rule 302).	(NOTE: The following air contaminant emission sources are exempt from these visible emission standards: - smoke from fires set by or permitted by a public officer in the performance of official duty for either of the following reasons: - to prevent a fire hazard - for instruction of public employees in firefighting methods - smoke from permitted fires on industrial property set for instruction of employees in firefighting methods - agricultural operations and related equipment necessary for growing of crops or raising fowl or animals - approved orchard and citrus heaters - smoke from certain kinds of open fires (see the Open Burning section).) Verify that the installation does not discharge into the atmosphere, from any single source, any air contaminants for more than 3 min in any 1 h which meet either of the following conditions: - emissions as dark or darker than No. 1 on the Ringelmann Chart - emissions so opaque that they obscure the observer's view to a degree equal to or greater than smoke that is as dark or darker than No. 1 on the Ringelmann Chart. (NOTE: An observer may be a human or a certified, calibrated, in-stack opacity monitoring system.)

Appendix 1-1

Allowable Rates of Emission for Dust or Fumes Based on Process Weight Rate - Northern Zone

(Source: StBCAPCD Regulation III, Rule 306)

Process Weight Rate (lb/h)	Maximum Emission Rate (lb/h)	Process Weight Rate (lb/h)	Maximum Emission Rate (lb/h)
50	0.24	3300	5.36
100	0.46	3400	5.44
150	0.66	3500	5.52
200	0.85	3600	5.61
300	1.20	3700	5.69
350	1.35	3900	5.85
400	1.50	4000	5.93
450	1.63	4100	6.01
500	1.77	4200	6.08
550	1.89	4300	6.15
600	2.01	4400	6.22
650	2.12	4500	6.30
700	2.24	4600	6.37
750	2.34	4700	6.45
800	2.43	4800	6.52
850	2.53	4900	6.60
900	2.62	5000	6.67
950	2.72	5500	7.03
1000	2.80	6000	7.37
1100	2.97	6500	7.71
1200	3.12	7000	8.05
1300	3.26	7500	8.39
1400	3.40	8000	8.71
1500	3.54	8500	9.03
1600	3.66	9000	9.36
1700	3.79	9500	9.67
1800	3.91	10,000	10.00
1900	4.03	11,000	10.63
2000	4.14	12,000	11.28
2100	4.24	13,000	11.89

(continued)

Appendix 1-1 (continued)

Process Weight Rate (lb/h)	Maximum Emission Rate (lb/h)	Process Weight Rate (lb/h)	Maximum Emission Rate (lb/h)
2200	4.34	14,000	12.50
2300	4.44	15,000	13.13
2400	4.55	16,000	13.74
2500	4.64	17,000	14.36
2600	4.74	18,000	14.97
2700	4.84	19,000	15.58
2800	4.92	20,000	16.19
2900	5.02	30,000	22.22
3000	5.10	40,000	28.30
3100	5.18	50,000	34.30
3200	5.27	60,000 or more	40.00

To use this table, proceed as follows:

- calculate the "Process Weight Rate", i.e., the process weight per hour, in lb/h
- find this figure in the appropriate column of the table
- opposite this figure, in the "Maximum Emission Rate" column, is the maximum number of pounds per hour of contaminants which may be discharged into the atmosphere for the given process weight
- where the calculated Process Weight Rate falls between the figures given in this appendix, interpolate to calculate the exact Maximum Emission Rate.

Appendix 1-2

Exemptions to the Permit Requirements

(Source: StBCAPCD Regulation II, Rule 202;
California Health and Safety Code Division 26, Section 42310.)

The equipment, operations, and activities listed in this appendix are exempt from the requirements of the Permits section of this manual.

- vehicles, excluding any article, machine, or equipment requiring a permit that is mounted on the vehicles
- any structure designed for and used exclusively as a dwelling for not more than four families
- incinerators used exclusively for residents of dwellings of not more than four families
- barbecue equipment not used for commercial purposes
- agricultural equipment, with various exceptions
- repairs or maintenance not involving structural changes to any equipment that requires a permit, where maintenance does not include operation
- trains and aircraft used to transport passengers or freight
- modifications of existing stationary sources with the potential to change emissions of the following pollutants by no more than the de minimis change allowed, provided the cumulative emission change does not exceed the amount listed below:

	de minimis Change	Cumulative Change
CO	0.80 lb/h	8 lb/h
Other pollutants	0.1 lb/h	1 lb/h

(NOTE: Equipment required to control air contaminants are not included in this exemption).

- identical replacement, in whole or in part, of any article, machine, equipment, or other contrivance for which a PTO has been granted, provided all of the following conditions are satisfied:
  - emissions are not increased
  - there is no potential for violating any ambient air quality standard
- piston type internal combustion engines, including engines powering items of equipment identified as exempt by other provisions of this appendix, are exempt only if they meet one of the following conditions:
  - used in agricultural operations in the growing of crops or the raising of fowl or animals
  - used in aircraft or in locomotives
  - used to propel marine vessels, except cargo vessels that load or unload at a stationary source
  - engines used to propel vehicles, but not including any engine mounted on the vehicle that would otherwise require a permit
  - used exclusively for emergency power generation or for emergency water pumping for flood control or firefighting if the engine operates for no more than 200 h per calendar year
  - have a manufacturer's maximum rating of 100 bhp or less, unless all the individual engines rated at less than 100 bhp but greater than 20 bhp operating at a stationary source have a total combined horsepower exceeding 500 bhp

(continued)

  - used on work-over rigs for repair, work-over, maintenance, or abandonment of wells
  - used in construction activities, unless combined emissions from all equipment used to construct a stationary source requiring a permit could exceed 25 tons [approximately 22.68 metric tons] of any pollutant, except CO, in a 12 mo period.
- the following combustion equipment (other than engines) with maximum heat input rate no greater than 5 MBtu/h, if fired exclusively with regulated natural gas, LPG, or a combination of these two:
  - steam generators
  - steam superheaters
  - water boilers
  - water heaters
  - indirect process heaters
- the following combustion equipment (other than engines) with maximum heat input rate no greater than 10 MBtu/h, if fired exclusively with regulated natural gas, LPG, or a combination of these two:
  - heat sources for:
    -- ovens
    -- kilns
    -- crucibles
    -- direct fired process heaters
- containers, reservoirs, tanks, sumps, or ponds and associated filling and dispensing equipment used exclusively for the following purposes:
  - dipping operations for coating objects with oils, waxes, or greases where no organic solvents, diluents, or thinners are used
  - dipping operations for applying coatings of natural or synthetic resins which contain no organic solvents
  - unheated storage of liquid organic materials, except refined fuel oils, with an initial boiling point of 300 °F [approximately 149 °C] or greater at one atmosphere pressure
  - storage of refined fuel oils with a gravity of 25 ° API or lower
  - storage of 10,000 gal [37,854.12 L] or less of refined fuel oils with a gravity greater than 25 ° API but not exceeding 40 ° API
  - storage of lubricating oils
  - storage of organic liquids, except gasoline, that are normally used as solvents, diluents or thinners, inks, colorants, paints, lacquers, enamels, varnishes, liquid resins, or other surface coatings, and that have a capacity of 1500 gal [approximately 5678.19 L] or less
  - storage of liquid soaps, liquid detergents, vegetable oils, waxes, or wax emulsions
  - storage of asphalt
  - storage of gasoline having a capacity of less than 250 gal [approximately 946.35 L]
  - storage of liquefied gases which do not exceed Gas Processors Association specifications for maximum volatile sulfur content of commercial grade LPG
  - unheated solvent dispensing containers, unheated nonconveyorized solvent rinsing containers, or unheated nonconveyorized coating dip tanks with a capacity of 100 gal [approximately 378.54 L] or less, excluding degreasing equipment subject to the requirements of the Degreasing Operations section of this manual
  - single pieces of degreasing equipment which use unheated solvent and which have a liquid surface area of less than 929 cm^2 (1 ft^2), unless the aggregate surface area for all such degreasers at a stationary source is greater than 0.93 m^2 (10 ft^2)
  - equipment used in surface coating operations, provided the total amount of coatings and solvents used does not exceed 40 gal/yr [approximately 151.42 L/yr]
  - transporting materials on streets and highways

(continued)

- all of the following kinds of equipment, including any exhaust system or collector which exclusively serves that equipment, is exempt provided all heat sources are either from electricity or from combustion equipment identified as exempt by other provisions of this appendix:
  - heat exchangers
  - crucible type or pot type furnaces with a brimful capacity of less than 450 $in.^3$ [1143 cm^3] of any molten metal
  - kilns used for firing ceramic ware
  - equipment used for washing or drying products fabricated from metal or glass, provided no volatile organic materials are used in the process and no oil or solid fuel is burned
  - crucible furnaces, pot furnaces, or induction furnaces with a capacity of 1000 lb [approximately 453.59 kg] or less each in which no sweating or distilling is conducted, and from which only the following metals are poured or in which only the following metals are held in a molten state:
    - -- aluminum or any alloy containing over 50 percent aluminum
    - -- magnesium or any alloy containing over 50 percent magnesium
    - -- lead or any alloy containing over 50 percent lead
    - -- tin or any alloy containing over 50 percent tin
    - -- zinc or any alloy containing over 50 percent zinc
    - -- copper or any alloy containing over 50 percent copper
    - -- precious metals
  - comfort air conditioning or comfort ventilating systems not designed to remove air contaminants generated by or released from specific units or equipment
  - refrigeration units, except those used as, or in conjunction with, air pollution control equipment
  - water cooling towers and water cooling ponds not used for evaporative cooling of process water or not used for evaporative cooling of water from barometric jets or from barometric condensers
  - equipment used exclusively for steam cleaning
  - forced air furnaces used exclusively for space heating
  - equipment used for hydraulic or hydrostatic testing
  - all sheet-fed printing presses, and all other printing presses without driers, excluding rotogravure and flexographic printing presses
  - lint traps used exclusively in conjunction with drycleaning tumblers
  - equipment used in eating establishments for the purpose of preparing food for human consumption
  - compressors of, and holding tanks for, dry natural gas
  - tumblers used for the cleaning or deburring of metal products without abrasive blasting
  - abrasive blast cabinet-dust filter integral combination units where the total internal volume of the blast section is 50 ft^3 [15.24 m^3] or less
  - batch mixers of 5 ft^3 [approximately 1.52 m^3] rated working capacity or less
  - equipment used exclusively for conveying and storing plastic pellets
  - smokehouses in which the maximum horizontal inside cross-sectional area does not exceed 20 ft^2 [approximately 6.1 m^2]
  - blast cleaning equipment using a suspension of abrasive in water
  - ovens, mixers, and blenders used in bakeries where the products are intended for human consumption
  - laboratory equipment used exclusively for chemical or physical analyses and bench scale laboratory equipment
  - equipment used for inspection of metal products
  - confection cookers where the products are edible and intended for human consumption

(continued)

- photographic process equipment by which an image is reproduced upon material sensitized to radiant energy
- brazing, soldering, or welding equipment
- equipment used for buffing (except for automatic or semiautomatic tire buffers) or polishing, carving, cutting, drilling, machining, routing, sanding, sawing, surface grinding, or turning of ceramic artwork, ceramic precision parts, leather, metals, plastics, rubber, fiberboard, masonry, carbon, or graphite
- equipment used for carving, cutting, drilling, surface grinding, planing, routing, sanding, sawing, shredding, or turning of wood, or the pressing or storing of sawdust, wood chips, or wood shavings
- equipment using aqueous solutions, whose content of volatile organic materials does not exceed 1 percent by volume, for the surface preparation, cleaning, stripping, or etching (not including chemical milling), or for the electrolytic plating, electrolytic polishing, or the electrolytic stripping, of the following base metals: brass, bronze, copper, iron, lead, nickel, tin, zinc, or precious metals
- laundry dryers, extractors, or tumblers used for fabrics cleaned only with water solutions of bleach or detergents
- equipment used exclusively to grind, blend, or package tea, cocoa, spices, or roasted coffee
- vacuum producing devices used in laboratory operations
- natural draft hoods, natural draft stacks, or natural draft ventilators where natural draft means the flow of gases is not augmented by mechanical means
- vacuum cleaning systems used exclusively for industrial, commercial, or residential housekeeping purposes

Appendix 1-3

Maximum Allowable Rates of Emission for Solid Particulate Matter Based on Process Weight Rate - Southern Zone

(Source: StBCAPCD Regulation III, Rule 307)

Process Weight Rate (lb/h)	Maximum Emission Rate (lb/h)	Process Weight Rate (lb/h)	Maximum Emission Rate (lb/h)
250 or less	1.00	12,000	10.4
300	1.12	14,000	10.8
350	1.23	16,000	11.2
400	1.34	18,000	11.5
450	1.44	20,000	11.8
500	1.54	25,000	12.4
600	1.73	30,000	13.0
700	1.90	35,000	13.5
800	2.07	40,000	13.9
900	2.22	45,000	14.3
1000	2.38	50,000	14.7
1200	2.66	60,000	15.3
1400	2.93	70,000	15.9
1600	3.19	80,000	16.4
1800	3.43	90,000	16.9
2000	3.66	100,000	17.3
2500	4.21	120,000	18.1
3000	4.72	140,000	18.8
3500	5.19	160,000	19.4
4000	5.64	180,000	19.9
4500	6.07	200,000	20.4
5000	6.49	250,000	21.6
5500	6.89	300,000	22.5
6000	7.27	350,000	23.4
6500	7.64	400,000	24.1
7000	8.00	450,000	24.8
7500	8.36	500,000	25.4
8000	8.70	600,000	26.6
8500	9.04	700,000	27.6
9000	9.36	800,000	28.4

(continued)

Appendix 1-3 (continued)

Process Weight Rate (lb/h)	Maximum Emission Rate (lb/h)	Process Weight Rate (lb/h)	Maximum Emission Rate (lb/h)
9500	9.68	900,000	29.3
10,000	10.00	1,000,000 or more	30.0

To use this table, proceed as follows:

- calculate the "Process Weight Rate", i.e., the process weight per hour, in lb/h
- find this figure in the appropriate column of the table
- opposite this figure, in the "Maximum Emission Rate" column, is the maximum number of pounds per hour of solid particulate matter, calculated as the aggregate discharged from all points of process, which may be discharged into the atmosphere for the given process weight rate.

Appendix 1-4

VOC Content Limits for Graphic Arts Operations

(Source: StBCAPCD Regulation III, Rule 354(D)(2)).

VOC Limits		
	g/L	lb/gal
Surface Preparation	450	3.75
Repair and Maintenance Cleaning	750	7.25
Coatings and Adhesives Application Equipment Cleaning	950	7.92
Radiation Curing Ink Removal Cleaning	800	6.65
Ink Application Equipment Cleaning:		
Printing	450	3.75
Other, not listed	200	1.67

Appendix 1-5

ROC Emission Limits for Aircraft or Aerospace Vehicle Surface Coatings

(Source: StBCAPCD Regulation III, Rule 337(C)(1))

Coating	ROC Emission Limit (less water and exempt solvents)	
	g/L of coating	lb/gal of coating
Adhesive Bonding Primer	250	2.1
Electric/Radiation Effect Coating	800	6.7
Extreme Performance Interior Topcoat	420	3.5
Fire Insulation Coating	600	5.0
Fuel Tank Coating	720	6.0
High Temperature Coating	720	6.0
Interior Topcoat	340	1.8
Maskant-Chemical Processing	600	5.0
Pretreatment Wash Primer	400	3.3
Primer	350	2.9
Rain Erosion Resistant Coating	600	5.0
Sealant	600	5.0
Sealant Bonding Primer	720	6.0
Self Priming Topcoat	420	3.5
Space vehicle coating		
Electrostatic-Discharge	800	6.7
Other	1000	8.3
Temporary Protective Coating	250	2.1
Topcoat	420	3.5
Wing Coating	750	6.3

Appendix 1-6

Allowable Limits of ROC in Various Architectural Coatings

(Source: StBCAPCD Regulation III, Rule 323, Table of Standards)

(NOTE: Architectural coatings manufactured prior to any ROC emission limit effective date falling on or after 1 September 1990 that do not meet the new ROC limit put into effect on that date, may be used without penalty for 3 yr after that effective date. Current ROC limits that came into effect on 1 September 1989 are [bracketed].)

Coating	ROC (g/L of coating, as applied, less water and exempt solvents, and excluding any colorant added to tint bases)		
	Effective 1 September 1990	Effective 1 September 1992	Effective 1 September 1994
Belowground Wood Preservatives	600	350	
Bond Breakers	350		
Clear Wood Finishes			
Lacquer	350		
Sanding Sealers	550	350	
Varnish	[350]		
Concrete Curing Compounds	[350]		
Dry Fog Coatings	400		
Fire Retardant Coatings			
Clear	650		
Pigmented	350		
Form-Release Compounds	250		
Graphic Arts (Sign) Coatings	500		
Industrial Maintenance Coatings	[420]	340	
Industrial Maintenance Anti-Graffiti Coatings	600	340	
High Temperature Industrial Maintenance Coatings	650	550	420
Magnesite Cement Coatings	600	450	
Mastic Texture Coatings	[300]		
Metallic Pigmented Coatings	500		
Multi-Color Coatings	580	420	
Opaque Stains	[350]		
Opaque Wood Preservatives	[350]		
Pre-Treatment Wash Primers	780		420

(continued)

Appendix 1-6 (continued)

Coating	ROC (g/L of coating, as applied, less water and exempt solvents, and excluding any colorant added to tint bases)		
	Effective 1 September 1990	**Effective 1 September 1992**	**Effective 1 September 1994**
Primers, Sealers and Undercoaters	[350]		
Quick Dry Enamels	250		
Quick Dry Primers, Sealers and Undercoaters	350		
Roof Coatings	[300]		
Semitransparent and Clear Wood Preservatives	[350]		
Semitransparent Stains	[350]		
Shellac			
Clear	730		
Pigmented	550		
Specialty Flats	250		
Swimming Pool Coatings	650		340
Repair and Maintenance Coatings	650		340 (1/9/97)
Traffic Paints			
Black Traffic Coatings	[250]		
Other Surfaces	[250]		
Public streets & Highways	[250]		
Waterproofing Sealers	[400]		

Appendix 1-7

ROC Content Limits for Surface Coatings Applied to Motor Vehicles and Mobile Equipment

(Source: StBCAPCD Regulation III, Rules 339(D)(1))

Part A.

For Group I motor vehicles, their exterior parts and components, or for Group II vehicles where color match is required:

Coating	ROC Limit (in g/L [lb/gal] as applied) (less water and exempt compounds)	
	Effective Dates	
	5 May 1992	1 January 1996
Pretreatment Wash Primers	780 [6.5]	780 [6.5]
Precoat	780 [6.5]	600 [5.0]
Primer/Primer Surfacer	340 [2.8]	250 [2.1]
Primer Sealer	420 [3.5]	420 [3.5]
Topcoat	600 [5.0]	420 [3.5]
Metallic/Iridescent Topcoat	600 [5.0]	520 [4.3]
Multi-Stage Topcoat System		540 [4.5]

Part B.

For Group II Motor vehicles and mobile equipment, their exterior parts and components, where color match is not required:

Coating	ROC Limit (in g/L [lb/gal] as applied) (less water and exempt compounds)	
	Effective Dates	
	5 May 1992	1 January 1996
Pretreatment Wash Primers	780 [6.5]	780 [6.5]
Precoat	780 [6.5]	600 [5.0]
Primer	340 [2.8]	250 [2.1]
Topcoat	420 [3.5]	340 [2.8]
Metallic/Iridescent Topcoat	420 [3.5]	420 [3.5]
Extreme Performance	750 [6.3]	420 [3.5]

(continued)

Appendix 1-7 (continued)

Coating	ROC Limit (in g/L [lb/gal] as applied) (less water and exempt compounds)	
	Effective Dates	
	5 May 1992	1 January 1996
Extreme Performance	750 [6.30]	420 [3.5]
Camouflage Coating	420 [3.5]	420 [3.5]

Appendix 1-8

ROC Limits for Wood Products Coatings

(Source: StBCAPCD Regulation III, Rule 351, Attachment 1)

	ROC Limits less water and exempt compounds					
	On and After 1/1/ 94		**On and After 7/1/ 97**		**On and After 7/1/99**	
	(g/L)	(lb/gal)	(g/L)	(lb/gal)	(g/L)	(lb/gal)
Clear Topcoats	700	5.8	550	4.6	275	2.3
Filler	500	4.2	500	4.2	275	2.3
High-Solid Stains						
Nonglaze	800	6.7	700	5.8	240	2.0
Glaze	700	5.8	700	5.8	240	2.0
Inks	500	4.2	500	4.2	500	4.2
Mold-Seal Coatings	750	6.3	750	6.3	750	6.3
Multi-Colored Coating	685	5.7	350	2.9	275	2.3
Pigmented Coating	700	5.8	350	2.9	275	2.3
Sealer	700	5.8	550	4.6	275	2.3
Low-Solids Stain, Toner, or Washcoat	800	6.7	480	4.0	120	1.0

Appendix 1-9

Operating Requirements for Various Types of Degreasers

(Source: StBCAPCD Regulation III, Rule 321(G))

Cold Cleaners:

- Drain cleaned parts until dripping ceases.

Remote Reservoir Cold Cleaners:

- The drainage tank cover of the remote reservoir is closed at all times except when the tank is being cleaned or repaired.
- The work area is not exposed to drafts greater than 40 m/min (131 ft/min).

Vapor Degreasers:

- Work loads do not occupy more than half of the degreaser's open top area, as measured with the cover removed.
- Solvent spraying is performed at least 10 cm (4 in.) below the top of the vapor layer.
- The vapor level does not drop more than 10 cm (4 in.) when the workload enters the vapor zone.
- If a lip exhaust is used, the exhaust is turned off when the degreaser is covered.
- To minimize solvent carry-out:
  1] Rack parts to facilitate drainage.
  2] Move parts in and out of the degreaser at less than 3.3 m/min (2.2 in./s).
  3] Degrease the work load in the vapor zone until condensation ceases.
  4] Allow parts to dry within the degreaser until visually dry.
  5] Tip out any pools of solvent on the cleaned parts before removal.
- If the unit is equipped with a refrigerated freeboard chiller and/or a primary condenser, the following procedures are followed:
  1] When starting up the degreaser, the cooling system is turned on before, or simultaneously with, the sump heater.
  2] When shutting down the degreaser, the sump heater is turned off before or simultaneously with the cooling system.
  3] The degreaser is covered whenever the primary condenser is off.
- Minimum cooling capacity for freeboard chillers is 100 Btu/h/ft of perimeter.
- Exhaust ventilation, including lip exhaust or fumehood if used, does not exceed 20 $m^3/min/m^2$ (65 cfm/ft^2) of degreaser open area, unless necessary to meet the Occupational Safety and Health Administration (OSHA) requirements.
- Ventilation fans are not used near the degreaser opening.

Conveyorized Solvent Degreasers:

- Minimize solvent carry-out by the following measures:
  1] Rack parts to allow complete drainage.
  2] Maintain vertical conveyor speed at less than 3.3 m/min (2.2 in./s).
- Exhaust ventilation does not exceed 20 $m^3/min/m^2$ (65 cfm/ft^2) of degreaser open area, unless necessary to meet OSHA requirements
- Ventilation fans are not used near the degreaser opening.
- A down-time cover is placed over entrances and exits of conveyorized degreasers immediately after the conveyor and exhaust are shut down and removed just before they are started up.

INSTALLATION:	COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT StBCAPCD - California Supplement	DATE:	REVIEWER(S):
STATUS NA C RMA	REVIEWER COMMENTS:		

SECTION 10

STORAGE TANK MANAGEMENT

Santa Barbara County Air Pollution Control District (StBCAPCD) - California Supplement

SECTION 10

STORAGE TANK MANAGEMENT

Santa Barbara County Air Pollution Control District (StBCAPCD)

California Supplement

This section covers the state requirements for Storage Tank Management and is intended to supplement the TEAM Guide. Refer to the TEAM Guide and the DOD Component Supplements for Federal, DOD, and service-specific requirements.

Definitions

- *bbl* - barrel, a unit of volume equal to 42 US gal (StBCAPCD Regulation III, Rule 343).
- *Bottom Loaded* - a gasoline delivery vessel is considered to be "bottom loaded" when all of the following conditions are satisfied (StBCAPCD Regulation III, Rule 316):
    1. the fuel transfer and vapor return lines have separate, independent, and dedicated attachments on the delivery vessel
    2. the inlet is flush with the bottom of the storage device
    3. the delivery vessel hatches remain closed during fuel transfer.
- *CARB-certified Vapor Recovery System* - a vapor recovery system that has been certified by the CARB pursuant to Section 41954 of the Health and Safety Code (StBCAPCD Regulation III, Rule 316).
- *Degassing* - the process of removing organic gases from a stationary tank, reservoir, or other container (StBCAPCD Regulation III, Rule 343).
- *Emission Control Equipment* - any machinery, apparatus, or device that is installed and used to reduce emissions of organic vapors from a tank vessel (StBCAPCD Regulation III, Rule 327).
- *Gasoline Bulk Plant* - an intermediate gasoline loading facility where delivery to the facility's storage containers and delivery from the facility is by truck (StBCAPCD Regulation III, Rule 316).
- *Gasoline Delivery Vessel* - a truck, trailer, or railroad car with a storage device containing gasoline, or gasoline vapors, used to transport fuel or other petroleum products (StBCAPCD Regulation III, Rule 316).
- *Gasoline Terminal* - a gasoline loading facility where delivery to the facility's storage containers is by means other than truck (StBCAPCD Regulation III, Rule 316).
- *Gasoline Vapors* - the reactive organic compounds (ROCs) in the displaced vapors including any entrained liquid gasoline (StBCAPCD Regulation III, Rule 316).
- *Leak Free* - a leak rate of 3 drops/min or less of a liquid containing ROCs (StBCAPCD Regulation III, Rule 316).

- *Liquid Balancing* - a process in which an organic liquid having a vapor pressure subject to this rule is replaced in a floating roof tank by a liquid with a vapor pressure that is not subject to this rule. This is done by removing as much liquid as possible without landing the roof on its internal supports, pumping in the replacement liquid, allowing mixing, removing as much mixture as possible without landing the roof, and repeating these steps until the vapor pressure of the mixture is not subject to this rule (StB-CAPCD Regulation III, Rule 343).

- *Liquid Displacement* - a process by which the headspace vapors that would be released to atmosphere (i.e. by opening the fixed roof tank after removal of the liquid contents) are reduced by at least 90 percent by weight through the use of a displacing liquid to push headspace vapors into control equipment, a make up gas to replace vapors during the emptying stroke, and prevention of the return of the displaced vapors into the tank. The displacing fluid may be produced water or a lower volatility liquid that absorbs vapors. The make up gas may be field gas or a non-ROC gas. The steps of the procedure shall be specified in the plan required to be submitted to the District listing aboveground tanks and control measures that will be adopted (StBCAPCD Regulation III, Rule 343).

- *Loading Event* - an incident or occurrence beginning with the connecting of marine terminal storage tanks to the tanks of a tank vessel by means of piping or hoses, the transferring of organic liquid cargo from the storage tanks into the tank vessel tanks, and ending with the disconnecting of the aforementioned piping or hoses (StBCAPCD Regulation III, Rule 327).

- *Marine Terminal* - any facility used in whole or part to load organic liquid cargo into a tank vessel (StB-CAPCD Regulation III, Rule 327).

- *Motor Vehicle Fueling Facility* - a facility where gasoline is transferred directly into the fuel tanks of motor vehicles (StBCAPCD Regulation III, Rule 316).

- *Organic Compound* - any compound containing at least one atom of carbon, except methane, carbon monoxide, carbon dioxide, carbonic acid, metallic carbides, and carbonates (StBCAPCD Regulation III, Rule 327).

- *Organic Liquid Cargo* - any liquid, including but not limited to crude oil, petroleum residuum, and petroleum distillates, comprised of organic compounds that is loaded into a tank vessel to be transported from one location to another (StBCAPCD Regulation III, Rule 327).

- *Organic Vapor* - any evaporated component or components of an organic liquid cargo (StBCAPCD Regulation III, Rule 327).

- *Phase I Vapor Recovery System* - a gasoline vapor recovery system or equipment that recovers the vapors generated during the transfer of gasoline from gasoline delivery vessels into gasoline storage containers (StBCAPCD Regulation III, Rule 316).

- *Phase II Vapor Recovery System* - a gasoline vapor recovery system or equipment that recovers the vapors generated during the fueling of motor vehicles from gasoline storage containers (StBCAPCD Regulation III, Rule 316).

- *Reactive Organic Compound (ROC)* - any volatile compound containing carbon except (StBCAPCD Regulation I, Rule 102):
    1. methane
    2. CO

3. CO_2
4. carbonic acid
5. metallic carbides or carbonates
6. ammonium carbonates
7. halogenated hydrocarbons
8. dichlorotrifluoroethane (HCFC-123)
9. tetrafluoroethane (HCFC-134a)
10. dichlorofluoroethane (HCFC-141b)
11. chlorodifluoroethane (HCFC-142b).

- *Submerged Fill Pipe* - any fill pipe or discharge nozzle, the discharge opening of which meets any one of the following conditions (StBCAPCD Regulation III, Rule 316):
    1. for a storage container that is filled from the top, the discharge opening must be entirely submerged when the liquid level is 6 in. [15.24 cm] above the bottom of the container
    2. for a storage container that is filled from the side, the discharge opening must be entirely submerged when the liquid level is 18 in. [45.72 cm] above the bottom of the container.

- *Switch Loading* - the loading of organic liquids with a Reid vapor pressure of less than 4.0 lb [approximately 1.81 kg] into a delivery vessel where the previous load was gasoline (StBCAPCD Regulation III, Rule 316).

- *Tank Vessel* - any vessel with a capacity to transport more than 250 barrels [10500 gal] [approximately 39,746.82 L] per trip of organic liquid cargo in tanks (StBCAPCD Regulation III, Rule 327).

- *Underground Storage Tank* - any one or combination of tanks, including pipes connected thereto, which is totally beneath the surface of the ground. Underground tanks do not include those specified as exemptions in California Health and Safety Code Section 25281(x) (StBCAPCD Regulation III, Rule 343).

STORAGE TANK MANAGEMENT

GUIDANCE FOR StBCAPCD CHECKLIST USERS

	REFER TO CHECKLIST ITEMS:	REFER TO PAGE NUMBERS:
Emissions From Bulk Gasoline Terminals	ST.10.1.CA.SB.	10-7
Emissions From POL Storage Vessels		
General	ST.15.1.CA.SB. and ST.15.1.2.CA.SB.	10-9
Degassing	ST.15.3.CA.SB. through ST.15.6.CA.SB.	10-9
Transferring Gasoline	ST.15.7.CA.SB. through ST.15.10.CA.SB.	10-12
Vapor Recovery System	ST.15.11.CA.SB.	10-13
Emissions From VOL Storage Vessels		
General	ST.20.1.CA.SB. and ST.20.2.CA.SB.	10-15
Closure Requirements	ST.20.3.CA.SB. through ST.20.5.CA.SB.	10-17
Inspection/Reporting/Recordkeeping	ST.20.6.CA.SB. through ST.20.8.CA.SB.	10-21
Loading	ST.20.9.CA.SB.	10-22

GUIDANCE FOR APPENDIX USERS

REFER TO APPENDIX NUMBERS:	REFER TO APPENDIX TITLES:	REFER TO PAGE NUMBERS:
10-1	Vapor Loss Control Devices	10-25
10-2	Maximum Allowable Storage Temperatures Versus Vapor Pressure	10-27

COMPLIANCE CATEGORY: STORAGE TANK MANAGEMENT Santa Barbara County Air Pollution Control District (StBCAPCD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
ST.10. **EMISSIONS FROM BULK GASOLINE TERMINALS**	
ST.10.1.CA.SB. Installations operating gasoline bulk plants must meet specific requirements (StBCAPCD Regulation III, Rule 316(E) and (F)(2)).	Verify that CARB-certified vapor recovery systems that limit the reactive organic compound (ROC) emissions to 0.50 lb/1000 gal [approximately 0.23 kg/3785.41 L] of gasoline loaded, are used for all transfers into delivery vessels, including switch loading. Verify that gasoline loading operations are conducted in such a way that displaced gasoline vapors are vented only to the vapor recovery system. Verify that the loading devices are leak free when not in use. Verify that drainage is complete before the loading device is disconnected after each transfer operation. Verify that all gasoline delivery vessels loaded at terminals or bulk plants, equipped with CARB-certified vapor recovery systems, are certified annually by the CARB.

COMPLIANCE CATEGORY: STORAGE TANK MANAGEMENT Santa Barbara County Air Pollution Control District (StBCAPCD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
ST.15. **EMISSIONS FROM POL STORAGE VESSELS** **General**	
ST.15.1.CA.SB. Aboveground gasoline storage containers must meet specific standards (StBCAPCD Regulation III, Rules 316(C)(5) and (6)).	Verify that each storage container with 250 gal [approximately 946.35 L] or more, but less than 40,000 gal [151,416.48 L], capacity is equipped with a pressure-vacuum relief valve with minimum pressure and vacuum settings of 90 percent of maximum safe pressure and vacuum ratings of the container. Verify that each storage container with a capacity of 40,000 gal [151,416.48 L] or more is equipped with one of the following vapor loss control devices: - floating roof - fixed roof with an internal-floating type cover - vapor recovery system - other equipment with a vapor loss control efficiency of 95 percent.
ST.15.2.CA.SB. Installations must not store gasoline with a true vapor pressure of 11.0 psia or greater in specific containers (StBCAPCD Regulation III, Rule 316(C)(7)).	Verify that the storage container is not equipped with any of the following: - an internal floating roof - an internal floating roof cover - an external floating roof.
Degassing	
ST.15.3.CA.SB. Certain aboveground and underground storage tanks must comply with specific emission requirements when degassing (StBCAPCD Regulation III, Rule 343(A), (B), and (D)).	Determine whether the installation has any of the following POL storage facilities: - either of the following aboveground stationary tanks, reservoir, or other containers at oilfields and pipeline stations: - has more than 40,000 gal (952 bbl) capacity and contains any organic liquid having a vapor liquid with a vapor pressure of more than 2.6 psia - has between 20,000 gal (476 bbl) and 40,000 gal (952 bbl) capacity and stores any organic liquid with a vapor pressure of 3.9 psia or greater - underground tanks with a capacity greater than 500 gal storing liquids with a vapor pressure greater than 3.9 psia. (NOTE: Vessels rated and operated to contain normal working pressure of at least 15 psig without vapor loss to the atmosphere and fixed roof tanks without vapor recovery are exempt from these requirements.) **ST.15.3.CA.SB. Continued on Next Page**

COMPLIANCE CATEGORY: STORAGE TANK MANAGEMENT Santa Barbara County Air Pollution Control District (StBCAPCD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
ST.15.3.CA.SB. (continued)	Verify that degassing is not performed, unless emissions are controlled by one of the following methods used in a manner that results in an emission control device efficiency of at least 90 percent: - for floating roof tanks, liquid balancing which results in a vapor pressure less than 2.6 psia for tanks with greater than 40,000 gal (952 bbl) capacity and 3.9 psia for tanks of between 20,000 gal (476 bbl) and 40,000 gal (952 bbl) - for fixed roof tanks, liquid displacement by venting to control equipment until 90 percent of the vapor volume is displaced into the control equipment by an equal volume of the liquid - negative pressure displacement and subsequent incineration in a manner approved by the Control Officer - a refrigerated condenser which reduces vapor temperature to minus 100 ºF or lower, and is capable of handling the displaced vapors - any other control method or control equipment that is at least 90 percent efficient in reducing ROC emissions in a manner approved by the Control Officer. Verify that degassing of a subject underground container is not performed, unless the ROC emissions are controlled by a refrigerated condenser operated at minus 100 ºF or a device that is at least 90 percent efficient.
ST.15.4.CA.SB. Installations conducting storage tank degassing must follow specific operating requirements (StBCAPCD Regulation III, Rule 343)(E)(1) through (5).	Verify that spent carbon is not regenerated from a carbon absorber, unless the regeneration is done using equipment with either a valid permit to operate or a valid permit as a Transportable Treatment Unit from the California Department of Toxic Substances Control. Verify that degassing of any container is done in one of the following ways: - air displacement - displaced gas is vented to the refrigerated vapor condenser, or equivalent control system, for a length of time determined by the following relationship: $$t = \frac{2.3\ V}{Q}$$ Where: t = time (hours) V = the physical volume of the headspace (cubic feet) Q = flow rate through condenser (cubic feet per hour) - liquid displacement for fixed roof tanks - the tank remains vented to control equipment until 90 percent of the vapor volume is displace into the control equipment by an equal volume of the liquid. **ST.15.4.CA.SB. Continued on Next Page**

COMPLIANCE CATEGORY: STORAGE TANK MANAGEMENT Santa Barbara County Air Pollution Control District (StBCAPCD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
	Verify that, for emergency cases, the Control Officer is notified in writing at least 2 weeks prior to the start of the emptying operation for degassing any aboveground tank subject to these requirements. Verify that any condensed liquid is handled or disposed of in a manner previously approved in writing by the Control Officer. Verify that vapor pressure of tank contents is determined in accordance with the requirements for determining vapor pressure.
ST.15.5.CA.SB. Installations conducting storage tank degassing must meet specific monitoring and recordkeeping requirements (StB-CAPCD Regulation III, Rule 343(F)).	Verify that, when refrigeration is used, both of the following steps are taken: - the tank operator monitors condenser temperature and flow rate into the condenser at 15 min intervals - the date, time, duration of, and corrective response to any interruption of service to the equipment is documented. Verify that, when carbon adsorption is used, the following steps are taken: - a monitor, approved by the Control Officer, is installed and operated at the vent to determine the concentration of hydrocarbon discharged to the atmosphere - the operator records at hourly intervals the concentration at the vent and for each occurrence of breakthrough, the date, time, duration, and corrective action taken. Verify that the vapor pressure of the contents of all tanks are recorded annually. Verify that, within 1 week of any degassing operation, the operator records the following information and includes it with records of any documentation generated from monitoring the degassing process: - date of degassing - tanks degassed - emission reduction method used. Verify that all required records are maintained in a readily accessible location for at least 5 yr and copies are available to the Control Officer upon oral or written request.
ST.15.6.CA.SB. Installations conducting storage tank degassing must meet specific reporting requirements (StB-CAPCD Regulation III, Rule 343(G)).	Verify that the installation submits to the District, for approval, a plan consisting of the list of aboveground tanks with respective volumes and vapor pressures of liquid stored and control measure(s) that will be adopted to comply with these requirements.

COMPLIANCE CATEGORY: STORAGE TANK MANAGEMENT Santa Barbara County Air Pollution Control District (StBCAPCD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
Transferring Gasoline	
ST.15.7.CA.SB. Installations must meet specific requirements when transferring gasoline (StBCAPCD Regulation III, Rules 316(C)(1) and (2), Rules 316(I)(3) and (6), and Rules 316(J)(6)).	Determine if the installation is involved in transferring, permitting the transfer, or providing equipment for the transfer of gasoline. Verify that the installation uses all of the following equipment when it transfers gasoline into any gasoline storage container with a capacity of 250 gal [approximately 946.35 L] or more: - a permanently installed submerged fill pipe on the storage container - a permanently installed CARB-certified Phase I vapor recovery system on the delivery vessel. (NOTE: The Phase I vapor recovery system requirement does not apply to existing aboveground tanks at motor vehicle fueling facilities if all of the following requirements are met: - throughput is not greater than 5000 gal/mo [18,927.06 L/mo] or 50,000 gal/yr [189,270.6 L/yr] - less than 1 yr has passed since a Phase I or Phase II system of the balance type has been certified by the CARB - monthly records of storage container throughput are maintained for 2 yr after the end of each calendar year. This exemption expires 1 yr after a vapor return system for the tank is certified.)
ST.15.8.CA.SB. Installations transferring gasoline from a storage container with a capacity of 250 gal [approximately 946.35L] or more into a motor vehicle fuel tank with a capacity of more than 5 gal [approximately 18.93 L] must meet specific equipment requirements (StBCAPCD Regulation III, Rule 316(C)(3) and (4), (I)(4), and (J)(5) and (6)).	Verify that the installation uses all of the following equipment for such transfers: - a permanently installed CARB-certified Phase II vapor recovery system - a gasoline dispensing nozzle that is equipped with a hold-open latch, except where prohibited by local, state, or Federal regulations. (NOTE: Mobile vehicle fueling facilities are exempt from the CARB-certified Phase II vapor recovery system requirement if any of the following conditions are met: - the facilities were purchased, or contracted to be purchased, prior to 19 February 1990, and less than 1 yr has passed since a Phase II system for mobile fueling facilities has been certified by the CARB - the facilities are used to fuel vehicles responding to a local emergencies - existing aboveground tanks at motor vehicle fueling facilities if all of the following requirements are met: - throughput is not greater than 5000 gal/mo [18,927.06 L/mo] or 50,000 gal/yr [189,270.6 L/yr] - less than 1 yr has passed since a Phase II system of the balance type has been certified by the CARB - monthly records of storage container throughput are maintained for 2 yr after the end of each calendar year. This exemption expires 1 yr after a vapor return system for the fueling facility is certified.)

COMPLIANCE CATEGORY: STORAGE TANK MANAGEMENT Santa Barbara County Air Pollution Control District (StBCAPCD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
ST.15.9.CA.SB. Installations operating gasoline terminals must meet specific requirements (StBCAPCD Regulation III, Rule 316(D)).	Verify that CARB-certified vapor recovery systems, which limit ROC emissions to 0.08 lb/1000 gal [approximately 0.04 kg/3785.41 L] of gasoline loaded, are used for all transfers into delivery vessels, including switch loading. Verify that gasoline loading operations are conducted in such a way that displaced gasoline vapors are vented only to the vapor recovery system. Verify that the loading devices are leak free when not in use. Verify that drainage is complete before the loading device is disconnected after each transfer. Verify that all gasoline delivery vessels are bottom loaded.
ST.15.10.CA.SB. Installations operating gasoline delivery vessels must meet specific requirements (StBCAPCD Regulation III, Rule 316(F)).	Verify that all gasoline delivery vessels manufactured and purchased after 27 June 1977 are equipped with a CARB-approved vapor recovery system that has been tested for vapor tightness. Verify that all gasoline delivery vessels loaded at terminals, equipped with CARB-certified vapor recovery systems, are certified annually by the CARB. Verify that all gasoline delivery vessels, used to fill storage containers of 250 gal [approximately 946.35 L] or more capacity, are certified annually by the CARB. Verify that all gasoline delivery vessels are filled using submerged fill pipes or bottom loading.
Vapor Recovery Systems **ST.15.11.CA.SB.** Installations must maintain and operate vapor recovery systems and equipment in compliance with specific requirements (StBCAPCD Regulation III, Rule 316(G)).	Verify that all required vapor recovery systems and equipment are maintained and operated as specified by the CARB. Verify that all vapor recovery equipment is maintained in good working order and is leak free and vapor tight, except for the connection between the Phase II nozzle faceplate and the motor vehicle fill pipe during vehicle refueling. Verify that all vapor recovery systems are maintained and operated so that the gauge pressure in a delivery vessel does not exceed 18 in. [45.72 cm] of water column or 6 in. [15.24 cm] of water vacuum. Verify that defective Phase II systems or components are not used until repaired, replaced, or adjusted to remove the defect, and inspected by the District, when necessary.

COMPLIANCE CATEGORY: STORAGE TANK MANAGEMENT Santa Barbara County Air Pollution Control District (StBCAPCD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
ST.20. **EMISSIONS FROM VOL STORAGE VESSELS** **General** **ST.20.1.CA.SB.** Installations storing ROC liquids with a vapor pressure greater than 0.5 psia must follow specific emission reduction and control requirements (StBCAPCD Regulation III, Rule 326(B)(1) through (4), (B)(6), and (D)).	(NOTE: The storage of ROC liquids in the following tanks and vessels is exempt from these requirements: - any storage tank with a capacity of less than or equal to 5000 gal [18,927.06 L] - any storage tank containing an ROC liquid with a vapor pressure less than 0.5 psia, if records demonstrating compliance are kept - crude oil storage tanks - gasoline storage tanks with equal to or less than 40,000 gal [151,416.48 L] capacity subject to storage and transfer of gasoline requirements - any valves, fittings, pumps, compressors, hatches, sight glasses, meters, pressure relief devices, and diaphragms subject to inspection and maintenance for fugitive emissions. Specific requirements for vapor loss control devices, closure devices, external floating roofs, and internal floating roofs do not apply to the following tanks: - out-of-service or empty storage tanks when undergoing cleaning, stock change, tank and roof repairs, or removal of contaminated stock, provided: - tank degassing requirements are met - the following steps are taken: - at least 72 h prior to such work being done, written notice is received by the Air Pollution Control Officer (APCO) - the tank is in compliance with these rules prior to notification - for floating roof tanks, when the roof is resting on the leg supports, filling, emptying, and refilling is continuous and done as rapidly as possible - emissions are minimized during filling, emptying, and refilling - vapor recovery is used on tanks so equipped during filling or flushing and emptying prior to opening for cleanout - the District is notified when the tank is returned to service - in-service floating roof tanks undergoing preventive maintenance, provided: - at least 72 h prior to such work, written notice is received by the APCO - the tank is in compliance with these rules prior to notification - product moves neither in nor out of the storage tank and emissions are minimized - if an Authority to Construct (ATC) is required, then one is obtained prior to beginning the work - the time of exemption does not exceed 72 h.) **ST.20.1.CA.SB. Continued on Next Page**

COMPLIANCE CATEGORY: STORAGE TANK MANAGEMENT Santa Barbara County Air Pollution Control District (StBCAPCD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
ST.20.1.CA.SB. (continued)	Verify that ROC liquids are not stored in any storage tank with a capacity of less than, or equal to 40,000 gal [151,416.48 L], unless the tank is equipped with at least one of the following: - a submerged fill pipe - one of the vapor control devices found in Appendix 10-1. Verify that ROC liquids with a vapor pressure equal to or greater than 1.5 psia are not stored in any aboveground storage tank with a capacity equal to or greater than 10,000 gal [37,854.12 L] and less than 20,000 [75,708.24 L] gal, unless equipped with one of the following: - a properly installed pressure-vacuum relief valve with verifiable pressure and vacuum settings in accordance with appropriate recommendations of the American Petroleum Institute (API); the valve is properly maintained and in good working order - one of the vapor control devices found in Appendix 10-1. Verify that ROC liquids with a vapor pressure equal to or greater than 1.5 psia are not stored in any storage tank with a capacity of 20,000 gal [75,708.24 L] or greater, but less than 40,000 gal [151,416.48 L], without using one of the vapor control devices found in Appendix 10-1. Verify that ROC liquids with a vapor pressure equal to or greater than 0.5 psia are not stored in any storage tanks with a capacity equal to or greater than 40,000 gal [151,416.48 L] without using one of the vapor control devices found in Appendix 10-1. (NOTE: These last two requirements for vapor control devices do not apply to emergency standby tanks when the tank is drained of ROC liquids or when a breakdown occurs to the primary tank and applicable breakdown requirements are met.) Verify that organic liquids with a vapor pressure greater than 11 psia are not stored in any tank, unless it is either: - a pressure vessel - designed and equipped with a vapor recovery system or other vapor loss control device as outlined in Appendix 10-1. Verify that an external floating roof tank or an internal floating roof tank is not used to store organic liquids with a vapor pressure of 11 psia or greater.

COMPLIANCE CATEGORY: STORAGE TANK MANAGEMENT Santa Barbara County Air Pollution Control District (StBCAPCD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
ST.20.2.CA.SB. Vapor recovery systems must meet specific standards (StB-CAPCD Regulation III, Rule 326(E)(3)).	(NOTE: In-service tanks undergoing preventive maintenance are exempt from these requirements for vapor recovery systems, provided: - at least 72 h prior to such work, written notice is received by the APCO - the tank is in compliance with these rules prior to notification - the District is notified when preventive maintenance work is completed - emissions are minimized during maintenance operations - the time of exemption does not exceed 24 h.) Verify that any tank gauging or sampling device on a tank vented to the vapor recovery system is equipped with a leak-free cover which is closed at all times except during gauging or sampling. Verify that all piping, valves, and fittings are designed and constructed to operate in a leak-free condition, and are maintained and operated in a leak-free condition so as to minimize the release of ROC vapors. Verify that, where a tank is equipped with both an operational vapor recovery system and an internal floating roof, the installation meets these vapor recovery requirements rather than the general requirements for closure devices, internal floating roof requirements, or recording requirements for gap measurements.
Closure Requirements **ST.20.3.CA.SB.** Closure devices on any external or internal floating roof tank holding ROC liquids with a vapor pressure greater than 0.5 psia must meet specific criteria (StBCAPCD Regulation III, Rule 326(F)).	Verify that secondary seals extend from the roof to the tank shell, are not attached to primary seals, and are not shoe-mounted. Verify that all openings in the roof, except pressure vacuum valves and automatic bleeder vents, provide a projection at least 2 in. below the liquid surface to prevent belching of liquid and to reduce escaping vapors. Verify that all openings and fittings are covered and have gaskets at all times with no visible gap, except when in use. Verify that, for inaccessible openings on internal floating roof tanks, there are no visible gaps as viewed from the fixed roof manway, except when the opening is in use. Verify that pressure-vacuum valves meet the following requirements: - set in accordance with appropriate recommendations of the API - properly installed, properly maintained, and in good operating order - remain in a leak-free condition, except when operating pressure exceeds the valve set pressure. **ST.20.3.CA.SB. Continued on Next Page**

COMPLIANCE CATEGORY: STORAGE TANK MANAGEMENT Santa Barbara County Air Pollution Control District (StBCAPCD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
ST.20.3.CA.SB. (continued)	Verify that solid sampling or gauging wells, and similar fixed projections through a floating roof, meet the following conditions: - the well provides a projection at least 2 in. below the liquid surface - the well is equipped with a cover, seal, or lid, which is, at all times, in a closed position with no gap exceeding 1/8 in., except when the well is in use - the gap between the well and the roof is added to the gaps measured to determine compliance of the secondary seal and in no case exceeds 1/2 in. Verify that slotted sampling or gauging wells meet the following conditions: - the well provides a projection at least 2 in. below the liquid - the well has an internal float designed to minimize the gap between the float and the well, provided the gap in no case exceeds 1/2 in. Verify that any emergency roof drain draining back to the stored liquid is provided with a slotted membrane fabric cover, or equivalent, that covers at least 90 percent of the area of the opening. Verify that any metallic shoe-type seal for which an ATC was granted on or after 4 October 1989 meets the following conditions: - one end of the shoe extends at least 2 in. into the stored liquid and the other end extends a minimum vertical distance of 24 in. above the liquid surface - the gap between the shoe and tank wall does not exceed 3 in. for a welded tank or 5 in. for a riveted tank at any point from the liquid surface to 18 in. above it. Verify that any external or internal floating roof for which an ATC was granted on or after 4 October 1989 has at least four ninety degree radial vapor barriers to minimize wind effects. (NOTE: An alternative device may be approved in writing by the APCO provided such device is demonstrated to be equivalent in minimizing wind effects.)

COMPLIANCE CATEGORY: STORAGE TANK MANAGEMENT Santa Barbara County Air Pollution Control District (StBCAPCD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
ST.20.4.CA.SB. External floating roofs holding ROC liquids with a vapor pressure greater than 0.5 psia must meet specific additional closure requirements (StB-CAPCD Regulation III, Rule 326(G)(1) through (5)).	Verify that there are no holes or tears in, or openings in, the seal or seal fabric which allow the emission of ROC vapors through the secondary seal or in the primary seal envelope surrounding the annular vapor space enclosed by the roof edge, seal fabric, and secondary seal. Verify that welded tanks with primary metallic shoe seals meet the following criteria: - the cumulative length of all gaps between the primary seal and the tank exceeding 1/2 in. are not more than 10 percent, and exceeding 1/8 in. are not more than 40 percent of the tank circumference - no gap between the tank shell and the primary seal exceeds 1 1/2 in. - no continuous gap greater than 1/8 in. exceeds 10 percent of the circumference of the tank - the cumulative length of all gaps between the secondary seal and the tank shell exceeding 1/8 in. is not more than 5 percent of the tank circumference - no gap between the tank shell and the secondary seal exceeds 1/2 in. - the secondary seal allows easy insertion of probes up to 1 1/2 in. in width in order to measure gaps in the primary seal. Verify that tanks with primary resilient-toroid seals meet the following criteria: - the cumulative length of all gaps between the tank shell and the primary or secondary seal exceeding 1/8 in. is not more than 5 percent of the circumference of the tank - no gap between the tank shell and the primary or secondary seal exceeds 1/2 in. - the secondary seal allows easy insertion of probes up to 1/2 in. in width in order to measure gaps in the primary seal - the primary resilient toroid seal is liquid-mounted. Verify that riveted tanks with primary metallic shoe seals meet the following criteria: - gaps between the tank shell and the primary seal do not exceed 2 1/2 in. - the cumulative length of all primary seal gaps exceeding 1 1/2 in. is not more than 10 percent of the circumference of the tank - the secondary seal consists of at least two sealing surfaces, such that the sealing surfaces prevent the emission of ROCs around the rivets (serrated sealing surfaces are allowable if the length of serration does not exceed 1/2 in.) - no gap between the tank shell and the secondary seal exceeds 1/2 in. - the cumulative length of all secondary seal gaps exceeding 1/8 in. is not more than 5 percent of the circumference - the secondary seal allows easy insertion of probes up to 1 1/2 in. in width in order to measure gaps in the primary seal. **ST.20.4.CA.SB. Continued on Next Page**

COMPLIANCE CATEGORY: STORAGE TANK MANAGEMENT Santa Barbara County Air Pollution Control District (StBCAPCD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
ST.20.4.CA.SB. (continued)	Verify that any secondary seal where installation or retrofit on a welded tank, for which an ATC was granted on or after 4 October 1989, is a zero gap secondary seal. (NOTE: A secondary seal is considered to be retrofitted if at least a cumulative 50 percent of the circumference of the seal is replaced on or after 4 October 1989.) Verify that a zero gap secondary seal meets the following conditions: - no gap between the tank shell and the primary seal exceeds 1 1/2 in. - no continuous gap in the primary seal greater than 1/8 in. exceeds 10 percent of the circumference of the tank - the cumulative length of all primary seal gaps exceeding 1/2 in. is not more than 10 percent of the circumference and the cumulative length of all primary seal gaps exceeding 1/8 in. is not more than 40 percent of the circumference - there is no visible or measurable gap between the tank shell and secondary seal, excluding gaps less than 2 in. from vertical weld seams.
ST.20.5.CA.SB. Internal floating roof tanks holding ROC liquids with a vapor pressure greater than 0.5 psia must meet specific additional closure requirements (StB-CAPCD Regulation III, Rule 326(H)).	Verify that, for any fixed roof tank with a new or replaced internal floating type cover for which an ATC was granted on or after 4 October 1989, the closure device consists of one of the following: - a liquid mounted primary seal only, mounted in full contact with liquid in the annular space between the tank shell and floating roof - two seals with one above the other; the one below is referred to as the primary seal and the one above is referred to as the secondary seal. Verify that there are no holes or tears in, or other openings, which allow the emission of ROC vapors through the primary or secondary seals. Verify that any fixed roof tank using an external floating-type cover meets the following inspection requirements: - the internal floating-type cover is made available for inspection each time the tank is emptied and gas freed; the APCO is notified at least 72 h in advance of each gas freeing - visual inspection through manholes or roof hatches on the fixed roof are made available on an annual basis, provided such an inspection can be conducted safely.

COMPLIANCE CATEGORY: STORAGE TANK MANAGEMENT Santa Barbara County Air Pollution Control District (StBCAPCD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
Inspection/Reporting/ Recordkeeping	
ST.20.6.CA.SB. Storage tanks holding ROC liquids with a vapor pressure greater than 0.5 psia must meet specific inspection and reporting requirements (StBCAPCD Regulation III, Rule 326(I)).	Verify that actual gap measurements on primary seals are recorded upon installation or replacement, or prior to installation of secondary seals, and at least once every 5 yr thereafter. Verify that actual gap measurements on secondary seals are recorded on an annual basis, unless the seal is a zero gap seal, in which case gap measurements are recorded at least once every 10 yr. Verify that results of each inspection are reported to the APCO within 30 calendar days after the inspection date. Verify that any installation with storage tanks subject to these requirements submit the following information to the APCO for each such tank: - location of the storage tank and Permit to Operate number for the tank - product and vapor pressure of the product typically stored - current compliance status of the storage tank with respect to these requirements - for storage tanks with external floating roofs or internal floating roofs, the type of tank (welded or riveted) and the type of roof seals (primary and secondary).
ST.20.7.CA.SB. External floating roof tanks holding ROC liquids with a vapor pressure greater than 0.5 psia must meet specific seal inspection requirements (StBCAPCD Regulation III, Rule 326(G)(6) and (7)).	Verify that the primary seal envelope is made available for unobstructed inspection by the APCO on an annual basis. (NOTE: The APCO randomly selects a minimum of four locations along the tank's circumference for inspection. In the case of riveted tanks with toroid-type seals, at least eight such locations are selected. If any violations are suspected, the APCO may require further unobstructed inspection.) Verify that, for tanks with secondary seals, the primary seal envelope is made available for unobstructed inspection by the APCO for the full circumference at the following times: - prior to installation of the secondary seal - at least every 5 yr, or every 10 yr if the seal is a zero gap secondary seal installed pursuant to the requirements in this section - if the secondary seal is voluntarily removed by the owner or operator, it is made available for inspection at that time; the installation provides notification to the APCO no less than 72 h prior to voluntary removal of the secondary seal.

COMPLIANCE CATEGORY: STORAGE TANK MANAGEMENT Santa Barbara County Air Pollution Control District (StBCAPCD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
ST.20.8.CA.SB. Installations with storage tanks holding ROC liquids with a vapor pressure greater than 0.5 psia must meet specific recordkeeping requirements (StBCAPCD Regulation III, Rule 326(J)).	Verify that the following records are maintained for at least 5 yr from the date of entry and are available to the APCO upon request: - type of liquid stored in each tank - vapor pressure ranges if records immediately available do not establish that the liquid is listed in Appendix 10-2 and is kept below the acceptable temperature - required inspection reports containing, minimally, the following information: - date of inspection and initials of inspector - actual gap measurements between tank shell and seals - data, supported by calculations as necessary, to demonstrate compliance - any corrective actions or repairs taken to comply with these requirements and the date these actions were taken - maintenance records where excess emissions occur during exempt operations, containing, minimally, the following: - permit number, tank identification, type of vapor controls, and initials of personnel performing maintenance - description of specific maintenance procedure performed - estimate of excess emissions caused by maintenance procedure and how determined - start and finish times and dates of maintenance procedures - breakdown records where excess emissions occur during use of emergency standby tanks containing, minimally, date, time, and duration of breakdown and calculation of excess emissions resulting from the breakdown.
Loading	
ST.20.9.CA.SB. Installations that load organic liquid cargo into a tank vessel with a capacity of more than 250 barrels [10500 gal] {[39,746.82 L], from any marine terminal, must meet specific requirements (StBCAPCD Regulation III, Rule 327).	Verify that the installation has obtained a permit to operate, and has met the applicable requirements of the Air Emissions Management permits section. Verify that the weight of organic vapors emitted from the tank vessel during loading is reduced by 95 percent, but not to less than 0.073 lb [33.11 g], organic vapor/1000 gal [approximately 3785.41 L] loaded. Verify that the installation keeps records of each loading event, both at the marine terminal and onboard the vessel, including, but not limited to, the following information: - the dates of loading events - names of vessels loaded or location of marine terminal where loading occurred - type and amount of organic liquid cargo loaded - in the event the vessel uses shore-based emission control equipment, a sworn written document, signed by both the vessel operator and terminal operator, declaring that their respective portions of the required emission control equipment were operating correctly during the loading event. **ST.20.9.CA.SB. Continued on Next Page**

COMPLIANCE CATEGORY: STORAGE TANK MANAGEMENT Santa Barbara County Air Pollution Control District (StBCAPCD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
ST.20.9.CA.SB. (continued)	(NOTE: Nothing in these requirements is to be construed to require any act or omission that would be in violation of any regulation or other requirement of the US Coast Guard, or to prevent any act or omission that is necessary to secure the safety of a vessel.)

Appendix 10-1

Vapor Loss Control Devices

(Source: StBCAPCD Regulation III, Rule 326(E))

- External Floating Roof - a floating roof consisting of a pontoon-type or double-deck-type cover that rests on the surface of the liquid contents and is properly installed, properly maintained, and in good operating order.

- Internal Floating Roof - a fixed roof tank with an internal-floating-type cover consisting of a pan, pontoon, or double-deck that rests on the liquid surface and is properly installed, properly maintained, and in good operating order.

- Vapor Recovery System - a leak-free vapor recovery system, consisting of a system capable of collecting all ROC vapors and gases, and one of the following: a vapor return system handling natural gas for fuel, sale, or underground injection or a disposal system capable of processing such vapors and gases so as to prevent their emission to the atmosphere at a vapor removal efficiency of at least 95 percent by weight.

- Other Vapor Loss Control Device - any other equipment with a vapor removal efficiency of at least 95 percent by weight of ROC vapors, provided:
  - said equipment consists of an enclosure or intake designed to collect and deliver all emissions and a control device to remove ROCs from the delivered emissions, and
  - an application for installation of such equipment and a testing protocol to show 95 percent vapor removal efficiency are submitted to and approved by the APCO, CARB, and USEPA.

Appendix 10-2

Maximum Allowable Storage Temperatures Versus Vapor Pressure

(Source: StBCAPCD Regulation III, Rule 326, Attachment A)

Organic Liquids/ Compounds	Maximum Temperature ºF Not to Exceed	
	0.5 psia	1.5 psia
Middle Distillates		
Kerosene	195	250
Diesel	230	290
Gas Oil	249	310
Stove Oil	275	340
Jet Fuels		
JP-1	165	230
JP-3		25
JP-4	20	68
JP-5	205	260
JP-7	205	260
JP-8	167	222
Fuel Oil		
No. 1	195	250
No. 2	230	290
No. 3	249	310
No. 4	275	340
No. 5	380	465
Residual	405	
No. 6	450	
Asphalts		
60-100 pen.	490	550
120-150 pen.	450	500
200-300 pen.	360	420
Acetone		35

(continued)

Appendix 10-2 (continued)

Organic Liquids/ Compounds	Maximum Temperature ºF Not to Exceed	
	0.5 psia	1.5 psia
Acrylonitrile	30	62
Benzene	34	70
Carbon Disulfide		10
Carbon Tetrachloride	20	63
Chloroform		40
Cyclohexane	30	65
1,2 Dichloroethane	35	75
Ethyl Acetate	38	70
Ethyl Alcohol	55	85
Isopropyl Alcohol	62	95
Methyl Alcohol	30	62
Methyl Ethyl Ketone	30	70
Toluene	75	120
Vinylacetate	30	65

INSTALLATION:	COMPLIANCE CATEGORY: STORAGE TANK MANAGEMENT StBCAPCD - California Supplement	DATE:	REVIEWER(S):
STATUS NA C RMA	REVIEWER COMMENTS:		

SECTION 1

AIR EMISSIONS MANAGEMENT

South Coast Air Quality Management District (SCAQMD) - California Supplement

SECTION 1

AIR EMISSIONS MANAGEMENT

South Coast Air Quality Management District (SCAQMD)

California Supplement

This section covers the state requirements for Air Emissions Management and is intended to supplement the U.S. TEAM Guide. Refer to the U.S. TEAM Guide and the DOD Component Supplements for Federal, DOD, and service-specific requirements.

The South Coast Air Quality Management District (SCAQMD) is responsible for management of air quality in Los Angeles, Orange, and Riverside Counties and the nondesert portion of San Bernardino County. District rules and regulations apply to all stationary, nonvehicular, sources of air pollution. Air pollution that is generated by cars and most other vehicles is the responsibility of the California Air Resources Board (CARB).

Regulations Adopted by Reference

The provision of Part 60, Chapter I, Title 40, of the Code of Federal Regulations (CFR), in effect 1 July 1984, applicable to the subparts listed below were adopted by the SCAQMD. The word "Administrator" used in 40 CFR Part 60 means Executive Officer (EO) under this adoption, except that the EO is not empowered to approve alternate test methods or alternate opacity limits:

- Subpart A, General Provisions
- Subpart C, Emission Guidelines and Compliance Terms
- Subpart Ca, Emissions Guidelines and Compliance Times for Municipal Waste Combustors
- Subpart Cb, Emission Guidelines and Compliance Times for Sulfuric Acid Production Units
- Subpart D, Standards of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction is Commenced After 17 August 1971
- Subpart Da, Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After 18 September 1978
- Subpart Db, Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units
- Subpart Dc, Standards of Performance for Small Industrial Commercial-Institutional Steam Generating Units
- Subpart E, Standards of Performance for Incinerators
- Subpart Ea, Standards of Performance for Municipal Waste Combustors
- Subpart G, Standards of Performance for Nitric Acid Plants
- Subpart H, Standards of Performance for Sulfuric Acid Plants
- Subpart Na, Standards of Performance for Basic Oxygen Process Furnaces
- Subpart O, Standards of Performance for Sewage Treatment Plants
- Subpart Y, Standards of Performance for Coal Preparation Plants
- Subpart DD, Standards of Performance for Grain Elevators
- Subpart EE, Standards of Performance for Surface Coating of Metal Furniture

- Subpart GG, Standards of Performance for Stationary Gas Turbines
- Subpart MM, Standards of Performance for Automobile and Light-Duty Truck Surface Coating Operations
- Subpart QQ, Standards of Performance for the Graphic Arts Industry: Publication Rotogravure Printing
- Subpart UU, Standards of Performance for Asphalt Processing and Asphalt Roofing Manufacture
- Subpart AAA, Standards of Performance for New Residential Wood Heaters
- Subpart JJJ, Standards of Performance for Petroleum Dry Cleaners
- Subpart KKK, Standards of Performance for Equipment Leaks of VOC from Onshore Natural Gas Processing Plants
- Subpart LLL, Standards of Performance for Onshore Natural Gas Processing: SO_2 Emissions

The provisions of 40 CFR, Part 61, Chapter I, in effect 1 July 1984, applicable to the subparts listed below were adopted by the SCAQMD. The word "Administrator" as used in 40 CFR, Part 61 means the EO under this adoption, except that the EO is not empowered to approve alternate test methods or opacity limits:

- Subpart A, General Provisions
- Subpart BB, National Emission Standard for Benzene Emissions from Benzene Transfer Operations
- Subpart C, National Emission Standard for Beryllium
- Subpart D, National Emission Standard for Beryllium Rocket Motor Firing
- Subpart E, National Emission Standard for Mercury
- Subpart F, National Emission Standard for Vinyl Chloride
- Subpart FF, National Emission Standards for Benzene Waste Operation
- Subpart J, National Emission Standard for Equipment Leaks (Fugitive Emission Sources) for Benzene
- Subpart L, National Emission Standard for Benzene Emissions from Maleic Anhydride Plants, Ethylbenzene/Styrene Plants, Benzene Storage Vessels, Benzene Equipment Leaks, and Coke By-Product Recovery Plants
- Subpart M, National Emission Standard for Asbestos
- Subpart V, National Emission Standard for Equipment Leaks (Fugitive Emission Sources)
- Subpart Y, National Emission Standard for Benzene Storage Vessels.

Definitions

- *Abrasive* - any material used in an abrasive blasting operation including, but not limited to, sand, slag, steel shot, garnet or walnut shells (SCAQMD Regulation XI, Rule 1140).

- *Abrasive Blasting* - the cleaning or preparing of a surface by forcibly propelling a stream of abrasive material against the surface (SCAQMD Regulation XI, Rule 1140).

- *Active Operations* - mean any activity capable of generating fugitive dust, including, but not limited to, earth-moving activities, construction/demolition activities, or heavy- and light-duty vehicular movement (SCAQMD Regulation IV, Rule 403).

- *Adhesion Promoter* - a coating applied to a substrate in a monomolecular thickness to promote wetting and form a chemical bond with the subsequently applied material (SCAQMD Regulation XI, Rule 1124).
- *Adhesive* - a coating that is used to bond one surface to another surface by attachment (SCAQMD Regulation XI, Rule 1124).

- *Adhesives Bonding Primer* - a coating applied in a very thin film to aerospace adhesive bond detail components for corrosion inhibition and adhesion (SCAQMD Regulation XI, Rule 1124).

- *Aerosol Coating* - a hand-held, nonrefillable container which expels pressurized product ingredients by means of a propellant (SCAQMD Regulation XI, Rule 1106.1).

- *Aerosol Coating Product* - a pressurized coating product containing pigments or resins that dispenses product ingredients by means of a propellant, and is packaged in a disposable can for hand-held application (SCAQMD Regulation XI, Rule 1136).

- *Aerospace Component* - the raw material, partial, or completed fabricated part, assembly of parts, or completed unit of any aircraft or space vehicle and includes integral equipment such as models, mock-ups, prototypes, molds, jigs, tooling, hardware jackets, and test coupons (SCAQMD Regulation XI, Rule 1124).

- *Agricultural Burning* - open outdoor fires used in agricultural operations in the growing of crops or raising of fowls or animals, or open outdoor fires used in forest management, range improvement, or the improvement of land for wildlife and game habitat or disease and pest prevention. Agricultural burning also includes open outdoor fires used in the operation or maintenance of a system for the delivery of water for the purposes specified above (SCAQMD Regulation I, Rule 102).

- *Agricultural Operations* - any operation occurring on a ranch or farm directly related to the growing of crops, or raising of fowls or animals for the primary purpose of making a profit or for a livelihood (SCAQMD Regulation I, Rule 102).

- *Agricultural Waste* - unwanted or unsalable materials produced wholly from agricultural operations, other than forest or range management operations, directly related to the growing of crops or animals for the primary purpose of making a profit or for a livelihood. The term does not include wastes created by land use conversion to nonagricultural purposes, unless the destruction of such waste by open outdoor fire is ordered by the County or State Agricultural Commissioner upon his determination that the waste is infested with infections transmittable or contagious plant disease which is an immediate hazard to agricultural operations conducted on adjoining or nearby property (SCAQMD Regulation I, Rule 102).

- *Air Contaminant* - any discharge, release, or other propagation into the atmosphere directly or indirectly, caused by man and includes, but is not limited to, smoke, charred paper, dust, soot, grime, carbon, fumes, gases, odors, particulate matter, acids, or any combination thereof (SCAQMD Regulation I, Rule 102).

- *Air-Dried Coating* - any coating that is cured at a temperature below 90 °C (194 °F) (SCAQMD Regulation XI, Rule 1106).

- *Air-Solvent Interface* - the point of contact between the exposed solvent and air (SCAQMD Regulation XI, Rule 1122).

- *Air-Solvent Interface Surface Area* - the combined geometric surface areas of the projected plane surfaces of all degreaser openings for conveyorized degreasers (SCAQMD Regulation XI, Rule 1122).

- *Air-Vapor Interface* - the point of contact between the exposed solvent vapor and air (SCAQMD Regulation XI, Rule 1122).

- *Air-Vapor Interface Surface Area* - means either (SCAQMD Regulation XI, Rule 1122):
  1. the geometric surface area of the open top of the degreaser for open-top vapor degreasers
  2. the combined geometric surface areas of the projected plane surfaces of all degreaser openings for conveyorized degreasers.

- *Air Pollution Control Officer (APCO)* - the Executive Officer (EO), or designee of the South Coast Air Quality Management District (SCAQMD Regulation I, Rule 102).

- *Aircraft* - any machine designed to travel through the air, without leaving the earth's atmosphere, whether heavier or lighter than air, including airplanes, balloons, dirigibles, helicopters, and missiles (SCAQMD Regulation XI, Rule 1124).

- *Anemometers* - devices used to measure wind speed and direction in accordance with the performance standards, and maintenance and calibration criteria specified in the District's Rule 403 Implementation Handbook, dated July 1993 (SCAQMD Regulation IV, Rule 403).

- *Annual Capacity Factor* - the ratio of the amount of fuel burned by a unit in a calendar year to the amount of fuel it could have burned if it had operated at the rated heat input capacity for 100 percent of the time during the calendar year (SCAQMD Regulation XI, Rule 1146).

- *Annual Heat Input* - the actual amount of heat released by fuels burned in a unit during a calendar year (SCAQMD Regulation XI, Rule 1146).

- *Antenna Coating* - any coating applied to equipment and associated structural appurtenances which are used to receive or transmit electromagnetic signals (SCAQMD Regulation XI, Rule 1106).

- *Anti-Wicking Wire Coating* - the outer coating of a wire which prevents fluid wicking into insulation of the wire (SCAQMD Regulation XI, Rule 1124).

- *Antichafe Coating* - a coating applied to areas of moving aerospace components which may rub during normal operations (SCAQMD Regulation XI, Rule 1124).

- *Antifouling Coating* - any coating applied to the underwater portion of a vessel to prevent or reduce the attachment of biological organisms. An antifouling coating is registered with the USEPA as a pesticide (SCAQMD Regulation XI, Rule 1106).

- *APCO* - Air Pollution Control Officer. See "Control Officer".

- *Appurtenances* - accessories to a stationary structure, including, but not limited to: hand railings, cabinets, bathroom and kitchen fixtures, fences, rain-gutters and down-spouts, window screens, lamp posts, heating and air conditioning equipment, other mechanical equipment, large fixed stationary tools, and concrete forms (SCAQMD Regulation XI, Rule 1113).

- *Architectural Coating* - any coatings applied to stationary structures and their appurtenances, to mobile homes, to pavements, or to curbs SCAQMD Regulation XI, Rule 1113).

- *Atmosphere* - (applicable only to the Metropolitan and Southern Zones) the air that envelopes or surrounds the earth. Where air pollutants are emitted into a building not designed specifically as a piece of air pollution control equipment, such emission into the building are considered an emissions into the atmosphere (SCAQMD Regulation I, Rule 102).

- *Baked Coating* - any coating that is cured at a temperature at or above 90 °C (194 °F) (SCAQMD Regulation XI, Rule 1106).

- *Barrier Coating* - a coating applied in a thin film to fasteners to inhibit dissimilar metal corrosion and to prevent galling (SCAQMD Regulation XI, Rule 1124).

- *Basecoat* - a pigmented topcoat which is the first topcoat applied as part of a multistage topcoat system (SCAQMD Regulation XI, Rule 1151).

- *Basecoat/Clearcoat System* - a topcoat system composed of a basecoat portion and a clearcoat portion (SCAQMD Regulation XI, Rule 1151).

- *Batch-Loaded Cold Cleaner* - a degreaser that is designed to contain liquid solvent at a temperature below its boiling point and is used for cleaning objects in a batch-type operation (SCAQMD Regulation XI, Rule 1122).

- *Below-ground Wood Preservatives* - coatings formulated to protect below-ground wood from decay or insect attack and which contain a wood preservative chemical registered by the California Department of Food and Agriculture (SCAQMD Regulation XI, Rule 1113).

- *Binders* - nonvolatile polymeric organic materials (resins) which form the surface film in coating applications (SCAQMD Regulation XI, Rule 1136).

- *Bituminous Coatings Materials* - black or brownish coating materials that are soluble in carbon disulfide, consisting mainly of hydrocarbons, and which are obtained from natural deposits, or from residues from the distillation of crude petroleum oils, or of low grades of coal (SCAQMD Regulation XI, Rule 1113).

- *Boiler* or *Steam Generator* - any combustion equipment fired with liquid and/or gaseous and/or solid fossil fuel and used to produce steam or to heat water and that is not used exclusively to produce electricity for sale. Boiler or Steam Generator does not include any waste heat recovery boiler that is used to recover sensible heat from the exhaust of a combustion turbine or any unfired waste heat recovery boiler that is used to recover sensible heat from the exhaust of any combustion equipment (SCAQMD Regulation XI, Rule 1146).

- *Bond Breakers* - coatings applied between layers of concrete to prevent the freshly poured top layer of concrete from bonding to the substrate over which it is poured (SCAQMD Regulation XI, Rule 1113).

- *Breakdown* - a condition caused by an accidental fire or nonpreventable mechanical or electrical failure (SCAQMD Regulation I, Rule 102).

- *Bright Metal Trim Repair Coating* - a coating applied directly to chrome-plated metal surfaces for the purpose of appearance (SCAQMD Regulation XI, Rule 1151).

- *Bulk Material* - sand, gravel, soil, aggregate material less than 2 in. in length or diameter, and other organic or inorganic particulate matter (SCAQMD Regulation IV, Rule 403).

- *Burn* - to combust any gaseous fuel, whether for useful heat or by incineration without heat recovery, except for flaring of emergency vent gases (SCAQMD Regulation IV, Rule 431.1).

- *Burn Days* - See "No-Burn Day" or "Permissive-Burn Day".

- *Bus* - any motor vehicle having a manufacturer's gross vehicle weight of more than 8600 lb, and which is designed primarily for the transportation of persons, and having a design capacity of over 12 persons (SCAQMD Regulation XI, Rule 1151).

- *Camouflage Coating* - a coating used, principally by the military, to conceal equipment from detection (SCAQMD Regulation XI, Rule 1107).

- *Capture Efficiency* - the percentage of VOCs used, emitted, evolved, or generated by the operation, that are collected and directed to an air pollution control device (SCAQMD Regulation XI, Rule 1107.)

- *CARB* - California Air Resources Board.

- *CFC Diluent* - any of the five chlorinated fluorinated carbon compounds (CFC-11, CFC-12, CFC-113, CFC-114, or CFC-115), or combinations of these compounds, used in sterilant gas mixtures (SCAQMD Regulation XI, Rule 1405).

- *Chemical Milling* - the removal of metal by chemical action of acids or alkalis (SCAQMD Regulation XI, Rule 1124).

- *Chemical Stabilizers* - any nontoxic chemical dust suppressant which must not be used if prohibited for use by the Regional Water Quality Control Boards, the CARB, the USEPA, or any applicable law, rule or regulation; and should meet any specifications, criteria, or tests required by any federal, state, or local water agency. Unless otherwise indicated, the use of a nontoxic chemical stabilizer is of sufficient concentration and application frequency to maintain a stabilized surface (SCAQMD Regulation IV, Rule 403).

- *Clear Coatings* - clear and semi-transparent coatings, including lacquers and varnishes, applied to wood substrates to provide a transparent or translucent solid film (SCAQMD Regulation XI, Rule 1129).

- *Clear Topcoat* - a topcoat that contains no visible pigments and is uniformly transparent when applied (SCAQMD Regulation XI, Rule 1124).

- *Clear Wood Finishes* - clear and semi-transparent topcoats applied to wood substrates to provide a transparent or translucent solid film (SCAQMD Regulation XI, Rule 1106.1).

- *Clearcoat* - a topcoat which contains no pigments or only transparent pigments and which is the final topcoat applied as a part of a multistage topcoat system (SCAQMD Regulation XI, Rule 1151).

- *Closed Loop Dry Cleaning Machine* - any dry cleaning machine with a design that recirculates the perchloroethylene laden vapor through a primary control system with no vent to the atmosphere or work room during the drying cycle, and vents to the atmosphere only through a fugitive control system after the drying cycle is complete and whenever the machine door is open (SCAQMCD Regulation XI, Rule 1421).

- *Coachella Valley* - that portion of Riverside County defined in Rule 103, subdivision (h) (SCAQMD Regulation IV, Rule 403.1).

- *Coachella Valley Blowsand Zone* - the corridor of land extending 2 mi to either side of the centerline of the I-10 Freeway beginning at the SR-111/I-10 junction and continuing southeast to the I-10/Jefferson Street interchange in Indio (SCAQMD Regulation IV, Rule 403.1).

- *Coating* - a material which is applied to a surface and which forms a continuous film in order to beautify and/or protect such surface (SCAQMD Regulation XI, Rule 1107).

- *Coating Application Equipment* - equipment used for applying coating to a substrate. Coating application equipment includes coating distribution lines, coating hoses, pressure-pots, spray guns, and hand-application equipment, such as hand-rollers, brushes, daubers, spatulas, and trowels (SCAQMD Regulation XI, Rule 1124).

- *Coating Solid* - the nonvolatile portion of an aerosol paint product, consisting of the film forming ingredients (pigments and resins) (SCAQMD Regulation XI, Rule 1129).

- *Colorant* - solutions of dyes or suspensions of pigments (SCAQMD Regulation XI, Rule 1113).

- *Combustible Refuse* - any solid or liquid combustible waste material containing carbon in a free or combined state (SCAQMD Regulation I, Rule 102).

- *Combustion Contaminants* - particulate matter discharged into the atmosphere from the burning of any kind of material containing carbon in a free or combined state (SCAQMD Regulation I, Rule 102).

- *Community Lease Units* - facilities used for multiple-wells units (three or more wells), whether for a group of wells at one location or for separate wells on adjoining leases (SCAQMD Regulation I, Rule 102).

- *Composite Vapor Pressure* - the total vapor pressure of the cleaning material excluding exempt materials (SCAQMD Regulation XI, Rule 1124).

- *Concrete Curing Compounds* - coatings applied to freshly poured concrete to retard the evaporation of water (SCAQMD Regulation XI, Rule 1113).

- *Condenser Water Flow Switch* - a safety switch that turns off the sump heat if condenser water fails to circulate or rises above the design operating temperature (SCAQMD Regulation XI, Rule 1122).

- *Conformal Coating* - a coating applied to electrical conductors and circuit boards to protect them against electrical discharge damage and/or corrosion (SCAQMD Regulation XI, Rule 1124).

- *Construction/Demolition Activities* - any onsite mechanical activities preparatory to or related to building, alteration, rehabilitation, demolition, or improvement of property, including, but not limited to, the

following activities: grading, excavation, loading, crushing, cutting, planing, shaping, or ground breaking (SCAQMD Regulation IV, Rule 403).

- *Consumed Solvent* - the amount of solvent purchased and emitted to the atmosphere in that year (SCAQMD Regulation XI, Rule 1102).

- *Continuous Emission Monitoring System (CEMS)* - a system of equipment that continuously measures and records all parameters necessary to directly determine concentrations and/or mass emissions of selected pollutants, and which meets all of the requirements of Attachment A, Section II of SCAQMD Regulation IV, Rule 431.1 (SCAQMD Regulation IV, Rule 431.1).

- *Continuous Fuel Gas Monitoring System (CFGMS)* - a system of equipment that continuously measures and records total sulfur concentration in the gaseous fuel prior to burning, and which meets all the requirements of Attachment A, Section I of SCAQMD Regulation IV, Rule 431.1 (SCAQMD Regulation IV, Rule 431.1)

- *Contract Painter* - a nonmanufacturer of metal parts and products who applies coatings to such products at his facility exclusively under contract with one or more parties that operate under separate ownership and control (SCAQMD Regulation XI, Rule 1107).

- *Contractor* - any person who has a contractual arrangement to conduct an active operation for another person (SCAQMD Regulation IV, Rule 403).

- *Control Equipment* - air pollution control equipment which eliminates, reduces or controls the issuance of air contaminants (SCAQMD Regulation I, Rule 102).

- *Control Officer* - the EO of the South Coast Air Quality Management District.

- *Converted Machine* - a vented dry cleaning machine that is modified to be a closed loop machine by eliminating the aeration step and installing a primary control system that recirculates the perchloroethylene laden vapor and reduces the drum concentration to 8600 ppm by volume (ppmv) perchloroethylene or less, with no vent to the atmosphere or work room during the drying cycle. A converted machine vents to the atmosphere only through a fugitive control system after the drying cycle is complete and whenever the machine door is open (SCAQMD Regulation XI, Rule 1421).

- *Conveyorized Degreaser* - any degreaser which uses an integral, continuous, mechanical system for moving materials or parts to be cleaned into and out of a solvent liquid or vapor cleaning zone (SCAQMD Regulation XI, Rule 1122).

- *Cutback Asphalt* - a liquid petroleum product produced by fluxing an asphaltic base with suitable distillate and is classed as medium or slow curing grade, as defined in Section 93 of the January 1981, State of California Department of Transportation Standard Specifications (SCAQMD Regulation XI, Rule 1108).

- *Daily Average* - an arithmetic mean of all the sulfur compounds readings within a calendar day obtained according to the guideline specified in Attachment A of SCAQMD Regulation IV, Rule 431.1 (SCAQMD Regulation IV, Rule 431.1).

- *Declared Episode* - exists whenever the EO determines that either (SCAQMD Regulation VII, Rule 701):
    1. any of the applicable episode criteria levels specified in this rule have been attained
    2. it is likely any of the applicable episode criteria levels specified in this rule is imminent to be attained that day.
- *Degreaser* - any equipment designed and used for holding a solvent to carry out solvent cleaning operations. Degreasers include, by way of illustration, and not limitation, remote reservoir cold cleaners, batch-loaded cold cleaners, open-top vapor degreasers, and conveyorized degreasers (SCAQMD Regulation XI, Rule 1122).

- *Dip Coat* - to dip an object into a vat of coating material and drain off any excess coating (SCAQMD Regulation XI, Rule 1136).

- *District* - the South Coast Air Quality Management District (SCAQMD Regulation I, Rule 102).

- *Disturbed Surface Area* - a portion of the earth's surface which has been physically moved, uncovered, destabilized, or otherwise modified from its undisturbed natural soil condition, thereby increasing the potential for emission of fugitive dust. This definition excludes those areas which have either (SCAQMD Regulation IV, Rule 403):
    1. been restored to a natural state, such that the vegetative ground cover and soil characteristics are similar to adjacent or nearby natural conditions
    2. been paved or otherwise covered by a permanent structure
    3. sustained a vegetative ground cover over at least 95 percent of an area for a period of at least 6 mo.

- *Drag-Out* -that solvent carried out of a degreaser that adheres to or is entrapped in the part being removed (SCAQMD Regulation XI, Rule 1122).

- *Dry Fog Coatings* - coatings which are formulated only for spray application so that when sprayed, overspray droplets dry before falling on floors and other surfaces (SCAQMD Regulation XI, Rule 1113).

- *Dry Cleaning Machine* - any machine, device, or apparatus used to clean materials with perchloroethylene or to remove residual perchloroethylene from previously cleaned materials (SCAQMD Regulation XI, Rule 1421).

- *Dry Cleaning System* - any one or combination of the following machines or systems: washer; dryer; emission control system; filter, regeneration, distillation, or purification systems; waste holding, storage, disposal, or reduction system; perchloroethylene supply system; dip tank; pump; gasket; and associated piping, ducting, hoses, fittings, flanges, and valves (SCAQMD Regulation XI, Rule 1421).

- *Dust Suppressants* - water, hygroscopic materials, or nontoxic chemical stabilizers used as a treatment material to reduce fugitive dust emissions (SCAQMD Regulation IV, Rule 403).

- *Dusts* - minute solid particles released in the air by natural forces or by mechanical processes including, but not limited to, crushing, grinding, milling, drilling, demolishing, shoveling, conveying, covering, bagging, and sweeping, (SCAQMD Regulation I, Rule 102).

- *Earth-Moving Activities* - include, but are not limited to, grading, earth cutting and filling operations, loading or unloading of dirt or bulk materials, adding to or removing from open storage piles of bulk materials, landfill operations, or soil mulching (SCAQMD Regulation IV, Rule 403).

- *Elastomeric Adhesive* - any adhesive containing natural or synthetic rubber (SCAQMD Regulation XI, Rule 1106).

- *Elastomeric Materials* - coatings which are specifically formulated and applied over coated or uncoated flexible plastic substrates for the purpose of adhesion (SCAQMD Regulation XI, Rule 1151).

- *Electric- or Radiation-Effect Coatings* - include electrically conductive coatings and radiation effect coatings, the uses of which may include prevention of radar detection (SCAQMD Regulation XI, Rule 1124).

- *Electric-Insulating Varnish* - a nonconvertible-type coating applied to electric motors or components of electric motors (SCAQMD Regulation XI, Rule 1107).

- *Electric Dissipating Coating* - a coating that rapidly dissipates a high-voltage electric charge (SCAQMD Regulation XI, Rule 1145).

- *Electric Insulation Coatings* - the outer electrical insulation coating applied to tape insulation of a wire and are specifically formulated to smooth and fill edges (SCAQMD Regulation XI, Rule 1129).

- *Electronic Wire Coating* - the outer electrical insulation coating applied to tape insulation of a wire specifically formulated to smooth and fill edges (SCAQMD Regulation XI, Rule 1124).

- *Electrostatic Application* - charging of atomized paint droplets for deposition by electrostatic attraction (SCAQMD Regulation XI, Rule 1136).

- *Emergency Vent Gas* - any gas released from a process unit as a result of any process upset or breakdown (SCAQMD Regulation IV, Rule 431.1.)

- *EMI/RFI Shielding* - a coating used on electrical or electronic equipment to provide shielding against electromagnetic interference, radio frequency interference, or static discharge (SCAQMD Regulation XI, Rule 1145).

- *Emulsified Asphalt* - a liquid petroleum product produced by fluxing an asphaltic base with water and an emulsifier, and is classed as rapid, medium, or slow setting grade as described under Section 94 of the January 1981, State of California Department of Transportation Standard Specification (SCAQMD Regulation XI, Rule1108.1.

- *Emulsion Cleaner* - a liquid which contains a VOC-containing solvent suspended in water (SCAQMD Regulation XI, Rule 1122).

- *Enamel* - a coating that cures by chemical cross-linking of its base resin. Enamels can be readily distinguished from lacquers because enamels are not resoluble in their original solvent (SCAQMD Regulation XI, Rule 1152).

- *Episodes* - the intermediate levels between the National Ambient Air Quality Standard and the Level of Significant Harm for air pollutants at which some pollution abatement or health notification action must

be taken. The applicable episode criteria, by pollutant and averaging period established by the USEPA and the California Air Pollution Emergency Plan are presented in Appendix 1-1 (SCAQMD Regulation VII, Rule 701).

- *Equipment* - any article, machine, or other contrivance (SCAQMD Regulation I, Rule 102).

- *Equivalent Perchloroethylene Recovery Systems* - any control technology determined to be equivalent by USEPA pursuant to 40 CFR, Section 63.325 and by CARB pursuant to 17 CCR, Section 93109(h). Such equivalent control technology may be used in lieu of the required control elements (SCAQMD Regulation XI, Rule 1421).

- *Etching Filler* - a coating that contains less than 23 percent solids by weight and at least 1/2-percent acid by weight, and is used instead of applying a pretreatment coating followed by a primer (SCAQMD Regulation XI, Rule 1107).

- *Ethylene Oxide(EtO)* - a colorless, flammable gas that has been identified as a suspected human carcinogen and a toxic air contaminant by the ARB (SCAQMD Regulation XI, Rule 1405).

- *Exempt Compounds* - any of the following compounds:
  1. Group I
     a. acetone
     b. ethane
     c. chlorodifluoromethane (HCFC-22)
     d. trifluoromethane (HFC-23)
     e. 2,2-dichloro-1,1,1-trifluoroethane (HCFC-123)
     f. 2-chloro-1,1,1,2-tetrafluorothane (HCFC-124)
     g. pentafluoroethane (HFC-125)
     h. 1,1,2,2-tetrafluoroethane (HFC-134)
     i. 1,1,1,2-tetrafluoroethane (HFC-134a)
     j. 1,1-dichloro-1-fluoroethane (HCFC-141b)
     k. 1-chloro-1,1-difluoroethane (HCFC-142b)
     l. 1,1,1-trifluoroethane (HFC-143a)
     m. 1,1-difluoroethane (HFC-152a)
     n. cyclic, branched, or linear, completely fluorinated alkanes
     o. cyclic, branched, or linear, completely fluorinated ethers with no unsaturations
     p. cyclic, branched, or linear, completely fluorinated tertiary amines with no unsaturations
     q. sulfur-containing perfluorocarbons with no unsaturations and with sulfur bonds only to carbon and fluorine
  2. Group II
     a. methylene chloride (dichloromethane)
     b. 1,1,1-trichloroethane (methyl chloroform)
     c. trichlorofluoromethane (CFC-11)
     d. dichlorodifluoromethane (CFC-12)
     e. 1,1,2-trichloro-1,2,2-trifluoroethane (CFC-113)
     f. 1,2-dichloro-1,1,2,2-tetrafluoroethane (CFC-114)
     g. chloropentafluoroethane (CFC-115)
     h. parachlorobenzotrifluoride (PCBTF)
     i. cyclic, branched, or linear, completely methylated siloxanes (VMS).

  The use of Group II compounds or carbon tetrachloride may be restricted in the future because they are either toxic, potentially toxic, upper-atmosphere ozone depleters, or cause of other environmental

impacts. By 1 January 1996, chlorofluorocarbons (CFC), 1,1,1-trichloroethane (methyl chloroform), and carbon tetrachloride will be phased out in accordance with the 40 CFR, Part 82 (10 December 1993). Whenever there is a conflict between the definition of exempt compounds of VOCs in this rule and the definition of exempt compounds of VOCs in another District rule, the definition in Rule 102 shall apply (SCAQMD Regulation I, Rule 102).

- *Exempt Compounds (*with reference to petroleum solvent dry cleaner requirements) - any of the following compounds which have been determined to be nonrecursors of ozone:
    1. Group I (General)
        chlorodifluoromethane (HCFC-22)
        dichlorotrifluoroethane (HCFC-123)
        tetrafluoroethane (HFC-134a)
        dichlorofluoroethane (HCFC-141b)
        chlorodifluoroethane (HCFC-142b)
    2. Group II (Under Review)
        methylene chloride
        1,1,1-trichloroethane (methyl chloroform)
        trifluoromethane (CFC-23)
        trichlorotrifluoroethane (CFC-113)
        dichlorodifluoromethane (CFC-12)
        trichlorofluoromethane (CFC-11)
        dichlorotetrafluoroethane (CFC-114)
        chloropentafluoroethane (CFC-115)

  The Group II compounds may have restrictions on their use because they are toxic or potentially toxic, upper atmosphere ozone depleters, or cause other environmental impacts. The District Board has adopted a policy which states that chlorofluorocarbons (CFC) will be phased out at the earliest practicable date on or before 1997 (SCAQMD Regulation XI, Rule 1102).

- *Exempt Compounds* (with reference to marine coatings requirements) - any of the following compounds:
    1. Group I (General)
        trifluoromethane (HFC-23)
        pentafluoroethane (HFC-125)
        1,1,2,2-tetrafluoroethane (HFC-134)
        tetrafluoroethane (HFC-134a)
        1,1,1-trifluoroethane (HFC-143a)
        1,1-difluoroethane (HFC-152a)
        chlorodifluoromethane (HCFC-22)
        dichlorotrifluoroethane (HCFC-123)
        2-chloro-1,1,1,2-tetrafluoroethane (HCFC-124)
        dichlorofluoroethane (HCFC-141b)
        chlorodifluoroethane (HCFC-142b)
        cyclic, branched, or linear, completely fluorinated alkanes
        cyclic, branched, or linear, completely fluorinated ethers with no unsaturations
        cyclic, branched, or linear, completely fluorinated tertiary amines with no unsaturations
        sulfur-containing perfluorocarbons with no unsaturations and with sulfur bonds only to carbon and fluorine
    2. Group II
        methylene chloride
        1,1,1-trichloroethane (methyl chloroform)

trichlorotrifluoroethane (CFC-113)
dichlorodifluoromethane (CFC-12)
trichlorofluoromethane (CFC-11)
dichlorotetrafluoroethane (CFC-114)
chloropentafluoroethane (CFC-115)

The use of the Group II compounds and/or carbon tetrachloride may be restricted in the future because they are toxic, potentially toxic, upper-atmospheric ozone depleters, or cause other environmental impacts. By 1 January 1996, production of chlorofluorocarbons (CFC), 1,1,1- trichloroethane (methyl chloroform), and carbon tetrachloride will be phased out in accordance with the 40 CFR, Part 82 (December 10, 1993) (SCAQMD Regulation XI, Rule 1106).

- *Existing Dry Cleaning Equipment* - dry cleaning machine permitted and operating before 9 December 1994 (SCAQMD Regulation XI, Rule 1421).

- *Existing Engine* - an engine that prior to 6 November 1981 (SCAQMD Regulation XI, Rule 1110):
  1. had been issued a valid Permit to Construct or Operate by the District
  2. is in operation, or
  3. is subject to review due to submittal of an application for Permit to Construct or Operate that has been deemed complete by the EO.

- *Extreme-Performance Topcoat* - a topcoat used on the surface of Group I vehicles and mobile equipment, and which will be exposed to any of the following (SCAQMD Regulation XI, Rule 1151):
  1. industrial grade detergents, cleaners, or abrasive scouring agents
  2. other similar environmental conditions as determined by the EO and approved by the Air Resources Board and the USEPA.

- *Extreme High Gloss Coating* - any coating which achieves at least 95 percent reflectance on a 60° meter when tested by ASTM Method D-523 (SCAQMD Regulation XI, Rule 1106).

- *Extreme Performance Coating* - a coating used on a metal surface where the coated surface is, in its intended use, exposed to any of the following (SCAQMD Regulation XI, Rule 1107):
  1. chronic exposure to corrosive, caustic, or acidic agents, chemicals, chemical fumes, chemical mixtures or solution
  2. repeated exposure to temperatures in excess of 250 F
  3. repeated heavy abrasion, including mechanical wear and repeated scrubbing with industrial grade solvents, cleansers or scouring agents.

- *Fiberboard and Particleboard Coatings* - the first coating that is applied directly to the surface of a wood product composed of tightly compressed wood fibers bonded with resins and having a density greater than 45 lb/ft^3 (SCAQMD Regulation XI, Rule 1136).

- *Filler* - a material which is applied to a wood product, and whose primary function is to build up, or fill the voids and imperfections in the wood product, to be coated. This shall include edge filler which is applied to the edge of a wood surface, and whose primary function is to build up, or fill the voids and imperfections on the edge of the wood product (SCAQMD Regulation XI, Rule 1136).

- *Finish Primer/Surfacer* - a coating applied with a wet film thickness of less then 10 mils prior to the application of a topcoat for purposes of providing corrosion resistance, adhesion of subsequent coatings, a moisture barrier, or promotion of a uniform surface necessary for filling in surface imperfections (SCAQMD Regulation XI, Rule 1106.1).

- *Fire Retardant Coatings* - coatings which have a flame spread index of less than 25 when tested in accordance with ASTM Designation E-84-87 (Standard Test Method for Surface Burning Characteristics of Building Material) after application to Douglas fir according to the manufacturer's recommendations, or when tested using an equivalent method approved by the EO (SCAQMD Regulation XI, Rule 1113).

- *Fire Resistant Coating* - a cabin interior coating that meets for civilian aircraft the Federal Aviation Administration-required Ohio State University Heat Release, Fire and Burn Tests; for military aircraft, Aircraft Structure Integrity Program in MIL-STD-1530A and MIL-A-87221 (Northrup's MS-445-3.3.2.1 and MS-445-3.3.2.2) (SCAQMD Regulation XI, Rule 1124).

- *Flange* - a projecting rim on a pipe or piping component used to attach it to another piping detail (SCAQMD Regulation IV, Rule 466.1).

- *Flat Coatings* - coatings which register gloss less than 15 on an 85 ° meter or less than five on a 60 ° meter, or which are labeled as a flat coating (SCAQMD Regulation XI, Rule 1129).

- *Fleet Vehicles* - gasoline-powered motor vehicles as defined by Section 415 of the Vehicle Code and which are operated from one business address (SCAQMD Regulation I, Rule 102).

- *Flight-Test Coating* - a coating applied to an aircraft prior to required marking during flight test evaluation (SCAQMD Regulation XI, Rule 1124).

- *Flow Coating* - to coat an object by flowing a stream of coating over an object and draining off any excess coating (SCAQMD Regulation XI, Rule 1136).

- *Form Release Compounds* - coatings applied to a concrete form to prevent the freshly poured concrete from bonding to the form. The form may consist of wood, metal, or some material other than concrete (SCAQMD Regulation XI, Rule 1113).

- *Fountain Solution* - solution used in lithographic printing which is applied to the image plate to maintain the hydrophilic properties of the nonimage areas. It is primarily water and contains at least one of the following materials; etchants such as mineral salts; hydrophilic gums; or VOC additives to reduce the surface tension of the solution (SCAQMD Regulation XI, Rule 1130).

- *Freeboard Height* -
    1. the distance from the top of the solvent to the top of the tank for batch-loaded cold cleaners
    2. the distance from the air-vapor interface to the top of the tank for open-top vapor degreasers
    3. the distance from either the air-solvent or air-vapor interface to the top of the tank for conveyorized degreaser (SCAQMD Regulation XI, Rule 1122).

- *Freeboard Ratio* - the freeboard height divided by the width of the degreaser.

- *Fuel-Tank Coating* - a coating applied to the interior of a fuel tank of an aircraft to protect it from corrosion and/or bacterial growth (SCAQMD Regulation XI, Rule 1124).

- *Fuel Tank Adhesive* - an adhesive used to bond components exposed to fuel and must be compatible with fuel tank coatings (SCAQMD Regulation XI, Rule 1124).

- *Fugitive Dust* - any solid particulate matter that becomes airborne, other than that emitted from an exhaust stack, directly or indirectly as a result of the activities of man (SCAQMD Regulation I, Rule 102).

- *Gaseous Fuel* - any gaseous material which releases heat when burned including, but not limited to, any natural, refinery, field produced, process, synthetic, landfill, sewage digester, or waste gases with a gross heating value of 2670 kilocalories/m^3 (300 Btu/ft^3) or higher, at standard conditions (SCAQMD Regulation IV, Rule 431.1).

- *Gasoline* - any petroleum distillate having a Reid vapor pressure of 200 mm Hg (3.9 psi), or greater (SCAQMD Regulation I, Rule 102).

- *General Topcoat* - any type of topcoat except extreme-performance topcoat, metallic topcoat, and any topcoat applied as part of a multistage topcoat system (SCAQMD Regulation XI, Rule 1151).

- *Grams of VOC per Liter of Coating, Less Water and Less Exempt Compounds* - the weight of VOC per combined volume of VOC and coating solids and can be calculated by the following equation (SCAQMD Regulation XI, Rule 1130):

$$\text{Grams of VOC per Liter of Coating, Less Water and Less Exempt Compounds} = \frac{W(S) - W(W) - W(es)}{V(m) - V(W) - V(es)}$$

Where: W(S) = weight of volatile compounds in grams
W(W) = weight of water in grams
W(es) = weight of exempt compounds in grams
V(m) = volume of material in liters
V(W) = volume of water in liters
V(es) = volume of exempt compounds in liters

- *Grams of VOC per Liter of Material* - the weight of VOC per volume of material and can be calculated by the following equation (SCAQMD Regulation XI, Rule 1130):

$$\text{Grams of VOC per Liter of Material} = \frac{W(a) - W(w) - W(es)}{V(m)}$$

Where: W(S) = weight of volatile compounds in grams
W(W) = weight of water in grams
W(es) = weight of exempt compounds in grams
V(m) = volume of material in liters

- *Graphic Arts Coatings (Sign Paints)* - coatings formulated for and hand-applied by artists using brush or roller techniques to indoor and outdoor signs (excluding structural components) and murals, including lettering enamels, poster colors, copy blockers, and bulletin enamels (SCAQMD Regulation XI, Rule 1113).

- *Graphic Arts Materials* - any inks, coatings, adhesives, including added thinners or retarders, used in printing or related coating or laminating processes (SCAQMD Regulation XI, Rule 1130).

- *Graphic Arts Operation* - gravure, letterpress, flexographic and lithographic printing processes or related coating or laminating processes (SCAQMD Regulation XI, Rule 1130).
- *Gravure Printing* - an intaglio printing process in which the ink is carried in minute etched or engraved wells on a roll or cylinder, excess ink being removed from the surface by a doctor blade (SCAQMD Regulation XI, Rule 1130).

- *Group I Vehicles and Equipment* - large-sized trucks, buses, and mobile equipment (SCAQMD Regulation XI, Rule 1151).

- *Group II Vehicles* - passenger cars, small-sized trucks and vans, medium-sized trucks and vans, motor homes, and motorcycles (SCAQMD Regulation XI, Rule 1151).

- *Halon* - one of the following compounds or any combination of these compounds: bromochlorodifluoromethane (Halon 1211), bromotrifluoromethane (Halon 1301), dichlorodifluoromethane (Halon 112), dibromotetrafluoroethane (Halon 2402), dibromodifluoromethane (Halon 1202), bromochloromethane (Halon 1011), and bromodifluoromethane (Halon 1201 or FM-100) (SCAQMD Regulation XIV, Rule 1418).

- *Hand Application Methods* - the methods used to apply coating to substrate by manually held, nonmechanically operated equipment. Such equipment includes, but is not limited to, paint brushes, hand rollers, caulking guns, trowels, spatulas, syringe daubers, rags, and sponges (SCAQMD Regulation XI, Rule 1106.1).

- *Heat Input* - the chemical heat released due to fuel combustion in a unit, using the higher heating value of the fuel. This does not include the sensible heat of incoming combustion air (SCAQMD Regulation XI, rule 1146).

- *Heat Resistant Coating* - any coating which during normal use must withstand temperatures of at least 204 °C (400 °F) (SCAQMD Regulation XI, Rule 1106).

- *High-Solids Stains* - stains containing more than 1 lb of solids/gal, of material, and include wiping stains, glazes, and opaque stains (SCAQMD Regulation XI, Rule 1136).

- *High-Temperature Coating* - a coating that must withstand temperatures in excess of 350 °F (177 °C) (SCAQMD Regulation XI, Rule 1124).

- *High-Temperature Industrial Maintenance Coatings* - industrial maintenance coatings formulated for and applied to substrates exposed continuously or intermittently to temperatures above 400 °F (204 °C) (SCAQMD Regulation XI, Rule 1113).

- *High-Volume Low-Pressure (HVLP) Spray* - a coating application system which is operated between 0.1 and 10 psig flow pressure at the air cap/tip of the spray gun (SCAQMD Regulation XI, Rule 1106.1).

- *High Build Primer/Surfacer* - a coating applied with a wet film thickness of 10 mil or more prior to the application of a topcoat for purposes of providing corrosion resistance, adhesion of subsequent coatings, or a moisture barrier, or promoting a uniform surface necessary for filling in surface imperfections (SCAQMD Regulation XI, Rule 1106.1).

- *High Film Build* - when the dry-film thickness per application is greater than 0.004 in. (SCAQMD Regulation XI, Rule 1136).

- *High Gloss* - when a coating surface shows a reflectance of 75 or more on a 60 ° meter (SCAQMD Regulation XI, Rule 1136).

- *High Gloss Coating* - any coating that achieves at least 85 percent reflectance on a 60 ° m when tested by ASTM Method D-523 (SCAQMD Regulation XI, Rule 1106).

- *High Performance Architectural Coating* - a coating used to protect architectural subsections and which meets the requirements of the Architectural Aluminum Manufacturers Association publication number AAMA 605.2-1980 (SCAQMD Regulation XI, Rule 1107).

- *High Temperature Coating* (in relation to marine coatings) - any coating which must withstand temperature of at least 426 °C (800 °F) (SCAQMD Regulation XI, Rule 1106).

- *High Volatility Solvent* - a solvent which is not classified as a low volatility solvent (SCAQMD Regulation XI, Rule 1122).

- *Highway* - a way or place of whatever nature, publicly maintained and open to the public for purposes of vehicular travel. Highway includes street (SCAQMD Regulation XI, Rule 1151).

- *Impact-Resistant Coating* - a flexible coating that protects aerospace components, such as aircraft landing gear, and landing gear compartments, and other surfaces subject to impact from abrasion from runway debris (SCAQMD Regulation XI, Rule 1124).

- *Inactive Disturbed Surface Area* - any disturbed surface area upon which active operations have not occurred or are not expected to occur for a period of ten consecutive days (SCAQMD Regulation IV, Rule 403).

- *Increments of Progress* - steps to be taken by an owner or operator to bring a source of air contaminants into compliance (SCAQMD Regulation I, Rule 102).

- *Industrial Maintenance Anti-Graffiti Coatings* - two-component clear industrial maintenance coatings formulated for and applied to exterior walls and murals to resist repeated scrubbing and exposure to harsh solvents (SCAQMD Regulation XI, Rule 1113).

- *Industrial Maintenance Coatings* - high performance coatings formulated for and applied to substrates in industrial, commercial, or institutional situations that are exposed to one or more of the following extreme environmental conditions:
    1. immersion in water, wastewater, or chemical solutions (aqueous or nonaqueous), or chronic exposure of interior surfaces to moisture condensation
    2. acute or chronic exposure to corrosive, caustic or acidic agents, or to chemicals, chemical fumes, or chemical mixture solutions
    3. repeated exposure to temperatures in excess of 250 °F [121 °C]
    4. repeated heavy abrasion, including mechanical wear and repeated scrubbing with industrial solvents, cleansers, or scouring agents
    5. exterior exposure of metal structures.

Industrial maintenance coatings are not for residential use or for use in areas of industrial, commercial, or institutional facilities, such as office space and meeting rooms (SCAQMD Regulation XI, Rule 1113).

- *Ink* - a fluid that contains dyes and/or colorants and is used to make markings but not to protect surfaces (SCAQMD Regulation XI, Rule 1107).
- *Lacquers* - clear wood finishes, including clear lacquer sanding sealers, formulated with nitrocellulose or synthetic resins to dry by evaporation without chemical reaction (SCAQMD Regulation XI, Rule 1113).

- *Landfill Gas* - any gas derived through any biological process from the decomposition of organic waste buried within a waste disposal site (SCAQMD Regulation IV, Rule 631.1).

- *Large Operations* - any active operations on property which contains in excess of 100 acres of disturbed surface area; or any earth-moving operation which exceeds a daily earth-moving or throughput volume of 7,700 m^3 (10,000 yd^3) three times during the most recent 365-day period (SCAQMD Regulation IV, Rule 403).

- *Lean-Burn Engine* - an engine that is operated with an exhaust stream oxygen concentration greater than one percent by volume (SCAQMD Regulation XI, Rule 1110).

- *Liquid Leak* - a VOC-containing liquid leak from the degreaser at a rate of more than three drops per minute or a visible liquid mist (SCAQMD Regulation XI, Rule 1122).

- *Lithographic Printing* - a planographic printing process in which the image and nonimage areas are on the same plane and are chemically differentiated. This printing process differs from other printing processes where the image is typically printed from a raised or recessed surface (SCAQMD Regulation XI, Rule 1130).

- *Loading Facility* - any aggregation or combination of organic liquid loading equipment which is both possessed by one person, and located so that all the organic liquid loading outlets, for such aggregation or combination of loading equipment can be encompassed within any circle of 90 m (295 ft) in diameter (SCAQMD Regulation I, Rule 102).

- *Low-Solids Adhesive Coating* or *Sealant* - an adhesive coating or sealant which has less than 1 lb of solids/gal of material. Such solids are the nonvolatiles remaining after a sample is heated at 110 °C for 1 h (SCAQMD Regulation XI, Rule 1124).

- *Low-Solids Stains* - stains containing 1 lb or less of solids/gal of material and containing no compounds listed in Group II of exempt compounds (SCAQMD Regulation XI, Rule 1113).

- *Low Activation Interior Coating* - any coating used on interior surfaces aboard ships to minimize the activation of pigments on painted surfaces within a radiation environment (SCAQMD Regulation XI, Rule 1106).

- *Low Volatility Solvent* - a solvent which has an initial boiling point greater than 120 °C (248 °F) and whose initial boiling point exceeds the maximum operating temperature of the solvent cleaning operation by at least 100 °C (180 °F) (SCAQMD Regulation XI, Rule 1122).

- *Magnesite Cement Coatings* - coatings formulated for and applied to magnesite cement decking to protect the magnesite cement substrate from erosion by water (SCAQMD Regulation XI, Rule 1113).

- *Magnetic Data Storage Disk Coating* - a coating used on a metal disk which stores data magnetically (SCAQMD Regulation XI, Rule 1107).

- *Marine Coating* - any coating, except unsaturated polyester resin (fiberglass) coatings, containing volatile organic materials and applied by any means to ships, boats, and their appurtenances, and to buoys and oil drilling rigs intended for the marine environment (SCAQMD Regulation XI, Rule 1106)

- *Mask Coating* - thin film coating applied through a template to coat a small portion of a substrate (SCAQMD Regulation XI, Rule 1145).

- *Maskant for Chemical Milling* - a coating applied directly to an aerospace component to protect surface areas when chemical milling the component (SCAQMD Regulation XI, Rule 1124).

- *Maskant for Chemical Processing* - a coating applied directly to an aerospace component to protect surface areas when anodizing, aging, bonding, plating, etching, and/or performing other chemical surface operations on the component (SCAQMD Regulation XI, Rule 1124).

- *Mastic Coatings* - coatings formulated to cover holes and minor cracks and to conceal surface irregularities, and applied in a thickness of at least 10 mils (dry, single coat) (SCAQMD Regulation XI, Rule 1113).

- *Matte Finish Ink* - a printing ink which is applied on nonporous substrates in flexographic printing operations and contains at least 5 percent by weight silicon dioxide flattening agent (SCAQMD Regulation XI, Rule 1130).

- *Medical Waste Incinerator* - a furnace or other closed fire chamber used to burn wastes generated at medical facilities (SCAQMD Regulation XI, Rule 1406).

- *Metal Parts or Products* - any components or complete units fabricated from metal, except those subject to the coating provisions of requirements other than those for metal parts (SCQAMD Regulation XI, Rule 1107).

- *Metallic/Iridescent Topcoat* - a topcoat which contains iridescent particles, as applied, where such particles, composed of either metal as metallic particles or silicon as mica particles, in excess of 5 g/L (0.042 lb/gal) as applied, where such particles are visible in the dried film (SCAQMD Regulation XI, Rule 1151).

- *Metallic Coating* - a coating which contains more than 5 g of metal particles/L of coating, as applied (SCAQMD Regulation XI, Rule 1107).

- *Metallic Heat Resistant Coating* - any coating which contains more than 5 g of metal particles/L of coating as applied and which must withstand temperatures over 80 °C (175 °F) (SCAQMD Regulation XI, Rule 1106).

- *Metallic Ink* - a printing ink which is applied on nonporous substrates in flexographic printing operations and contains at least 28 percent by weight elemental metal particles (SCAQMD Regulation XI, Rule 1130).

- *Metallic Pigmented Coatings* - coatings containing at least 0.4 lb [approximately 0.18 kg] of elemental metallic pigment per gal (50 g/L) of coating as applied (SCAQMD Regulation XI, Rule 1113).
- *Metallized Epoxy Coating* - a coating that contains relatively large quantities of flake pigmentation for appearance and/or added protection (SCAQMD Regulation XI, Rule 1124).

- *Midcoat* - a semi-transparent topcoat which is the middle topcoat applied as part of a three-stage topcoat system (SCAQMD Regulation XI, Rule 1151).

- *Military Specification Coating* - a coating applied to metal parts and products and which has a paint formulation approved by a United States Military Agency for use on military equipment (SCAQMD Regulation XI, Rule 1107).

- *Mirror Backing* - the coating applied over the silvered surface of a mirror (SCAQMD Regulation XI, Rule 1145).

- *Mobile Equipment* - self-propelled equipment which is physically capable of being driven on a highway. Mobile equipment includes: construction (mobile crane, bulldozer, concrete mixer), farming (wheel tractor, plow, pesticide sprayer), and miscellaneous (street cleaners, golf carts, hauling equipment used inside and around airports, docks, depot, and industrial and commercial plants) (SCAQMD Regulation XI, Rule 1151).

- *Mobile Vehicle Fueling Facility* - a gasoline container equipped with a dispensing nozzle or nozzles mounted on a truck, trailer or other conveyance and used to fill motor vehicle fuel tanks.

- *Mold-Seal Coating* - the initial coating applied to a new mold or repaired mold to provide a smooth surface which, when coated with a mold release coating, prevents products from sticking to the mold (SCAQMD Regulation XI, Rule 1107).

- *Monthly Weighted Average Sulfur Content* - the result of the summation of average daily sulfur contents of the fuel(s) consumed multiplied by the average daily consumption rates of the fuel(s) consumed in any month divided by the total gaseous fuel consumption rate for that month (SCAQMD Regulation IV, Rule 431.1).

- *Motor Home* - any motor vehicle originally designed, or permanently altered, and equipped for human habitation as defined in Section 262 of the California Vehicle Code (SCAQMD Regulation XI, Rule 1151).

- *Motor Vehicle* - a vehicle which is self-propelled (SCAQMD Regulation I, Rule 102).

- *Motorcycle* - any motor vehicle other than a tractor having a seat or saddle for the use of the rider and designed to travel on not more than three wheels in contact with the ground and weighing less than 1500 lb, except that four wheels may be in contact with the ground when two of the wheels are a functional part of a sidecar (SCAQMD Regulation XI, Rule 1151).

- *Multi-Colored Coatings* - coatings which exhibit more than one color when applied and which are packaged in a single container and applied in a single coat (SCAQMD Regulation XI, Rule 1113).

- *Multiple-Chamber Incinerator* - any equipment, structure, or part of a structure, used to dispose of combustible refuse by burning, consisting of three or more refractory lined combustion chambers, physically

separated by refractory walls, interconnected by gas passage ports or ducts (SCAQMD Regulation I, Rule 102).

- *Multistage Topcoat System* - any basecoat/clearcoat topcoat system or any three-stage topcoat system, manufactured as a system, and used as specified by the manufacturer (SCAQMD Regulation XI, Rule 1151).
- *Natural Gas* - a mixture of gaseous hydrocarbons, with at least 80 percent methane (by volume), and of pipeline quality, such as gas sold or distributed by any utility company regulated by the California Public Utilities Commission (SCAQMD Regulation IV, Rule 431.1).
- *Navigational Aids* - buoys or other Coast Guard waterway markers (SCAQMD Regulation XI, Rule 1106).
- *Nonroutine* - any nonperiodic active operation which occurs no more than three times per year, lasts less than 30 cumulative days per year, and is scheduled less than 30 days in advance (SCAQMD Regulation IV, Rule 403).
- *Nonstructural Adhesive* - an adhesive that bonds nonload-carrying aircraft components in noncritical applications (SCAQMD Regulation XI, Rule 1124).
- *NO_x Emissions* - the sum of nitric oxides and NO_2 in the flue gas, collectively expressed as NO_2 (SCAQMD Regulation XI, Rule 1146).
- *Onsite* - within the property lines, or as otherwise approved by the EO (SCAQMD Regulation IV, Rule 403.1).
- *Opaque Stains* - all stains that are not classified as semi-transparent stains (SCAQMD Regulation XI, Rule 1113).
- *Opaque Wood Preservatives* - all wood preservatives not classified as clear or semi-transparent wood preservatives, or as below-ground wood preservatives (SCAQMD Regulation XI, Rule 1113).
- *Open Storage Pile* - any accumulation of bulk material with 5 percent or greater silt content which is not fully enclosed, covered, or chemically stabilized, and which attains a height of 3 ft or more and a total surface area of 150 ft^2 or more. Silt content level is assumed to be 5 percent or greater unless a person can show, by sampling and analysis in accordance with ASTM Method C-136 or other equivalent method approved in writing by the EO and the CARB, that the silt content is less than 5 percent. The results of ASTM Method C-136 or equivalent method are valid for 60 days from the date the sample was taken (SCAQMD Regulation IV, Rule 403).
- *Open-Top Vapor Degreaser* - any batch loaded, boiling solvent degreaser (SCAQMD Regulation XI, Rule 1122).
- *Optical Antireflection Coating* - a coating with a low reflectance in the infrared and visible wavelength range and is used for antireflection on or near optical and laser hardware (SCAQMD Regulation XI, Rule 1124).
- *Optical Coating* - coating applied to an optical lens (SCAQMD Regulation XI, Rule 1145).

- *Organic Materials* - chemical compounds of carbon excluding CO, CO_2, carbonic acid, metallic carbides, metallic carbonates, and ammonium carbonate (SCAQMD Regulation I, Rule 102).

- *Organic Solvents* - include diluents and thinners and are defined as organic materials which are liquids at standard conditions and which are used as dissolvers, viscosity reducers or cleaning agents, except that such material exhibiting a boiling point higher than 104 °C (219 °F) at 0.5 mm Hg absolute pressure or having an equivalent vapor pressure shall not be considered to be solvents unless exposed to temperatures exceeding 104 °C (219 °F) (SCAQMD Regulation I, Rule 102).

- *Output* - the shaft output form the engine plus energy reclaimed by any heat recovery system, subject to the approval of the EO (SCAQMD Regulation XI, Rule 1110).

- *Pan-Backing Coating* - a coating applied to the surface of pots, pans, or other cooking implements that are exposed directly to a flame or other heating elements (SCAQMD Regulation XI, Rule 1107).

- *Particulate Matter* - any material, except uncombined water, which exists in a finely divided form as a liquid or solid at standard conditions (SCAQMD Regulation I, Rule 102).

- *Passenger Car* - any motor vehicle designed primarily for transportation of persons and having a design capacity of 12 persons or less (SCAQMD Regulation XI, Rule 1151).

- *Person* - any individual firm, association, organization partnership, business trust, corporation, company, contractor, supplier, installer, user or owner, or any state or local governmental agency or public district or any other officer or employee thereof. PERSON also means the United States or its agencies to the extent authorized by Federal law (SCAQMD Regulation I, Rule 102)

- *Petroleum Solvent (*with reference to the petroleum solvent dry cleaning requirements) - a petroleum distillate that exists as a liquid under standard conditions (SCAQMD Regulation XI, Rule 1102).

- *Petroleum Solvent Dry Cleaning Facility* - any facility engaged in the cleaning of fabrics or leather using petroleum solvent. The facility includes, but is not limited to, washers, extractors, dryers, filters, purification systems, waste disposal systems, holding tanks, pumps, and attendant piping and valves (SCAQMD Regulation XI, Rule 1102).

- *Photochemically Reactive Solvent* - any solvent with an aggregate of more than 20 percent of its total volume composed of the chemical compounds classified below or which exceeds any of the following percentage composition limitations, referred to the total volume of solvent:
    1. a combination of hydrocarbons, alcohols, aldehydes, ethers, esters, or ketones having an olefinic or cycloolefinic type unsaturation, except perchloroethylene: 5 percent
    2. a combination of aromatic compounds with eight or more carbon atoms to the molecule, except ethylbenzene, methyl benzoate, and phenyl acetate: 8 percent
    3. a combination of ethylbenzene, ketones having branched hydrocarbon structures, trichloroethylene, or toluene: 20 percent.

  Whenever any organic solvent or any constituent of an organic solvent may be classified from its chemical structure into more than one of the above groups of organic compounds, it is considered as a member of the most reactive chemical group, that is, the group having the least allowable percent of the total volume of solvents (SCAQMD Regulation I, Rule 102).

- *Photolithographic Maskant* - a coating applied by photoresist operation(s) directly to printed circuit boards, and ceramic and similar substrates to protect surface areas from chemical milling or chemical processing (SCAQMD Regulation XI, Rule 1124).

- *Photoresist Operation* - a process for the application or development of photoresist masking solution on a substrate, including preparation, soft bake, develop, hard bake, and stripping, and can be generally subdivided as follows (SCAQMD Regulation XI, Rule 1124):
    1. negative photoresist operation is a process where the maskant hardens when exposed to light and the unhardened maskant is stripped, exposing the substrate surface for chemical milling or chemical processing
    2. positive photoresist operation is a process where the maskant softens when exposed to light and the softened maskant is stripped, exposing the substrate surface for chemical milling or chemical processing.

- *Pigmented Coatings* - opaque coatings which contain binders and colored pigments formulated to hide the wood surface, either as an undercoat or topcoat (SCAQMD Regulation XI, Rule 1136).

- *Pleasure Craft* - vessels which are manufactured or operated primarily for recreational purposes, or leased, rented, or chartered to a person or business for recreational purposes. The owner or operator of such vessels are responsible for certifying that the intended use is for recreational purposes (SCAQMD Regulation XI, Rule 1106.1).

- *Pleasure Craft Coating* - any marine coating, except unsaturated polyester resin (fiberglass) coatings, applied by brush, spray, roller, or other means to pleasure craft (SCAQMD Regulation XI, Rule 1106.1).

- PM_{10} - particulate matter with an aerodynamic diameter smaller than or equal to 10 microns as measured by the applicable State and Federal reference test methods (SCAQMD Regulation IV, Rule 403).

- *Potential to Emit* - the maximum capacity of a stationary source to emit a regulated air pollutant based on its physical or operational design. any physical or operational limitation on the capacity of the stationary source to emit a pollutant, including air pollution control equipment and restrictions on hours of operations or on the type of material combusted, stored, or processed, is treated as part of the design only if the limitation is federally enforceable (SCAQMD Regulation XI, Rule 1130).

- *PPM* - parts per million by volume (SCAQMD Regulation I, Rule 102).

- *Predicted Episode* - whenever the EO determines that it is likely that any of the episode levels specified in this section will be reached during the following day (SCAQMD Regulation VII, Rule 701).

- *Prefabricated Architectural Component Coatings* - coatings applied to metal parts and products which are to be used as an architectural structure (SCAQMD Regulation XI, Rule 1107).

- *Pretreatment Coating* - a coating which contains no more than 12 percent solids, by weight, to provide surface etching, and is applied directly to metal surfaces to provide corrosion resistance, adhesion, and ease of stripping (SCAQMD Regulation XI, Rule 1107).

- *Pretreatment Wash Primers* -
    1. with reference to the requirements of the Architectural Coatings section, coatings which contain a minimum of 0.5 percent acid, by weight, applied directly to bare metal surfaces to provide necessary surface etching (SCAQMD Regulation XI, Rule 1113)

2. with reference to the requirements of the Surface Coating - Metal Parts and Products section, any coating that contains no more than 12 percent solids by weight, and at least 0.5 percent acid by weight, that is used to provide surface etching and is applied directly to metal surfaces to provide corrosion resistance and adhesion, but not including any primer that is applied as a topcoat.
3. with reference to the requirements of marine coatings, any coating which contains at least 0.5 percent acids, by weight, to provide surface etching and is applied directly to metal surfaces to provide corrosion resistance, adhesion, and ease of stripping (SCAQMD Regulation XI, Rule 1106).

- *Primary Recovery* - crude oil or natural gas production from "free-flow" wells or from well units where only water, produced gas or purchased quality gas is injected to repressurize the production zone (SCAQMD Regulation II, Rule 219).

- *Primer* - a coating applied directly to a part for purposes of corrosion prevention, protection from the environment, functional fluid resistance and/or adhesion of subsequent coatings (SCAQMD Regulation XI, Rule 1124).
    1. with reference to the requirements for architectural coatings, coatings applied to a surface to provide a firm bond between the substrate and subsequent coats (SCAQMD Regulation XI, Rule 1113)
    2. with reference to the requirements of the Surface Coating - Motor Vehicles and Mobile Equipment, any coating applied prior to the application of a topcoat for the purpose of corrosion resistance and adhesion of the topcoat.

- *Primer Compatible With Rain Erosion Resistant Coating* - a primer to which rain erosion resistant topcoat is applied (SCAQMD Regulation XI, Rule 1124).

- *Printing* - any operation that imparts color, design, alphabet, or numerals on a substrate (SCAQMD Regulation XI, Rule 1130).

- *Printing Ink* - a pigmented fluid or viscous material used in printing (SCAQMD Regulation XI, Rule 1130).

- Process Heater - any combustion equipment fired with liquid and/or gaseous and/or solid fossil fuel and which transfers heat from combustion gases to water or process streams. Process Heater does not include any kiln or oven used for drying, curing, baking, cooking, calcining, or vitrifying; or any unfired waste heat recovery heater that is used to recover sensible heat from the exhaust of any combustion equipment (SCAQMD Regulation XI, Rule 1146).

- *Process Weight* - the total weight of all materials introduced into any specific process which may discharge contaminants into the atmosphere. Solid fuels charged will be considered as part of the process weight, but liquid gaseous fuels and air will not (SCAQMD Regulation I, Rule 102).

- *Process Weight Per Hour* - the total process weight divided by the number of hours in one complete cycle of operation from the beginning of any given process to the completion thereof, excluding any time during which the equipment is idle (SCAQMD Regulation I, Rule 102).

- Proof Press - a press used only to check the quality of print, color reproduction, and editorial content (SCAQMD Regulation XI, Rule 1130).

- *Propellant* - a fluid under pressure which expels the contents of a container when a valve is opened (SCAQMD Regulation XI, Rule 1129).

- *Property Line* - the boundaries of an area in which either a person causing the emission or a person allowing the emission has the legal use or possession of the property. Where such property is divided into one or more sub-tenancies, the property line(s) refer to the boundaries dividing the areas of all sub-tenancies (SCAQMD Regulation IV, Rule 403).

- *PSI* - pounds per square inch.

- *PTO* - Permit to Operate.

- *Rain Erosion-Resistant Coating* - a coating that protects leading edges, flaps, stabilizers, and engine inlet lips against erosion caused by rain impact during flight (SCAQMD Regulation XI, Rule 1124).

- *Rated Brake Horsepower* - the rating specified by the engine manufacturer (SCAQMD Regulation XI, Rule 1110).

- *Rated Heat Input Capacity* - the heat input capacity specified on the nameplate of the combustion unit. If the combustion unit has been altered or modified such that its maximum heat input is different than the heat input capacity specified on the nameplate, the new maximum heat input shall be considered as the rated heat input capacity (SCAQMD Regulation XI, Rule 1146).

- *Reactive Diluent* - a liquid which is a VOC during application and one in which, through chemical reaction such as polymerization, 20 percent or more of the VOC becomes an integral part of a finished coating (SCAQMD Regulation XI, Rule 1107).

- *Reactive Organic Compound (ROC)* - any chemical compound which contains the element carbon, which has a Reid vapor pressure (RVP) greater than 80 mm Hg (1.55 psi), or an absolute vapor pressure (AVP) greater than 36 mm Hg (0.7 psi) at 20 °C excluding CO, CO_2, carbonic acid, carbonates and metallic carbides and excluding methane, 1,1,1,-trichloroethane, methylene chloride, trifluoromethane, and chlorinated-fluorinated hydrocarbons (SCAQMD Regulation IV, Rule 466.1)

- *Reasonably Available Control Measures* - techniques and procedures used to prevent or reduce the emission and airborne transport of fugitive dust. These include, but are not limited to, application of dust suppressants, use of coverings or enclosures, paving, enshrouding, planting, reduction of vehicle speeds, and other measures as specified by the EO. (A detailed list of reasonably available control measures for each fugitive dust source type is contained in the Rule 403 Implementation Handbook, dated July 1993.) (SCAQMD Regulation IV, Rule 403).

- *Reclaim SO_x Facility* - a facility that has been included in the RECLAIM (Regional Clean Air Incentive Market) program in accordance with the requirements of Rule 2001 "Applicability," and/or which has been issued a RECLAIM Facility Permit and is subject to the requirements of Rule 2011, "Requirements for Monitoring, Reporting, and Recordkeeping for Oxides of Sulfur (SO(x)) Emissions" (SCAQMD Regulation IV, Rule 431.1).

- *Refinery Gas* - any combustible gaseous byproduct generated from a petroleum refinery process unit operation, with a gross heating value of 2670 kilocalories/m^3 (300 Btu/ft^3) or higher, at standard conditions (SCAQMD Regulation IV, Rule 431.1).

- *Refrigerant* - any of the following five chlorinated fluorinated carbon compounds: trichlorofluoromethane (CFC-11), dichlorodifluoromethane (CFC-12), trichlororifluoroethane (CFC-113), dichlorotetrafluoroethane (CFC-114), or chloropentafluoroethane (CFC-115); or any combination of these compounds used in motor vehicle air conditioning equipment (SCAQMD Regulation XIV, Rule 1411).

- *Refrigerant Leak* - any discharge of refrigerant from a refrigeration system into the atmosphere which exceeds 5 percent of the total refrigeration equipment charge capacity in a 12-mo period (SCAQMD Regulation XIV, Rule 1415).
- *Refrigerated Condenser* - an emission control device consisting of primary coils which carry a refrigerant to condense solvent vapor from the degreaser bath (SCAQMD Regulation XI, Rule 1122).

- *Refrigerated Freeboard Chiller* - an emission control device which is mounted above the water jacket or primary condenser coils, consisting of secondary coils which carry a refrigerant to provide a chilled air blanket above the solvent vapor to reduce emissions from the degreaser bath (SCAQMD Regulation XI, Rule 1122).

- *Remote Reservoir Cold Cleaner* - any device in which liquid solvent is pumped through a sink-like work area which drains back into an enclosed container while parts are being cleaned (SCAQMD Regulation XI, Rule 1122).

- *Repair and Maintenance Thermoplastic Coating* - any resin-bearing coating such a vinyl, chlorinated rubber, or bituminous coatings, in which the resin becomes pliable with the application of heat, and is used to recoat portions of a previously coated substrate which has sustained damage to the coating following normal coating operations (SCAQMD Regulation XI, Rule 1106)

- *Repair Coating* - a coating used to recoat portions of a product which has sustained mechanical damage to the coating following normal painting operations (SCAQMD Regulation XI, Rule 1107).

- *Repair Maskant* - a maskant used to cover imperfections in the maskant coat (SCAQMD Regulation XI Rule 1124).

- *Residential Use* - use in areas where people reside or lodge including, but not limited to, single and multiple family dwellings, condominiums, mobile homes, apartment complexes, motels, and hotels (SCAQMD Regulation XI, Rule 1113).

- *Rework* - the inspection, repair, and reconditioning of aerospace components (SCAQMD Regulation XI, Rule 1124).

- *Rich-Burn Engine* - an engine that is operated with an exhaust stream oxygen concentration of less than 1 percent by volume (SCAQMD Regulation XI, Rule 1110).

- *Roll Coater* - a series of mechanical rollers that forms a thin coating film on the surface of the last roller, which applies the coating to a substrate by moving the substrate underneath the roller (SCAQMD Regulation XI, Rule 1136).

- *Roof Coatings* - coatings formulated for application to exterior roofs for the primary purpose of preventing penetration of the substrate by water, or for reflecting heat and ultraviolet radiation. Metallic pigmented roof coatings which qualify as metallic pigmented coatings are not considered to be in this category, but are considered to be in the metallic pigmented coatings category (SCAQMD Regulation XI, Rule 1113).

- *Rotating Basket* - a perforated or wire mesh cylinder containing parts to be cleaned that is slowly rotated while proceeding through the degreaser (SCAQMD Regulation XI, Rule 1122).

- *Safety-Indicating Coating* - a coating which changes physical characteristics, such as color, to indicate unsafe conditions (SCAQMD Regulation XI, Rule 1107).

- *Sanding Sealers* - clear wood coatings formulated for and applied to bare wood for sanding and to seal the wood for subsequent application of varnish. To be considered a sanding sealer, a coating must be clearly labelled as such (SCAQMD Regulation XI, Rule 1113).

- *Scale Inhibitor* - a coating that is applied to the surface of a part prior to thermal processing to inhibit the formation of tenacious scale (SCAQMD Regulation XI, Rule 1124)

- *SCAQMD* - the South Coast Air Quality Management District.

- *Sealant* - viscous semisolid materials that fill voids in order to seal out water, fuel, and other liquids and solids, and in some cases, air movement (SCAQMD Regulation XI Rule 1124).

- *Sealant for Wire-Sprayed Aluminum* - any coating of up to one mil (0.001 in.) in thickness of an epoxy material which is reduced for application with an equal part of an appropriate solvent (naphtha, or ethylene glycol monoethyl ether) (SCAQMD Regulation XI, Rule 1106).

- *Sealers* - coatings applied to substrates to prevent subsequent coatings from being absorbed by the substrate, or to prevent harm to subsequent coatings by materials in the substrate (SCAQMD Regulation XI, Rule 1113).

- *Semi-Transparent Stains* - coatings which are formulated to change the color of a surface but not conceal the surface (SCAQMD Regulation XI, Rule 1113).

- *Semi-Transparent Wood Preservative* - wood preservative stains formulated to protect exposed wood from decay or insect attack by the addition of a wood preservative chemical registered by the California Department of Food and Agriculture, and which change the color of a surface but do not conceal the surface, including clear wood preservatives (SCAQMD Regulation XI, Rule 1113).

- *Sewage Digester Gas* - any gas derived from anaerobic decomposition of organic sewage within its containment (SCAQMD Regulation IV, Rule 431.1).

- *Shellacs* - clear or pigmented coatings formulated solely with the resinous secretions of the lac beetle (*laccifer lacca*), thinned with alcohol, and formulated to dry by evaporation without a chemical reaction (SCAQMD Regulation XI, Rule 1113).

- *Shipping Tanks* - fixed roof tanks which operate essentially as "run down" tanks for separated crude oil where the holding time is 72 h or less (SCAQMD Regulation 2, Rule 219).

- *Shock-Free Coating* - a coating applied to electrical components to protect the user from electric shock. The coating has characteristics of being of low capacitance and high resistance, and having resistance to breaking down under high voltage (SCAQMD Regulation XI, Rule 1145).

- *Shutdown* - the cessation of operation of a facility for any purpose (SCAQMD Regulation IV, Rule 429).

- *Silicone Release Coating* - any coating which contains silicone resin and is intended to prevent food from sticking to metal surfaces such as baking pans (SCAQMD Regulation XI, Rule 1107).

- *Silt* - any aggregate material with a particle size less than 74 micrometers in diameter which passes through a No. 200 Sieve (SCAQMD Regulation IV, Rule 403).

- *Simultaneous Sampling* - the operation of two PM_{10} samplers in such a manner that one sampler is started within 5 min of the other, and each sampler is operated for a consecutive period which must be not less than 290 min and not more than 310 min (ACAQMD Regulation IV, Rule 403).

- *Small Refiner* - any person owning or operating a facility in California that produces materials from processing of petroleum crude provided such facility meets all of the following criteria (SCAQMD Regulation IV, Rule 431.1):
    1. has and at all times had since 1 January 1978, a crude oil capacity of not more than 55,000 barrels per stream day
    2. has not been, at any time since 1 September 1988, owned or controlled by any refiner that at the same time owned or controlled refineries in California with a total combined crude oil capacity of more than 55,000 barrels per stream day
    3. has not been at any time since 1 September 1988, owned or controlled by any refiner that at the same time owned or controlled refineries in the United States with a total combined crude oil capacity of more than 137,500 barrels per stream day
    4. has received a 2-yr extension for compliance with CARB's Phase II Reformulated Gasoline Requirements.

- *Solar Absorbent Coating* - a coating which has as its prime purpose the absorption of solar radiation (SCAQMD Regulation XI, Rule 1107).

- *Solid Film Lubricant* - a very thin coating consisting of a binder system containing as its chief pigment material one or more of molybdenum disulfide, graphite, polytetrafluoroethylene (PTFE) or other solids that act as a dry lubricant between surfaces (SCAQMD Regulation XI, Rule 1107).

- *Solid Particulate Matter* - particulate matter which exists as a solid at standard conditions (SCAQMD Regulation I, Rule 102).

- *Solvent Cleaning Operation* - the removal of loosely held uncured adhesives, uncured inks, uncured coatings, and contaminants from parts, products, tools, machinery, equipment, and general work areas. Contaminants include, but are not limited to, dirt, soil, and grease. In a cleaning process which consists of a series of cleaning methods, each distinct method shall constitute a separate solvent cleaning operation (SCAQMD Regulation XI, Rule 1106)

- *Solvent Container* - that part of the degreaser that is intended to hold the cleaning solvent (SCAQMD Regulation XI, Rule 1122).

- *Solvent Recovery Dryer* - a class of drycleaning dryers that employs a condenser to liquefy and recover solvent vapors evaporated in a closed-loop, recirculating stream of air (SCAQMD Regulation XI, Rule 1102).

- *Space Vehicle Coating* - a coating applied to vehicles designed to travel beyond the earth's atmosphere (SCAQMD Regulation XI, Rule 1124).

- *Special Marking Coating* - any coating used for items such as flight decks, ships' numbers, and other safety/identification applications (SCAQMD Regulation XI, Rule 1106).

- *Specialty Coatings* - any of the following coatings: adhesion promoters, uniform finish blenders, elastomeric materials, anti-glare safety coatings, impact resistant coatings, rubberized asphaltic underbody coatings, water hold-out coatings, weld-thru coatings, and bright metal trim repair, (SCAQMD Regulation XI, Rule 1151).

- *Spray Pump Control Switch* - a safety switch that prevents the spray pump from operating without an adequate vapor level (SCAQMD Regulation XI, Rule 1122).

- *Stabilized Surface* - means (SCAQMD Regulation IV, Rule 403):
  1. any disturbed surface area or open storage pile which is resistant to wind-driven fugitive dust
  2. any unpaved road surface in which any fugitive dust plume emanating from vehicular traffic does not exceed 20 percent opacity.

- *Stains* - coatings which are formulated to change the color of a surface but not conceal the surface (SCAQMD Regulation XI, Rule 1129).

- *Standard Conditions* - a gas temperature of 60°F [approximately 16 °C] and a gas pressure of 760 mm Hg (14.7 psi) absolute (SCAQMD Regulation I, Rule 102).

- *Startup* - the setting in operation of any facility for any purpose (SCAQMD Regulation IV, Rule 429).

- *Stationary Internal Combustion Engine* - any spark ignition (Otto cycle) internal combustion engine that is operated at a specific site for more than 1 yr or is attached to a foundation at that site (SCAQMD Regulation XI, Rule 1110).

- *Stencil Coating* - an ink or a coating which is rolled or brushed onto a template or stamp in order to add identifying letters and/or numbers to metal parts and products (SCAQMD Regulation XI, Rule 1107).

- *Sterilization/Fumigation* - the process where EtO or any combination of EtO and other gases are used to destroy bacteria, viruses, fungi, and other unwanted organisms on materials. These materials include, by way of illustration and not limitation, medical products, cosmetics, and foodstuffs (SCAQMD Regulation XVI, Rule 1405).

- *Sterilization Indicating Inks* - inks that change color to indicate that sterilization has occurred. Such inks are used to monitor the sterilization of medical instruments, autoclave efficiency, and the thermal processing of foods for prevention of spoilage (SCAQMD Regulation XI, Rule 1130).

- *Stream Day* - any day or part of a day when a facility or a process unit is in operation (SCAQMD Regulation IV, Rule 431.1).

- *Stripper* - a volatile liquid applied to remove temporary protective coating, maskant for chemical processing, cured paint, and cured paint residue (SCAQMD Regulation XI, Rule 1124).

- Structural Adhesive, Autoclavable - an adhesive used to bond load-carrying aircraft components and is cured by heat and pressure in an autoclave (SCAQMD Regulation XI, Rule 1124).

- Structural Adhesive, Nonautoclavable - an adhesive cured under ambient conditions and is used to bond load-carrying aircraft components or other critical functions, such as nonstructural bonding in the proximity of engines (SCAQMD Regulation XI, Rule 1124).

- *Submerged Fill Pipe* - any fill pipe the discharge opening of which is completely submerged when the liquid level is 15 cm (6 in.) above the bottom of the container; or when applied to a container which is loaded from the side, it means any fill pipe the opening of which is entirely submerged when the liquid level is 45 cm (18 in.) above the bottom of the container (SCAQMD Regulation I, Rule 102).

- *Swimming Pool Coatings* - coatings specifically formulated to coat the interior of swimming pools and to resist swimming pool chemicals (SCAQMD Regulation XI, Rule 1113).

- *Swimming Pool Repair Coatings* - chlorinated, rubber-based coatings used for the repair and maintenance of swimming pools over existing chlorinated, rubber-based coatings (SCAQMD Regulation XI, Rule 1113).

- *Tack Coat* - an epoxy coating of up to two mils thick (0.002 in.) applied to an existing epoxy coating. The existing epoxy coating must have aged beyond the time limit specified by the manufacturer for application of the next coat (SCAQMD Regulation XI, Rule 1106).

- *Teak Primer* - a coating applied to teak, or previously oiled decks in order to improve the adhesion of a seam sealer to wood (SCAQMD Regulation XI, Rule 1106.1).

- *Temporary Marking Coating* - an ink or a coating used to make identifying markings, and is removed prior to delivery of the aerospace component and/or assembly. (SCAQMD Regulation XI, Rule 1124).

- *Temporary Protective Coating* - a coating applied to a part to protect it from mechanical and environmental damage during manufacturing (SCAQMD Regulation XI, Rule 1124).

- *Therm* - 100,000 Btu.

- *Tint Base* - an architectural coating to which colorants are added (SCAQMD Regulation XI, Rule 1113).

- Toner - a wash coat which contains binders and dyes or pigments to add tint to a coated surface (SCAQMD Regulation XI, Rule 1136).

- *Topcoat* - any coating applied over primer or an original finish for purposes of appearance or protection; with reference to the requirements of the Surface Coating - Motor Vehicles and Mobile Equipment section, basecoat/clearcoat systems and three-stage coating systems are considered jointly to be topcoats. With reference to pleasure craft coatings, topcoat is any final coating applied to the interior or exterior of a pleasure craft (SCAQMD Regulation XI, Rule 1106.1).

- *Total Flooding System* - a halon-containing, stationary system which is engineered, pre-engineered, or a subfloor system, used for extinguishing fires (SCAQMD Regulation XIV, Rule 1418).

- *Touchup Coating* - any coating used to cover minor coating imperfections prior to shipment appearing after the main coating operation (SCAQMD Regulation XI, Rule 1106).

- *Traffic Coatings* - coatings formulated for and applied to public streets, highways, and other surfaces including, but not limited to, curbs, berms, driveways, and parking lots (SCAQMD Regulation XI, Rule 1113).

- *Transfer Cart* - a cart or container used for the transfer of wet fabrics from the washer to the dryer that has a lid and walls which are impervious to the solvent, and is equipped with drains that drain solvent into closed containers (SCAQMD Regulation XI, Rule 1102).

- *Transfer Efficiency* - the ratio of the weight or volume of coating solids adhering to an object to the total weight or volume, respectively, of coating solids used in the application process, expressed as a percentage (SCAQMD Regulation XI, Rule 1107).

- *Translucent Coating* - a coating which contains binders and pigment, and is formulated to form a colored, but not opaque, film (SCAQMD Regulation XI, Rule 1145).

- *Undercoaters* - coatings formulated and applied to substrates to provide a smooth surface for subsequent coats (SCAQMD Regulation XI, Rule 1113).

- *Undersea Weapons Systems* - any or all components of a weapons system that is launched or fired underwater (SCAQMD Regulation XI, Rule 1106).

- *Unicoat* - a coating which is applied directly to an aerospace component for purposes of corrosion protection, environmental protection, and functional fluid resistance that is not subsequently topcoated (SCAQMD Regulation XI, Rule 1124).

- *Unpaved Road Dust* - fugitive dust caused by vehicles traveling on unpaved roads (SCAQMD Regulation IV, Rule 403.1).

- *Unpaved Roads* - any unsealed or unpaved roads, equipment paths, or travel ways that are not covered by one of the following: concrete, asphaltic concrete, or asphalt. Public unpaved roads are any unpaved roadway owned and maintained by Federal, State, county, municipal, or other governmental or quasi-governmental agencies. Private unpaved roads are all other unpaved roadways not defined as public (SCAQMD Regulation IV, Rule 403).

- *USEPA* - the United States Environmental Protection Agency.

- *Vacuum Metalizing* - the process whereby metal is vaporized and deposited on a substrate in a vacuum chamber (SCAQMD Regulation XI, Rule 1145).

- *Vacuum-Metalizing Coating* - the undercoat applied to the substrate on which the metal is deposited or the overcoat applied directly to the metal film (SCAQMD Regulation XI, Rule 1107).

- *Valve* - any device that regulates the flow of fluid in a piping system by means of an external actuator acting to permit or block passage of fluid including the attached flange and the flange seal (SCAQMD Regulation IV, Rule 466.1).

- *Vapor Level Control Switch* - a safety switch that turns off the sump heat when the solvent vapor level rises above the design operating level (SCAQMD Regulation XI, Rule 1122).

- *Varnishes* - clear wood topcoats formulated with various resins to dry by chemical reaction on exposure to air (SCAQMD Regulation XI, Rule 1106.1).

- *Vehicle* - a device by which any person or property may be propelled, moved, or drawn upon a highway, excepting a device moved by human power or used exclusively upon stationary rails or tracks (SCAQMD Regulation I, Rule 102).

- *Visible Roadway Dust* - any sand, soil, dirt, or other solid particulate matter which is visible upon paved road surfaces and which can be removed by a vacuum sweeper or a broom sweeper under normal operating conditions (SCAQMD Regulation IV, Rule 403).

- *VOC* - please see "Volatile Organic Compound".

- *Volatile Organic Compound* - any volatile compound of carbon, excluding methane, CO, CO_2, carbonic acid, metallic carbides or carbonates, ammonium carbonate, and exempt compounds (SCAQMD Regulation I, Rule 102)

- Wash Coat - a coating, that contains no more than 1.0 lb of solids/gal of material, which is used to seal wood product surfaces, prevent undesired staining, and controls penetration. A wash coat may also be used to provide a barrier coat when paper laminates are applied to the wood product, or when glazes are applied during the coating operations (SCAQMD Regulation XI, Rule 1136).

- *Wash Tanks* - fixed roof tanks which are used for gravity separation of produced crude oil/water, including single tank units which are used concurrently for receipt, separation, storage and shipment (SCAQMD Regulation II, Rule 219).

- *Wastewater Separator* - wastewater treatment equipment used to separate petroleum-derived compounds from wastewater, which includes separator basins, skimmers, grit chambers, and sludge hoppers (SCAQMD Regulation IV, Rule 464).

- *Wastewater Separator Forebay* - that section of a gravity-type separator which receives the untreated, contaminated wastewater from the preseparator flume, and acts as a header which distributes the influent to the separator channels (SCAQMD Regulation IV, Rule 464).

- *Waterproofing Sealers* - colorless coatings which are formulated for the sole purpose of preventing penetration of porous substrates by water and which do not alter surface appearance or texture (SCAQMD Regulation XI, Rule 1113).

- *Web-Feed* - an automatic system which supplies substrate from a continuous roll, or from an extrusion process (SCAQMD Regulation XI, Rule 1130).

- *Wind Gust* - the maximum instantaneous wind speed as measured by an anemometer (SCAQMD Regulation IV, Rule 403).

- *Wind-Driven Fugitive Dust* - visible emissions from any disturbed surface area which is generated by wind action alone (SCAQMD Regulation IV, Rule 403).

- *Wing Coating* - a corrosion-resistant coating that is resilient enough to withstand the flexing of the wings (SCAQMD Regulation XI, Rule 1124).

- *Wire-Sprayed Aluminum* - any multi-aluminum coating applied to a steel substrate using oxygen fueled combustion spray methods (SCAQMD Regulation XI, Rule 1106).

- *Wire Ink* - the surface identification stripe and mark on aerospace wire or cable which serves as an electrical insulator in the presence of high humidity (SCAQMD Regulation XI, Rule 1124).

- *Wire Prebonding Etchant* - a nonadditive surface treatment process to provide bondability of aerospace wire coatings to the underlying insulation layer (SCAQMD Regulation XI, Rule 1124).

- *Wood Products* - those surface-coated room furnishings which include cabinets (kitchen, bath and vanity), tables, chairs, beds, sofas, shutters, art objects, and any other coated objects made of wood, wood composites, simulated wood material used in combination with wood or wood composites; and/or paper laminated on wood composites (SCAQMD Regulation XI, Rule 1136).

- *Wood Product Coating Applications* - a combination of coating application steps which may include use of spray guns, flash-off areas, spray booths, ovens, conveyors, and/or other equipment operated for the purpose of applying coating materials (SCAQMD Regulation XI, Rule 1136).

- *Workload Area* - either (SCAQMD Regulation XI, Rule 1122):
    1. the plane geometric surface area of the top of the submerged parts basket
    2. the combined plane geometric surface area(s) displaced by the submerged part(s), if no parts basket is used.

AIR EMISSIONS MANAGEMENT

GUIDANCE FOR SCAQMD CHECKLIST USERS

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AIR EMISSIONS MANAGEMENT

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GUIDANCE FOR APPENDIX USERS

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COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT South Coast Air Quality Management District (SCAQMD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
STATE SPECIFIC AIR REQUIREMENTS **A.5.** **General**	
A.5.1.CA.SC. Installations are prohibited, under certain circumstances, from discharging air contaminants or other materials (SCAQMD Regulation IV, Rule 402).	Verify that the installation does not discharge from any source such quantities of air contaminants or other material which may: - cause injury, detriment, nuisance, or annoyance to the public - endanger the comfort, repose, health, or safety of the public - have a natural tendency to cause injury or damage to business or property. (NOTE: Odors emanating from agricultural operations are exempted.)
A.5.2.CA.SC. Installations must not attempt to circumvent air quality standards and requirements (SCAQMD Regulation IV, Rule 408).	Verify that installations do not build, erect, install, or use any equipment that reduces or conceals an emission, which would otherwise violate air quality standards, without resulting in a reduction in the total release of air contaminants to the atmosphere.
Permits	
A.5.3.CA.SC. Installations that build, erect, install, alter, or replace any equipment, the use of which may release air contaminants or may eliminate, reduce, or control the release of air contaminants, must obtain a permit to construct (SCAQMD Regulation II, Rule 201 and 201.1).	(NOTE: The equipment listed in Appendix 1-2 are exempt from these standards.) Verify that the installation has obtained a permit to construct prior to undertaking any of these activities. Verify that the equipment is constructed and operated in accordance with the permit.

COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT South Coast Air Quality Management District (SCAQMD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.5.4.CA.SC. Installations that operate or use any article, machine, equipment, or other contrivance, the use of which may cause or control the release of an air contaminant, must meet specific operating permit requirements (SCAQMD Regulation II, Rules 202, 203, 206, 207, 209, and 219).	(NOTE: The permit to construct can serve as a temporary permit for operating until the permit to operate is granted or denied.) (NOTE: The equipment listed in Appendix 1-2 are exempt from these standards unless subject to Federal performance requirements for new stationary sources or Federal emission standards for hazardous air pollutants.) Verify that the installation obtained permits to operate all nonexempt equipment. Verify that the installation meets all specific written conditions and requirements of the permit. Verify that the entire permit to operate, or a legible facsimile, is affixed to permitted equipment so that the permit number, equipment description, and operating conditions are clearly visible and accessible. Verify that the entire permit to operate, or a legible facsimile, is posted within 8 m (26 ft) of the equipment, if it cannot be affixed to the equipment. Verify that permits to operate, or facsimiles, have not been defaced, altered, forged, or falsified in any manner. Verify that no permit is transferred between locations, pieces of equipment, or persons.
Breakdown Conditions **A.5.5.CA.SC.** Installations that have a breakdown resulting in the release of emissions in violation of these air regulations must meet specific requirements (SCAQMD Regulation IV, Rule 430).	Verify that the installation reports any breakdowns to the District within 1 h, or within 1 h of the time that the breakdown became known or reasonably should have been known. Verify that steps are taken immediately to correct the breakdown and to minimize emissions. Verify that the installation continues to operate the equipment only until the end of a cycle or for 24 h, whichever is sooner, at which time the equipment is shut down for repairs. Verify that within 1 week after a breakdown has been corrected, the installation submits a written report to the Executive Officer (EO).

COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT South Coast Air Quality Management District (SCAQMD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
Emergency Episode Plans	(NOTE: When the concentration of specific air pollutants reaches certain levels, the Air Pollution Control Officer (APCO) is empowered to declare an Air Pollution Episode. These episodes are classified as "Stage 1 Episodes", "Stage 2 Episodes", or "Stage 3 Episodes," depending on the pollutant concentration levels reached (see Appendix 1-1 for criteria). (NOTE: Percentage emissions reductions, or percentage reductions in vehicle miles traveled, lower than those specified in these requirements are allowed by the EO if either: - the installation submits a letter to the EO, not later than 30 days following a predicted Stage 2 or Stage 3 episode, demonstrating at least one of the following conditions: - meeting the stated percentage reductions jeopardizes public health or safety - meeting the stated percentage reductions damages equipment or creates an upset of production - the activity is an essential public service.)
A.5.6.CA.SC. Installations which have actual emissions of 91 metric tons (100 tons) or more per year of VOCs, NO_x, or oxides of sulfur (SO_x) must take specific steps during an air pollution episode (SCAQMD Regulation VII, Rule 701(e)(1), (4), and (5)).	Verify that, upon notification of a predicted Stage 2 or Stage 3 episode, the installation reduces combined emissions for VOCs, NO_x, and SO_X by at least 20 percent of normal weekday operations. Verify that, upon notification of the declaration of an air pollution state of emergency by the Governor, the installation takes the applicable actions which the Governor requires. Verify that these actions are implemented by at least just after midnight or upon commencement of normal business hours on the day for which an episode is predicted. Verify that a log is maintained of the actions taken to meet these requirements.
A.5.7.CA.SC. Installations required to submit a Work Trip Reduction Plan must take specific actions during an air pollution episode (SCAQMD Regulation VII, Rule 708(e)(2), (4), and (5))	Determine if the installation is required to submit a Work Trip Reduction Plan. Verify that, upon notification of a predicted Stage 2 or 3 episode, the installation takes the following steps: - posts at least one sign in a conspicuous place designating the predicted episode stage and requesting ridesharing and telecommuting - reduce fleet vehicle miles traveled each by at least 20 percent of normal week day operations. **A.5.7.CA.SC. Continued on Next Page**

COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT South Coast Air Quality Management District (SCAQMD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.5.7.CA.SC. (continued)	(NOTE: Buses, commuter van pool vehicles, or other vehicles used exclusively for multi-passenger commuting between home and the place of work or school are excluded from the Work Trip and fleet vehicle reduction provisions.) Verify that, upon notification of the declaration of an air pollution state of emergency by the Governor, the installation takes the applicable actions which the Governor requires. Verify that these actions are implemented by at least just after midnight or upon commencement of normal business hours on the day for which an episode is predicted. Verify that a log is maintained of the actions taken to meet these requirements.
A.5.8.CA.SC. All vegetative management burning is prohibited during predicted Stage 2 or Stage 3 episodes (SCAQMD Regulation VII, Rule 708(h)). **Particulate Matter**	Verify that the installation does not conduct any vegetative management burning during a predicted Stage 2 or Stage 3 episode. Verify that, upon declaration of any attained Stage 2 or Stage 3 episode, all vegetative management burning, if already ignited, is terminated.
A.5.9.CA.SC. Installations must meet specific concentration requirements for the discharge of particulate matter into the atmosphere (SCAQMD Regulation IV, Rule 404(a) and (c)).	(NOTE: These requirements do not apply to emissions resulting from the combustion of liquid or gaseous fuels in stream generators or gas turbines.) Verify that the installation does not discharge from any source particulate matter in excess of concentrations shown in Appendix 1-3.
A.5.10.CA.SC. Installations must meet weight requirements for solid particulate matter discharges (SCAQMD Regulation IV, Rule 405(a)).	Verify that the installation does not discharge into the atmosphere, from any source, solid particulate matter, including lead and lead compounds, in excess of the rate shown in Appendix 1-4.

COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT South Coast Air Quality Management District (SCAQMD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
Pollution Control Devices **A.5.11.CA.SC.** Installations that install or use an air pollution control device operating on natural gas must meet certain operating criteria (SCAQMD Regulation IV, Rule 480).	Verify that the installation has either: - a plan, subject to the EO's approval, to shut down the equipment or source generating emissions during a natural gas shortage or curtailment, until approved fuel is restored - a fuel system approved by the EO for use during a natural gas shortage or curtailment.
VOC Emissions Recordkeeping **A.5.12.CA.SC.** Installations that operate a stationary source of VOC emissions, including operations using adhesives, coatings, solvents, and/or graphic arts materials, must meet specific recordkeeping requirements (SCAQMD Regulation I, Rule 109).	Determine if the installation conducts operations requiring records for one of the following reasons: - to determine the applicability of a Districts rule - to determine a source's exemption from a rule - to determine rule compliance - as a Permit to Operate or Permit to Construct condition. Verify that the installation maintains daily records of operations for the most recent 2 yr. Verify that the records include, but are not limited to, the following: - each applicable District rule number pertinent to the operation for which records are being maintained - of the permit units involved in the operation(s) using adhesives, coatings, solvents, and/or graphic arts materials - method of application and substrate type - amount and type of adhesive, coating (including catalyst and reducer), solvent, and/or graphic arts material used in each permit unit or dispensing station (when permitted equipment is not involved), including exempt compounds (use of amounts of 1 pt/week or less may be recorded in an alternate manner) - VOC content in each adhesive, coating (including catalyst and reducer), solvent, and/or graphic arts material - amount of diluent, surface preparation, cleanup, or washup solvent (including exempt compounds used and the VOC content of each (use of amounts of 1 pt/week or less may be recorded in an alternative manner) - where applicable, the vapor pressure of solvents used as surface cleaners - oven temperature (for coating operations). Verify that such records are retained on the premises for a period of at least 2 yr.

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A.10. STEAM GENERATORS **A.10.1.CA.SC.** Installations operating any boilers, steam generators, or process heaters of equal or greater than 2 MBtu/h and less than 5 MBtu/h rated heat input capacity must meet specific requirements regarding the discharge of oxides of nitrogen (SCAQMD Regulation XI, Rule 1146.1(c)(1) through (4) and (f)).	(NOTE: An installation is exempt from these NO_x emission limits if it takes the following steps: - installs a nonresettable, totalizing fuel meter for each fuel demonstrating that the unit operates with an annual heat input at or below 18,000 therms per calendar year - has available for inspection by the EO by 1 February of each year, records listing cumulative annual usage of each fuel for the preceding calendar year and maintains and keeps accessible the records for 2 yr - demonstrates compliance with one of the steps required of units with an annual heat input of less than or equal to 18,000 therms per calendar year.) Verify that the installation operates any such unit so that it discharges into the atmosphere no more than 30 ppm of NO_x emissions or 0.037 lb NO_x/MBtu of heat input, as specified in the permit to operate, and no more than 400 ppm of CO. Verify that installations operating such units install a nonresettable, totalizing fuel meter for each fuel used on an individual unit basis, as approved by the EO. Verify that the installation takes one of the following steps with any unit with an annual heat input of less than or equal to 18,000 therms per calendar year: - operates it in a manner that maintains stack-gas oxygen concentrations at less than or equal to 3 percent on a dry basis for any 15-consecutive-minute averaging period - tunes it at least twice a year, (at intervals from 4 to 8 mo apart) in accordance with the procedure described in Attachment 1 of SCAQMD Rule 1146.1 or the unit manufacturer's specified tuneup procedure - meets the NO_x emission limitations. Verify that installations operating these units with an annual heat input of less than or equal to 18,000 therms per calendar year submit, and have approved by the EO, a compliance plan. Verify that such a plan contains the following information: - list of permits of all units with the rated heat input capacity, anticipated annual heat input - for each unit listed, a selection of one of the three options for compliance - nonresettable, totalizing fuel meter specifications, date of installation, and recorded fuel usage since installation. **A.10.1.CA.SC. Continued on Next Page**

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.10.1.CA.SC. (continued)	Verify that, if any unit subject to a compliance plan exceeds 18,000 therms of annual heat input in any calendar year, the installation takes the following steps: - within 4 mo after the end of the calendar year during which the unit exceeded 18,000 therms of annual heat input, submits required applications for permits to construct and operate - within 18 mo after the end of the calendar year during which the unit exceeded 18,000 therms of annual heat input, demonstrates and maintains compliance with NO_x emission limits - takes one of the following steps until compliance with NO_x emission limits is met: - operates in a manner that maintains stack-gas oxygen concentrations at less than or equal to 3 percent on a dry basis for any 15-consecutive-minute averaging period - tunes the unit at least twice a year, (at intervals from 4 to 8 mo apart) in accordance with the procedure described in Attachment 1 of SCAQMD Rule 1146.1 or the unit manufacturer's specified tuneup procedure - meets the NO_x emission limitations.
A.10.2.CA.SC. Installations operating boilers, steam generators, or process heaters of equal to or greater than 2 MBtu/h rated heat input capacity and less than 5 MBtu/h rated heat input capacity that maintain emissions compliance by tuning the units must meet specific additional requirements (SCAQMD Regulation XI, Rule 1146.1(c)(2)(B)).	Verify that, if a different tuneup procedure from the one described in Attachment 1 of SCAQMD Rule 1146.1 is used, a copy of this procedure is be kept on site. (NOTE: If the unit does not operate throughout a continuous 6-mo period within a calendar year, only one tuneup is required for that calendar year. No tune-up is required during a calendar year for any unit that is not operated during that calendar year; this unit may be test fired to verify availability of the unit for its intended use but once the test firing is completed the unit is shutdown.) Verify that the operator of any unit(s) who specifies the tuneup option maintains a record for 2 yr verifying that the tuneup or test firing was performed. Verify that these records are made accessible to an authorized District representative upon request.

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REGULATORY REQUIREMENTS:	REVIEWER CHECKS: September 1996
A.10.3.CA.SC. Installations operating boilers, steam generators, or process heaters of equal to or greater than 5 MBtu/h rated heat input capacity must meet specific requirements regarding the discharge of oxides of nitrogen (SCAQMD Regulation XI, Rule 1146(c)(1), (2), (4), (5), (6)).	Verify that the installation does not discharge into the atmosphere oxides of nitrogen, expressed as NO_2, in excess of the concentrations shown in the following table:

Rated Heat Input Capacity		Annual Heat Input	Gaseous, Liquid, or Solid Fuels
Equal to or greater than 5 MBtu/h	and	Greater than 9×10^9 Btu/yr (90,000 therms) per fuel use	40 ppm (0.05 lb/10^6 Btu of heat input)
Equal to or greater than 40 MBtu	and	Greater than 25% annual capacity factor	30 ppm
Equal to or greater than 40 MBtu	and	Equal to or less than 25% annual capacity and greater than 9×10^9 Btu (90,000 therms) per year fuel use	40 ppm

Verify that CO emissions from these unit(s) do not exceed 400 ppm.

Verify that any installation which chooses the pound per million Btu compliance option specified in table above installs a totalizing fuel meter to measure the total of each fuel used by each individual unit, as approved by the EO.

Verify that the institution handles any unit(s) with a rated heat input capacity greater than or equal to 5 MBtu/h and an annual heat input less than or equal to 9.0×10^9 Btu/yr, in one of the following ways:

- operates it in a manner that maintains stack gas O_2 concentrations at less than or equal to 3 percent on a dry basis for any 15-consecutive-minute averaging period
- tunes it at least twice a year, (at intervals from 4 to 8 mo apart) in accordance with the procedure described in Attachment 1 of SCAQMD Rule 1146 or the unit manufacturer's specified tuneup procedure
- operates it in compliance with a 40 ppm (0.05 lb/10^6 Btu of heat input) NO_x emission level and a 400 ppm CO emission level.

Verify that any unit(s) with a rated heat input capacity greater than or equal to 40 MBtu/h and an annual heat input greater than 200×10^9 Btu/yr has a continuous in-stack NO_x monitor or equivalent verification system in compliance with 40 CFR part 60 Appendix B Specification 2.

A.10.3.CA.SC. Continued on Next Page

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.10.3.CA.SC. (continued)	Verify that maintenance and emission records for the continuous in-stack NO_x monitor are maintained and made accessible to the EO for 2 yr. Verify that any installation operating a unit not required to meet the emissions limits or to install a continuous in-stack NO_x monitor based on annual heat input, must take the following steps: - have a totalizing meter for each fuel on all units with a rated heat input capacity equal to or greater than 5 MBtu/h which demonstrates that the unit(s) operated at or below the applicable heat input levels - have available for inspection by the EO by March 1 of each year, records listing cumulative annual usage of each fuel for the preceding calendar year and maintain and make them accessible to the EO for 2 yr - demonstrate that the annual heat input is less than or equal to the applicable amount listed in the emissions table above.
A.10.4.CA.SC. Installations operating boilers, steam generators, or process heaters of equal to or greater than 5 MBtu/h rated heat input capacity and an annual heat input less than or equal to 9.0×10^9 Btu/yr that maintain emissions compliance by tuning the units must meet specific additional requirements (SCAQMD Regulation XI, Rule 1146(c)(2)(B)).	Verify that, if a different tuneup procedure from the one described in Attachment 1 of SCAQMD Rule 1146 is used, a copy of this procedure is be kept on site. (NOTE: If the unit does not operate throughout a continuous 6-mo period within a calendar year, only one tuneup is required for that calendar year. No tune-up is required during a calendar year for any unit that is not operated during that calendar year; this unit may be test fired to verify availability of the unit for its intended use but once the test firing is completed the unit is shutdown.) Verify that the operator of any unit(s) who specifies the tuneup option maintains a record for 2 yr verifying that the tuneup or test firing was performed. Verify that these records are made accessible to an authorized District representative upon request.
A.10.5.CA.SC. Installations operating boilers, steam generators, or process heaters of equal to or greater than 5 MBtu/h rated heat input capacity and an annual heat input less than or equal to 9.0×10^9 Btu/yr must submit a compliance plan to the EO (SCAQMD Regulation XI, Rule 1146(c)(3) and (7)).	Verify that the installation submits for the approval of the EO a compliance plan demonstrating NO_x emissions compliance. Verify that the plan contains the following information: - list of permits of all units with the rated heat input capacity and anticipated annual heat input - for each unit listed, a selection of one of the three compliance options - nonresettable fuel totalizing meter specifications for each fuel used, date of meter installation, records of fuel use for each unit during the last 2 yr starting from1 March 1991. **A.10.5.CA.SC. Continued on Next Page**

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.10.5.CA.SC. (continued)	Verify that, if these unit exceed 90,000 therms of annual heat input from all fuels used in any calendar year after 1991, the installation takes all of the following steps: - within 4 mo after the end of the calendar year during which the unit exceeded 90,000 therms of annual heat input, submits required applications for permits to construct and operate - within 18 mo after the end of the calendar year during which the unit exceeded 90,000 therms of annual heat input, demonstrates and maintains compliance with the NO_x emissions requirements and, if applicable, the continuous in-stack NO_x monitor for the life of the unit - takes one of the following steps until it comes into compliance with the emissions limits found in the above table: - operates it in a manner that maintains stack gas O_2 concentrations at less than or equal to 3 percent on a dry basis for any 15-consecutive-minute averaging period - tunes it at least twice a year, (at intervals from 4 to 8 mo apart) in accordance with the procedure described in Attachment 1 of SCAQMD Rule 1146 or the unit manufacturer's specified tuneup procedure - operates it in compliance with a 40 ppm (0.05 lb/10^6 Btu of heat input) NO_x emission level and a 400 ppm CO emission level.
A.10.6.CA.SC. Installations operating steam generating equipment with a maximum heat input rate of more than 12.5 million kg calories/h (50 MBtu/h) must meet specific emission standards for air contaminants (SCAQMD Regulation IV, Rule 476).	Verify that such equipment does not discharge into the atmosphere combustion contaminants exceeding either of the following limits: - 5 kg/h (11 lb/h) - 23 mg/m^3 (0.01 gr/SCF) calculated at 3 percent oxygen on a dry basis averaged over a minimum of 15 consecutive minutes. Verify that oxides of nitrogen, expressed as NO_2 calculated at 3 percent oxygen on a dry basis averaged over 15 consecutive minutes, do not exceed the following limits: - for gas fuel, 125 ppm NO_x - for liquid or solid fuel, 225 ppm NO_x. Verify that when more than one type of fuel is used, the allowable concentration of NO_2 is determined by proportioning the gross heat input and allowable concentration of each fuel.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.10.7.CA.SC. Installations operating supercritical steam generating units with a maximum gross heat input exceeding 2143 MBtu/h must meet certain NO_2 emission standards (SCAQMD Regulation IV, Rule 474(d)).	Verify that these units do not discharge NO_2 in excess of 400 ppm during the pressure ramp periods of the boiler startup operations.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.15. **FUEL BURNING EQUIPMENT**	
A.15.1.CA.SC. Installations using nonmobile fuel burning equipment must meet certain oxides of nitrogen emission standards (SCAQMD Regulation IV, Rule 474(a)).	Verify that this equipment does not discharge oxides of nitrogen, expressed as NO_2, in amounts in excess of the concentrations shown in Appendix 1-5.
A.15.2.CA.SC. Installations using more than one type of fuel must meet certain NO_2 emission standards (SCAQMD Regulation IV, Rule 474(c)).	Verify that NO_2 discharges do not exceed concentrations determined by proportioning the gross heat input for each fuel to its respective allowable concentration.
A.15.3.CA.SC. Installations operating specific gaseous and liquid fueled internal combustion engines must meet specific emissions requirements (SCAQMD Regulation XI, Rule 1110.2(c), (d), (e), and (h)).	Determine whether the installation operates any stationary engines over 50 bhp or portable engines over 100 bhp. (NOTE: The following engines are exempt from these standards: - operation of such engines during any officially declared disaster or state of emergency - engines used exclusively for agricultural operations - emergency standby engines, including portable engines, as approved by the EO or designee which operate less than 200 h/yr as determined by an elapsed operating time meter - engines used for firefighting or flood control - laboratory engines used in research and testing - engines used for performance verification and testing - engines operating in the Riverside County Southeast Desert Air Basin area (SEDAB), but not including the nonattainment Planning Area of the Riverside County SEDAB - auxiliary engines used to power other engines or gas turbines during startups - supplemental engines which operate less than 700 h per year for the manufacture of snow and/or operation of ski lifts.) **A.15.3.CA.SC. Continued on Next Page**

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.15.3.CA.SC. (continued)	Verify that the installation replaces engines subject to these requirements with an electric motor or meets the following emission reduction requirements (for compliance schedule see Appendix 1-6): - reduces emissions to the following limits, measured by volume corrected to 15 percent oxygen on a dry basis and averaged over 15 min: - CO to no more than 2000 ppm - NO_x to 36 ppm - reactive organic gases (ROG) measured as methane to 250 ppm - reduces the emission of CO to 2000 ppm by volume corrected to 15 percent oxygen on a dry basis and averaged over 15 min, and reduce the emission of NO_x and ROG measured as methane to a compliance limit measured by the following: Compliance Limit = Reference Limit x (EFF/25 percent) for the following engine types: - electric-power-generating engines - portable engines - landfill-gas- or sewage-digester-gas-fueled engine - engine used to drive a water supply or conveyance pump, except for aeration - oil field-produced gas-fired engine - internal engine-compressor application operating less than 4000 h per calendar year - liquefied petroleum gas (LPG)-fueled engine. (NOTE: Compliance limit equals allowable NO_x or ROG emissions (ppm by volume). Reference limit equals the NO_x or ROG emission limit (ppm by volume) corrected to 15 percent oxygen on a dry basis, and averaged over 15 consecutive minutes. EFF equals the demonstrated percent efficiency at full load when averaged over 15 consecutive minutes of the engine only, as calculated, within 30 days of the first source test, without consideration of any downstream energy recovery from the actual heat rate. The value of EFF shall not be less than 25 percent.) Verify that the installation submits to the EO or designee an emission control plan of all actions and alternatives which will be taken to meet or exceed established emission compliance limits, including a schedule of increments of progress, to achieve complete compliance by 31 December 1999. Verify that the plan contains, minimally, the following information: - a list of the following for each engine: - SCAQMD permit or identification number - name of engine manufacturer - model designation - rated brake horsepower **A.15.3.CA.SC. Continued on Next Page**

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.15.3.CA.SC. (continued)	- specific fuel consumption, gal/bhp-h or cu ft/bhp-h and HHV for each type of fueling, gas/liquid - type of liquid and/or type of gaseous fuel - total hours of operation on previous 1-yr period, including hours of operation on a daily basis - fuel consumption (cubic feet of gas or gallons liquid) for the previous 1-yr period - stack modifications to facilitate continuous in-stack monitoring and/or source testing. - a list of all engines required to be controlled, identifying the type of emission control to be applied to such engines along with documentation showing existing emissions of NO_X, ROG, and CO - supporting documentation for any exempt units).
A.15.4.CA.SC. Installations operating gaseous and liquid fueled internal combustion engines must meet specific recordkeeping and monitoring requirements (SCAQMD Regulation XI, Rule 1110.2(f)).	Determine whether the installation operates any stationary engines over 50 bhp or portable engines over 100 bhp. Verify that, for stationary engines of 1000 bhp and greater, operating more than 2 Mbhp/h per calendar year, the installation installs, operates, and maintains in calibration a continuous in-stack NO_X and CO monitoring system as approved by the EO. Verify that the monitoring system includes equipment that measures and records exhaust gas NO_X and CO concentration, corrected to 15 percent oxygen on a dry basis and has data gathering and retrieval capability approved by the EO or designee. Verify that the monitoring system data is maintained for at least 2 yr and made available for inspection by the EO or designee. Verify that the installation provides source test information regarding the exhaust gas, specifically for NO_X, ROG reported as methane, and CO concentrations (concentrations in ppm by volume, corrected by 15 percent oxygen on dry basis) at least ever 12 mo. Verify that on all engines an engine operating log is maintained including, on a monthly basis, the following information: - total hours of operation - type and quantity of fuel used (liquid/gas) - cumulative hours of operation since last source test. Verify that such information is made available to the EO or designee at the end of each calendar year in a manner and form approved by the EO or designee.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.20. **GAS TURBINES**	
A.20.1.CA.SC. Installations operating electric power generating equipment must meet certain emission standards (SCAQMD Regulation IV, Rule 475).	Determine if the installation operates electric power generating equipment having a maximum rating of more than 10 MW. Determine if the installation operates gas turbine generating equipment having a maximum rating of more than 5.0 net MW that was installed and placed into operation after 1 January 1970. Verify that such equipment does not discharge into the atmosphere any air contaminants exceeding the following: - 5 kg/h (11 lb/h) - 23 mg/m^3 (0.01 gr/SCF) calculated at 3 percent oxygen on a dry basis averaged over 15 consecutive minutes or other time specified by the EO. (NOTE: This rule does not apply to any replacement equipment that discharges 50 percent or less the mass amounts of oxides of nitrogen than were discharged by the equipment it has replaced, provided the emission of combustion contaminants does not exceed 115 mg/m^3 (0.05 gr/SCF).)

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.25. **MISCELLANEOUS INCINERATORS** **A.25.1.CA.SC.** Installations disposing of solid or liquid waste by incineration must meet specific air pollution control requirements (SCAQMD Regulation IV, Rule 473).	Verify that combustible refuse is burned only in a multiple chamber incinerator or in equipment approved by the APCO. Verify that equipment used to dispose of combustible refuse, with design burning rates greater than 50 kg/h (110 lb/h), does not discharge either of the following: - particulate matter in excess of 0.23 g/m^3 (0.1 grain/ft^3) of gas calculated to 12 percent of CO_2 at standard conditions averaged over 15 consecutive minutes - particles that are individually large enough to be visible while suspended in the atmosphere. (NOTE: Any CO_2 produced by combustion of any liquid or gaseous fuels is not included in the calculation.) Verify that equipment used to process combustible refuse does not release particulate matter in excess of 0.23 g/m^3 (0.1 grain/ft^3) of gas calculated to 12 percent CO_2 at standard conditions averaged over a minimum of 15 consecutive minutes. (NOTE: Any CO_2 produced by combustion of any liquid or gaseous fuels is not included in the calculation.) Verify that any incinerators, or other equipment used to dispose of combustible refuse by burning, with design burning rates of 50 kg/h (110 lb/h) or less, or for which an application for permit was filed before 1 January 1972, does not discharge either of the following: - particulate matter in excess of 0.69 g/m^3 (0.3 grain/ft^3) of gas calculated to 12 percent CO_2 at standard conditions averaged over a minimum of 15 consecutive minutes - particles that are individually large enough to be visible while suspended in the atmosphere. (NOTE: Any CO_2 produced by combustion of any liquid or gaseous fuels are excluded from the calculation to 12 percent CO_2.)

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.30 MEDICAL WASTE INCINERATORS	(NOTE: The requirements in this subsection do not apply to: - incinerators used exclusively for human or animal cremation - installations which do not generate, process, treat, or dispose of biohazardous waste, as defined in the Health and Safety Code, Section 25020.5.)
A.30.1.CA.SC. Installations operating medical waste incinerators must meet specific emissions requirements (SCAQMD Regulation XIV, Rule 1410(d)).	Verify that the installation does not operate a medical waste incinerator unless dioxin emissions have been reduced by one of the following amounts: - 99 percent or more of the uncontrolled emissions - to less than 10 ng of dioxin/kg of waste burned. Verify that the installation does not operate a medical waste incinerator unless the furnace and control equipment are installed and used in a manner which has been demonstrated to and approved by the EO's designee. Verify that all waste material collected from the incinerator after combustion, including, by way of illustration and not limitation, bottom ash, fly ash and scrubber residuals, is be handled and stored in a manner that prevents entrainment into ambient air. Verify that the installation submits an application for a Permit to Construct to the EO's designee to modify existing equipment or construct control equipment necessary. Verify that calibration of incinerator and air pollution control monitoring equipment is conducted in accordance with the equipment manufacturer's specifications.
A.30.2.CA.SC. Installations operating medical waste incinerators must meet specific recordkeeping requirements (SCAQMD Regulation XIV, Rule 1410(f)).	Verify that all installations maintain the following records for not less than 2 yr and make them available to the District upon request: - continuous monitoring data for the incinerator, including but not limited to the following parameters: - primary and secondary combustion chamber temperatures - CO concentration of stack emissions - opacity of stack emissions or other indicator of particulate matter as approved by the District - records of incinerator operation, including, but not limited to, the following: - hourly weight charging rates to the incinerator, using equipment for determining and recording the weight of waste charged - records of all maintenance and repair activities, including records of any malfunction or failure of the incinerator or control equipment **A.30.2.CA.SC. Continued on Next Page**

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.30.2.CA.SC. (continued)	- continuous monitoring data for the following air pollution control equipment: - spray dryer monitoring equipment recording, at a minimum, gas inlet temperature and gas outlet temperature - wet scrubber monitoring equipment recording, at a minimum, gas inlet temperature, scrubber liquid flow rate, scrubber liquid pH, and daily differential pressure drops of the flue gas across the equipment - baghouse monitoring equipment recording, at a minimum, gas inlet temperature and differential pressure drops of the flue gas across the equipment - other air pollution control equipment as required by the District. - calibration data for all monitoring equipment.
A.30.3.CA.SC. Installations operating medical waste incinerators must meet specific training requirements (SCAQMD Regulation XIV, Rule 1410(h)).	Verify that no individual at the installation operates or maintains a medical waste incinerator unless the individual has a certificate of training in medical waste incineration issued by the American Society of Mechanical Engineers within 9 mo of the beginning of the training program. Verify that copies of training certificates for the operator and maintenance engineers are submitted to the EO's designee. Verify that the original training certificates are maintained at the facility with the Permit to Operate.
A.30.4.CA.SC. Installations must report any violation, malfunction, or upset of the medical waste incinerator, the air pollution control equipment, or continuous data recording system (SCAQMD Regulation XIV, Rule 1410(i)).	Verify that the installation reports any violation, malfunction, or upset of the medical waste incinerator, the air pollution control equipment, or the continuous data recording system to the EO's designee within 1 h of occurrence. Verify that the report identifies the time of occurrence, the equipment involved, and, to the extent known, the causes of the breakdown.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.55. **GASOLINE/FUELS**	(NOTE: The following requirements regarding gaseous fuel burned in permitted stationary equipment do not apply in the following cases, provided the installation supplies proof and verification upon request of the EO or designee: - an installation selling, for use in the South Coast District, any gaseous fuel not complying with sulfur content requirements provided all of the following conditions are met: - the fuel is delivered directly to a sulfur removal unit which is in full operation and which reduces the sulfur content to the required limits - the seller notifies the EO or designee prior to any such sale of the quantity, heating value, and composition of the fuel to be sold - the buyer has an approved Permit to Construct and/or Operate for the sulfur removal unit that will be used to treat the purchased gas - fuels containing sulfur used in the production of sulfur or sulfur compounds - waste gases being burned provided both: - gross heating value of such gases is less than 2670 kilocalories/m^3 (300 BTU/ft^3) at standard conditions - any supplemental fuel used to bum such waste gases does not contain sulfur or sulfur compounds in excess of the amount specified in these requirements - gases being burned from fluidized catalytic cracking unit (FCCU) regenerators subject to District Rule 1105 or Regulation XX - gases vented during refinery turnaround pursuant to District Rule 1123 or Regulation XX - gases vented to a control system pursuant to District Rule 466 and 1173 or Regulation XX - gases vented intermittently to fuel gas or waste disposal system from pressure control valves, sight glasses, compressor bottles, sampling systems, and pump and compressor case vents. - any facility which emits less than 5 lb/day total sulfur compounds, calculated as hydrogen sulfide, from the burning of gaseous fuels other than natural gas, excluding the requirement not to sell natural gas containing sulfur compounds in excess of 16 ppmv calculated as hydrogen sulfide - until 17 November 1997, any gaseous fuel sold or purchased in a transaction between a RECLAIM SO_x facility and a Non-RECLAIM SO_x facility is exempt from the sulfur content requirements, provided: - both the buyer and seller submit to the EO or designee a monthly written report of the quantities and daily averages of total sulfur contents of the fuel sold to the buyer or purchased from the seller (the daily average of total sulfur contents are monitored and reported to the District in a manner and format specified by the EO or designee; such report is submitted within 30 calendar days following the end of the reporting month) - the RECLAIM SO_x facility reports to the District and includes all SO_x emissions generated from the burning of such fuel, as part of the facility's total SO_x emissions pursuant to Rule 2004).

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.55.1.CA.SC. Installations using gaseous fuels in permitted stationary equipment must meet specific emission limitation requirements for the sulfur content (SCAQMD Regulation IV, Rule 431.1(c)(1) and (3) and (d)(3)).	Verify that the installation does not sell or offer for sale for use in the South Coast District natural gas containing sulfur compounds in excess of 16 ppmv calculated as hydrogen sulfide. Verify that, on or after the applicable compliance dates specified in Appendix 1-7, the installation does not burn, purchase, sell, or offer for sale for use in the South Coast District, any gaseous fuel containing sulfur compounds, calculated as ppmv hydrogen sulfide, in excess of the listed concentration limits. Verify that an installation, which meets the sulfur compound limits for landfill and sewage digester gas through monthly averaging, installs and properly operates a continuous emission monitor. (NOTE: An installation may meet the sulfur compound limits listed in Appendix 1-7 by achieving equivalent SO_x emission reductions within the facility, provided an Optional Facility Compliance Plan (OFCP) is submitted for approval by the EO and the installation follows the plan. The OFCP must: - contain, minimally, all data, records, and other information necessary to determine eligibility for alternative emission control, including, but not limited to, all of the following: - list and description of equipment where the gaseous fuel is produced and/or burned - amount of fuel produced by and/or to be burned in this equipment - estimated emission of SO_2 from each equipment - historical and projected information on fuel usage - demonstrate that daily total SO_x emissions from all possible sources within the facility, determined using a continuous emission monitoring system (CEMS), would be less than or equal to SO_x emissions that would have been emitted based on actual total SO_x emissions from each source, or the sulfur content limits of this rule, whichever results in lower SO_x emissions (total emissions may be determined by monitoring SO_2 emissions from at least 70 percent of total fuel gas consumed as obtained from a totalizing meter, and calculating total emissions using CEMS data) - demonstrate that permit units subject to the specified emission limitations are in compliance with all applicable District rules or are on an approved schedule of compliance - demonstrate that continuous monitoring requirements of SO_x emissions are met.) **A.55.1.CA:SC. Continued on Next Page**

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.55.1.CA.SC. (continued)	Verify that an installation which burns gaseous fuel containing sulfur compounds in excess of the limits and which had been previously exempt from these requirements, or an installation which, without use of any sulfur removal or control system, had been previously in compliance with the limits, takes the following steps: - submits for approval by the EO or designee, within 30 days from the time of exceedence, a plan to demonstrate compliance - submits to the EO or designee an application for a fuel gas control system within 6 mo of exceedence of the exemption criteria, or noncompliance with the limit - demonstrates compliance with the limit specified in Appendix 1-7 no later than 18 mo after the exceedence, or by 1 July 1997, whichever is later - installs and properly operates an approved continuous fuel gas monitoring system (CFGMS) to determine the sulfur content in the fuel gas prior to combustion, or an approved CEMS to determine the SO_x emissions after burning, within 12 mo from the date a Permit to Construct a sulfur removal system is issued (an alternative method may be used upon approval by the EOs of the District and CARB, and the Regional Administrator of the USEPA, Region IX, or their designees.) (NOTE: On or after 1 July 1997, any installation which had previously been in compliance with the emission limits specified in Appendix 1-7 is exempt from the actions required of installations which used to be exempt from these limits, provided: - the alternative monitoring method yields no more than three individual readings in a calendar year in excess of the emission limits - no single reading exceeds a fuel sulfur limit of 50 ppm - the sampling frequency is no longer than once per week.)
A.55.2.CA.SC. Installations using gaseous fuels in permitted stationary equipment must meet specific monitoring requirements for the sulfur content of the fuel (SCAQMD Regulation IV, Rule 431.1(d)(1), (2) and (4) and (g)(9)).	(NOTE: An installation is exempt from these requirements for installation and use of CFGMS or CEMS if it demonstrates to the satisfaction of the EO or designee that the supplier of the fuel has complied with these requirements.) Verify that installations burning gaseous fuels in such equipment install and properly operate an approved CFGMS to determine the sulfur content of the fuel gas prior to burning, or an approved CEMS to determine SO_x emissions after burning, according to the applicable requirements set forth in Appendix 1-8. (NOTE: An alternative method that ensures adequate compliance with daily total sulfur content limitations may be used upon written approval by the EO of the District, the CARB, and the Regional Administrator of the USEPA, Region IX, or their designees.) (NOTE: Prior to 1 July 1997, an installation burning landfill gas may comply with the monitoring requirements if data regarding total sulfur content of the landfill gas is contained and submitted to the District in a Rule 1150.1 plan.) **A.55.2.CA.SC. Continued on Next Page**

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.55.2.CA.SC. (continued)	Verify that installations do not mix refinery gases with natural gas, propane, or other fuels upstream of the monitoring device. Verify that an installation installing a continuous monitor submits to the District for approval, a quality assurance procedure specified in 40 CFR 60, Appendix F, Procedure 1 for CEMS and, as applicable, for CFGMS. Verify that, if any CFGMS or CEMS is deemed to be out of control, as specified in Appendix 1-8, according to the facility quality assurance procedure approved by the EO or designee, the installation takes the following steps: - the CFGMS or CEMS is corrected within 72 h, as demonstrated by meeting the performance specification for which it was deemed out of control - the operator of the CFGMS or CEMS notifies the EO or designee by telephone or facsimile of any breakdown(s) of the monitoring systems if the duration of the breakdown is in excess of 60 min or if there are three or more breakdowns in any one day within 24 h of the occurrence of the breakdown which triggers notification - the report identifies time, location, equipment involved, and contact person - a record of any breakdown of the monitors is kept and maintained for at least 2 yr, and made available to the District staff upon request.
A.55.3.CA.SC. Installations burning gaseous fuels in permitted stationary equipment must meet specific recordkeeping and reporting requirements (SCAQMD Regulation IV, Rule 431.1(e)).	Verify that, except at electric utility generating facilities and refineries, an installation burning gaseous fuel other than natural gas in such equipment submits to the EO or designee annual reports of monthly fuel consumption and total sulfur content of fuel consumed. Verify that these reports are submitted 60 days following the end of the reporting year, and consist of: - the amount of any gaseous fuel consumed monthly - monthly average sulfur content as determined by a CFGMS or CEMS - total SO_x emissions. Verify that installations burning gaseous fuel in such equipment located at electric utility generating facilities or refineries submit the following to the EO or designee within 30 days following the end of the reporting month: - monthly reports of daily fuel consumption - monthly weighted average sulfur content (except for natural gas) - maximum 4-h average sulfur content of fuel consumed, as determined by a CGFMS or CEMS - total SO_x emissions. Verify that the information in these reports is maintained at the facility for at least 2 yr, and is made available to the District staff upon request.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.55.4.CA.SC. Installations that burn, purchase, sell, or offer for sale liquid fuels must meet specific sulfur content requirements (SCAQMD Regulation IV, Rule 431.2(b)(1), (b)(2)(A)(i), (b)(2)(C), (e) and (f)).	(NOTE: The following uses of liquid fuels are exempt from these requirements: - where the gaseous products of combustion are used as raw materials for other processes - to propel or test any vehicle, aircraft, aircraft engine, locomotive, boat, or ship.) Verify that the installation does not burn, purchase, sell, or offer for sale any liquid fuel having a sulfur content in excess of 0.05 percent by weight, except as provided below: - existing supplies in storage which may be used until exhausted - fuel with emissions that are not greater than the potential emissions from a fuel complying with these standards. Verify that the installation does not burn diesel fuel in permitted internal combustion engines, unless the fuel meets CARB specifications for motor vehicle diesel fuel.
A.55.5.CA.SC. As of 1 October 1993, installations that burn or sell liquid fuels must follow specific requirements regarding existing fuel inventories (SCAQMD Regulation IV, Rule 431.2(b)(2)(A)(ii) and (b)(2)(B)).	Verify that the installation reports to the EO any existing inventory of more than 251 gal [approximately 950.14 L]. Verify that the installation maintains a record of the consumption and any new fuel purchases which are mixed with the existing inventory. Verify that, as of 1 October 1993, the installation provides any customer buying such fuel with the specifications for the sulfur content.
A.55.6.CA.SC. Installations burning liquid fuels must meet specific record-keeping and reporting requirements (SCAQMD Regulation IV, Rule 431.2(c)).	Verify that the installation burning liquid fuels in stationary permitted equipment, except at electric power plants, submits to the EO an annual report of the following: - monthly fuel consumption - the sulfur content of fuel at each location. Verify that the installation burning liquid fuels in stationary equipment at electric power plants submits to the EO a monthly report of the following: - daily fuel consumption - sulfur content of fuel consumed at each location. Verify that such records are maintained at the facility for a period of at least 2 yr and are available for inspection.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.55.7.CA.SC. Installations burning solid or liquid fossil fuel with a sulfur content that will emit more than 0.56 lb [approximately 0.25 kg] SO_2 per MBtu must meet specific requirements (SCAQMD Regulation IV, Rule 431.3).	Verify that the installation does not burn this fuel except under the following conditions which are exempt from such requirements: - where the gaseous products of combustion are used as raw material in other processes - to propel or test any vehicle, locomotive, boat, or ship - where process conditions or control equipment remove sulfur compounds from stack gases so that the emissions are no greater than would be emitted using a fuel complying with the sulfur content requirement. Verify that liquid or solid fossil fuels are not burned in electrical generating units on predicted or declared episode days.
A.55.8.CA.SC. Installations selling, or supplying for use within the district, gasoline as a fuel for motor vehicles must meet specific unsaturation standards (SCAQMD Regulation IV, Rule 432).	Verify that the installation does not sell, or supply as a fuel for motor vehicles, gasoline having a degree of unsaturation greater than that indicated by a Bromine Number of 30.

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REGULATORY REQUIREMENTS:	REVIEWER CHECKS: September 1996
A.60. PRINTING PRESSES AND GRAPHIC ARTS	(NOTE: The following graphic arts facilities are exempt from the standards in this subsection: - proof presses - graphic arts facilities emitting 8 lb or less of VOC per day from graphic arts operations and related solvent cleaning operations, except for aerosol forms - solar control window film, except for aerosol forms - heat-applied transfer decals - graphic arts on ceramic materials - circuitry printing - screen printing of chemical milling maskant - blanket repair material used in containers of 4 oz or less - sterilization indicating inks.)
A.60.1.CA.SC. Installations operating graphic arts facilities must meet specific VOC content and emissions requirements (SCAQMD Regulation XI, Rule 1130(c)(1) and (2) and (i)).	(NOTE: Installations may achieve compliance with these VOC content and emission s requirements through the use of an Emission Control System consisting of a collection and control system and approved in writing by the EO, or through the use of an approved Alternative Emission Control Plan). Verify that the installation does not apply any graphic arts material, including any VOC-containing materials added to the original supplied by the manufacturer, which contains total VOC in excess of the following limits: **Graphic Arts Material** / **VOC Limit (g/L less water and exempt compounds)** Printing ink: 300 Coating: 300 Adhesive: 300 (NOTE: These VOC limits for graphic arts materials do not apply to metallic and mat finish inks, provided all of the following conditions are met: - usage of matte finish or metallic inks each does not exceed 2 gal/day and 125 gal/calendar year at a facility - the potential to emit and the actual VOC emissions from a facility applying matte finish or metallic inks does not exceed 10 tons/calendar year from all VOC emission sources - the VOC content of matte finish or metallic inks does not exceed 535 and 460 g/L (less water and less exempt compounds) respectively - the installation certifies in writing to the EO that they do not emit VOCs in excess of 10 tons/calendar year - installations retain records of purchase orders and invoices of VOC-containing materials for a minimum of 2 yr. **A.60.1.CA.SC. Continued on Next Page**

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.60.1.CA.SC. (continued)	Verify that the installation does not use any fountain solution, including any VOC-containing materials added to the original solution supplied by the manufacturer, containing a total VOC in excess of 100 g/L of material.
A.60.2.CA.SC. Installations operating graphic arts facilities must meet specific requirements for cleaning (SCAQMD Regulation XI, Rule 1130(c)(3)).	Verify that solvent cleaning of application equipment, parts, products, tools, machinery, equipment, general work areas, and the storage and disposal of VOC- containing materials used in cleaning operations are carried according to general solvent cleaning requirements.
A.60.3.CA.SC. Installations operating graphic arts facilities must meet specific recordkeeping requirements (SCAQMD Regulation XI, Rule 1130(e)).	Verify that the installation keeps records as described in the Recordkeeping section.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.65. FUGITIVE EMISSIONS	(NOTE: The following activities are exempt from these fugitive emission requirements: - agricultural operations - any disturbed surface area less than 1/2 acre on residential property - active operations conducted during emergency life-threatening situations, or in conjunction with any officially declared disaster or state of emergency - active operations conducted by essential service utilities to provide electricity, natural gas, telephone, water, and sewer during periods of service outages and emergency disruptions - any contractor subsequent to the time a contract ends, provided the contractor implemented reasonably available control measures during the contractual period - any grading contractor, for a phase of active operations, subsequent to contractual completion of that phase of earth-moving activities, provided reasonably available control measures have been implemented during the entire phase of earth-moving activities, through and including 5 days after the final grading inspection - weed abatement operations ordered by a county agricultural commissioner or any state, county, or municipal fire department, provided one of the following steps is taken: - mowing, cutting, or other similar process which maintains weed stubble at least 3 in. above the soil - any discing or similar operation which cuts into and disturbs the soil and meets both of the following conditions (fugitive dust emissions from disturbed surface areas created as a result of weed abatement actions must still be controlled): - a determination is made in writing by the issuing agency of the weed abatement order stating that, due to fire hazard conditions, rocks, or other physical obstructions, maintaining weed stubble at 3 in. is not practicable - the written determination is provided to the EO upon request.)

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.65.1.CA.SC. Installations must meet specific requirements regarding the creation of fugitive dust (SCAQMD Regulation IV, Rule 403(a) through (d)).	(NOTE: The provisions of the first two fugitive dust emission requirements under this checklist number do not apply under the following conditions: - when wind gusts exceed 25 mph, provided all of the following criteria are met: - reasonably available control measures for high wind conditions are implemented for each applicable fugitive dust source type, as specified in Appendix 1-9 - daily records are maintained to document specific actions taken; the records are maintained for at least 6 mo; records are made available to the EO - in the event there are technical (e.g., noneconomic) reasons, including safety, why any of the reasonably available control measures in Appendix 1-9 cannot be implemented for one or more fugitive dust source categories, a "High Wind Fugitive Dust Control Plan" (HW-Plan) is submitted for approval - to unpaved roads, provided such roads either: - are used for the maintenance of wind-generating equipment - meet all of the following criteria: - are less than 50 ft in width at all points along the road - are within 25 ft of the property line - have a traffic volume less than 20 vehicle-trips per day - to any active operation, open storage pile, or disturbed surface area for which necessary fugitive dust preventive or mitigative actions are in conflict with the federal Endangered Species Act - to nonroutine or emergency maintenance of flood control channels and water spreading basins.) (NOTE: The following activities are exempt from the requirements under this checklist number, except for the roadway dust requirement: - blasting operations permitted by the California Division of Industrial Safety - motion picture, television, and video production activities when dust emissions are required for visual effects when the EO receives notification in writing at least 72 h in advance of the activity.) Verify that the installation does not cause or allow emissions of fugitive dust from any active operation, open storage pile, or disturbed surface area such that the presence of such dust remains visible in the atmosphere beyond the property line of the source. Verify that the installation does not cause or allow PM_{10} levels to exceed 50 micrograms/m^3 when determined, by simultaneous sampling, as the difference between upwind and downwind samples collected on high-volume particulate matter samplers or other USEPA-approved equivalent method. **A.65.1.CA.SC. Continued on Next Page**

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.65.1.CA.SC. (continued)	Verify that if sampling is conducted, samplers are: - operated, maintained, and calibrated in accordance with 40 CFR, Part 50, Appendix J, or appropriate USEPA-published documents for USEPA-approved equivalent method(s) - reasonably placed upwind and downwind of key activity areas and as close to the property line as feasible, so that other sources of fugitive dust between the sampler and the property line are minimized. (NOTE: The PM_{10} requirement does not apply if dust control actions, as specified in Appendix 1-10, are implemented on a routine basis for each applicable fugitive dust source type. To qualify for this exemption, the installation takes the following steps: - maintains records to document dates of active operations, all applicable fugitive dust source types, and actions taken consistent with Appendix 1-10 - retains such records for a period of at least 6 mo - makes such records available to the EO upon request.) Verify that the installation uses one or more reasonably available control measures to minimize fugitive dust emissions from each fugitive dust source type which is part of any active operation. Verify that the installation takes both of the following precautions: - prevents visible roadway dust from being deposited upon public paved roadways as a result of their operations for a cumulative distance of greater than 50 ft from any property access road during active operations - removes all visible roadway dust deposited upon public paved roadways as a result of active operations at the conclusion of each work day when active operations cease. (NOTE: The requirements pertaining to roadway dust do not apply to earth coverings of public paved roadways where such coverings are approved by a local government agency for the protection of the roadway, and where such coverings are used as roadway crossings for haul vehicles.)

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.65.2.CA.SC. Large operations must take specific precautions to control fugitive dust emissions (SCAQMD Regulation IV, Rule 403(e)).	(NOTE: The following activities and areas are exempt from these requirements: - officially-designated public parks and recreational areas, including national parks, national monuments, national forests, state parks, state recreational areas, and county regional parks - any construction and/or earth-moving activity in which the completion date is expected to be less than 60 days after the beginning date; to qualify for this exemption, the installation takes all of the following steps: - notifies the EO not more than 7 days after qualifying as a large operation - includes, as part of the notification, the following information: - name(s), address(es), and phone number(s) of responsible persons - description of operation(s), including a map depicting the location of the site - takes the actions specified in Tables 1 and 2 at such time as the construction and/or earth-moving activities extend more than 60 days after qualifying as a large operation - any large operation required to submit a dust control plan to any city or county government which has adopted a District-approved dust control ordinance; to qualify for this exemption, the installation submits a copy of the city- or county-approved dust control plan to the EO within 30 days of receiving approval by the city or county government - any large operation subject to Rule 1158, which has an approved dust control plan pursuant to Rule 1158, provided all sources of fugitive dust are included in the Rule 1158 plan.) Verify that any installation which conducts or authorizes the conducting of a large operation subject to these requirements either: - takes the actions specified in Tables 1 and 2 for each applicable source of fugitive dust within the property lines and meets all of the following requirements: - notifies the EO not more than 7 days after qualifying as a large operation, including the following information: - name(s), address(es), and phone number(s) of person(s) responsible for taking the required actions - a description of the operation(s), including a map depicting the location of the site - maintains daily records to document the specific actions taken - maintains such records for a period of not less than 6 mo - makes such records available to the EO upon request - obtains an approved fugitive dust emissions control plan Verify that any installation which elects to obtain an approved fugitive dust emission control plan submits the plan to the EO no later than 30 days after the activity becomes a large operation. **A.65.2.CA.SC. Continued on Next Page**

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.65.2.CA.SC. (continued)	Verify that the plan includes the following information: - name(s), address(es), and phone number(s) of person(s) responsible for preparation, submittal and implementation of the plan - description of operation(s), including a map depicting the location of the site - listing of all sources of fugitive dust emissions within property lines description of reasonably available control measures as applied to each of the sources in sufficient detail to demonstrate that these control measures will be used and/or installed during all periods of active operations. Verify that all provisions of approved or conditionally approved plans are met by the installation. Verify that plans are resubmitted annually, at least 60 days prior to the expiration date. (NOTE: If all fugitive dust sources and corresponding reasonably available control measures or special circumstances remain identical to those identified in the previously approved plan, resubmittal may contain a simple statement of no-change.) Verify that, if any special technical (e.g, noneconomic) circumstances, including safety, prevent the use of at least one reasonably available control measure for any of the sources, a justification statement is provided in lieu of the description, explaining the reason(s) why reasonably available control measures cannot be implemented. (NOTE: Any installation which no longer exceeds, and does not expect to exceed for at least a year, the criteria for a large operation may request reclassification as a non-large operation. To obtain this reclassification, the installation submits a request in writing to the EO specifying the conditions which have taken place to reduce the disturbed surface area and/or the earth-moving or throughput conditions to levels below the criteria for large operations.) (NOTE: An installation responsible for more than one large operation at noncontiguous sites may submit one plan covering multiple sites provided both of the following criteria are met: - the contents of the plan apply similarly to all sites - specific information is provided for each site, including map of site location, address, description of operations, and a listing of all sources of fugitive dust emissions within the property lines.)

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
DRY CLEANING OPERATIONS **A.70.** **Petroleum Solvent**	
A.70.1.CA.SC. Installations operating drycleaning equipment that uses petroleum-based solvents must meet specific operating requirements (SCAQMD Regulation XI, Rule 1102).	Verify that there is no continuous liquid leak or a visible mist at a rate of three drops/min or more from any portion of the equipment. Verify that all washer lint traps, button traps, access doors, and other parts of the equipment where solvent may be exposed are kept closed at all times, except when required for proper operation. Verify that the still residue is stored in sealed containers. Verify that the drycleaning facility is equipped with cartridge filters or any other type of system that reduces VOC content of filtration wastes to 1.0 kg or less per 100 kg dry weight of articles drycleaned. Verify that articles which have been drycleaned are transferred to the dryer within 5 min after removal from the washer or are kept in closed transfer carts. Verify that all solvents are stored in closed containers. Verify that the solvent recovery dryer remains closed and the recovery phase continues until there is no visible flow in the sight glass of the condenser for at least 1 min. Verify that all petroleum solvent leaks are repaired within three days. Verify that overall solvent consumption is less than 4.5 kg/100 kg of articles drycleaned for facilities without a still, or 6.5 kg/100 kg articles drycleaned for facilities with a still. Verify that a solvent recovery dryer, or an equivalent control device, which reduces VOC emissions from drying tumblers by at least 90 percent by weight is installed.
A.70.2.CA.SC. Installations operating petroleum based drycleaning facilities must meet specific record-keeping requirements (SCAQMD Regulation XI, Rule 1102(d)).	Verify that the installation maintains records of the following: - prewashed weight of articles - all solvent purchases and inventory of solvent.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
DRY CLEANING OPERATIONS **A.75** **Perchloroethylene**	
A.75.1.CA.SC. Installations operating perchloroethylene dry cleaning systems must meet specific restrictions (SCAQMD Regulation XI, Rule 1421(d)(1), (5), (6), and (7)).	Verify that the installation does not install any of the following systems or machines, or modify a vented dry cleaning machine to a converted machine: - a transfer system - a vented dry cleaning machine - a self-service dry cleaning machine - a converted machine. Verify that installations installing dry cleaning machines, not replacing existing equipment, only install factory original, closed loop, dry-to-dry machines equipped with integral primary, secondary, and fugitive controls. Verify that the installation does not operate a wastewater elimination system without a separator, located and operating immediately before the wastewater elimination system. Verify that the separator is not bypassed by loading or adding wastewater directly to the wastewater elimination system. Verify that the installation does not load or add still bottoms or residue to the separator or the wastewater elimination system. Verify that the installation does not operate the dip tank without a cover to prevent the escape of perchloroethylene vapors from the tank.
A.75.2.CA.SC. Installations with existing perchloroethylene dry cleaning systems must meet specific equipment requirements (SCAQMD Regulation XI, Rule 1421(d)(2)).	Verify that all dry cleaning equipment and floor pickups vent through a control system. Verify that the control system meets one the following requirements. - the concentration of perchloroethylene at the outlet of a carbon adsorber does not exceed 100 ppm as measured over a 1 min before dilution - the air temperature at the outlet of a refrigerated condenser reaches 45 °F or less at the end of the cool down; a temperature gauge with a minimum range from 0 °F to 150 °F installed on the condenser outlet duct is used for measuring - demonstrated control efficiency for any other control device is 90 percent by weight emission reduction, or greater, prior to discharge to the atmosphere measured over a complete drying cycle, based upon the amount of perchloroethylene entering the control device.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.75.3.CA.SC. Installations must meet specific equipment replacement and conversion requirements (SCAQMD Regulation XI, Rule 1421(d)(3) and (4)).	Verify that, before 9 December 1998, the following equipment requirements are met: - closed loop, dry-to-dry machines replacing existing equipment are equipped with at least integral primary controls and fugitive controls - factory original, closed loop, dry-to-dry machines replacing existing equipment are equipped with integral primary, secondary, and fugitive controls. (NOTE: The requirement to install fugitive controls may be waived upon approval by the EO or designee, provided fugitive controls are installed to the extent possible and complete.controls are not physically possible.) Verify that, if vented machines are modified to converted machines, the following requirements for primary controls are met: - converted machines installed before 9 December 1994 maintain an outlet air temperature of 45 °F (7.2 °C) or less for at least 3 min and within 10 min of the start of cool down, measured downstream of the condenser and any bypasses - converted machines installed on or after 9 December 1994 include the following modifications: - water cooled condensing coils of existing converted equipment are replaced with refrigerant cooled condensing coils - the compressor of the refrigerant cooled condenser has a minimum rating (hp) equal to or greater than the maximum capacity of the machine (pounds of clothing) divided by 12 - for converted machines with perchloroethylene recovery systems deemed equivalent, the total drying time is not extended by more than 5 min over the drying time of the original vented machine. Verify that, if vented machines are modified to converted machines, all process vents on the machine, originally designed to vent directly to the atmosphere during the washing, extraction, or drying cycles, are sealed. Verify that the converted machine has no perceptible leaks and any seal or gasket determined to have a perceptible leak is immediately replaced.
A.75.4.CA.SC. Installations operating a perchloroethylene dry cleaning facility must meet specific primary control system specifications (SCAQMD Regulation XI, Rule 1421(e)(1)).	Verify that the primary control system operates during the drying cycle to reduce the perchloroethylene concentration in the recirculating air stream to 8600 ppmv and is not vented to the atmosphere or workroom. Verify that the primary control system does not require the addition of any form of water that results in the physical contact between water and perchloroethylene. **A.75.4.CA.SC. Continued on Next Page**

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.75.4.CA.SC. (continued)	Verify that the primary control system consists of one of the following: - refrigerated condenser with an air temperature at the outlet not exceeding 45 °F (7.2 °C) at the end of the cool down period (if the refrigerated condenser is an add-on or retrofit, it is operated with a diverter valve - other control device meeting or exceeding all of the following criteria: - results in a perchloroethylene drum concentration of 8600 ppmv or less at the end of the drying cycle, and before the fugitive control system is activated - has a device that does the following: - measures perchloroethylene concentration, or a demonstrated surrogate parameter, in the drum at the end of each drying cycle, before the machine door is opened and any fugitive control system activates - indicates if the concentration is above or below 8600 ppmv - has a display that is easily visible to the operator - precludes the direct contact of any form of water to perchloroethylene in order to operate, maintain, or regenerate the control device.
A.75.5.CA.SC. Installations operating a perchloroethylene dry cleaning facility must meet specific secondary control system specifications (SCAQMD Regulation XI, Rule 1421(e)(2)).	Verify that the secondary control system operates with the primary control system so that the combined system reduces the perchloroethylene concentration in the recirculating air stream to 300 ppmv. Verify that the secondary control system is not vented to the atmosphere or workroom. Verify that the secondary control system does not require the addition of any form of water to the primary control system that results in the physical contact between water and perchloroethylene. Verify that the secondary control system has a holding capacity of 200 percent or greater of the maximum amount of vapor perchloroethylene expected in the drum prior to the activation of the secondary control system. Verify that, for an external add-on, the secondary control system is sized to include the maximum volume of recirculating air in the dry cleaning machine and all associated piping.
A.75.6.CA.SC. Installations operating a perchloroethylene dry cleaning facility must meet specific fugitive control system specifications (SCAQMD Regulation XI, Rule 1421(e)(3)).	Verify that the fugitive control system operates after the drying cycle is completed. Verify that the fugitive control system is activated whenever the main door, button trap, lint trap, or still is open. Verify that the fugitive control system vents through an air pollution control device approved by the EO or designee.

COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT South Coast Air Quality Management District (SCAQMD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.75.7.CA.SC. Installations operating a perchloroethylene dry cleaning facility must meet specific wastewater separator or elimination system specifications (SCAQMD Regulation XI, Rule 1421(e)(5)).	Verify that the perchloroethylene concentration of the liquid effluent of any wastewater separator or elimination system does not exceed 150 ppm. Verify that the perchloroethylene concentration of the vapor emissions of any wastewater elimination system does not exceed 25 ppmv. Verify that the wastewater separator is constructed so that no vapor emissions of perchloroethylene are emitted to the atmosphere.
A.75.8.CA.SC. Installations operating a perchloroethylene dry cleaning facility must employ trained operators and employees (SCAQMD Regulation XI, Rule 1421(f)(1) and (2)).	Verify that the installation employs at least one trained operator at all times and is responsible for compliance by the trained operator of these requirements. Verify that this trained operator is employed with 3 mo of the issuance of the Permit to Operate. Verify that the trained operator does not serve in that capacity for two or more facilities. Verify that, if the installation loses all or its only trained operator, it takes the following steps: - enters the name and date of loss of the last or sole trained operator into the Facility Record of Trained Operator(s) and Employee(s) within 1 day of the loss - designates an interim trained operator to fulfill all of the requirements specified in this section within 1 mo of the loss - obtains certification for a replacement trained operator. Verify that the trained operator trains all employees operating the dry cleaning or corresponding control devices in the proper operation and maintenance of the equipment in accordance with the equipment manufacturer's specifications and recommendations. Verify that the trained operator has trained each employee of a new dry cleaning facility within 9 mo of the date of issuance of the Permit to Operate.
A.75.9.CA.SC. Installations operating a perchloroethylene dry cleaning facility must take specific steps upon detection of a leak (SCAQMD Regulation XI, Rule 1421(f)(3)).	Verify that the detection of a perceptible leak of perchloroethylene is based on the measurement of vapor perchloroethylene concentrations in excess of 25 ppmv with one of the following devices: - a portable halogenated hydrocarbon detector, reading 50 ppmv if calibrated to methane - a gas analyzer equipped with a rapid audible or visual signal.

COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT South Coast Air Quality Management District (SCAQMD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.75.10.CA.SC. Installations operating a perchloroethylene dry cleaning facility must meet specific operating requirements (SCAQMD Regulation XI, Rule 1421(f)(4)).	Verify that all materials being cleaned are dry before removal from the machine. Verify that there are no perceptible leaks of perchloroethylene. Verify that all doors, traps, and other access points that may emit perchloroethylene remain closed at all times except for proper system operation, maintenance, or repair, Verify that button and lint traps are cleaned at the beginning of each working day and before the system is started, and the lint placed in a tightly sealed container, Verify that the backwash from the filter(s) is treated in a still or muck cooker where the following criteria are met: - the still or muck cooker does not exceed 75 percent of its capacity - the still or muck cooker is allowed to cool to 100 °F (38 °C) or less before emptying or cleaning - the backwash from all diatomaceous earth filters is treated so that the residue contains no more than 25 percent by weight perchloroethylene - the backwash from filters other than diatomaceous earth is treated so that the residue contains no more than 60 percent by weight perchloroethylene. Verify that filter cartridges are handled in one of the following manners to reduce the volume of perchloroethylene contained in the filter: - plain filter cartridges are drained in the filter housing, before disposal, for at least 24 h - adsorptive filter cartridges are drained in the filter housing, before disposal, for at least 48 h - filters are dried in an active dryer equipped with the approved perchloroethylene control system, with no vent to the atmosphere or workroom, for at least 12 continuous hours - filters are dried, stripped, sparged, or otherwise treated within the sealed filter housing or in a component of the dry cleaning system specifically designed for this purpose in accordance with the manufacturer's specifications. Verify that all waste containing perchloroethylene is stored in sealed containers free of perceptible leaks and disposed in accordance with all applicable local, state, and Federal regulations. Verify that untreated wastewater is not air or fan dried in open containers, boilers, or cooling towers. **A.75.10.CA.SC. Continued on Next Page**

COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT South Coast Air Quality Management District (SCAQMD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.75.10.CA.SC. (continued)	Verify that a dry cleaning facility with a transfer or vented machine and operating a carbon adsorber meets the following requirements: - desorption is performed when dry cleaning equipment exhausted to the device has cleaned a total of 3 lb of materials for each lb of activated carbon (desorption is performed with minimum steam pressure and air flow capacity recommended by the manufacturer) - once desorption is complete, the carbon bed is fully dried according to manufacturer's instructions - no vented perchloroethylene vapors bypass the carbon adsorber to the atmosphere.
A.75.11.CA.SC. Installations operating a perchloroethylene dry cleaning facility must meet specific inspection requirements (SCAQMD Regulation XI, Rule 1421(f)(5) and (6)).	Verify that a trained employee visually inspects the dry cleaning facility daily for perceptible leaks before the system is started. Verify that, minimally, an inspection includes the following components: - hose connections, unions, couplings, and valves - machine door gaskets and seatings - filter head gaskets and seatings - pumps - base tanks and storage containers - wastewater evaporators or separators - filter sludge recovery units - distillation units - diverter valves - lint baskets - cartridge filters. Verify that a trained operator inspects the dry cleaning facility weekly for perceptible leaks while the system is operating and according to the operation and maintenance checklist provided by the EO's designee. Verify that, minimally, the checklist verifies proper operation and maintenance of the following components: - hose connections, unions, couplings, and valves - machine door gaskets and seatings - filter head gaskets and seatings - pumps - base tanks and storage containers - wastewater evaporators or separators **A.75.11.CA.SC. Continued on Next Page**

COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT South Coast Air Quality Management District (SCAQMD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.75.11.CA.SC. (continued)	- filter sludge recovery units - distillation units - diverter valves - lint baskets - filter cartridges.
A.75.12.CA.SC. Installations operating a perchloroethylene dry cleaning facility must meet specific repair requirements (SCAQMD Regulation XI, Rule 1421(f)(7)).	Verify that a trained operator immediately repairs or orders repair service or parts for dry cleaning or corresponding control systems with any perceptible leaks according to the following schedules: - all perceptible leaks from the dry cleaning or control systems are repaired within 24 h or repair service(s) or part(s) are ordered within two working days of detecting the leak - if repair service or parts are ordered, the leaking component(s) are clearly marked or tagged with the date that the leak is detected - the ordered repair parts are installed within five working days of receipt - the cumulative duration of the repair service(s) and part(s) order does not exceed 15 working days. Verify that the date perceptible leak is detected and the nature and date of their repair are noted in the Facility Log of System Maintenance and Repair.
A.75.13.CA.SC. Installations operating a perchloroethylene dry cleaning facility must meet specific requirements when conducting water repelling and dip tank operations (SCAQMD Regulation XI, Rule 1421(f)(9)).	Verify that a trained employee performing water repelling or dip tank operations complies with the following requirements: - all materials to be treated with perchloroethylene water repelling solutions are treated in a factory original or converted closed loop machine, or a covered dip tank - he dip tank remains covered at all times, except when materials are placed in or removed from the dip tank or while the basket is moved into position - after immersion, the materials are drained within the covered dip tank until dripping ceases - all materials removed from the dip tank are immediately, within 1 min, placed and treated in a closed loop machine for drying and are not removed from the machine until the materials are dry.

COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT South Coast Air Quality Management District (SCAQMD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.75.14.CA.SC. Installations operating a perchloroethylene dry cleaning facility must meet specific monitoring requirements (SCAQMD Regulation XI, Rule 1421(g)).	Verify that a trained operator monitors the carbon adsorber weekly taking outlet and drum measurements. Verify that a trained operator monitors the refrigerated condenser weekly checking temperature sensors according to manufacturer's instructions. Verify that dry cleaning machines equipped with an equivalent perchloroethylene recovery system have a monitoring device measuring the perchloroethylene concentration, or a demonstrated surrogate parameter, in the back of the drum above the materials being processed. Verify that this monitoring device indicates if the perchloroethylene concentration is greater or less than 8600 ppmv at the end of the drying cycle and before the machine door is opened and any fugitive control system is activated. Verify that the display portion of the monitoring device is easily visible to the operator. (NOTE: A dry cleaning machine with a perchloroethylene detector is exempt from the weekly testing requirements of integral control systems if the following conditions are met: - the display portion of the detector is easily visible to the operator - the detector operates whenever the dry cleaning machine is in use - the detector is located in the back of the drum and above the materials being cleaned - the detector for a machine equipped with a primary, but not a secondary, control system indicates if the perchloroethylene concentration is greater or less than 8600 ppmv at the end of the drying cycle and before any fugitive control system is activated - the detector for a machine equipped with primary and secondary control systems indicates if the perchloroethylene concentration is greater or less than 300 ppmv at the end of the drying cycle and before any fugitive control system is activated - the detector has an auditory and visual signal with the visual signal not capable of being manually disabled - the dry cleaning machine has a sampling port providing access to the same air measured by the perchloroethylene detector.)

COMPLIANCE CATEGORY:
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REGULATORY REQUIREMENTS:	REVIEWER CHECKS: September 1996
A.75.15.CA.SC. Installations operating a perchloroethylene dry cleaning facility must meet specific reporting and recordkeeping requirements (SCAQMD Regulation XI, Rule 1421(f)(8), (h), and (i)).	Verify that a trained operator prepares and maintains all reporting and recordkeeping requirements. Verify that all required reports are maintained for at least 5 yr or until the next inspection, whichever period is longer. Verify that the following reports are maintained at the facility for the first 2 yr (they may be kept anywhere else for the remaining 3 yr) and are delivered to the SCAQMD within two working days of a request: - initial report including, minimally, the following elements: - a signature by a responsible official certifying that the initial report is accurate and true - name and mailing address of the responsible official - business address of the dry cleaning facility - documentation or estimation of perchloroethylene purchased over the previous 12 mo - description of each dry cleaning machine currently installed and used at the facility, including the type and capacity - date that each dry cleaning machine was installed - description of each air pollution control device currently installed and used at the facility - compliance report including, minimally, the following elements, and submitted within 60 calendar days of the date of issuance of the Permit to Operate: - signature by a responsible official certifying that the compliance report is accurate and true - name and mailing address of the responsible official - business address of the dry cleaning facility - documentation of perchloroethylene purchased over the previous 12 mo - description of each compliant dry cleaning and air pollution control device currently installed and used at the facility or of future actions being undertaken to comply with these requirements - date that each compliant dry cleaning and air pollution control device was or will be installed - statement recognizing the requirements and certifying implementation of: - control system - good operating practices - recordkeeping - annual report including, minimally, the following elements and submitted within 1 yr after the compliance report: - signature by a responsible official certifying that the annual report is accurate and true - copy of the record of completion for each trained operator for the facility **A.75.15.CA.SC. Continued on Next Page**

COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT South Coast Air Quality Management District (SCAQMD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.75.15.CA.SC. (continued)	- total pounds of materials cleaned and total gallons of perchloroethylene used over the previous 12 mo - average facility mileage, based on the following formulae: $$\text{Average Facility Mileage} = \frac{\text{Materials Cleaned (lb)}}{\text{Perchloroethylene Used (gal)}}$$ - a perchloroethylene balance sheet presented in terms of amounts of perchloroethylene in initial inventory; additionally purchased; disposed of; and in ending inventory over the previous 12 mo, and perchloroethylene emitted to the atmosphere - a system statement itemizing and describing the perchloroethylene dry cleaning and corresponding control system currently installed at the facility - a pollution prevention statement itemizing and describing all good operating practices, inspections, reporting, recordkeeping, and training activities currently in practice at the facility - a description and schedule for any planned changes to the system or activities at the facility - a summary of the inspection and repair logs - a summary of the training record. Verify that the installation maintains all required reports for at least 5 yr or until the next SCAQMD inspection, whichever period is longer. Verify that the following records are maintained at the facility for the first 2 yr (they may be kept anywhere else for the remaining 3 yr) and are delivered to the SCAQMD within two working days of a request: - daily machine log, for each dry cleaning machine, showing the date and the pounds of materials cleaned per load - daily facility log, showing the following information: - date and name of the person performing the following activities - copies of purchase, delivery, and disposal receipts of perchloroethylene - the time of daily visual inspections and a statement regarding the presence or absence of any perceptible leaks - weekly facility log, showing the following information: - date and name of the trained operator performing the following activities - results of the carbon adsorber outlet or drum measurement during dry cleaning machine operation - temperature difference across the refrigerated condenser during dry cleaning machine operation - copies of the completed checklists **A.75.15.CA.SC. Continued on Next Page**

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.75.15.CA.SC. (continued)	- monthly facility log of annual perchloroethylene purchased, the sum of the volume of perchloroethylene purchased over the previous 12 mo - facility log of system maintenance and repair, containing the date and a description of required repair(s) and action being taken to complete them and copies of dated service or part(s) order(s) - operation and maintenance manuals - facility record of trained operator(s) and employee(s), including the following: - the original record of successful completion for each trained Operator during the employment of that person; successful completion of an environmental training program is evidenced by a dated and instructor signed record of completion - a copy of the record of completion for each trained operator and for two additional years after termination of employment - a record of the date and nature of the training of each employee during and for two additional years after the termination of employment.

COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT South Coast Air Quality Management District (SCAQMD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
CFCs AND HALON **A.85** **Purchasing/Procuring** **A.85.1.CA.SC.** Installations purchasing any Class I or Class II refrigerant must meet specific requirements (SCAQMD Regulation XIV, Rule 1415(d)(4)).	Verify that the installation does not purchase any Class I or Class II refrigerant for use as a refrigerant unless: - the refrigerant is contained in a refrigeration system - the refrigerant is charged into a refrigeration system by a certified technician.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
CFCs AND HALONS **A.90** **Repair/Recycling**	
A.90.1.CA.SC. Installations that install, replace, or service motor vehicle air conditioners, perform any other motor vehicle repairs, dismantling, or salvage that would release refrigerant must meet specific operating requirements (SCAQMD Regulation XIV, Rule 1411(d)).	Verify that the installation does not perform any of these activities unless both of the following steps are taken: - all refrigerant is recovered or recycled with approved refrigerant recovery or recycling equipment, and procedures for the use of the equipment as specified by the recovery or recycling equipment manufacturer are employed - the refrigerant is not disposed of. Verify that no person operates recovery or recycling equipment unless he/she has a certificate of training from the manufacturer of the equipment or from an equivalent training program approved by the EO. Verify that the installation does not operate recovery, recycling, or charging equipment, except for the maintenance or repair, unless the equipment as tested every 6 mo, has no detectable leaks. Verify that one of the following tests is done to test the equipment for leaks: - an electronic halogen detector is used in accordance with manufacturer's specifications, measured 1 cm away from any portion of the system - an alternate method approved by the EO. Verify that leaks are repaired within two business days after the leak is first detected, unless the equipment does not leak if its use is discontinued. Verify that refrigerant is not added to a vehicle unless the air conditioning system has no detectable leaks as determined by one of the following tests: - an electronic halogen detector is used in accordance with manufacturer's specifications, measured 1 cm away from any portion of the system - fluorescent tracer dyes are injected through the system according to manufacturer's specifications and scanned with an ultra-violet lamp - an alternate method approved by the EO. Verify that the installation does not purchase or use any refrigerants for motor vehicle air conditioners in containers with a capacity of less than 20 lb.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.90.2.CA.SC. Installations which operate, install, replace, service, or relocate refrigeration systems must meet specific emissions requirements (SCAQMD Regulation XIV, Rule 1415(d)(1) and (6)).	Verify that the installation does not install, service, modify, or dispose of any refrigeration system, or perform any related repairs or modifications that may cause release of Class I or Class II refrigerants, unless it meets all of the following requirements: - recovers, recycles, or reclaims the refrigerant, using approved recycling or recovery equipment for that type of refrigeration unit, and employs procedures approved by the USEPA for that equipment - satisfies job site evacuation of Class I and Class II refrigerants during recycling, recovering, reclaiming, or disposing in accordance with applicable regulations of the USEPA as contained in 40 CFR, Part 82, Subpart F, Section 82.156 - has at least one piece of approved, self-contained recovery equipment available. Verify that recovery and recycling equipment is used as specified by the equipment manufacturer, unless manufacturer's specifications are in conflict with USEPA approved procedures. (NOTE: Refrigerant may be returned to the refrigeration system from which it is recovered or to another refrigeration system owned by the same person without being recycled or reclaimed.) Verify that any installation which owns or operates approved recycling or recovery equipment takes the following steps: - does not operate any approved recycling or recovering equipment, except for maintenance or repair, unless the equipment has been tested for and been determined to have no leaks within the past 6 mo as determined by a method approved by the EO's designee - leaks in recycling, recovering, or charging equipment are repaired within two working days after the leak is first detected, unless the equipment does not leak if its use is discontinued - does not alter the design of approved recovery and recycling equipment in a manner that would affect the equipment's ability to meet certification standards set by the USEPA without resubmitting the altered design for approval testing - provides proof of certification for the recovery and recycling equipment from the USEPA to the EO's designee upon request. Verify that the operator of the refrigeration system has one of the following current, valid, and applicable USEPA certificates: - a Type II Technician certificate for high or very high pressure refrigeration systems - a Type III Technician certificate for low pressure refrigeration systems - a Universal Technician certificate. Verify that installations reclaiming refrigerants release into the atmosphere no more than 1.5 percent of the refrigerant received for reclamation.

COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT South Coast Air Quality Management District (SCAQMD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.90.3.CA.SC. Installations operating refrigeration systems must meet specific maintenance requirements (SCAQMD Regulation XIV, Rule 1415(d)(2)(A) and (B)).	Verify that an annual audit is conducted for refrigeration systems containing Class I refrigerant by a Certified Auditor to determine whether the system is operating pursuant to manufacturer's specifications and does not have refrigerant leaks. Verify that, minimally, the annual audit requires the following: - a leak test for refrigeration systems operating above atmospheric pressure using one of the following methods: - electronic halogen detector used in accordance with manufacturer's specifications - fluorescent tracer dyes injected into the system according to manufacturer's specifications, and scanned with an ultraviolet lamp - an alternate method approved by the EO's designee - a leak test for refrigeration systems operating below atmospheric pressure by using one of the following methods: - pressurizing the system by using an inert gas mixture with an indicator or by raising the temperature of the Evaporator - an alternate method approved by the EO's designee - amount of refrigerant leak, for each refrigeration system, by recording the total capacity of refrigerant charge in each refrigeration system, the quantity of any additional refrigerant charge to each refrigeration system, and the date of each charge - an examination for deficiencies which may cause refrigerant leakage. Verify that an annual maintenance program for refrigeration systems containing Class II refrigerants has been established to ensure that the system is operating pursuant to manufacturer's specification and that it does not have any refrigerant leaks. Verify that this maintenance program consists of all of the following: - an inspection for leaks by a certified technician which includes an examination for deficiencies which may cause refrigerant leakage - a written record of the quantity of any additional refrigerant charge to each refrigeration system.
A.90.4.CA.SC. Installations owning or operating a refrigeration system with a refrigerant leak must take specific steps (SCAQ Regulation XIV, Rule 1415(d)(3)).	Verify that the installation ensures that the leak is repaired no later than 14 calendar days after it is discovered or should have been discovered. Verify that the installation maintains a log of repair activities beginning at the time the leak is discovered and ending at the time when the leak is repaired. Verify that the refrigeration system is verified by a certified technician to be leak free before any refrigerant is added to the system.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.90.5.CA.SC. Installations owning, operating, or servicing halon fire extinguishing systems must meet specific recovery requirements (SCAQMD Regulation XIV, Rule 1418(d)).	Verify that installations with portable fire extinguishers or total flooding systems do not release halon from these extinguishers unless the halon is recovered and/or recycled using recovery or recycling equipment with an efficiency of at least 97 percent, or the release is for a fire. Verify that installations do not conduct a discharge test of a total flooding system unless the following conditions apply: - a written determination is received from any local authority stating that limitations exist which cause difficulty in predicting the level of halon/air mixture using other test methods; or an applicable ordinance requires only the use of a discharge test - test gas other than Halon 1301 is used. Verify that any person servicing a total flooding system is working under the supervision of a person who has a C-16 classification contractor's license for fire protection, or has a license issued by the State Fire Marshal. Verify that the installation does not operate or possess a total flooding system unless each tank for the system is labeled with the following statement: LICENSE REQUIRED TO REMOVE, RELOCATE, OR SERVICE THIS SYSTEM, PURSUANT TO SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT RULE 1418

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
CFCs AND HALONS **A.95** **Recordkeeping**	
A.95.1.CA.SC. Installations that install, replace, or service motor vehicle air conditioners, perform any other motor vehicle repairs, dismantling, or salvage that would release refrigerant must meet specific recordkeeping requirements (SCAQMD Regulation XIV, Rule 1411(f)).	Verify that records, including the following, are maintained by the installation for at least 2 yr and made available to the EO on request: - lb of refrigerants purchased, used, recovered, recycled, stored, and sold for use in the District per calendar year - semiannual maintenance records for any recovery and recycling equipment, including the following information: - name of the person performing the maintenance - dates that the maintenance was performed - results of leak tests - records of what equipment was check, modified, serviced, or replaced - annual documentation of the training of all personnel performing or supervising refrigerant recovery or recycling - annual documentation, by receipts or other verification, for refrigerant that is shipped offsite, if recycling is not done on the premises.
A.95.2.CA.SC. Installations operating a refrigeration systems must submit a Registration Plan (SCAQMD Regulation XIV, Rule 1415(d)(2)(C)).	Verify that the installation submitted a Registration Plan by 1 January 1996 and submits one every 2 yr thereafter. Verify that this Registration Plan contains the following information: - number of refrigeration systems in operation - type of refrigerants in each refrigeration system - amount of refrigerant in each refrigeration system - date of last annual audit or maintenance performed for each refrigeration system - amount of refrigerant charged every year.
A.95.3.CA.SC. Installations owning or operating any refrigeration system must meet specific recordkeeping requirements (SCAQMD Regulation XIV, Rule 1415(e)(1) through (3)).	Verify that the installation maintains the following records for each refrigeration system: - a report demonstrating compliance with maintenance and registration requirements, including the following information: - date of annual audit and annual maintenance program - all work completed for each refrigeration system to prevent or repair leaks, including results of leak testing and leak determinations - name(s) of the person who completed the inspection and repair, and name, address, and telephone number of the company the person is representing **A.95.3.CA.SC. Continued on Next Page**

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.95.3.CA.SC. (continued)	- permit number of the recycling or recovery equipment - log of repair activities - technician certificate type - log of the quantity of each additional refrigerant charged to the refrigeration system and the date of each charge - log of malfunctions of the refrigeration system, other than that determined as part of normal maintenance, including the following: - cause of the malfunction - type of repairs required and the date the repairs were completed - if refrigerant is recycled offsite, a transportation bill-of-lading (or other transportation document as approved by the EO's designee) indicating the following: - name and location of the facility from which the refrigerant is shipped - quantity of refrigerant transported - destination (company name, phone number, and location) - date of transportation - quantity (in lb) of Class I or Class II refrigerants purchased or used in the District in a calendar year and the name and address of the refrigerant supplier. Verify that any installation receiving refrigerant for recycling or reclaiming from offsite locations maintain copies of all transportation documents for each shipment of refrigerant received. Verify that required records and reports are generated by a Certified Auditor or a certified technician. Verify that annual audits and maintenance records are in a format approved in writing by the EO's designee. Verify that required records and reports are maintained for not less than 3 yr after their creation and are made available to the EO's designee upon request.
A.95.4.CA.SC. Installations which purchase any Class I or Class II refrigerant and employ certified technicians must meet specific recordkeeping requirements (SCAQMD Regulation XIV, Rule 1415(e)(5)).	Verify that the installation provides evidence that at least one technician is properly certified to the wholesaler who sells them refrigerant. Verify that the installation notifies the wholesaler in the event they no longer employ at least one properly certified technician. Verify that required records and reports are maintained for not less than 3 yr after their creation and are made available to the EO's designee upon request.

COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT South Coast Air Quality Management District (SCAQMD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.95.5.CA.SC. Installations owning and operating approved recycling or recovery equipment must meet specific recordkeeping requirements (SCAQMD Regulation XIV, Rule 1415(e)(8)).	Verify that the installation maintains the following records: - date of semi-annual inspection - all work completed for each recycling or recovery system to prevent or repair leaks, including results of leak testing and leak determinations - name(s) of the person who completed the inspection and repair, and name, address, and telephone number of the company the person is representing - permit number of the recycling or recovery equipment. Verify that required records and reports are maintained for not less than 3 yr after their creation and are made available to the EO's designee upon request.
A.95.6.CA.SC. Installations owning, operating, or servicing a halon fire extinguishing system must meet specific recordkeeping and reporting requirements (SCAQMD Regulation XIV, Rule 1418(e)).	Verify that any installation owning or maintaining a total flooding system has registered with the District by submitting the following information on a District approved form: - name and address of the installation and operator and location of each total flooding system - description and capacity of each total flooding system. Verify that any installation which services halon fire extinguishing systems has registered with the District by submitting the following information on a District approved form: - name and address of the installation and operator - description of the system for recycling and recovery of halon - location of recovery and recycling operations - license number - minimum efficiency of the recovery and/or recycling operations, if recycling equipment is not certified pursuant to Underwriter Laboratories Standard 2006. Verify that, if any information submitted to the District changes, the District approved form is resubmitted with the new information within 30 days of the change. Verify that any installation conducting a discharge test submits the written determination from the local authority on a District approved form within 14 days after the test. Verify that the following information is submitted within 14 days of the recharge if the system requires recharging of more than 10 lb of halon due to accidental discharge: - name, address, telephone number, and signature of the owner or operator - cause of the accidental discharge - measures taken to prevent another occurrence.

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AIR EMISSIONS MANAGEMENT
South Coast Air Quality Management District (SCAQMD)-California Supplement

REGULATORY REQUIREMENTS:	REVIEWER CHECKS: September 1996
COATING OPERATIONS **A.100.** **Abrasive Blasting** **A.100.1.CA.SC.** Installations that conduct abrasive blasting operations must meet specific operational requirements (SCAQMD Regulation XI, Rule 1140(b)).	Verify that air contaminants meeting the following conditions are not discharged into the atmosphere for a period aggregating more than 3 min in 1 h: - as dark or darker as No. 2 on the Ringelmann Chart - of such opacity as to obscure the observer's view to a degree equal or greater than No. 2 on the Ringelmann Chart. Verify that abrasive blasting operations use one of the following approved methods: - confined blasting - wet abrasive blasting - hydroblasting - dry unconfined blasting. Verify that surface preparation for raised traffic delineating markers and pavement marking removal meet one of the following performance standards: - wet abrasive blasting, hydroblasting, or vacuum blasting is used - dry unconfined abrasive blasting for immediate application of pavement markings of less than 1000 ft^2 [304.8 m^2] or, for raised traffic delineating markers, use abrasive meeting the following conditions: - before blasting, contains not more than 1 percent by weight material passing through a No. 70 U.S. standard sieve - after blasting, contains not more than 1.8 percent by weight material 5 microns or smaller. Verify that confined abrasive blasting is used for all operations, except in the following conditions: - when steel or iron shot/grit is used - when the item to be blasted exceeds 8 ft [approximately 2.44] in height, 8 ft [approximately 2.44 m] in width, or 10 ft [approximately 2.05 m] in length - when the structure or surface is blasted at its permanent or ordinary location. **C.100.1.CA.SC. Continued on Next Page**

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A.100.1.CA.SC. (continued)	Verify that blasting of stucco and concrete is done by wet abrasive blasting, hydroblasting, or vacuum blasting, except dry abrasive blasting may be used for the following: - window and door returns and frames - eaves, overhangs, and ceilings - brushoff blasting, except for stucco surfaces - completely shrouded structures and blast areas that control emissions - cleaning operations other than aggregate exposure or paint removal related to new concrete construction or repair activity if such operations are performed onsite.
A.100.2.CA.SC. Installations using dry unconfined blasting must meet additional requirements (SCAQMD Regulations XI, Rule 1140 (c)).	Verify that all abrasives used comply with the following performance standards: - before blasting, the abrasive contains no more than 1 percent by weight material passing a No. 70 U.S. Standard sieve - after blasting, the abrasive contains no more than 1.8 percent by weight material 5 micrometers or smaller. (NOTE: Certified abrasives that are reused are exempt from the after blasting requirement, but not the before blasting requirement.) Verify that the abrasive used is certified annually by the Air Resources Board to comply with these performance standards.
Aerosol	
A.100.3.CA.SC. Installations that apply aerosol coatings must meet specific requirements (SCAQMD Regulation XI, Rule 1129).	Verify that the installation does not apply any aerosol coating with a VOC content in excess of 2 g VOC/g coating solids. Verify that the installation does not use aerosol coatings containing any of the following substances: - trifluoromethane (FC-23) - trichlorotrifluoroethane (CFC-113) - dichlorodifluoromethane (CFC-12) - trichlorofluoromethane (CFC-11) - dichlorotetrafluoroethane (CFC-114) - chloropentafluoroethane (CFC-115). **A.100.3.CA.SC. Continued on Next Page**

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A.100.3.CA.SC. (continued)	Verify that the installation does not use any aerosol coating with VOC limits in excess of the following:

Coating Type	VOC Percent
Flats, Topcoats	30
Street Marking Coatings	30
Primers, Stains	42
Repair and Maintenance, Metallics, Touchups, Industrial Maintenance, Multi-color Coatings	50
Special Markings, High Temperature Coatings	60
Clear Coatings	65
Electrical Insulation Coatings	67

Verify that, if a coating listed in this table of VOC limits is marked as suitable in place of another coating for which a lower VOC standard is specified, the coating with the lowest VOC standard is used.

Verify that, beginning 1 January 1996, any VOC limit set for a conventional coating that is more stringent than the VOC limit in any District coating requirement will apply equally to an aerosol coating used for the same application.

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Aerospace Coating, Assembly and Cleaning	(NOTE: The following aerospace component coating operations are exempt from all aerospace assembly requirements: - facilities using less than 3 gal [approximately 11.36 L] of VOC containing coatings and solvents each day of operation (except aerosol application) - research and development laboratory operations - the application of temporary marking coatings.)
A.100.4.CA.SC. Installations that apply surface coatings to aerospace components must meet specific requirements regarding VOC emissions (SCAQMD Regulation XI, Rule 1124(c)(1) and (2), (i), and (k)(1), (3), (5), (7), (8), and (12)).	(NOTE: The following aerospace component coating operations are exempt from these VOC limit requirements: - coatings with separate formulations used in volumes of less than 20 gal/yr [approximately 75.71 L/yr] (except for aerosol application) - incidental corrosion maintenance repair coating operations at military facilities, excluding aerosol applications, provided: - coating use at any maintenance repair location does not exceed 1.5 gal/day [approximately 5.68 L/day] - total coating usage for such operations does not exceed 5 gal/day [approximately 18.93 L/day] - clear or translucent coatings on clear or transparent substrates - recoating of assembled aircraft if original coating formulations are used - adhesives with separate formulations used in volumes of less than 10 gal/yr [approximately 75.71 L/yr].) Verify that the installation does not apply to aerospace components any coatings containing VOC in excess of the limits listed in Appendix 1-11. (NOTE: Installations may meet these VOC content requirements by means of an Alternative Emission Control Plan.) Verify that Unicoats containing VOCs in excess of 420 g/L are not applied to aerospace assemblies or components. Verify that, when Unicoats are used, the installation has written approval from the EO or his designee specifying the conditions of application. Verify that maskant is not applied for chemical processing or chemical milling, unless both of the following conditions are met: - it contains no more than 1200 g of VOC/L of coating, less water and exempt compounds - one of the following conditions are met: - emissions are collected and reduced using approved air pollution control equipment - the maskant contains less than 250 g/L of VOC, less water, exempt compounds, and perchloroethylene. **A.100.4.CA.SC. Continued on Next Page**

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.100.4.CA.SC. (continued)	Verify that VOC-containing materials used for cleaning or cleanup, excluding coating, stripping, and equipment cleaning, meet one of the following criteria: - composite vapor pressure of the VOC is 45 mm Hg or less at a temperature of 20 °C (68 °F) - the material contains 200 g or less of VOC/L of material. Verify that strippers are not used on aerospace components, unless one of the following conditions is met: - they contain less than 300 g of VOC/L of material - the composite vapor pressure of the VOC is 9.5 mm Hg (0.18 psia) or less at 20 °C (68 °F). (NOTE: The surface cleaning of solar cells, fluid systems, avionic equipment, and laser optics is exempt from the VOC standards for cleaning and stripping materials.)
A.100.5.CA.SC. Installations that apply surface coatings aerospace components must follow certain application techniques (SCAQMD Regulation XI, Rule 1124(c)(4) and (k)(3), (6), (9), and (14)).	(NOTE: The following types of coating operations are exempt from these application technique requirements: - incidental corrosion maintenance repair coating operations at military facilities, excluding aerosol applications, provided: - coating use at any maintenance repair location does not exceed 1.5 gal/day [approximately 5.68 L/day] - total coating usage for such operations does not exceed 5 gal/day [approximately 18.93 L/day] - touchup and stencil coatings - application of materials marking coatings - materials dispensed from hand-held aerosol cans or from airbrush operations.) Verify that coatings are applied with properly operating equipment or controlled, according to operating procedure specified by the equipment manufacturer or the EO or his designee, and by using one of the following methods: - electrostatic application - flow coater - roll coater - dip coater - high-volume, low-pressure spray - hand application methods - other application methods approved by the EO as achieving at least equivalent transfer efficiency to high-volume, low-pressure spray - approved air pollution control equipment.

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A.100.6.CA.SC. Installations using approved air pollution control equipment when applying surface coatings to aerospace components must meet specific emission reduction requirements (SCAQMD Regulation XI, Rule 1124(c)(5)).	Verify that the control device reduces emissions from an emission collection system by at least 95 percent, by weight, or the output of the air pollution control device is less than 50 ppm calculated as carbon with no dilution. Verify that the installation demonstrates that the system collects at least 90 percent, by weight, of the emissions generated by the source of emissions.
A.100.7.CA.SC. Installations that apply surface coatings to aerospace components must follow certain recordkeeping requirements (SCAQMD Regulation XI, Rule 1124(d) and (k)(15)).	Verify that records are maintained according to the general recordkeeping requirements. (NOTE: These requirements do not apply to the application of materials with less than 20 g of VOC/L of material.)
Architectural **A.100.8.CA.SC.** Installations applying architectural coatings must ensure that these coatings meet specific standards (SCAQMD Regulation XI, Rule 1113(c)).	(NOTE: The application of emulsion type bituminous pavement sealers is exempt from these requirements.) Verify that, if the installation uses any of the coatings listed in Appendix 1-12, then none of those coatings exceed the VOC limits listed. Verify that every other architectural coating used by the installation does not contain more than 250 g/L of coating of VOC (2.08 lb/gal), excluding water, exempt solvents, and colorant added to tint bases. Verify that, if a coating listed in Appendix 1-12 is marked as suitable in place of another coating with a lower VOC standard, then the lowest VOC standard applies, except for the following coatings in the manner specified: - high-temperature industrial maintenance coatings which may be represented as metallic pigmented coatings for use consistent with the definition of the former - lacquer sanding sealers which may be recommended for use as sanding sealers in conjunction with clear lacquer topcoats - metallic pigmented coatings which may be recommended for use as primers, sealers, undercoaters, roof coatings, or industrial maintenance coatings - shellacs. **A.100.8.CA.SC. Continued on Next Page**

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A.100.8.CA.SC. (continued)	Verify that all VOC-containing materials are stored in closed containers when not in use.
Marine	
A.100.9.CA.SC. Installations using marine coating materials must meet specific VOC limits (SCAQMD Regulation XI, Rule 1106).	(NOTE: The following marine coatings are exempt from these standards: - coatings applied to the interior surfaces of potable water containers - touchup coatings - coatings purchased before 1 January 1992 in containers of 1 qt or less and applied to pleasure craft - antifoulant coatings applied to aluminum hulls - aerosol coating products.) Verify that the installation does not apply any marine coating with a VOC content in excess of the amounts shown in Appendix 1-13. (NOTE: Compliance can be achieved through the use of an approved emission control system. The control system must both achieve a minimum capture efficiency and a destruction efficiency of at least 85 percent by weight and reduce VOC emissions, when using noncompliant coatings, to an equivalent or greater level than would be achieved through meeting the limits in Appendix 1-13. Compliance can also be achieved through the development and use of an Alternative Emission Control Plan.) Verify that solvents are handled and stored in accordance with Rule 1171, Solvent Cleaning Operations. Verify that general recordkeeping requirements are met.
A.100.10.CA.SC. Installations using marine coating materials on pleasure crafts must meet specific VOC limits (SCAQMD Regulation XI, Rule 1106.1(c), (d), and (f)).	(NOTE: The use of aerosol coatings is exempt from this requirement.) Verify that the installation does not use any pleasure craft coating with a VOC content in excess of the limits found in Appendix 1-14, expressed as grams of VOC per liter of coating applied, less water and exempt solvents. (NOTE: This prohibition applies only where it is designated anywhere on the container by any sticker or label affixed to it, or where it is indicated in any sales or advertising literature, that the coating may be used as, or is suitable for use as, a pleasure craft coating.) **A.100.10.CA.SC. Continued on Next Page**

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A.100.10.CA.SC(continued)	Verify that the installation does not apply coatings subject to this requirement unless the coating is applied by use of one of the following methods: - hand application methods - high volume, low pressure (HVLP) spray - such other alternative spray application method as is demonstrated to be capable of achieving equivalent or better transfer efficiency, and for which written approval of the District's EO has been obtained. Verify that solvent cleaning of coating application equipment, products, tools, machinery, equipment, and general work areas, and the storage and disposal of VOC-containing materials used in solvent cleaning operations, is carried out in accordance with Rule 1171 regarding solvent cleaning operations. Verify that, on and after 1 January 1997, the installation does not apply pleasure craft coatings, subject to these requirements, containing carbon tetrachloride or any of the Group II exempt compounds, except methylene chloride. Verify that general recordkeeping requirements are met.
Metal Parts and Products	(NOTE: These requirements apply to all metal coatings operations except those performed on aerospace assembly, magnet wire, marine craft, motor vehicle, metal container, and coil coating operations.)
A.100.11.CA.SC. Installations coating metal parts and products must meet specific requirements regarding VOC content (SCAQMD Regulation XI, Rule 1107(c)(2), (3), and (7), and (g)(1), and (6) through (9), and (i)).	(NOTE: The following coatings are exempt from the VOC content requirement: - stencil coatings - a facility using a total of less than 1 gal [approximately 3.79 L] of coating, including any added VOC-containing materials, in any one day - noncompliant coatings used in volumes of less than 55 gal per rolling 12-mo period - safety-indicating coatings - magnetic data storage disk coatings - solid film lubricants - at a facility with the potential to emit a total of 10 tons or less per year of VOCs before application of add-on control: - high performance architectural - vacuum metalizing - pretreatment coatings - until 1 January 1997, vacuum metalizing coatings, provided the coatings meet a VOC content limit of 800 g/L, less water and less exempt compounds - until 1 January 1997, high performance architectural coatings, provided the coatings meet a VOC content limit of 750 g/L, less water and less exempt compounds - until 1 January 1997, pretreatment coatings, provided the coatings meet a VOC content limit of 780 g/L, less water and less exempt compounds.) **A.100.11.CA.SC. Continued on Next Page**

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A.100.11.CA.SC(continued)	Verify that coatings, including any with VOC containing materials added, do not have VOC contents in excess of those shown in Appendix 1-15. Verify that materials with a VOC content of more than 200 g/L are not used for surface stripping of any coating covered by this section (other than cleaning of application equipment and preparatory surface cleaning of solar cells and laser optics). (NOTE: The installation may comply with this requirement by using approved air pollution control equipment, provided the VOC emissions from such operations and/or materials are reduced in accordance with the following: - the control device reduces emissions from an emission collection system by at least 95 percent by weight or the output of the air pollution control device is 50 ppm by volume calculated as carbon with no dilution - the installation demonstrates that the system collects at least 90 percent by weight of the emissions generated by the sources of emissions.) (NOTE: Compliance with these VOC limits can be met through development of an approved Alternative Emission Control Plan.)
A.100.12.CA.SC. Installations coating metal parts and products must meet specific coating process requirements SCAQMD Regulation XI, Rule 1107(c)(1), (4), (5), and (7), (g)(1), (2), and (4), and (i)).	(NOTE: The following coatings are exempt from the application process requirement: - stencil coatings - a facility using a total of less than 1 gal [approximately 3.79 L] of coating, including any added VOC-containing materials, in any one day - noncompliant coatings used in volumes of less than 55 gal per rolling 12-mo period - safety-indicating coatings - magnetic data storage disk coatings - solid film lubricants - touchup coatings - repair coatings - textured coatings - metallic coatings which have a metallic content of more than 30 g/L - mold-seal coatings - less than 3 gal of coating, as applied, including any VOC-containing materials added to the original coating as supplied by the manufacturer, per day.) **A.100.12.CA.SC. Continued on Next Page**

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A.100.12.CA.SC(continued)	(NOTE: The application process requirement does not apply to any coating operation that, because of physical and/or chemical characteristics of the substrate or safety conditions, cannot meet a 65 percent transfer efficiency, provided the following criteria are met: - a general coater submits a written petition to the EO setting forth the basis, including test data, for the claim, and approval is granted - a contract painter submits a written petition to, and receives approval from, the EO, or designee, to exempt the coating of such items; and the contract painter maintains a daily log meeting the following criteria: - information is entered prior to beginning the coating operation - describes the reason(s) why 65 percent transfer efficiency cannot be achieved, including a written and/or photographic description of the object to be used - is made available for review by the District upon request - is retained in the operator's files for at least 2 yr.) Verify that VOC containing coatings are applied with properly operating equipment according to procedure specified by the equipment manufacturer or the EO using one of the following methods: - electrostatic attraction - flow coat - drip coat - roll coater - high-volume, low pressure spray - hand application - other methods approved by the EO. (NOTE: The installation may comply with this requirement by using approved air pollution control equipment, provided the VOC emissions from such operations and/or materials are reduced in accordance with the following: - the control device reduces emissions from an emission collection system by at least 95 percent by weight or the output of the air pollution control device is 50 ppm by volume calculated as carbon with no dilution - the installation demonstrates that the system collects at least 90 percent by weight of the emissions generated by the sources of emissions.) Verify that closed containers are used for disposal of cloth or paper containing VOC used in stripping cured coating. Verify that solvent cleaning of coating application equipment, parts, products, tools, machinery, equipment, and general work areas, and the storage and disposal of VOC-containing materials used in solvent cleaning operations, is carried out in accordance with Rule 1171 regarding solvent cleaning operations. (NOTE: Compliance with these VOC limits can be met through development of an approved Alternative Emission Control Plan.)

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A.100.13.CA.SC. Installations that coat metal parts must follow specific recordkeeping requirements (SCAQMD Regulation XI, Rule 1107(k)).	Verify that the general recordkeeping requirements are met.
Motor Vehicle and Mobile Equipment **A.100.14.CA.SC.** Installations conducting motor vehicle and mobile equipment nonassembly line coating must meet specific VOC and carcinogenic compound standards (SCAQMD Regulation XI, Rule 1151(c)(1), (2), (3), and (6), (e)(2) and (i)(1) and (4)).	(NOTE: The following coating operations are exempt from these VOC limitation standards: - touchup coatings - stencil coatings - coatings applied for education purposes at coating training centers which are owned and operated by coating manufacturers, provided VOC emissions from noncomplying coatings do not exceed 12 lb/day.) Verify that coatings applied to Group I and Group II type vehicles do not exceed VOC contents listed in Appendix 1-16. (NOTE: The installation may achieve compliance with these VOC limits through use of an approved emission control system consisting of collection and control devices, approved in writing by the EO, or an Alternative Emission Control Plan approved by the EO.) Verify that the installation does not apply a coating containing any Group II exempt compounds, except methylene chloride and carbon tetrachloride. Verify that the installation does not apply coatings in which cadmium or hexavalent chromium was introduced as a pigment or as an agent to impart any property or characteristic to the coatings during manufacturing, distribution, or use. Verify that, if the installation uses an emission control system to comply with VOC limits, it maintains daily records of key system operating and maintenance procedures demonstrating continuous operation and compliance of the emission control system during periods of emission producing activities. (NOTE: Key system operating parameters are those necessary to ensure compliance with VOC limits. The parameters include, but are not limited to, temperatures, pressures, and flow rates.)

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A.100.15.CA.SC. Installations conducting nonassembly line motor vehicle and mobile equipment coating must meet specific operational requirements (SCAQMD Regulation XI, Rule 1151(c)(4), (5), (e)(1), and (i)(1)).	(NOTE: The following coating operations are exempt from following application requirements: - touchup coatings - stencil coatings.) Verify that coatings are applied by one of the following methods: - electrostatic application - high volume, low pressure spray - any other application method approved in writing by the EO. Verify that the equipment used is operating properly and proper operating procedures are followed. Verify that the installation meets the general recordkeeping requirements. Verify that the installation meets general requirements regarding solvent cleaning operations.
Plastic, Rubber, Glass **A.100.16.CA.SC.** Installations applying coatings to plastic, rubber, or glass must follow specific VOC limits (SCAQMD Regulation XI, Rule 1145(b)(2), (5), (7), (8), and (11), (c), (e), and (g)(1)).	(NOTE: The following coatings when applied to plastic, rubber, or glass are exempt from these VOC limit requirements: - touchup and repair coatings - stencil coatings applied on clear or transparent substrates - clear or translucent coatings - any individual coating category used in volumes less than 50 gal [approximately 208.2 L] in any 1 yr, if substitute compliant coatings are not available, provided the total usage of all such coatings does not exceed 200 gal/yr - mask coatings that are either: - less than 0.5 mm thick (dried) and in an area less than 25 in.^{2} [63.5 cm^2] - less than 0.5 mm thick (dried) and have written approval from the EO - coating of motor vehicle bodies at motor vehicle rework facilities - EMI/RFI shielded coatings.) Verify that coatings used for plastic, rubber, and glass meet the VOC limits listed in Appendix 1-17. **A.100.16.CA.SC. Continued on Next Page**

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A.100.16.CA.SC(continued)	(NOTE: Installations may comply with these VOC limits by using an Alternative Emission Control Plan or air pollution control equipment, provided VOC emissions are reduced in accordance with the following: - the control device reduces VOC emissions from an emission collection system by at least 95 percent, by weight, or the concentration of VOC in the output of the device is less than 50 ppm calculated as carbon with no dilution - the installation demonstrates that the system collects at least 90 percent, by weight, of the VOC emissions generated.) Verify that containers are used for the disposal of VOC-laden cloth or paper used in stripping of cured coatings and that these containers are kept closed, except when depositing or removing VOC-laden cloth or paper. Verify that the installation does not use VOC-containing materials containing more than 200 g of VOC /L of material for stripping cured coatings. Verify that the installation follows the requirements for general solvent cleaning operations. Verify that the installation meets the general recordkeeping requirements.
A.100.17.CA.SC. Installations applying coatings to plastic, rubber, or glass must meet specific operating requirements (SCAQMD Regulation XI, Rule 1145(b)(10) and (11), (e), and (g)(3)).	Verify that the installation applies coatings, excluding aerosol container applications, to these materials with equipment operated according to manufacturer's specifications and using one of the following methods: - electrostatic application - flow coater - roll coater - dip co - hand application methods - high-volume, low-pressure spray - other alternative spray application methods approved in writing by the EO. (NOTE: Installations may comply with these application requirements by using an Alternative Emission Control Plan or air pollution control equipment, provided VOC emissions are reduced in accordance with the following: - the control device reduces VOC emissions from an emission collection system by at least 95 percent, by weight, or the concentration of VOC in the output of the device is less than 50 ppm calculated as carbon with no dilution - the installation demonstrates that the system collects at least 90 percent, by weight, of the VOC emissions generated.)

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Spray Coating Operations **A.100.18.CA.SC.** Installations that use or operate spray painting or spray coating equipment must meet specific operational requirements (SCAQMD Regulation IV, Rule 481).	(NOTE: The following spray coating operations are exempt from these standards: - coatings of 3 gal/day [approximately 11.36 L/day] or less at a single location - coatings of a four or less family dwelling and its appurtenances by the owner or occupant - provided they cannot be conducted inside a control enclosure, coatings of: - lacquers on cabinets and wood and simulated wood surfaces - adhesives - fibrous coatings - abrasive materials - portland cement mixtures - elastomers - stains - metal surface primers - textured coatings - coatings for construction or maintenance of: - structural steel - pipes, valves, flanges 6 in. [15.24 cm] in diameter or less - ornamental objects on buildings, structures, and their appurtenances - aircraft ground support equipment that cannot fit inside of a spray enclosure with internal dimensions of 10 ft wide by 25 ft long by 8 ft high [approximately 2.05 m wide by 7.62 m long by approximately 2.44 m high] - coatings of catalyzed epoxy or polyurethane primers or coatings on large aerospace subassemblies or completed vehicles where the stage of assembly precludes placement within an enclosure - coatings in a control enclosure connected to an external air pollution control device approved by the EO. Verify that the installation does not use or operate spray coating equipment unless one of the following conditions is met: - the equipment is operated inside an approved control enclosure - coatings are applied with electrostatic and/or airless spray equipment - a method of application or control of equal or greater effectiveness is used.)

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Wood Products	(NOTE: These requirements for the coating of wood products do not apply to residential, noncommercial operations or the use of aerosol coating products.)
A.100.19.CA.SC. Installations applying coatings to any wood product must meet specific VOC limit requirements (SCAQMD Regulation XI, Rule 1136(c)(1), (i), and (k)(1)).	(NOTE: Installations using less than 1 gal/day of coating [approximately 3.79 L/day] are exempt from the VOC limit requirements.) Verify that coatings applied to a wood product do not have a VOC content, including any added VOC containing material, exceeding the limits specified in Appendix 1-18. Verify that a stripper is not used on wood products, unless it meets both of the following criteria: - contains less than 30 g of VOC/L of material - the composite vapor pressure of the VOC is 2 mm Hg (0.04 psia) or less at 20 °C (68 °F). (NOTE: Installations may achieve compliance with these requirements by using an air pollution control system with written approval from the EO, using an Alternative Emission Control Plan, or by using emissions averaging.)
A.100.20.CA.SC. Installations using air pollution control systems to meet VOC limit requirements for the coating of wood products must meet specific additional requirements (SCAQMD Regulation XI, Rule 1136(g)).	Verify that the installation has a continuous monitor, as approved by the EO, for any add-on control device used to meet VOC limit requirement. Verify that records of monitoring devices and other data necessary to demonstrate compliance with these control requirements are maintained on the premises and made accessible for 2 yr to the EO in a form and manner as specified by the EO. Verify that each monitoring device used is calibrated in a manner approved by the EO, and maintained in optimum working order.

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A.100.21.CA.SC. Installations using emissions averaging to meet VOC limit requirements must meet specific additional requirements (SCAQMD Regulation XI, Rule 1136(j)).	Verify that the installation demonstrates that actual emissions from the coatings being averaged are less than or equal to 90 percent of the allowable emissions, on a daily basis. (NOTE: Emission averaging is limited to any combination of stains, sealers, clear topcoats, and pigmented coatings selected by the installation.) Verify that any wood product coating not included in the emission averaging meets the VOC limits. Verify that installations using the averaging approach submit a plan to the EO and USEPA and receive written approval of the plan from the EO and USEPA prior to implementation. Verify that the installation resubmits, on an annual basis, a plan for approval by the AQMD. Verify that the plan includes, at a minimum the following information: - description of the wood product coatings to be included in the averaging program - description of the quantification and recordkeeping procedures for coating usage, coating VOC and solids content, VOC emissions, and calculations to show daily compliance with VOC limits.
A.100.22.CA.SC. Installations conducting wood coating operations must meet specific operating requirements for the application and cleanup of coating products (SCAQMD Regulation XI, Rule 1136(c)(2) and (3) and (k)(1)).	(NOTE: Installations using less than 1 gal/day of coating [approximately 3.79 L/day] are exempt from the application requirement). Verify that the installation applies coatings with properly operating equipment, according to the equipment manufacturer's operating procedures, and by using one of the following methods: - electrostatic application - flow coat - dip coat - high volume, low pressure spray - paint brush - hand roller - roll coater - any method approved in writing by the EO as capable of achieving at least 65 percent transfer efficiency. Verify that solvent cleaning operations and the storage and disposal of VOC containing materials meet general solvent cleaning operation requirements.

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A.100.23.CA.SC. Installations conducting wood coating operations must meet specific recordkeeping requirements (SCAQMD Regulation XI, Rule 1136(d)).	Verify that the installation keeps records as described in the general recordkeeping section.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.110. **CHROME PLATING/ CHROMIC ACID ANODIZING**	
A.110.1.CA.SC. Installations operating chrome plating or chromic acid anodizing tanks must meet specific operating requirements (SCAQMD Regulation XI, Rule 1169(b)).	Verify that chromium emissions from these tanks are reduced by 95 percent or more using one of the following measures: - anti-mist additive - control equipment with at least 95 percent efficiency and an emission collection system. Verify that chromium emissions from the emissions collection system serving decorative plating tanks are reduced to less than 0.05 mg of chromium per ampere-hour. Verify that chromium emissions from the emissions collection system serving hard chrome plating and/or chromic acid anodizing plating tanks are reduced to less than 0.15 mg of chromium per ampere-hour. Verify that tanks at installations with facility wide chromium emissions greater than 2 lb/yr [approximately 0.91 kg/yr] meet one of the following conditions: - emissions are reduced by 99 percent or more using one of the following measures: - anti-mist additive - control equipment with at least a 99 percent efficiency and an emission collection system - emissions from the collection system are reduced to less than 0.03 mg of chromium per ampere-hour of electrical charge applied to the tank. Verify that tanks at installations with facilitywide chromium emissions of 10 lb/yr [approximately 3.46 kg/yr] or greater meet one of the following conditions: - emissions are reduced by 99.8 percent or more using one of the following measures: - an anti-mist addition - control equipment with at least 99.8 percent efficiency and an emission collection system. - emissions from the collection system are reduced to less than 0.006 mg of chromium per ampere-hour of electrical charge to the tank.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.110.2.CA.SC. Installations operating chrome plating or chromic acid anodizing tanks must follow specific recordkeeping requirements (SCAQMD Regulation XI, Rule 1169(c)).	Verify that a continuous record is maintained of anti-mist additive concentrations or other recommended measurements. Verify that a daily log of ampere-hours applied to each tank is maintained. Verify that these records are kept for at least 2 yr.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
DEGREASING OPERATIONS **A.115.** **General**	(NOTE: These requirements do not apply when cleaning solvents have a VOC content of 2 percent or less by volume, based on the total volume of the material as used, or exempt solvent blends containing less than 10 percent VOC by volume. Batch-loaded cold cleaners with open-top surface areas less than 0.1 m^2 (1 ft^2) and solvent usage less than 1 gal/day are also exempt from all of these requirements, except for the following: - the degreaser has an apparatus or cover which prevents escape of solvent vapors when not in use - the cover is operated in accordance with manufacturer's specifications and is kept closed, except while processing work or performing maintenance on the degreaser - all waste solvents are stored in properly identified, sealed containers and handled and disposed of in accordance with local, state, and Federal requirements.)
A.115.1.CA.SC. Installations owning or operating a batch-loaded cold cleaner, an open-top vapor degreaser, or any type of conveyorized degreaser using a VOC-containing solvent must meet specific basic equipment requirements (SCAQMD Regulation XI, Rule 1122(c)(1)).	Verify that one of the following types of covers is used for open-top vapor degreasers and batch-loaded cold cleaners which are heated, agitated, or use high volatility solvents: - roll-top cover - canvas curtain cover - guillotine (biparting) cover - any other cover that slides off the degreaser in a horizontal motion and is designed such that it can be opened or closed without disturbing the vapor layer or the solvent surface. Verify that all degreasers are fitted with an apparatus or cover which prevents escape of solvent vapors when the degreaser is not in operation. Verify that a facility or device is used for draining cleaned parts such that the drained solvent or drag-out is returned to the degreaser.
A.115.2.CA.SC. Installations owning or operating a batch-loaded cold cleaner, an open-top vapor degreaser, or any type of conveyorized degreaser using a VOC-containing solvent must meet specific basic operating requirements (SCAQMD Regulation XI, Rule 1122(c)(2)	Verify that the degreaser cover is operated in accordance with the manufacturer's specifications and closed at all times except while processing work or performing maintenance on the degreaser. Verify that the parts to be cleaned are racked in a manner that will minimize drag-out losses. Verify that parts are drained immediately after cleaning, until one of the following conditions exists, unless emulsion cleaners are used and parts are immediately rinsed with water: - at least 15 s have elapsed - dripping of solvent ceases - parts become visible dry. **A.115.2.CA.SC. Continued on Next Page**

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.115.2.CA.SC. (continued)	Verify that the water separator is maintained in order to prevent water from returning to the surface of the boiling solvent sump or from becoming visible detectable in solvent exiting the water separator. Verify that the solvent container is free of all liquid leaks. Verify that auxiliary degreaser equipment, such as pumps, water separators, steam traps, or distillation units do not have any liquid leaks, and visible tears and cracks. Verify that any liquid leak, visible tear, or crack detected is repaired within one calendar day, or the degreaser is drained of all solvent and shut down until replaced or repaired. Verify that all waste solvents are stored in properly identified, sealed containers, and handled and disposed of in accordance with local, state, and Federal regulations. Verify that solvent flow cleaning is done within the vapor zone and consists of a liquid stream rather than a fine, atomized, or shower-type spray and the solvent flow is directed downward to avoid turbulence at the air-vapor or air-solvent interface and to prevent liquid solvent from splashing outside of the degreaser. Verify that porous or absorbent materials, such as cloth, leather, wood, or rope, is not degreased. Verify that solvent agitation, where necessary, is carried out only by pump recirculation, ultrasonics, a mixer, or by air agitation. Verify that air agitation is carried out under the following conditions: - air agitation unit is equipped with a gauge and a device that limits air pressure into the degreaser to less than 2 psi gauge - the cover remains closed while the air agitation system is in operation. Verify that the vertical speed of a powered hoist or conveyor, if used, is not more than 3.5 m/min (11.2 ft/min) when lowering and raising parts into the degreaser. Verify that the average draft rate in the work room, as measured parallel to the plane of the degreaser opening, does not exceed 9.1 m/min (30 ft/min), unless necessary to meet Occupational Safety and Health Administration (OSHA) requirements. Verify that ventilation fans are not positioned so as to direct air flow near the degreaser openings. Verify that the air ventilation rate in a hood, enclosure, or from a lip exhaust to a hood or enclosure does not exceed 20 $m^3/min/m^2$ of air-vapor or air-solvent interface surface area, unless necessary to meet OSHA requirements.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.115.3.CA.SC. Installations operating a carbon adsorption system in association with any batch-loaded cold cleaner, open-top vapor degreaser, or conveyorized degreaser using VOC-containing solvents must meet specific design requirements (SCAQMD Regulation XI, Rule 1122(h)).	Verify that the carbon adsorption system has a hood or enclosure with a delivery system or ductwork designed to collect degreaser emissions and to vent them to a carbon adsorption system with a control efficiency of at least 90 percent in terms of organic input to the bed. Verify that the output from the carbon adsorption system is not more than 25 ppm, calculated as carbon. Verify that the hood or enclosure has a ventilation rate of between 15 to 20 m^3/min/m^2 of air-vapor or air-solvent interface surface area (49.2 to 65.6 ft^3/min/ft^2 of air-vapor or air-solvent interface surface area), unless otherwise required to meet OSHA standards.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
DEGREASING OPERATION **A.116.** **Cold Cleaning** **A.116.1.CA.SC.** Installations operating a remote reservoir cold cleaner using a solvent containing VOCs must meet specific additional requirements (SCAQMD Regulation XI, Rule 1122(g) and Rule 1171(c)(3)).	Verify that the solvent container is kept closed through the use of a cover or a device, such as a valve, when the remote reservoir is not being used, cleaned, or repaired. Verify that the average draft rate in the work room, as measured parallel to the plane of the degreaser opening, does not exceed 9.1 m/min (30 ft/min), unless necessary to meet OSHA requirements. Verify that the solvent container is free of all liquid leaks. Verify that solvent flow cleaning is done within the vapor zone and consists of a liquid stream rather than a fine, atomized, or shower-type spray, and that the solvent flow is directed downward to avoid turbulence at the air-vapor or air-solvent interface and to prevent liquid solvent from splashing outside of the container. Verify that solvent flow is directed in a manner so as to prevent liquid solvent from splashing outside of the remote reservoir cold cleaner. Verify that porous or absorbent materials, such as cloth, leather, wood, or rope, are not degreased. Verify that waste solvent is stored in properly identified, sealed containers and handled and disposed of in accordance with local, state, and Federal requirements. Verify that the solvent container is free of all liquid leaks. Verify that auxiliary equipment, such as pumps or distillation units, do not have any liquid leaks, visible tears, or cracks. Verify that any liquid leak, visible tear, or crack detected is repaired within one calendar day, or the degreaser is drained of all solvent and shut down until replaced or repaired.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.116.2.CA.SC. Installations operating batch-loaded cold cleaners using solvents containing VOCs must meet specific additional operating requirements (SCAQMD Regulation XI, Rule 1122(d)).	Verify that applicable operating requirements are legibly written, and permanently and conspicuously posted on or near the degreaser so as to be conveniently available to the operator for reference. Verify that degreasers loaded with a low volatility solvent have a freeboard ratio of at least 0.50. Verify that a degreaser loaded with a high volatility solvent is fitted with a drainage facility inside the degreaser and has either: - a water cover over the surface of the solvent if the solvent has a negligible solubility in water and has a density greater than that of water - a freeboard ratio of at least 0.75.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
DEGREASING OPERATIONS **A.117** **Vapor Cleaning**	
A.117.1.CA.SC. Installations operating open-top vapor degreasers using solvents containing VOCs must meet specific equipment requirements (SCAQMD Regulation XI, Rule 1122(e)(1) through (5)).	Verify that applicable operating requirements are legibly written, and permanently and conspicuously posted on or near the degreaser so as to be conveniently available to the operator for reference. Verify that the following safety switches are installed on the degreaser: - vapor level control switch - condenser water flow switch, for water-cooled degreasers - spray pump control switch, for solvent flow cleaning. Verify that the degreaser has a freeboard ratio of either: - at least 0.75 for degreasers with an inside length or width equal to or greater than 10 ft - at least 1.0 for all other open-top vapor degreasers. Verify that open-top degreasers which have air-vapor interface surface areas of more than 1.0 m^2 (10.8 ft^2) are equipped with either: - a refrigerated freeboard chiller, designed such that the refrigerant temperature at the degreaser outlet does not exceed 4.4 °C (40 °F) - a carbon adsorption system - an enclosed batch-type design, with a programmable hoist, and a freeboard ratio of at least 1.0 regardless of the cover requirements. Verify that an open-top vapor degreaser which has an air-vapor interface surface area of more than 2.0 m^2 (21.5 ft^2) has automated, powered, or mechanically-assisted covers that slide off in a horizontal motion.
A.117.2.CA.SC. Installations operating open-top vapor degreasers using solvents containing VOCs must follow specific additional operating requirements (SCAQMD Regulation XI, Rule 1122(e)(6)).	Verify that, when equipped with a lip exhaust system, the exhaust fan is off whenever the degreaser is covered. Verify that the workload area does not exceed more than half of the degreaser's air-vapor interface surface area. Verify that, at startup, the refrigerated condenser and the refrigerated freeboard chiller are turned on either simultaneously or before the sump heater is turned on. **A.117.2.CA.SC. Continued on Next Page**

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.117.2.CA.SC. (continued)	Verify that, at shutdown, the sump heater is turned off, either simultaneously or before the condenser water and refrigerated freeboard chiller are turned off. Verify that the degreaser is covered whenever the primary condenser is turned off. Verify that the workload is degreased in the vapor zone until condensation ceases.
A.117.3.CA.SC. Installations operating conveyorized degreasers using solvents containing VOCs must meet specific additional requirements (SCAQMD Regulation XI, Rule 1122(f)).	Verify that applicable operating requirements are legibly written, and permanently and conspicuously posted on or near the degreaser so as to be conveniently available to the operator for reference. Verify that a high vapor cutoff thermostat with manual reset has been installed. Verify that the freeboard ratio is at least 0.75. Verify that a drying tunner connected to the main control enclosure, or another means such as a rotating or tumbling basket, is used to reduce drag-out losses. Verify that entrances and exits are constructed with an average clearance between each part and the edge of the degreaser opening of less than 10 cm (3.9 in.) or less than 10 percent of the width of the opening. Verify that conveyorized degreasers with air-vapor or air-solvent interface surface areas of more than 1.0 m^2 (10.8 ft^2), but less than or equal to 2.0 m^2 (21.6 ft^2), have either: - a refrigerated freeboard chiller, designed so that the refrigerant temperature at the degreaser outlet does not exceed 4.4 °C (40 °F) - a carbon adsorption system. Verify that conveyorized degreasers with air-vapor or air-solvent interface surface areas of more than 2.0 m^2 (21.6 ft^2) have either: - a carbon adsorption system - a below-freezing refrigerated freeboard chiller, designed so that the refrigerant temperature at the degreaser outlet does not exceed -20 °C (-4 °F).

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
DEGREASING OPERATIONS **A.118** **Reporting** **A.118.1.CA.SC.** Installations owning or operating a batch-loaded cold cleaner, an open-top vapor degreaser, or any type of conveyorized degreaser using a VOC-containing solvent must meet specific recordkeeping requirements (SCAQMD Regulation XI, Rule 1122(k).	Verify that the general recordkeeping requirements are met.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.120. **OIL/WATER SEPARATORS**	
A.120.1.CA.SC. Installations operating wastewater separators to recover oil or tar from effluent water must meet specific operational, design, and construction requirements (SCAQMD Regulation IV, Rule 464).	(NOTE: A wastewater separator with a compartment for which the operator has demonstrated, to the satisfaction of the EO, that compliance will cause the value of A/fxV to exceed 420, is exempt from these requirements. The following values apply: A is the area to be covered in ft^2 V is the oil recovery rate in gal/day [L/day] on an annual basis f is the estimated fractional volume loss of oil and is computed as: f = -0.0663 + 0.000319 x (annual mean ambient temperature, °F) 0.000286 x (10 percent true boiling point, °F) + 0.00215 x (annual average influent temperature, °F).) Verify that any compartment of a vessel or device operated for recovery of oil from effluent water from equipment storing or handling petroleum or coal tar products is equipped with one of the following vapor loss control devices: - a solid cover with all openings sealed, totally enclosing the liquid contents - a floating pontoon or double-deck type cover equipped with closure seals that have no tears or leaks, installed and maintained so gaps between the compartment wall and the seal do not exceed 0.32 cm (0.125 in.) for an accumulative length of 97 percent of the perimeter. Verify that any gauging and sampling device in the compartment cover is equipped with a cover or lid kept in a closed position, except when in use, and with no visible gaps when closed. Verify that all wastewater separator forebays are covered. Verify that skimmed oil or tar removed from wastewater separating devices is either charged to process units with feed or transferred to a permitted container.
A.120.2.CA.SC. Installations using sumps and wastewater separators must meet specific operational and equipment requirements (SCAQMD Regulation XI, Rule 1176 (c), (d) and (h)).	(NOTE: The following equipment is exempt from all of the following standards for sumps and wastewater separators: - equipment which, if covered, would present a safety hazard to plant personnel - tanks, pressure-vacuum valves on tanks, and impound basins or spill containments around tanks - hatches - equipment that exclusively receives, holds, or discharges rainwater, stormwater runoff, or noncontact cooling water - sumps or wastewater separators, if VOC content of liquid entering is less than 5 mg/L with sampling occurring at the inlet to the sump or wastewater separator.) **A.120.2.CA.SC. Continued on Next Page**

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.120.2.CA.SC. (continued)	Verify that primary sumps are not used. Verify that secondary sumps, tertiary sumps, or wastewater separators are replaced by covered tanks approved by the EO, or are provided with one of the following: - a floating cover equipped with seals which are replaced every 5 yr, unless the installation can demonstrate to the EO's designee that the floating cover and/or seals has never been in violation of these requirements - a fixed cover equipped with a closed vent system directing vapors to an air pollution control device with a control efficiency of 95 percent by weight or greater, and the system does not produce detectable VOC emissions in excess of 500 ppm above background - any measure equivalent to the above and approved by the EO. Verify that separator forebays and sewer line interconnections are enclosed by fixed covers so that no liquid surface is exposed to the atmosphere. Verify that process drains opening to the atmosphere have VOC emissions of less than 500 ppm above background. Verify that junction boxes are totally enclosed with a solid, gasketed, fixed cover or a manhole cover with: - open vent pipes no more than 4 in. [10.16 cm] in diameter and at least 3 in. in length - openings no more than 4 in. [10.16 cm] in diameter. Verify that slop oil, oil contaminated wastewater, or tar from a sump or wastewater separator is handled in a manner approved in writing by the EO's designee. Verify that covers for secondary and tertiary sumps and wastewater separators meet all of the following requirements: - cover materials are impermeable to VOCs and free from holes, tears, or openings - drains on covers have a slotted membrane fabric cover or equivalent over at least 90 percent of the open area - gauging or sampling devices on the compartment cover are covered, and the cover is kept closed, with no visible gaps between it and the compartment, except when the sampling device is being used - hatches on covers are kept closed and free of gaps, except when opened for inspection, maintenance, or repair - the perimeter of a cover, except a rigid floating cover, forms a seal free of gaps **A.120.2.CA.SC. Continued on Next Page**

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.120.2.CA.SC. (continued)	- rigid floating covers are installed and maintained so that the gap between the compartment or sump wall and the seal does not exceed 1/8 in.for a cumulative length of 97 percent of the perimeter of the compartment - no gap between the wall and the seal exceeds 1/2 in.
A.120.3.CA.SC. Installations equipping sumps, tertiary sumps, or wastewater separators with a closed vent system and air pollution control device must meet specific inspection and maintenance requirements (SCAQMD Regulation XI, Rule 1176(e)).	Verify that the air pollution control device(s) are subjected to performance tests semi-annually, for verification of control efficiency. Verify that the closed vent systems and process drains are inspected monthly for VOC emissions. Verify that defect(s) or leak(s) detected through either operator inspection or District inspection are repaired or rectified within three calendar days of detection. Verify that the repaired or replaced component is reinspected within 15 calendar days after the repair or replacement.
A.120.4.CA.SC. Installations operating sumps and wastewater separators must meet specific recordkeeping requirements (SCAQMD Regulation XI, Rule 1176(f)).	Verify that all records of operator inspections, performance tests, repairs, replacements, and reinspections are maintained at the facility for 2 yr and made available to the District staff upon request.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
MISCELLANEOUS VOC OPERATIONS **A.125.** **General**	
A.125.1.CA.SC. Installations using organic solvents or material containing organic solvents must meet specific requirements (SCAQMD Regulation IV, Rule 442(a), (b) and (h)).	(NOTE: The following conditions are exempt from these requirements: - transport or storage of organic solvents and materials containing organic solvents - spraying or other use of organic solvents as insecticides, pesticides, or herbicides - use of water reducible material, provided it meets the following requirements: - the volatile content is not photochemically reactive - it consists of at least 80 percent water by volume - the material does not come into contact with a flame - use of high solid materials, provided it meets the following requirements: - the volatile content is not photochemically reactive - it does not exceed 20 percent by volume - more than 50 percent by volume of volatile material is evaporated before entering a chamber heated above ambient application temperature - the material does not come into contact with a flame - use of ultra high solid materials, provided: - the volatile content is not photochemically reactive - it does not exceed 5 percent by volume - the material does not come into contact with a flame - use of 1,1,1-trichloroethane, methylene chloride, and trichlorotrifluoroethane.) Verify that the installation does not discharge organic materials into the atmosphere from equipment, unless such emissions have been reduced by at least 85 percent or to the following levels: - organic materials coming into contact with flames or baked, heat cured, or heat polymerized are limited to 1.4 kg/h (3.1 lb/h), not to exceed 6.5 kg (14.3 lb) per day - organic materials emitted from the use of photochemically reactive solvents are limited to 3.6 kg/h (7.9 lb/h), not to exceed 18 kg (39.6 lb) per day - organic materials emitted from the use of nonphotochemically reactive solvents are limited to 36.8 kg/h (81 lb/h), not to exceed 272 kg (600 lb) per day. Verify that these emissions are controlled by one of the following methods: - incineration, provided either: - 90 percent or more of the carbon is oxidized - concentration of organic material following incineration is less than 50 ppm - adsorption, in a manner approved by the APCO.

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A.125.2.CA.SC. Installations using photochemically reactive solvents must meet specific requirements (SCAQMD Regulation IV, Rule 442(d), (e), (f), and (g)).	Verify that installations using any organic solvent, containing a total of 4 percent by volume of photochemically reactive solvents for the commercial cleaning of garments and fabrics, have reduced emissions by at least 90 percent by weight. Verify that installations using photochemically reactive solvents to thin, reduce, or dilute industrial and commercial metal surface coatings have reduced emissions by at least 85 percent by weight. Verify that installations using photochemically reactive solvents in industrial or commercial surface cleaning or degreasing operations have reduced emissions by at least 85 percent by weight. Verify that the installation during any one day does not dispose of more than 5 L (1.3 gal) of any photochemically reactive solvent, or any material containing more than 5 L (1.3 gal) of solvent by any means which permits evaporation.
Adhesive Application	(NOTE: The application of adhesives in the following cases are exempt from all of these standards: - aerospace components - any installation that uses less than 1 pt/day of adhesive - research and development programs provided records are kept.)
A.125.3.CA.SC. Installations conducting adhesive application operations must meet specific VOC content requirements (SCAQMD Regulation XI, Rule 1168(b)(1), (2), (4), (8), and (9) and (h)(1), (4), (7)).	(NOTE: The following types of adhesives are exempt from the VOC content limits: - adhesives used in tire repair - adhesives supplied in tubes of eight liquid ounces or less - any container, except aerosols, of five liquid ounces or less - adhesives, adhesive primers, and adhesive bonding primers with separate formulations used in volumes of less than 10 gal/yr [approximately 37.85 L/yr].) Verify that the installation does not apply adhesives, adhesive bonding primers, adhesive primers, or any other primer which have a VOC content in excess of 250 g/L less water and exempt compounds, unless otherwise specified in Appendix 1-19. Verify that the installation does not use any adhesives, adhesive bonding primers, adhesive primers, or any other primer which exceeds the VOC content limits shown in Appendix 1-19. Verify that the installation does not apply adhesives from aerosol spray cans unless the VOC content, including propellant, does not exceed 25 percent VOC by weight. (NOTE: These requirements can be met by using approved air pollution control equipment provided VOC emissions are reduced by 80 percent overall, by weight or by using an approved Alternative Emission Control Plan.)

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.125.4.CA.SC. Installations must follow certain application requirements (SCAQMD Regulation XI, Rule 1168(b)(7) and (8) and (h)(3), (9)).	(NOTE: Adhesives containing less than 20 g of VOC/L of adhesives, less water and exempt compounds, and the application of adhesives and primers from aerosol cans are exempt from this requirement.) Verify that adhesives are applied with properly operating equipment in accordance with operating procedures specified by either the equipment manufacturer or the EO and by using one of the following methods: - electrostatic - flow coat - dip coat - roll coater - HVLP spray - hand application - other methods, approved in writing by the EO - airless spray, air-assisted airless, or air-atomized spray for adhesives with a viscosity of 200 centipoises or greater as applied. (NOTE: These requirements can be met by using approved air pollution control equipment, provided VOC emissions are reduced by 80 percent overall, by weight.)
A.125.5.CA.SC. Installations that apply adhesives must follow specific procedures for handling VOC containing materials (SCAQMD Regulation XI, Rule 1168(b)(5) and (6)).	Verify that VOC-laden cloth or paper used in stripping cured adhesives are disposed of in closed containers. Verify that the general solvent cleaning operation requirements are met.
A.125.6.CA.SC. Installations must follow specific recordkeeping requirements (SCAQMD Regulation XI, Rule 1168(c) and (h)(3)).	Verify that the installation the general recordkeeping requirements. (NOTE: Adhesives containing less than 20 g of VOC/L of adhesives, less water and exempt compounds, are exempt).

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
Cleaning Operations	(NOTE: The following operations are exempt from these requirements: - cleaning carried out in batch-loaded cold cleaners, open-top vapor degreasers, conveyorized degreasers, or film cleaning machines - cleaning operations subject to the requirements for petroleum solvent dry cleaners and for perchloroethylene dry cleaning operations - cleaning operations subject to semiconductor manufacturing - cleaning operations subject to aerospace assembly and component manufacturing operations, except coating application equipment cleaning, and storage and disposal of VOC-containing materials used in solvent cleaning operations - cleaning operations subject to coatings and ink manufacturing - janitorial and institutional cleaning, including graffiti removal - stripping of cured coatings, cured adhesives, and cured inks - cleaning operations using solvents with a water content of 98 percent or more, by weight.)
A.125.7.CA.SC. Installations performing solvent cleaning operations must meet certain general prohibitions (SCAQMD Regulation XI, Rule 1171(d) and (g)(3)).	Verify that the installation does not atomize any solvent unless it is vented to air pollution control equipment. (NOTE: The cleaning of nozzle tips of automated spray equipment system, except for robotic systems, and cleaning with hand held spray bottles is exempt from the requirement to vent atomized solvent to air pollution control equipment.) Verify that the installation does not specify or require any person to use solvent or equipment subject to these requirements that does not meet them. Verify that, on and after 1 January 1997, the installation does not perform solvent cleaning activities or operations subject to these requirements with a solvent which contains Group II exempt compounds, except methylene chloride.
A.125.8.CA.SC. Installations performing solvent cleaning operations must meet specific VOC emission limits (SCAQMD Regulation XI, Rule 1171(c)(1) and (g)(2), (4)).	(NOTE: These requirements do not apply when carried out for any of the following applications: - cleaning of solar cells, laser hardware, scientific instruments, and high-precision optics - cleaning for: conducting performance laboratory tests on coatings, adhesives, or inks; research and development program; and laboratory tests in quality assurance laboratories - cleaning of polycarbonate plastics - cleaning of motor vehicles on application lines. Verify that the installation does not use solvents exceeding the limits found in Appendix 1-20. **A.125.8.CA.SC. Continued on Next Page**

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A.125.8.CA.SC. (continued)	(NOTE: The installation may comply with the VOC emission limit for cleaning of polyester resin application equipment by using a solvent residue reclamation system. Reclamation may be done either onsite or offsite through a reclamation facility.) Verify that, if a reclamation system is used to meet the VOC emission limit for polyester resin application equipment, it operates at least at 80 percent efficiency, by weight, and solvent residues from onsite systems do not contain more than 20 percent VOC, by weight. (NOTE: The installation may comply with these VOC limit requirements by using a VOC emission collection and control system in association with the solvent cleaning operation, provided either: - the emission control system collects at least 90 percent, by weight, of the emissions generated by the solvent cleaning operation and one of the following criteria is met: - system has a destruction efficiency of 95 percent, by weight - system has an output of less than 50 ppm calculated as carbon with no dilution - the emission control system meets the requirements of the applicable source specific requirement. The collection system for cleaning in graphic arts and screen printing and cleaning of application equipment used for graphic arts materials and screen printing materials, must collect at least 70 percent, by weight, of the emissions generated. This control system must reduce emissions from the emission collection system by at least 95 percent.) (NOTE: VOC emission limits for the cleaning of ink application equipment do not apply to installations using less than 4 gal/day of acetone or to installations using less than 1.5 gal/day of solvents to clean sterilization indicating ink application equipment.)
A.125.9.CA.SC. Installations performing solvent cleaning operations must meet specific operating requirements (SCAQMD Regulation XI, Rule 1171(c)(2)).	Verify that the installation does not perform solvent cleaning unless one of the following cleaning devices or methods is used: - wipe cleaning - closed containers or hand held spray bottles from which solvents are applied without a propellant-induced force - cleaning equipment which has a solvent container that can be, and is, closed during cleaning operations, except when depositing and removing objects to be cleaned, and is closed during nonoperation with the exception of maintenance and repair to the cleaning equipment itself - cleaning device which is listed in the Office of Operations' manual "Alternative Devices for Rule 1171 Compliance" dated 1 July 1991 - remote reservoir cold cleaner used pursuant to the provisions of paragraph (c)(3) **A.125.9.CA.SC. Continued on Next Page**

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.125.9.CA.SC. (continued)	- nonatomized solvent flow method where the cleaning solvent is collected in a container or a collection system which is closed except for solvent collection openings and, if necessary, openings to avoid excessive pressure buildup inside the container - solvent flushing method where cleaning solvent is discharged into a container which is closed except for solvent collection openings and, if necessary, openings to avoid excessive pressure buildup inside the container (discharged solvent from the equipment must be collected into containers without atomizing into the open air). (NOTE: The installation may comply with these VOC limit requirements by using a VOC emission collection and control system in association with the solvent cleaning operation, provided either: - the emission control system collects at least 90 percent, by weight, of the emissions generated by the solvent cleaning operation and one of the following criteria is met: - system has a destruction efficiency of 95 percent, by weight - system has an output of less than 50 ppm calculated as carbon with no dilution - the emission control system meets the requirements of the applicable source specific requirement. The collection system for cleaning in graphic arts and screen printing and cleaning of application equipment used for graphic arts materials and screen printing materials, must collect at least 70 percent, by weight, of the emissions generated. This control system must reduce emissions from the emission collection system by at least 95 percent.)
A.125.10.CA.SC. Installations performing solvent cleaning operations must meet specific storage and disposal requirements (SCAQMD Regulation XI, Rule 1171(c)(4)).	Verify that all VOC-containing solvents, used in solvent cleaning operations, are stored in nonabsorbent, nonleaking containers which are kept closed at all times except when filling or emptying. (NOTE: It is recommended that cloth and paper moistened with VOC-containing solvents be stored in closed, nonabsorbent, nonleaking containers.)
A.125.11.CA.SC. Installations performing solvent cleaning operations must meet specific recordkeeping requirements (SCAQMD Regulation XI, Rule 1171(c)(6)).	Verify that records are maintained in accordance with the general recordkeeping requirements for all applications subject to these solvent cleaning requirements, including those exempted, except for the following: - installations not subject to recordkeeping requirements from any other requirements - cleaning performed with a solvent which has a water content of 98 percent or more, by weight, or a VOC composite partial pressure of 0.1 mm Hg or less at 20 °C (68 °F), or contains VOC consisting of more than 12 carbon atoms.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
Polyester Resin Operations	
A.125.12.CA.SC. Installations conducting operations involving polyester resins must meet specific requirements (SCAQMD Regulation XI, Rule 1162(b)).	Verify that the installation complies with either the following process or control requirements: - one of the following processes is used, except when using gel coats: - only polyester resin material with a monomer content of no more than 35 percent by weight as applied - a closed-mold system that results in less than 4 percent weight loss of polyester resin materials - an approved, low-VOC-emission resin system - materials and processes demonstrated to the satisfaction of the EO to achieve VOC emission levels equivalent to any of the above - for spraying operations, the following processes are also used: - only high-volume, low-pressure (HVLP), airless, air-assisted airless, or electrostatic spray equipment, except for touchup and repair using a hand-held air-atomizing spray gun with a container for resin as part of the gun - an approved emission control system with a control efficiency of 90 percent or more on a mass basis is installed. Verify that closed containers are used for all polyester resin materials, cleaning materials, and waste materials so as to effectively control VOC emissions. Verify that a reclamation system is used when cleaning materials usage exceeds 4 gal/day [approximately 15.14 L/day].
A.125.13.CA.SC. Installations conducting polyester resin operations must meet specific recordkeeping requirements (SCAQMD Regulation XI, Rule 1162(c)).	Verify that the installation maintains the following records for a period of at least 2 yr: - manufacturer's name and amount of each polyester resin material and cleaning material used - the weight (in percent) of monomer and VOC in each polyester resin material, and the g/L of VOC in each cleaning material used - for approved low-VOC-emission resin systems, the weight loss (g/m^3) during resin polymerization, the catalyst percentage, and the gel time - for closed-mold and pultrusion systems, the weight loss (in percent) of polyester resin materials. (NOTE: The EO may waive daily recordkeeping requirements if it can be demonstrated such records are not necessary to achieve compliance with the requirements of this rule or the conditions of the Permit to Construct or Operate.)

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
Volatile Hazardous Air Pollutant (VHAP) Emissions	
A.125.14.CA.SC. Installations operating pumps and compressors handling reactive organic compounds (ROCs) must meet specific design, construction, and operational requirements (SCAQMD Regulation IV, Rule 466(b) and (d)(1)).	(NOTE: Pumps and compressors meeting the following criteria are exempt from these standards: - operate at temperatures in excess of 260 °C (500 °F) - are vented to an air pollution control system - are shut down and tagged or logged for maintenance - handle liquids or gases with a water content of 80 percent or greater - handle liquids or gases with a hydrogen composition of 80 percent or greater - handle commercial natural gas exclusively - incorporate dual seals with seal oil barriers, or an equivalent, approved design, provided the gases emitted from the seal oil reservoir or vented to the atmosphere are not in excess of 10,000 ppm, measured as hexane. Verify that all pumps and compressors are equipped with adequate seals in good working order, or other devices of equal or greater efficiency. Verify that seals are maintained so that at any time there is not: - a leakage of more than three drops/min - a visible liquid mist - any visible indication of leakage at or near the seal/shaft interface for gas compressors.
A.125.15.CA.SC. Installations with a pump or compressor leaking gaseous volatile organic compounds in excess of 10,000 ppm, measured as hexane, must follow certain repair guidelines (SCAQMD Regulation IV, Rule 466(b)(2)).	(NOTE: Reciprocating pumps used in pipeline transfer and any pump or compressor with a driver of less than 1 hp, or equivalent rated energy, are exempt from these requirements.) Verify that, upon discovery of a leak, any pump or compressor with an operable spare permanently connected in the system is shut down and the spare placed in service. Verify that the spare device is inspected within 48 h of being placed in service, and, if leaking at a rate above 10,000 ppm, is repaired within 15 working days. Verify that, if, after repairs, the gaseous leakage rate from the unit is greater than 10,000 ppm, one of the following actions is taken: - emissions are vented to an air pollution control device - the Hearing Board is petitioned for a variance - the leaking pump or compressor is repaired or replaced at the next turnaround of the process unit. **A.125.15.CA.SC. Continued on Next Page**

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.125.15.CA.SC(continued)	Verify that any pump or compressor with no operable spare permanently connected is both: - repaired within one working day of discovery of the leak so that the leakage is minimized - repaired or replaced at the next scheduled turnaround of the process unit. Verify that, if after repair the leakage rate is still above 10,000 ppm, one of the following actions are taken: - vent the leak to an air pollution control device - petition for a variance.
A.125.16.CA.SC. Installations operating pumps or compressors handling ROG must meet specific inspection and recordkeeping requirements (SCAQMD Regulation IV, Rule 466(c) and (e)).	Verify that the installation conducts the following inspections: - each operating pump and compressor - for any visual leakage once during every 24 h of operation - each operating pump or compressor less than 3 mi [approximately 4.8 km] from a continuously manned control center - for any visual leakage once during every 8-h period - each pump used in crude oil production and pipeline transfer - for any visible leakage once each week - each pump annually and each compressor quarterly with a portable hydrocarbon detection instrument for gaseous leaks of VOC in excess of 10,000 ppm measured as hexane - reinspect and repair at the end of 6 mo those pumps found to be leaking at the annual inspection. Verify that the installation maintains a record of annual inspections of pumps and quarterly inspections of compressors.
A.125.17.CA.SC. Installations operating equipment with valves and flanges in ROC service must meet specific design, construction and operational requirements (SCAQMD Regulation IV, Rule 466.1(c), (d), and (i)).	(NOTE: Such equipment with valves and flanges are exempt from these requirements in the following cases: - when handling commercial natural gas exclusively - when located in areas that make inspection infeasible or unsafe for personnel, provided approval of the EO was received - when handling gases with a hydrogen composition of 80 percent or greater - when handling liquids or gases with a water content of 80 percent or greater - when tagged or logged for maintenance within the specified repair period.) Verify that valves or flanges are not used in ROC service unless they are maintained so that during operation there is no leakage of more than three drops/min or a visible liquid mist. **A.125.17.CA.SC. Continued on Next Page**

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.125.17.CA.SC(continued)	Verify that valves located at the end of a pipe or line containing ROCs are sealed with a blind flange, plug, or cap when not in use, except: - valves on product sampling lines - safety pressure relief valves - bleeder valves in a double block and bleeder valve system. Verify that each valve discovered to leak is affixed with a record of inspections for the succeeding 12 mo period, or an alternate, approved method of recordkeeping is maintained. (NOTE: Valves or flanges incorporated in lines operating under negative pressure are exempt.)
A.125.18.CA.SC. Installations operating valves and flanges in handling of ROCs must meet specific inspection and recordkeeping requirements (SCAQMD Regulation IV, Rule 466.1(e) and (h)).	Verify that valves handling ROCs are inspected annually for gaseous leaks or use an approved, continuous monitoring, flammable gas detector device. Verify that process piping flanges are inspected annually. Verify that valves found to be leaking are inspected again after 30 days, but before 90 days, after repair. Verify that valves found to be leaking after the 30-day inspection are repaired and reinspected at intervals of one-half the prior interval, except no valve need be inspected more frequently than once per day. Verify that the installation maintains records of annual inspections for a period of at least 1 yr.
A.125.19.CA.SC. Installations operating valves and flanges in handling ROCs must follow certain repair guidelines (SCAQMD Regulation IV, Rule 466.1(f)).	Verify that, if after repairs are completed, the detectable gaseous ROCs are 10,000 ppm or greater 1 cm [0.39 in.] from the source, one of the following actions is taken: - emergency repair to reduce the emission rate - vent the emissions to an approved air pollution control device - petition for a variance.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.130. **OPEN BURNING**	
A.130.1.CA.SC. Installations are prohibited from burning or allowing burning of combustible materials in an open outdoor fire except under certain conditions (SCAQMD Regulation IV, Rule 208 and 444(a), (b), (c), (d), (e), and (g)).	(NOTE: The following types of fires are exempt from these requirements: - recreational - ceremonial - cooking - open fires located on islands 15 miles [approximately 24.14 km] or more from the mainland coast.) Verify that the installation does not conduct any open burning without first obtaining a permit. Verify that unpermitted open burning is only done for the following purposes and under the jurisdiction of a fire protection agency: - for instruction of public or industrial employees in methods of fire fighting, provided the EO is notified prior to burning - for removing forest debris as a part of forest management or wildlife or game habitat improvement provided the EO is notified prior to burning - backfires necessary to save life or valuable property - wildland vegetation management burning. Verify that the installation conducts no burning in geographical areas declared at risk due to meteorological conditions, except in the following case: - instruction of public or industrial employees in fire fighting provided: - the fires are of 30 min duration each or less - the fuel used is clean, not waste, liquefied gas, or petroleum liquid with an API gravity of at least 30.
A.130.2.CA.SC. Installations conducting wildland vegetation burning must meet certain criteria (SCAQMD Regulation IV, Rule 444 (h)).	Verify that the installation does not conduct such burning until an implementation plan is approved by the EO.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.135. VEHICLE EMISSIONS	
A.135.1.CA.SC. Installations employing 100 or more persons must take steps to reduce work related trips in single occupancy vehicles (SCAQMD Regulation XV, Rule 1503).	Determine if the installation employs 100 persons or more. Verify that the installation has submitted to the EO a Trip Reduction Plan specifying methods to reduce the number of work related trips in single occupancy vehicles. Verify that an updated plan is submitted yearly. Verify that detailed records verifying the figures used to calculate Average Vehicle Ridership are kept for at least 2 yr.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.145. **ASPHALT PAVING MATERIALS/ OPERATIONS**	
A.145.1.CA.SC. Installations operating equipment for air blowing of asphalt must follow specific emissions requirements (SCAQMD Regulation IV, Rule 470).	Verify that the installation does not operate or use the equipment unless all gases, vapors, and gas-entrained effluents are treated by either: - incineration at temperatures of not less than 760 °C (1400 °F) for a period of not less than 0.3 s - processed in such a manner determined by the APCO to be equally effective as the above method.
A.145.2.CA.SC. Installations that apply asphalt paving materials must meet specific emissions requirements (SCAQMD Regulation XI, Rule 1108 and 1108.1).	Verify that any cutback asphalt material used contains no more than 0.5 percent by volume organic compounds which evaporate at 260 °C (500 °F) or lower. Verify that any emulsified asphalt material used contains no more than 3.0 percent by volume organic compounds which evaporate at 260 °C (500 °F) or lower.
A.145.3.CA.SC. Installations operating asphalt pavement heaters for maintaining, reconditioning, reconstructing, or removing asphalt pavement must meet specific operational requirements (SCAQMD Regulation XI, Rule 1120).	Verify that black or gray smoke emissions last no longer than 60 s. Verify that black or gray smoke emissions do not exceed a total of 3 min in any 1 h of heater operation. Verify that visible emissions of more than 40 percent opacity, other than black or gray smoke, do not exceed 3 min in any 1 h of operation. Verify that all units of equipment are fired with gaseous fuels not exceeding 80 ppm by volume sulfur compounds or with diesel fuel not containing more sulfur than specified by the California Air Resources Board (CARB). Verify that grease, crack pouring materials, or oily substances that could burn or produce smoke are removed prior to using heating equipment on the area by: - mechanical grinding - cold planing - other mechanical means. Verify that asphalt pavement at the work site is cleared of paper, wood, vegetation, and other combustible refuse prior to operation of heating equipment. **A.145.3.CA.SC. Continued on Next Page**

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A.145.3.CA.SC. (continued)	Verify that the EO is notified of operations at least 24 h prior to the start. Verify that the equipment is operated only during days on which open burning is allowed. (NOTE: An operation that begins on a day when open burning is allowed may continue on successive days whether open burning is allowed or not.)

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.150 **ETHYLENE OXIDE SOURCES**	
A.150.1.CA.SC. Installations using ethylene oxide (EtO) for sterilization or fumigation must meet specific emissions venting requirements (SCAQMD Regulation XI, Rule 1405(d)(1) through (3) and (8)).	(NOTE: These requirements do not apply to any installation using less than or equal to 4 lb of EtO per calendar year. Verify that installations using a total of 400 lb or less per year of EtO meet the following venting requirements: - sterilizers are vented to control equipment with an efficiency of 99 percent or more, by weight. - if EtO emissions from aeration are greater than 4 lb per calendar year, the aerator is vented to control equipment with an efficiency of 95 percent or more, by weight. - if the exhaust streams from this equipment are vented to the same control equipment, the combined efficiency is 98.8 percent or more, by weight. Verify that installations using a total of more than 400 lb and less than or equal to 4000 lb of EtO per year meet the following venting requirements: - sterilizers are vented to control equipment with an efficiency of 99.9 percent or more, by weight - aerators are vented to control equipment with an efficiency of 95 percent or more, by weight - back-draft exhaust valves are vented to control equipment with an efficiency of 95 percent or more, by weight - if the exhaust streams from this equipment are vented to the same control equipment, the combined efficiency is 99.6 percent or more by weight. Verify that installations using a total of more than 4000 lb of EtO per calendar year meet the following venting requirements: - sterilizers are vented to control equipment with an efficiency of 99.9 percent or more, by weight - aerators and sterilizer door hood exhaust streams are vented to control equipment with an efficiency of 99 percent or more, by weight - back-draft exhaust valves are vented to control equipment with an efficiency of 99 percent or more, by weight - if the exhaust streams from this equipment are vented to the same control equipment, the combined efficiency is 99.8 percent or more, by weight. Verify that all installations using more than 30,000 lb of CFCs per calendar year for EtO sterilization, except at hospitals, vent the sterilizer exhaust to recovery or reclamation equipment with an efficiency of 70 percent or more, by weight.

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A.150.2.CA.SC. Installations using ethylene oxide (EtO) for sterilization or fumigation must meet specific equipment requirements (SCAQMD Regulation XI, Rule 1405(d)(4) through (7) and (9)).	(NOTE: These requirements do not apply to any installation using less than or equal to 4 lb of EtO per calendar year. Verify that installations operating aeration-only facilities where more than 4 lb of EtO are emitted per calendar year have control equipment with an efficiency of 95 percent or more, by weight. Verify that sterilizers, aerators, control equipment, and emissions collection systems are leak free. Verify that the maximum sterilizant gas mass flow is less than 30 ppm EtO for sterilant gas composed of 12 percent EtO/88 percent CFC-12 by weight, and less than 10 ppm EtO for other compositions of sterilant gas, as measured 1 cm away from any portion of a sterilizer, aerator, or control equipment that could have a leak. Verify that leak tests are conducted every 6 mo and during conditions of maximum sterilant gas mass flow. Verify that installations conduct source tests on control equipment within 60 days after initial operation of the equipment to verify compliance with control efficiency requirements. Verify that, thereafter, annual source tests are conducted on catalytic oxidation, carbon, or solid bed control equipment. Verify that the installation does not discharge any sterilizer exhaust vacuum pump working fluid to the wastewater stream. Verify that the installation does not use CFC diluents in EtO sterilization, effective 1 January 1997.
A.150.3.CA.SC. Installations using ethylene oxide (EtO) for sterilization or fumigation must meet specific recordkeeping requirements (SCAQMD Regulation XI, Rule 1405(e)).	Verify that the installation maintains written records for at least 2 yr and makes them available to the District upon request. Verify that the records include documentation and results of leak tests and one of the following: - number of sterilizer cycles and lb of EtO (measured or calculated) used per cycle for each sterilizer each day - total lb of EtO purchased and used per calendar year, provided monthly totals are also kept.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
OTHER EMISSIONS/ SOURCES **A.155. Gaseous Emissions From Landfills**	
A.155.1.CA.SC. Installations operating an active landfill must meet specific emission reduction requirements (SCAQMD Regulation 1150.1(c)).	Verify that the installation installs and maintains an approved landfill gas control system. Verify that the installation installs sampling probes at the perimeter of the landfill to check for offsite migration. Verify that the installation analyses the landfill gas and reports the result to the EO on a quarterly basis. Verify that the maximum concentration of organic compounds does not exceed 500 ppm measured as methane at any point on the surface of the landfill. Verify that all landfill gas collected is disposed of by: - combustion - treatment and sale - sale and processing offsite - other equivalent method. Verify that the efficiency of the combustion equipment gas treating system is evaluated annually. Verify that these records are kept for at least 2 yr. Verify that approved mitigation measures are taken during installation of the gas control system to mitigate public nuisance. (NOTE: The installation may be exempt from these requirements if it has demonstrated to the satisfaction of the EO that there will be no adverse impact on air quality.)
A.155.2.CA.SC. Installations that will be opening a newly established landfill must meet specific requirements (SCAQMD Regulation XI, Rule 1150.1(c)(10)).	Verify that the installation has an approved plan to install a landfill gas control system.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.155.3.CA.SC. Installations with inactive landfill sites must determine if emission control systems are required (SCAQMD Regulation XI, Rule 1150.2).	Verify that the installation has submitted to the EO information necessary to determine if a landfill gas control system is required. Verify that upon notification from the EO, the installation implements a plan to install an approved landfill gas control system in accordance with the requirements for active landfills.
A.155.4.CA.SC. Installations excavating any portion of an active or inactive landfill must have approval from the EO (SCAQMD Regulation XI, Rule 1150(b)).	(NOTE: The following activities are exempt from this requirement: - drilling holes up to 24 in. [60.96 cm] in diameter for geological evaluation or for telephone or power transmission poles or their footings - drilling of oil wells, gas, wells, or landfill gas collection wells or for the maintenance of gas or leachate collection systems - emergency excavation.) Verify that such excavation is done in accordance with an approved Excavation Management Plan identifying mitigation measures to ensure public nuisance conditions do not occur.
Liquid and Gaseous Air Contaminants	
A.155.5.CA.SC. Installations must meet specific requirements for the discharge of liquid and gaseous air contaminants (SCAQMD Regulation IV, Rule 407 and 409).	(NOTE: The following equipment and processes are exempt from these regulations: - stationary internal combustion engines - propulsion of mobile equipment - emergency venting due to equipment failure or process upset. Verify that the installation does not discharge into the atmosphere from any nonexempt equipment the following: - CO exceeding 2000 ppm by volume measured on a dry basis, averaged over 15 consecutive minutes - sulfur compounds that would exist as liquid or gas at standard conditions, calculated as SO_2 and averaged over 15 consecutive minutes, exceeding 500 ppm by volume. (NOTE: Equipment subject to source specific rules or in compliance with gaseous fuel sulfur content limits are exempt from the regulation on sulfur emissions.) Verify that the installation does not discharge into the atmosphere, from the burning of fuel combustion, contaminants exceeding 0.23 g/m^3 (0.1 $grain/ft^3$) of gas calculated to 12 percent of CO_2 at standard conditions, averaged over a minimum of 15 consecutive minutes. (NOTE: This requirement does not apply to jet engine test stands and emissions from internal combustion engines.)

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Natural-Gas-Fired, Fan-Type Central Furnaces-NO_x	
A.155.6.CA.SC. Installations using natural-gas-fired, fan-type central furnaces must meet certain emission requirements (SCAQMD Regulation XI, Rule 1111).	Verify that the furnaces do not emit more than 40 ng NO_x/J of useful heat delivered to the heated space. Verify that the furnaces are certified.
Startup and Shutdown Exemption Provisions for Oxides of Nitrogen	
A.155.7.CA.SC. Installations that must follow requirements concerning the emission of oxides of nitrogen are exempt from these requirements during scheduled shutdowns and startups if they follow specific requirements regarding length and number of startups (SCAQMD Regulation IV, Rule 429(b)).	Verify that the startup or shutdown interval does not last longer than specified in the permit to operate, or, if not specified, last longer than the following: - 8 h for boilers or process heaters of more than 40 MM Btu/h of heat release - 6 h for boilers or process heaters of equal to or less than 40 MM Btu/h of heat release - 15 min for simple cycle stationary gas turbines - 2 h for stationary combined cycle and cogeneration cycle gas turbines. Verify that the installation follows the maximum allowable number of scheduled startups/shutdowns: - 10/yr for boilers or process heaters of more than 40 MM Btu/h of heat release - 10/mo for boilers or process heaters of equal to or less than 40 MM Btu/h of heat release - 10/yr for simple cycle stationary gas turbines, stationary combined cycle, and cogeneration cycle gas turbines.
A.155.8.CA.SC. Installations that schedule shutdowns and startups must meet specific notification and recordkeeping requirements (SCAQMD Regulation IV, Rule 429(c) and (d)).	Verify that the EO is notified of scheduled startups and shutdowns if an exemption from the emission limits is required. Verify that records are maintained and kept onsite for 2 yr.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
Sulfur Recovery Units **A.155.9.CA.SC.** Installations operating sulfur recovery units must meet specific emission requirements (SCAQMD Regulation IV, Rule 468).	Verify that any such unit producing elemental sulfur does not discharge effluent process gas containing more than: - 500 ppm sulfur compounds expressed as SO_2, calculated on a dry basis averaged over a minimum of 15 consecutive minutes - 10 ppm of hydrogen sulfide calculated on a dry basis over a minimum of 15 consecutive minutes - 90 kg/h (198.5 lb/h) of sulfur compounds expressed as SO_2.
Sulfuric Acid Units **A.155.10.CA.SC.** Installations operating sulfuric acid units must meet specific emission requirements (SCAQMD Regulation IV, Rule 469).	Verify that the installation does not discharge from any such unit effluent process gas containing more than: - 500 ppm of sulfur compounds expressed as SO_2, calculated on a dry basis over a minimum of 15 consecutive minutes - 90 kg/h (198.5 lb/h) sulfur compounds expressed as SO_2. Verify that the installation does not discharge from any production unit, constructed, modified, or reconstructed before 17 August 1971, any gases which contain sulfuric acid mist in excess of 0.150 kg/metric ton (0.3 lb/ton) of acid produced, expressed as H_2SO_4.
Visible Emissions **A.155.11.CA.SC.** Installations must meet specific visible emissions standards (SCAQMD Regulation IV, Rule 401).	(NOTE: The following air contaminant emissions are exempt from visible emission standards: - asphalt pavement heater - abrasive blasting operations - visible emission generating equipment used by governmental agencies for certification training on evaluating visible emissions for compliance with SCAQMD rules and with the California Health and Safety Code - visible emissions from ships performing emergency boiler shutdowns, tests required by governmental agencies, or maneuvers for safety purposes - agricultural operations.) **A.155.11.CA.SC. Continued on Next Page**

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A.155.11.CA.SC(continued)	Verify that the installation does not discharge into the atmosphere, from any single source, any air contaminants for more than 3 min in 1 h which are: - as dark or darker in shade as that designated No.1 on the Ringelmann Chart - of such opacity as to obscure an observer's view to a degree equal to or greater than smoke that is as dark or darker than No.1 on the Ringelmann Chart. Verify that the installation does not discharge into the atmosphere from equipment used for melting, heating, or holding asphalt or coal tar pitch for onsite roof construction or repair any contaminants for more than 3 min in any 1 h which is: - as dark or darker in shade as that designated as No.2 on the Ringelmann Chart - of such opacity as to obscure the observer's view to a degree equal to or greater than smoke that is as dark or darker than No.2 on the Ringelmann Chart. Verify that the installation does not discharge into the atmosphere from any diesel pile-driving hammer, operating exclusively on kerosene containing approved smoke-reducing fuel additives and using only synthetic engine lubrication oil, any contaminants for more than 3 min in any 1 h which is: - as dark or darker in shade as that designated as No.2 on the Ringelmann Chart - of such opacity as to obscure the observer's view to a degree equal to or greater than smoke that is as dark or darker than No.2 on the Ringelmann Chart.

COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT South Coast Air Quality Management District (SCAQMD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
COUNTY/CITY SPECIFIC REQUIREMENTS **A.160.** **Los Angeles County**	
A.160.1.CA.SC. Installations discharging sulfur compounds into the atmosphere must follow specific standards (SCAQMD Regulation IV, Rule 53).	Verify that sulfur compounds, which exist as a liquid or gas at standard conditions, do not exceed in concentration at the point of discharge 0.2 percent by volume calculated as SO_2.
A.160.2.CA.SC. Installations located in Los Angeles and Orange Counties and operating stationary internal combustion engines must meet specific emissions requirements (SCAQMD Regulation XI, Rule 1110.1).	(NOTE: These requirements apply to all rich-burn and lean-burn engines over 200 bhp in Los Angeles and Orange Counties, or any stationary source with more than 2000 maximum total rated installed bhp and all other engines over 50 bhp.) (NOTE: The following engines are exempt from these standards: - engines used exclusively for agricultural operations - emergency standby engines operating less than 200 h/yr as approved by the EO - engines used exclusively for fire-fighting services and flood control - existing engines operated with LPG - laboratory engines used in research and testing - engines operated for purposes of performance verification and testing - engines operating with NO_x control retrofit devices or modifications that have been demonstrated to the EO to have achieved an acceptable emission reduction - engines operating in the Southeast Desert Air Basin portion of Los Angeles and Riverside Counties.) Verify that existing rich-burn engines are not operated unless: - oxides of nitrogen emission concentrations in the exhaust averaged over 15 consecutive minutes meet one of the following criteria: - are reduced by 90 percent across the control device in initial tests and are maintained at 80 percent reduction thereafter - do not exceed 90 ppm by volume on a dry basis corrected to 15 percent oxygen - CO emission concentrations in the exhaust, averaged over 15 consecutive minutes, do not exceed 2000 ppm by volume on a dry basis corrected to 15 percent oxygen. **A.160.2.CA.SC. Continued on Next Page**

COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT South Coast Air Quality Management District (SCAQMD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.160.2.CA.SC. (continued)	Verify that existing lean-burn engines are not operated unless: - NO_x emissions averaged over 15 consecutive minutes meet one of the following criteria: - are reduced by at least 80 percent across the control device in initial tests and maintained at 70 percent reduction thereafter - do not exceed 150 ppm by volume on a dry basis corrected to 15 percent oxygen - for engines controlled exclusively by combustion modifications, one of the following criteria is met: - NO_x emissions do not exceed 0.75 microgram/J output (2.0 g per bhp hour) - where the engine has no means to measure shaft output, NO_x concentrations averaged over 15 consecutive minutes do not exceed 150 ppm by volume on a dry basis corrected to 15 percent oxygen. (NOTE: The installation may achieve compliance with these requirements through the implementation of an Alternative Emission Control plan upon approval of the EO.) Verify that the installation has submitted to the EO a control plan for the reduction of emissions of air contaminants from stationary internal combustion engines with more than 50 bhp.
Orange County **A.160.3.CA.SC.** Installations discharging sulfur compounds into the atmosphere must follow specific standards (SCAQMD Regulation IV, Rule 53).	Verify that sulfur compounds, which would exist as a liquid or gas at standard conditions, do not exceed in concentration at point of discharge 500 ppm by volume calculated as SO_2.

COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT South Coast Air Quality Management District (SCAQMD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
Palos Verde and Joshua Tree	
A.160.4.CA.SC. Installations in the Palos Verde and Joshua Tree areas with equipment put into service prior to 1 July 1976 must meet specific concentration requirements for the discharge of particulate matter (SCAQMD Regulation IV, Rule 404(b)).	Verify that this equipment does not discharge particulate matter in excess of 450 mg/m^3 (0.196 grain/ft^3) in discharged gas calculated as dry gas at standard conditions.
A.160.5.CA.SC. Installations in the Palo Verde and Joshua Tree areas with equipment put into service prior to 1 July 1976 must meet weight requirements for solid particulate matter discharges (SCAQMD Regulation IV, Rule 405(b)).	Verify that this equipment does not discharge into the atmosphere solid particulate matter, including lead and lead compounds, in excess of 0.23 kg (0.5 pound) per 907 kg (2000 lb) of process weight.
Riverside County	
A.160.6.CA.SC. Installations discharging sulfur compounds into the atmosphere must meet specific standards (SCAQMD Regulation IV, Rule 53).	Verify that sulfur compounds from any single source, in any state or combination, are not discharged in excess of the following concentrations at the point of discharge: - in the west-central area, 0.05 percent by volume calculated as SO_2 - outside the west-central area, 0.15 percent by volume calculated as SO_2.
A.160.7.CA.SC. Installations discharging fluorine compounds must meet specific standards (SCAQMD Regulation IV, Rule 53).	Verify that the installation controls, to the maximum degree feasible, emission of fluorine compounds, and does not allow emissions of such compounds that may cause injury to the property of others.

COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT South Coast Air Quality Management District (SCAQMD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
A.160.8.CA.SC. Installations in Riverside County using steam generating equipment must meet certain NO_2 emission standards (SCAQMD Regulation IV, Rule 474(b)).	Verify that this equipment does not discharge NO_2 in excess of the concentrations shown in Appendix 1-21.
A.160.9.CA.SC. Installations in the Coachella Valley must meet specific requirements when conducting any activities or creating any conditions capable of generating fugitive dust, except unpaved roads, when wind speeds exceed 25 mph (SCAQMD Regulation IV, Rule 403.1(d) and (e)).	(NOTE: These requirements do not apply to ceased or inactive mining operations subject to the requirements of the Surface Mining and Recovery Act (SMARA) of 1975, provided the provisions of the SMARA Reclamation Plan are implemented and are at least as stringent as these requirements.) Verify that any installation subject to the general fugitive emission requirements and responsible for any active operation, open storage pile, or disturbed surface area, and which seeks an exemption monitors for when wind speed conditions exceed 25 mph. (NOTE: Wind speed can be monitored either through use of an onsite anemometer, when forecast, or when fugitive dust emissions are visible for a distance of at least 100 ft from the origin and there is visible evidence of wind driven fugitive dust.) Verify that, if an installation installs an onsite anemometer, the EO is notified no more than 10 days after installation, minimally with the following information: - installation's name, address, telephone number - description of the operation - first day of operation. (NOTE: The following stabilization and dust control requirements do not to: - any active operation, open storage pile, or disturbed surface area for which necessary fugitive dust preventive or mitigative actions are in conflict with the Endangered Species Act - any disturbed surface areas or bulk material deposits with a surface area less than 2500 ft^2 - Nonroutine or emergency maintenance of flood control channels and water spreading basins.) Verify that any installation involved in active operations in the Coachella Valley Blowsand Zone stabilizes new man-made deposits of bulk material within 24 h of making the deposits. **A.160.9.CA.SC. Continued on Next Page**

COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT South Coast Air Quality Management District (SCAQMD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.160.9.CA.SC. (continued)	Verify that stabilization procedures include one or more of the following: - application of water to at least 70 percent of the surface area of the deposit at least three times per day when there is evidence of wind driven fugitive dust - application of chemical dust suppressants in sufficient concentration so as to maintain a stabilized surface for at least 6 mo - installation of wind breaks of such design so as to reduce maximum wind gusts to less than 25 mph in the area of the deposits. Verify that the installation takes actions specified in Appendix 1-10 for "Inactive Disturbed Surface Areas" to minimize wind driven fugitive dust from disturbed surface areas when active operations have ceased for at least 30 days. (NOTE: Actions required at inactive disturbed surface areas are not required at agricultural parcels which are in compliance with provisions of the Food Security Act of 1985 for highly erodible soils, or which do not contain highly erodible soils, as determined by the U.S. Soil Conservation Service.) Verify that any installation involved in agricultural tilling or soil mulching activities cease such activities when wind speeds exceed 25 mph. (NOTE: The following activities are exempt from the requirement to cease aging or soil mulching when winds exceed 25 mph: - agricultural tilling activities or soil mulching activities under the following conditions: - if the prohibitory requirements have occurred during six or more hours of active operations on each of two previous consecutive days, a 1-day exemption will be allowed - if the prohibitory requirements have occurred during 60 or more cumulative hours of active operations within a calendar month, an exemption will be allowed for the remainder of the calendar month - during periods of precipitation - agricultural tilling activities which result in a net reduction of wind driven fugitive dust.)

COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT South Coast Air Quality Management District (SCAQMD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.160.10.CA.SC. Installations in the Coachella Valley that conduct any activities or create any conditions capable of generating fugitive dust, except unpaved roads, when wind speeds exceed 25 mph must meet specific recordkeeping requirements (SCAQMD Regulation IV, Rule 403.1(f).	Verify that written daily records are compiled and either: - submitted to the EO no more than 60 days after the termination date of any active operation - for ongoing active operations, retained for not less than 1 yr and made available to the EO upon request. Verify that the records contain the following information: - name, address, and phone number of the owner/operator - dates of active operations - site location - type of operation or activity. Verify that any installation which installed an onsite anemometer also compiles the following written records to be retained for at least a year: - location, vendor, model, and serial number of the anemometer - time of occurrence of any wind gust in excess of 25 mph during hours of active operations - actions taken to comply with requirements.
San Bernardino County **A.160.11.CA.SC.** Installations must follow specific standards regarding discharging contaminants into the atmosphere (SCAQMD Regulation IV, Rule 53 and 53B).	Determine whether installations discharge contaminants into the atmosphere other than the following which are exempt from these standards: - combined fluorides, chlorides or bromides, other than the acid version - fluorides, other than hydrogen fluoride formed by the combustion of hydrogen-containing fuels or fluorine-containing oxidizers. Verify that the installation does not discharge from any single source any one or more of the following contaminants, in any state or combination, exceeding the following concentrations at the point of discharge: - sulfur compounds--500 ppm calculated as SO_2 - combustion contaminants--0.1 grain/ft^3 of gas calculated to 12 percent CO_2 at standard conditions - fluorine compounds--the amount that may cause injury to the property of others - the elements and compounds listed in Appendix 1-22 in liquid or gas at standard conditions

COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT South Coast Air Quality Management District (SCAQMD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
A.160.12.CA.SC. Installations in San Bernardino County using steam generating equipment must meet certain NO_2 emission standards (SCAQMD Regulation IV, Rule 474(b)).	Verify that this equipment does not discharge NO_2 in excess of the concentrations shown in Appendix 1-21.

Appendix 1-1

Episode Criteria

(Source: SCAQMD Regulation VII, Rule 701)

Contaminant	Averaging Time	Health Advisory	Stage 1	Stage 2	Stage 3
Ozone	1 h	0.15 ppm	0.20 ppm	0.35 ppm	0.50 ppm
Ozone, in 0.50 ppm* combination with SO_2	1 h		0.20 ppm	0.35 ppm	0.50 ppm*
CO	1 h		40 ppm	75 ppm	100 ppm
	8 h***		15 ppm	30 ppm	40 ppm
SO_2	1 h		0.5 ppm	1.0 ppm	2.0 ppm
	24 h***		0.2 ppm	0.6 ppm	0.8 ppm
Sulfate, in combination with Ozone	24 h***			25 microgram/m^3	
	(Sulfate)				
	1 h				
	(Ozone)			0.20 ppm	
Nitrogen Dioxide	1 h		0.6 ppm	1.2 ppm	1.6 ppm
	24 h***		0.15 ppm	0.3 ppm	0.4 ppm
Find Particulate Matter (PM_{10})	24 h ***		3.50 microgram/m^3	420 microgram/m^3	500 microgram/m^3

* These levels apply when the ozone concentration and the SO_2 each exceeds 0.10 ppm, 1-h average, and is determined by adding the ozone and SO_2 concentration.

** For 1 h and predicted to persist for one additional clock hour.

***Averaging time is based on a running clock hourly average.

Appendix 1-2

Permit Exemptions

(Source: SCAQMD Regulation 2, Rule 219)

A written permit is not required for the following equipment:

•Mobile Equipment

- motor vehicles or vehicle as defined by the California Vehicle Code
- marine vessel as defined by Health and Safety Code Section 39037.1
- a motor vehicle or a marine vessel that uses one internal combustion engine to propel the motor vehicle or marine vessel and operate other equipment mounted on the motor vehicle or marine vessel
- equipment which is mounted on a vehicle, motor vehicle, or marine vessel if such equipment does not emit air contaminants.

This subdivision does not apply to equipment which emits air contaminants and which is mounted and operated on a motor vehicle, marine vessel, mobile hazardous material treatment systems, mobile day tankers, or pavement heating machines.

•Combustion and Heat Transfer Equipment

- piston type internal combustion engines with a manufacturer's rating of 50 bhp or less, or gas turbine engines with a maximum heat input rate of 2,975,000 Btu/h or less
- boilers, process heaters, or any combustion equipment that has a maximum heat input rate of 2 MBtu/h (gross) or less and is equipped to be heated exclusively with natural gas, methanol, LPG, or any combination thereof that does not include piston type internal combustion engines
- fuel cells which use phosphoric acid, molten carbonate, proton exchange membrane, or solid oxide technologies
- test cells and test stands used for testing internal combustion engines provided the internal combustion engines use less than 800 gal of diesel fuel and 3500 gal of gasoline fuel per year, or use other fuels with equivalent or fewer emissions
- internal combustion engines used exclusively for training at educational institutions.

•Structures and Equipment - General

- structural changes which cannot change the quality, nature, or quantity of air contaminant emissions
- repairs or maintenance not involving structural changes to any equipment for which a permit has been granted
- identical replacement in whole or in part of any equipment where a permit to operate had previously been granted for such equipment under Rule 203, except seals for external or internal floating roof storage tanks
- replacement of floating roof tank seals provided the replacement seal is of a type and model which the EO has determined is capable of complying with the requirements of Rule 463 regarding storage of organic liquids.
- equipment used exclusively in connection with any structure which is designed for and used exclusively as a dwelling for not more than four families, and where such equipment is used by the owner or occupant of such a dwelling
- laboratory testing equipment, and quality control testing equipment used exclusively for chemical and physical analysis, and nonproduction bench scale research equipment. Laboratory test-

(continued)

ing equipment does not include engine test stands or test cells unless such equipment is also exempt pursuant to paragraph (b)(4)
- vacuum-producing devices used in laboratory operations or in connection with other equipment not requiring a written permit
- vacuum-cleaning systems used exclusively for industrial, commercial, or residential housekeeping purposes
- hoods, stacks, or ventilators.

•General Utility Equipment
- comfort air conditioning or ventilating systems which are not designed or used to remove air contaminants generated by, or released from, specific equipment units, provided such systems are exempt pursuant to paragraph (b)(2)
- refrigeration units, except those used as or in conjunction with air pollution control equipment
- water cooling towers and water cooling ponds not used for evaporative cooling of process water or not used for evaporative cooling of water from barometric jets or from barometric condensers, and in which no chromium compounds are contained
- equipment used exclusively to generate ozone and associated ozone destruction equipment for the treatment of cooling tower water or for water treatment processes
- equipment used exclusively for steam cleaning provided such equipment is also exempt pursuant to paragraph (b)(2)
- equipment used exclusively for space heating provided such equipment is exempt pursuant to paragraph (b)(2)
- equipment used exclusively to compress or hold purchased quality natural gas, except internal combustion engines not exempted pursuant to paragraph (b)(1)
- emergency ventilation systems used exclusively to scrub ammonia from refrigeration systems during process upsets or equipment breakdowns.

•Abrasive Blasting Equipment
- blast cleaning cabinets in which a suspension of abrasive in water is used and control equipment venting exclusively such equipment
- glove-box type abrasive blast cabinet, vented to a dust-filter where the total internal volume of the blast section is 1.5 m^3 (53 ft^3) or less, and any dust filter exclusively venting such equipment
- enclosed equipment used exclusively for shot blast removal of flashing from rubber and plastics at sub-zero temperatures and control equipment exclusively venting such equipment
- shot peening operations, provided no surface material is removed, and control equipment venting exclusively such equipment
- portable sand/water blaster equipment and associated piston type internal combustion engine, provided the water in the mixture is 66 percent or more by volume is maintained during operation of such equipment. Piston type internal combustion engines must be exempt pursuant to paragraph (b)(1).

•Machining Equipment
- equipment used exclusively for buffing (except tire buffers), polishing, carving, mechanical cutting, drilling, machining, pressing, routing, sanding, surface grinding, or turning provided any lubricants used have 50 g or less of VOC per liter of material, or a VOC composite partial pressure of 20 mm Hg or less at 20 °C (68 °F), and control equipment exclusively venting such equipment. This exemption does not include asphalt pavement grinders.
- equipment used exclusively for shredding of wood, or the extruding, handling, or storage of wood chips, sawdust, or wood shavings and control equipment exclusively venting such equip-

(continued)

ment. This exemption does not include piston type internal combustion engines over 50 bhp which are used to supply power to such equipment.
- equipment used exclusively to mill or grind coatings or molding compounds where all materials charged are in the paste form.

•Printing and Reproduction Equipment
- printing and related coating and/or laminating equipment and associated dryers not emitting more than three lb of VOC emissions per day or not using more than 6 gal/day of UV or plastisols type or 2 gal/day of any other graphic arts materials provided such dryers are exempt pursuant to paragraph (b)(2). Graphic arts materials are any inks, coatings, adhesives, fountain solutions (excluding water), thinners (excluding water), retarders, or cleaning solutions (excluding water), used in printing or related coating or laminating processes.
- photographic process equipment by which an image is reproduced upon material sensitized by radiant energy and control equipment venting exclusively such equipment
- lithographic printing equipment which uses laser printing
- printing equipment used exclusively for training and nonproduction at educational institutions
- flexographic plate-making and associated processing equipment.

•Food Processing and Preparation Equipment
- smokehouses for preparing food in which the maximum horizontal inside cross-sectional area does not exceed 2 m^2 (21.5 ft^2)
- smokehouses exclusively using liquid smoke, and which are completely enclosed with no vents to either a control device or the atmosphere
- confection cookers where products are edible and intended for human consumption
- grinding, blending, or packaging equipment used exclusively for tea, cocoa, roasted coffee, flavor, fragrance extraction, dried flowers, or spices, and control equipment exclusively venting such equipment
- equipment used in eating establishments for the purpose of preparing food for human consumption, excluding commercial direct-fired charbroilers (regardless of the Btu rating). Direct-fired charbroilers include, but are not limited to, gas, electric, wood, or charcoal-fired.
- equipment used to convey or process materials in bakeries or used to produce noodles, macaroni, pasta, food mixes, and drink mixes where products are edible and intended for human consumption and control equipment exclusively venting such equipment. (Does not include storage bins located outside buildings, or equipment not exempt pursuant to paragraph (b)(2).)
- cooking kettles where all the product in the kettle is edible and intended for human consumption. This exemption does not include deep frying equipment.
- coffee roasting equipment with a maximum capacity of 10 lb or less.

•Plastics and Rubber Processing Equipment
- presses or molds used for curing, post curing, or forming rubber products, composite products and plastic products where no VOC or chlorinated blowing agent is present, and control equipment exclusively venting these presses or molds
- ovens used exclusively for the forming of plastics or composite products, which are concurrently being vacuum held to a mold, and where no foam forming or expanding process is involved, provided such equipment is exempt pursuant to paragraph (b)(2)
- equipment used exclusively for softening or annealing plastics, provided such equipment is exempt pursuant to paragraph (b)(2)
- extrusion equipment used exclusively for extruding rubber products or plastics where no organic plasticizer is present, or for pelletizing polystyrene foam scrap, except equipment used to extrude or to pelletize acrylics, polyvinyl chloride, polystyrene, and their copolymers

(continued)

- injection or blow molding equipment for rubber or plastics where no blowing agent other than compressed air, water, or CO_2 is used, and control equipment exclusively venting such equipment
- mixers, roll mills, and calendars for rubber or plastics where no material in powder form is added and no organic solvents, diluents, or thinners are used
- ovens used exclusively for the curing of vinyl plastisols by the closed-mold curing process, provided such ovens are exempt pursuant to paragraph (b)(2)
- equipment used exclusively for conveying and storing plastic materials, provided they are not in powder form
- hot wire cutting of expanded polystyrene foam and woven polyester film
- photocurable stereolithography equipment.

•Mixing and Blending Equipment
- batch mixers which have a brimful capacity of 55 gal or less (7.35 ft^3)
- equipment used exclusively for mixing and blending of materials to make materials where no organic solvents are used and no materials in powder form are added
- equipment used exclusively for mixing and blending of materials to make water emulsions of asphalt, grease, oils, or waxes where no materials in powder of fiber form are added
- equipment used to blend, grind, mix, or thin liquids to which powders may be added, with a capacity of 950 L (251 gal) or less, where no supplemental heat is added and no ingredient charged (excluding water) exceeds 135 °F
- concrete mixers, with a rated working capacity of 1 yd^3 or less.

•Miscellaneous Process Equipment
- equipment, including dryers, used exclusively for dyeing, stripping, or bleaching of textiles where no organic solvents, diluents or thinners are used, provided such equipment is also exempt pursuant to paragraph (b)(2)
- equipment used exclusively for bonding lining to brake shoes, where no organic solvents are used and control equipment exclusively venting such equipment
- equipment used exclusively to liquefy or separate O_2, nitrogen, or the rare gases from air, except equipment not exempt pursuant to paragraph (b)(1) or (b)(2)
- equipment used exclusively for surface preparation, cleaning, passivation, deoxidation, and/or stripping which uses water based cleaners containing 2 percent (20 g/L) or less of VOC by volume, or containing acetic acid, phosphoric acid, sulfuric acid, 12 percent or less hydrochloric acid, alkaline oxidizing agents, hydrogen peroxide, salt solutions, sodium hydroxide and/or water. This exemption does not include anodizing, hard anodizing, chemical milling, circuit board etching, or the stripping of chromium.
- equipment used exclusively for electrolytic plating (excluding the use of chromic, hydrochloric or sulfuric acid) or electrolytic stripping (excluding the use of chromic, hydrochloric, nitric or sulfuric acid) of brass, bronze, copper, iron, tin, zinc, precious metals, and associated rinse tanks
- equipment used exclusively for the packaging of lubricants or greases
- equipment used exclusively for tableting vitamins or pharmaceuticals, packaging vitamins or pharmaceuticals and cosmetics, or coating vitamins or pharmaceutical tablets, provided no organic solvents are used, and control equipment used exclusively to vent such equipment
- equipment used exclusively for coating objects with oils, melted waxes, or greases which contain no organic solvents diluents or thinners
- equipment used exclusively for coating objects by dipping in waxes or natural and synthetic resins which contain no organic solvents, diluents or thinners
- unheated, nonconveyorized, cleaning or coating equipment. This exemption does not include control enclosures.

(continued)

  - with an open surface area of 1.0 m^2 (10.8 ft^2) or less and an internal volume of 350 L (92.5 gal) or less, having an organic solvent loss of 3 gal/day or less
  - using only organic solvents with an initial boiling point of 150 °C (302 °F) or greater
  - using materials with a VOC content of 2 percent (20 g/L) or less by volume
- batch ovens with 1.5 m^3 (53 ft^3) or less internal volume where no melting occurs, provided such equipment is exempt pursuant to paragraph (b)(2). This exemption does not include ovens used to cure vinyl plastisols or debond brake shoes.
- equipment used exclusively for the washing and subsequent drying of materials and air pollution control equipment venting exclusively such equipment provided no volatile organic materials are emitted and the equipment is exempt pursuant to paragraph (b)(2)
- equipment used exclusively for manufacturing soap or detergent bars, including mixing tanks, roll mills, plodders, cutters, wrappers, where no heating, drying or chemical reactions occur
- spray coating equipment operated within control enclosures
- coating or laminating equipment operated outside control enclosures such as air, airless, air-assisted airless, high volume low pressure (HVLP), and electrostatic spray equipment, and roller coaters, dip coaters, vacuum coaters, and flow coaters and associated drying equipment which must be exempt pursuant to paragraph (b)(2), provided:
  - VOC emissions from such equipment are only 3 lb/day or less
  - the total amount of coatings, adhesives and/or organic solvent (including cleanup) used in such equipment are 6 gal/day or less of UV type
  - the total amount of solvent type coating and/or adhesive used is 1 gal/day or less
  - the total amount of water reducible or water based type coating and/or adhesive used is 3 gal/day or less, excluding water used as a reducer or for cleanup
  - the total amount of polyester resin or gel coat type material used is 1gal/day or less
- spray coating and associated drying equipment and control enclosures used exclusively for educational purposes in educational institutions
- portable coating equipment and pavement stripers used exclusively for the application of architectural coatings according to Rule 1113, and associated internal combustion engines provided such engines have a manufacturers rating of 50 bhp or less
- inert gas generators except equipment not exempt pursuant to paragraph (b)(2)
- hammermills used exclusively to process aluminum and/or tin cans, and control equipment exclusively venting such equipment
- heated degreasers with a liquid/vapor interface surface area of 1.0 ft^2 or less, or using aqueous cleaning materials with a VOC content of 2 percent (20 g/L) or less by volume provided such degreasers have an organic solvent loss of 3 gal/day or less, excluding water
- paper shredding and associated conveying systems, baling equipment, and control equipment venting such equipment
- chemical vapor type sterilization equipment where no ethylene oxides are used, and with a chamber volume of 2 ft^3 or less used by healthcare facilities
- hand lay, brush and roll up resins operation
- hot melt adhesive equipment
- pyrotechnical equipment, special effects, or fireworks paraphernalia equipment used for entertainment purposes, provided such equipment is exempt pursuant to subdivision (b)
  ammunition or explosive testing equipment
- fire extinguishing equipment using halons
- industrial wastewater treatment equipment which only does pH adjustment, precipitation, gravity separation and/or filtration of the wastewater. This exemption does not include treatment processes where VOC and/or toxic materials are emitted
- equipment used exclusively for the packaging of sodium hypochlorite-based household cleaning products

(continued)

- foam packaging equipment using 20 gal/day or less of liquid foam material
- rental equipment operated by a lessee and which is not used more than for 90 calendar days at any one location in the District within a 12-mo period provided the owner of the equipment has a permit to operate issued by the District and the lessee complies with the terms and conditions of the permit to operate

•Storage and Transfer Equipment

- equipment used exclusively for the storage and transfer of fresh, commercial or purer grades of:
  - sulfuric acid or phosphoric acid with an acid strength of 99 percent or less by weight
  - nitric acid with an acid strength of 70 percent or less by weight
- equipment used exclusively for the storage and/or transfer of liquefied gases, not including LPG storage greater than 75,000 L (19,815 gal) or hydrogen fluoride storage greater than 4,000 L (1,057 gal)
- equipment used exclusively for the transfer of less than 75,700 L (20,000 gal) per day of unheated organic materials, with an initial boiling point of 150 °C (302 °F) or greater, or with a an organic vapor pressure of 5 mm Hg (0.1 psi) absolute or less at 21.1 °C (70 °F). This exemption does not include liquid fuels.
- equipment used exclusively for the storage of unheated organic materials with an initial boiling point of 150 °C (302 °F) or greater, or with an organic vapor pressure of 5 mm Hg (0.1 psi) absolute or less at 21.1 °C (70 °F). This exemption does not include liquid fuels.
- equipment used exclusively for transferring organic liquids, materials containing organic liquids, or compressed gases into containers of less than 225 L (60 gal) capacity, except equipment used for transferring more than 4,000 L (1,057 gal) of materials per day with a vapor pressure greater than 25.8 mm Hg (0.5 psia) at operating conditions
- equipment used exclusively for the storage and transfer of liquid soaps, liquid detergents, vegetable oils, fatty acids, fatty esters, fatty alcohols, waxes and wax emulsions
- equipment used exclusively for the storage and transfer of refined lubricating oils
- equipment used exclusively for the storage and transfer of crankcase drainage oil of less than 3,000 L (793 gal)
- equipment used exclusively for organic liquid storage or transfer to and from such storage, of less than 950 L (251 gal) capacity. This exemption does not include asphalt.
- equipment used exclusively for the storage and transfer of "top white" (i.e., Fancy) or cosmetic grade tallow or edible animal fats intended for human consumption and of sufficient quality to be certifiable for United States markets
- equipment used exclusively for the storage holding, melting and transfer of asphalt or coal tar pitch with a capacity of less than 600 L (159 gal)
- pumps used exclusively for pipeline transfer of liquids
- equipment used exclusively for the unheated underground storage of 23,000 L (6,077 gal) or less, and equipment used exclusively for the transfer to or from such storage of, organic liquids with a vapor pressure of 77.5 mm Hg (1.5 psi) absolute or less at actual storage conditions
- equipment used exclusively for the storage and/or transfer of an asphalt-water emulsion heated to 150 °F or less
- liquid fuel storage tanks piped directly to emergency internal combustion engine-generators, turbines, or pump drivers
- bins used for temporary storage and transport of material with a capacity of 2,080 L (550 gal) or less
- equipment used for material storage where no venting occurs during filling or normal use
- equipment used exclusively for storage, blending, and/or transfer of water emulsion intermediates and products, including latex, with a VOC content of 5 percent by volume or less or a VOC composite partial pressure of 5 mm Hg (0.1 psi) or less at 20 °C (68 °F)

(continued)

- equipment used exclusively for storage and/or transfer of sodium hypochlorite solution
- equipment used exclusively for the storage of organic materials which are stored at a temperature at least 130 °C (234 °F) below its initial boiling point, or have an organic vapor pressure of 5 mm Hg (0.1 psia) absolute or less at the actual storage temperature. To qualify for this exemption, the operator, if the stored material is heated, installs and maintains a device to measure the temperature of the stored organic material. This exemption does not include liquid fuels.

• Natural Gas and Crude Oil Production Equipment:
  - well heads and well pumps
  - crude oil and natural gas pipeline transfer pumps
  - gas, hydraulic, or pneumatic repressurizing equipment
  - equipment used exclusively as water boilers, water or hydrocarbon heaters, and closed heat transfer systems (does not include steam generators used for oil field steam injection) that have:
    - a maximum heat input rate of 2 MBtu/h or less, and
    - been equipped to be fired exclusively with purchased quality natural gas, LPG, produced gas which contains less than 10 ppm hydrogen sulfide, or any combination thereof
  - the following equipment used exclusively for primary recovery, and not associated with community lease units:
    - gas separators and boots
    - initial receiving, dehydrating, storage, washing, and shipping tanks with an individual capacity of 34,069 L (9,000 gal) or less
    - crude oil tank truck loading facilities (does not include a loading rack) and gas recovery systems exclusively serving tanks exempted under subparagraph (n)(5)(B)
    - produced gas dehydrating equipment
  - gravity-type oil water separators with a total air/liquid interfacial area of less than 45 ft^2 and the oil-specific gravity of 0.8251 or higher (40.0 API or lower).

Appendix 1-3

Maximum Concentration of Particulate Matter Emissions

(Source: SCAQMD Regulation 4, Rule 404)

Volume Discharged Calculated as Dry Gas at Standard Conditions		Maximum Concentration of Particulate Matter	
m^3/min	ft^3/min	mg/m^3	grains/ft^3
25 or less	883 or less	450	0.196
30	1059	420	0.183
35	1236	397	0.173
40	1413	377	0.165
45	1589	361	0.158
50	1766	347	0.152
60	2119	324	0.141
70	2472	306	0.134
80	2825	291	0.127
90	3178	279	0.122
100	3531	267	0.117
125	4414	246	0.107
150	5297	230	0.100
175	6180	217	0.0947
200	7063	206	0.0900
250	8829	190	0.0830
300	10,590	177	0.0773
350	12,360	167	0.0730
400	14,130	159	0.0694
450	15,890	152	0.0664
500	17,660	146	0.0637
600	21,190	137	0.0598
700	24,720	129	0.0563
800	28,250	123	0.0537
900	31,780	118	0.0515
1000	35,310	113	0.0493
1100	38,850	109	0.0476
1200	42,380	106	0.0463
1300	45,910	102	0.0445
1400	49,440	100	0.0437

(continued)

Appendix 1-3 (continued)

Volume Discharged Calculated as Dry Gas at Standard Conditions		Maximum Concentration of Particulate Matter	
m^3/min	ft^3/min	mg/m^3	$grains/ft^3$
1500	52,970	97	0.0424
1750	61,800	92	0.0402
2000	70,630	87	0.0380
2250	79,460	83	0.0362
2500	88,290	80	0.0349
3000	105,900	75	0.0327
4000	141,300	67	0.0293
5000	176,600	62	0.0271
6000	211,900	58	0.0253
8000	282,500	52	0.0227
10,000	353,100	48	0.0210
15,000	529,700	41	0.0179
20,000	706,300	37	0.0162
25,000	882,900	34	0.0148
30,000	1,059,000	32	0.0140
40,000	1,413,000	28	0.0122
50,000	1,766,000	26	0.0114
70,000 or more	2,472,000 or more	23	0.0100

Appendix 1-4

Maximum Concentration of Solid Particulate Matter Emissions

(Source: SCAQMD Regulation 4, Rule 405)

Process Weight Per Hour		Maximum Discharge Rate	
kg/h	lb/h	kg/h	lb/h
100 or less	220 or less	0.450	0.99
150	331	0.585	1.29
200	441	0.703	1.55
250	551	0.804	1.77
300	661	0.897	1.98
350	772	0.983	2.17
400	882	1.063	2.34
450	992	1.138	2.51
500	1102	1.209	2.67
600	1323	1.340	2.95
700	1543	1.461	3.22
800	1764	1.573	3.47
900	1984	1.678	3.70
1000	2205	1.777	3.92
1250	2756	2.003	4.42
1500	3307	2.206	4.86
1750	3858	2.392	5.27
2000	4409	2.563	5.65
2250	4960	2.723	6.00
2500	5512	2.874	6.34
2750	6063	3.016	6.65
3000	6614	3.151	6.95
3250	7165	3.280	7.23
3500	7716	3.404	7.50
4000	8818	3.637	8.02
4500	9921	3.855	8.50
5000	11,020	4.059	8.95
6000	13,230	4.434	9.78
7000	15,430	4.775	10.50
8000	17,640	5.089	11.20
9000	19,840	5.308	11.70

(continued)

Appendix 1-4 (continued)

Process Weight Per Hour		Maximum Discharge Rate	
kg/h	lb/h	kg/h	lb/h
10,000	22,050	5.440	12.00
12,500	27,560	5.732	12.60
15,000	33,070	5.982	13.20
17,500	38,580	6.202	13.70
20,000	44,090	6.399	14.10
25,000	55,120	6.743	14.90
30,000	66,140	7.037	15.50
35,000	77,160	7.296	16.10
40,000	88,180	7.527	16.60
45,000	99,210	7.738	17.10
50,000	110,200	7.931	17.50
60,000	132,200	8.277	18.20
70,000	154,300	8.582	18.90
80,000	176,400	8.854	19.50
90,000	198,400	9.102	20.10
100,000	220,500	9.329	20.60
125,000	275,600	9.830	21.70
150,000	330,700	10.260	22.60
175,000	385,800	10.640	23.50
200,000	440,900	10.970	24.20
225,000	496,000	11.280	24.90
250,000	551,200	11.560	25.50
275,000	606,300	11.820	26.10
300,000	661,400	12.070	26.60
325,000	716,500	12.300	27.10
350,000	771,600	12.510	27.60
400,000	881,800	12.910	28.50
450,000	992,100	13.270	29.30
500,000 or more	1,102,000 or more	13.600	30.00

Appendix 1-5

Limits of Allowable NO_x Emissions from Nonmobile Fuel Burning Equipment

(Source: SCAQMD Regulation 4, Rule 474(a))

Maximum Gross Heat Input Rate in Millions Per Hour						
Fuel	**kg-calories 140 or more but less than 450**	**Btu 555 or more but less than 1786**	**kg-calories 450 or more but less than 540**	**Btu 1786 or more but less than 2143**	**kg-calories 540 or more**	**Btu 2143 or more**
Gas	300 ppm NO_x		225 ppm NO_x		125 ppm NO_x	
Liquid or Solid	400 ppm NO_x		325 ppm NO_x		225 ppm NO_x	

Appendix 1-6

Compliance Schedule for Emissions from Gaseous- and Liquid-Fueled Internal Combustion Engines

(Source: SCAQMD Regulation XI, Rule 1110.2(e))

- For existing engines to be replaced with electric motors:

  1. by 31 December 1992, submit an emission control plan for EO or designee approval
  2. by 30 April 1998, submit applications for permit to construct and permit to operate motors where applicable
  3. by 30 September 1999, initiate equipment installation
  4. by 31 December 1999, have system under compliance, in accordance with an approved emission control plan.

- For existing engines to be operated under emission compliance limits:

  1. by 31 December 1992, submit an emission control plan for EO or designee approval
  2. by 30 April 1993, submit applications for permit to construct and permit to operate engines
  3. by 30 September 1994, initiate control equipment installation
  4. by 31 December 1994, have engines and stack modifications, including applicable stack monitoring systems under compliance, in accordance with an approved emission control plan.

- For existing engines to be permanently removed from service:

  1. by 31 December 1992, submit a plan for removal of engines from service for EO or designee approval
  2. by 31 December 1999, have all engines removed from service, in accordance with an approved emission control plan.

- For engines that were altered to be replace with electric engines or to meet emission reduction requirements by 3 August 1990, or for engines originally installed to effect compliance with and/or meet these limits by 3 August 1990:

  1. by 31 December 1999, submit an emission control plan or a plan for compliance with replacement or emission reduction requirements for EO or designee approval
  2. by 31 December 2004, be in compliance with replacement or emission reduction requirements, in accordance with an approved emission control plan
  3. engines will be considered originally installed to effect compliance with these deadlines for altered engines where the owner or operator, prior to 3 August 1990, has either:
     a. undertaken the complete installation of the engines
     b. purchased and received the engines onsite for installation
     c. purchased custom fabricated engines for which fabrication has been substantially completed; and has acquired a Permit to Constrict for these engines.

- For portable engines to be operated under emission compliance limits:
  1. by 31 December 1997, submit an emission control plan for EO or designee approval
  2. by 30 April 1998, submit applications for permit to construct and permit to operate engines

(continued)

3. by 30 September 1999, initiate control equipment installation
4. by 31 December 1999, have engines and stack modifications, including applicable stack monitoring systems, in compliance, in accordance with an approved emission control plan.

- Any new engine that is not an existing engine must be in compliance with the provisions of this and other applicable rules before being placed in service.

Appendix 1-7

Sulfur Limits for Gaseous Fuels

(Source: SCAQMD Regulation IV, Rule 431.1, Table 1)

Fuel Type	Sulfur Limits ppmv	Averaging Period	Compliance Date Period on or after
Refinery Gas			
Small Refiners	40	4 h	May 4, 1996
Other Refiners	40	4 h	May 4, 1994
Landfill Gas	150	Daily	November 17, 1995
	40	Daily	July 1, 1997
	or		
	40 and 200	Monthly and 15-min	July 1, 1997
Sewage Digester Gas	40	Daily	November 17, 1995
	or		
	40 and 500	Monthly and 15-min	November 17,1995
Other Gases	40	4 h	May 4, 1994

Appendix 1-8

Section I
Requirements for Continuous Fuel Gas Monitoring System (CFGMS)

(Source: SCAQMD Regulation IV, Rule 431.1, Appendix 1)

- A continuous fuel gas monitor used for determining the sulfur content of any gaseous fuel meets the following requirements:
  1. continuously monitor and record the concentration by volume (dry basis) of sulfur compounds in the gaseous fuel
  2. have the span value of the monitor set so that all readings fall between 20 and 95 percent of scale
  3. check for calibration drift of the monitoring system at least once daily (approximately 24-h interval) at two concentrations, one high level and one low level. Whenever the daily high level or low level calibration drift exceeds 5 percent of analyzer full scale span, the monitoring system is deemed out of control and subject to the requirements of subparagraph (d)(4)(B) of this rule.
  4. determine the relative accuracy of the monitor which has no greater than 20 percent of the mean value of the reference method test data
  5. be able to record negative values of zero drift
  6. report the concentration of the sulfur compounds calculated as hydrogen sulfide.

Section II

Requirements for Continuous Emissions Monitoring Systems (CEMS)

- A stack CEMS used for monitoring the SO_2 emissions from the burning of any gaseous fuel meets all of the following requirements:
  1. continuously monitor and record the concentration by volume (dry basis, zero percent excess air) of sulfur compounds into the atmosphere
  2. include either an oxygen monitor for correcting the data for excess air or a fuel gas and exhaust gas flowmeter for the determination of mass emissions
  3. have the span value of all the monitors set so that all readings fall between 20 and 95 percent, for 4-h and daily averages, and between 10 and 95 percent, for monthly averages, of full scale
  4. when using an oxygen monitor for the correction of excess air, be able to measure a sulfur compound concentration emission limit of 5 ppm (dry basis, zero percent excess air), which is stoichiometrically equivalent to the limit of sulfur compound content of 40 ppm calculated as hydrogen sulfide in the gaseous fuels
  5. use District Methods 100.1 or 6.1 (as applicable for sulfur compound analysis) and District Method 3.1 (for oxygen content analysis), or District Method 2.1 (for flowrate determination), whichever is applicable, or any other methods demonstrated by the applicant to be equivalent and approved in writing by the EOs of the District and the CARB, and the Regional Administrator of the USEPA, Region IX, or their designees, for conducting the relative accuracy evaluations. The relative accuracy limit shall be 1 ppm and zero drift (2-h and 24-h) and calibration drift (2-h and 24-h) limits for sulfur compounds monitor are 5 percent of the span range
  6. check for calibration drift of the monitoring system at least once daily (approximately 24-h interval) at two concentrations, one high level and one low level. Whenever the daily high level or low level calibration drift exceeds 5 percent of analyzer full scale span, the monitoring system is deemed out of control and subject to the requirements of subparagraph (d)(4)(B) of this rule.
  7. facilities burning fuel gas subject to this rule comply with the requirements of Rule 218, except where specific requirements have been incorporated into this rule.

Appendix 1-9

Reasonably Available Control Measures for High Wind Conditions

(Source: SCAQMD Regulation IV, Rule 403, Table I)

Fugitive Dust Source Category	Control Measures
Earth-moving	
	1A Cease all active operations, or
	2A Apply water to soil not more than 15 min prior to moving such soil
Disturbed Surface Areas	
	0B On the last day of active operations prior to a weekend, holiday, or any other period when active operations will not occur for not more than four consecutive days: apply water with a mixture of chemical stabilizer diluted to not less than 1/20 of the concentration required to maintain a stabilized surface for a period of 6 mo, or
	1B Apply chemical stabilizers prior to wind event, or
	2B Apply water to all unstabilized disturbed areas three times per day, or
	3B Take the actions specified in Appendix 1-17, Item 3c, or
	4B Utilize any combination of control actions (1B), (2B), and (3B) such that, in total, these actions apply to all disturbed surface areas
Unpaved Roads	
	1C Apply chemical stabilizer to wind events, or
	2C Apply water once per hour during active operation, or
	3C Stop all vehicular traffic
Open Storage Piles	
	1D Apply water once per hour, or
	2D Install temporary coverings
Paved Road Track-out	
	1E Cover all haul vehicles, or
	2E Comply with the vehicle freeboard requirements of Section 23114 of the California Vehicle Code for both public and private roads

Appendix 1-10

Dust Control Actions for Exemption

(Source: SCAQMD Regulation IV, Rule 403, Table 2)

Fugitive Dust Source Category	Control Measures
Earth-moving (except construction cutting and filling areas, and mining operations)	
	1a Maintain soil moisture content at a minimum of 12 percent, as determined by ASTM Method D-2216, or other equivalent method approved by the Executive Officer and the CARB. Two soil moisture evaluations must be conducted during the first 3 h of active operations during a calendar day, and two such evaluations each subsequent 4-h period of active operations, or
	1a-1 For any earth-moving which is more than 100 ft from all property lines, conduct watering as necessary to prevent visible dust emissions from exceeding 100 ft in length in any direction.
Earth-moving: Construction fill areas	
	1b Maintain soil moisture content at a minimum of 12 percent, as determined by ASTM Method D-2216, or other equivalent method approved by the EO and the CARB. For areas which have an optimum moisture content for compaction of less than 12 percent, as determined by ASTM Method 1557 or other equivalent method approved by the EO and the CARB, complete the compaction process as expeditiously as possible after achieving at least 70 percent of the optimum soil moisture content. Two soil moisture evaluations must be conducted during the first 3 h of active operations during a calendar day, and two such evaluations during each subsequent 4-h period of active operations.
Earth-moving: Construction cut areas and mining operations	
	1c Conduct watering as necessary to prevent visible emissions from extending more than 100 ft beyond the active cut or mining area unless the area is inaccessible to watering vehicles due to slope conditions or other safety factors.
Disturbed Surface Areas (except completed grading areas)	
	2a Apply dust suppressants in sufficient quantity and frequency to maintain a stabilized surface, and
	2b Apply water at least twice per day to at least 70 percent of all unstabilized disturbed surface areas.
Disturbed Surface Areas: Completed grading areas	
	2c Apply chemical stabilizer within five working days of grading completion, or
	2d Take actions 3a or 3c specified for inactive disturbed areas.
Inactive Disturbed Surface Areas	

(continued)

Fugitive Dust Source Category	Control Measures
	3a Apply water to at least 70 percent of all inactive disturbed surface areas on a daily basis when there is evidence of wind driven fugitive dust, excluding any areas which are inaccessible to watering vehicles due to excessive slope or other safety conditions, or
	3b Apply dust suppressants in sufficient quantity and frequency to maintain a stabilized surface, or
	3c Establish a vegetative g 30 days after active operations have ceased. Ground cover must be of sufficient density to expose less than 30 percent of unstabilized ground within 90 days of planting, and at all times thereafter, or
	3d Utilize any combination of control actions 3a, 3b, and 3c such that, in total, these actions apply to all inactive disturbed surface areas.
Unpaved Roads	
	4a Water all roads used for any vehicular traffic at least three times per day, or
	4b Water all roads used for any vehicular traffic once daily and restrict vehicle speeds to 15 mph, or
	4c Apply a chemical stabilizer to all unpaved road surfaces in sufficient quantity and frequency to maintain a stabilized surface.
Open Storage Piles	
	5a Apply chemical stabilizers, or
	5b Apply water to at least 70 percent of the surface area of all open storage piles on a daily basis when there is evidence of wind driven fugitive dust.

Appendix 1-11

VOC Content Limits for Aerospace Assembly and Component Manufacturing

(Source: SCAQMD Regulation 11, Rule 1124(b))

Coating	VOC Limit (g/L of coating, less water and exempt compounds)		
	1/1/94	11/1/96	11/1/97
Primer	350	350	350
Topcoat	420	420	420
Pretreatment Coating	780	780	780
Adhesion Promoter	850	850	850
Adhesive Bonding Primer			
Cured at 250 °F or below	850	850	250
Cured above 250 °F	1030	1030	250
Flight-Test Coating			
Used on Missiles or Single Use Target Craft	420	420	420
All Other	840	840	840
Fuel-Tank Coating	720	420	420
Fuel-Tank Adhesive	620	620	620
Electric- or Radiation-Effect Coating	800	800	800
Touchup, Line-Sealer Maskants	750	750	750
Photolithographic Maskant	850	850	850
Temporary Protective Coating	250	250	250
Space-Vehicle Coatings			
Electrostatic Discharge Protection Coating	800	800	800
Other Space-Vehicle Coatings	1000	1000	1000
Adhesive	800	800	800
Wing Coating	750	750	570
Impact-Resistant Coating	420	420	420
High-Temperature Coating	850	850	850
Antichafe Coating	600	600	600
Rain Erosion-Resistant Coating	800	800	800

(continued)

Appendix 1-11 (continued)

Coating	VOC Limit (g/L of coating, less water and exempt compounds)		
	1/1/94	11/1/96	11/1/97
Fire-Resistant Coating			
Civilian	650	650	650
Military	970	970	970
Conformal Coating	750	750	750
Sealant	600	600	600
Adhesives			
Nonstructural	250	250	250
Structural			
Autoclavable	50	50	50
Nonautoclavable	850	850	850
Optical Anti-Reflective Coating	700	700	700
Wire Coatings			
Electronic Wire Coating	725	420	420
Anti-Wicking	825	420	420
Pre-Bonding Etchant	900	420	420
Phosphate Ester Resistant Ink	925	925	925
Metallized Epoxy Coating	700	700	700
Clear Topcoat	520	520	520
Scale Inhibitor	880	880	880
Primer Compatible with Rain Erosion -Resistant Coating	850	850	850

Appendix 1-12

VOC Content Limits for Architectural Coatings

(Source: SCAQMD Regulation 11, Rule 1113)

Coating	VOC Content (g/L, less water and exempt compounds)
Clear Wood Finishes	
Varnish	350
Sanding Sealers	350
Lacquer	275
Semitransparent Stains	350
Opaque Stains	350
Semitransparent and Clear Wood Preservatives	350
Below-Ground Wood Preservative	350
Opaque Wood Preservative	350
Primers, Sealers, and Undercoaters	350
Bond Breakers	350
Industrial Maintenance Coatings	340
Industrial Maintenance Anti-Graffiti Coatings	340
Industrial Maintenance High Temperature Coatings	550
Fire Retardant Coatings	
Clear	650
Pigmented	350
Form Release Compounds	250
Graphic Arts (Sign) Coatings	500
Magnesite Cement Coatings	450
Metallic Pigmented Coatings	500
Dry-Fog Coatings	
Flats	400
Nonflats	400
Low-Solids Stains	120
Multi-Color Coatings	420
Pretreatment Wash Primers	780
Waterproof Sealers	400
Concrete-Curing Compounds	350
Roof Coatings	300

(continued)

Appendix 1-12 (continued)

Coating	VOC Content (g/L, less water and exempt compounds)
Mastic Coatings	300
Traffic Paints for Public Streets and Highways	250
For Other Surfaces	250
Black traffic Coatings	250
Shellac	
Clear	730
Pigmented	550
Swimming Pool Coatings	340
Swimming Pool Repair and Maintenance Coatings	650

Appendix 1-13

VOC Content Limits for Marine Coatings

(Source: SCAQMD Regulation 11, Rule 1106(b)(2))

Coating	VOC Limit (g/L)	
	Baked	**Air Dried**
General Coatings	275	340
Speciality Coatings		
Heat Resistant	360	420
Metallic Heat Resistant		530
High Temperature		500
Pre-treatment Wash Primer	780	780
Underwater Weapons Systems	275	340
Elastomeric Adhesives with 15%, by Weight, Natural or Synthetic Rubber		730
Solvent-Based Inorganic Zinc		650
Navigational Aids		340
Sealant for Wire-Sprayed Aluminum		610
Special Marking		490
Tack Coat		610
Low Activation Interior Coating		420
Repair and Maintenance Thermoplastic		550
Extreme High-Gloss Coating	420	490
Antenna Coating		530
Antifoulant		400
High Gloss	275	340

NOTE: The VOC limit is expressed as g/L of VOC of coating applied, less water and exempt solvents.

Appendix 1-14

VOC Limit for Marine Coatings for Pleasure Craft

(Source: SCAQMD Regulation XI, Rule 1106.1(c))

Coating	VOC Limit		
	On or after 4/6/92	On or after 9/1/92	On or after 7/1/94
Topcoats			
Extreme High Gloss		650	490
High Gloss	420	420	420
Pretreatment Wash Primers	780	780	780
Finish Primer/Surfacer		600	420
High Build Primer Surfacer		420	340
Teak Primer		775	775
Antifoulant Coatings			
Aluminum Substrate		560	560
Other Substrates	440	400	150
Clear Wood Finishes			
Sealers		550	550
Varnishes		490	490
Others		420	420

Appendix 1-15

VOC Limits for Metal Parts and Products Coatings

(Source: SCAQMD Regulation 11, Rule 1107(b)(2))

Coating	Grams VOC Per Liter (Less water and exempt compounds)	
	Air Dried	Baked
General	340 (2.8 lb/gal)	275 (2.3 lb/gal)
Military Specification	340 (2.8 lb/gal)	275 (2.3 lb/gal)
Etching Filler	420 (3.5 lb/gal)	420 (3.5 lb/gal)
Solar-Absorbent	420 (3.5 lb/gal)	360 (3.0 lb/gal)
Heat-Resistant	420 (3.5 lb/gal)	360 (3.0 lb/gal)
Extreme High-Gloss	420 (3.5 lb/gal)	360 (3.0 lb/gal)
Metallic	420 (3.5 lb/gal)	420 (3.5 lb/gal)
Extreme Performance	420 (3.5 lb/gal)	360 (3.0 lb/gal)
Prefabricated Architectural Component	420 (3.5 lb/gal)	275 (2.3 lb/gal)
Touch Up	420 (3.5 lb/gal)	360 (3.0 lb/gal)
Repair	420 (3.5 lb/gal)	360 (3.0 lb/gal)
Silicone Release	420 (3.5 lb/gal)	420 (3.5 lb/gal)
High Performance	420 (3.5 lb/gal)	420 (3.5 lb/gal)
Architectural Camouflage	420 (3.5 lb/gal)	420 (3.5 lb/gal)
Vacuum-Metalizing	420 (3.5 lb/gal)	420 (3.5 lb/gal)
Mold-Seal	420 (3.5 lb/gal)	420 (3.5 lb/gal)
High Temperature	420 (3.5 lb/gal)	420 (3.5 lb/gal)
Electric-Insulating Varnish	420 (3.5 lb/gal)	420 (3.5 lb/gal)
Pan Backing	420 (3.5 lb/gal)	420 (3.5 lb/gal)
Pretreatment Coatings	420 (3.5 lb/gal)	420 (3.5 lb/gal)

Appendix 1-16

VOC Content Limits for Motor Vehicle and Mobile Equipment Coatings

(Source: SCAQMD Regulation 11, Rule 1115(c)(1))

Group I Vehicles: Large sized trucks, buses, and mobile equipment

Coating	VOC Content Limit (g/L (lb/gal), less water and exempt compounds)	
	On and after 1 January 1995	On and after 1 January 1997
Pretreatment	780 (6.5)	780 (.5)
Primer/Primer Surfacer/Primer Sealer	250 (2.1)	250 (2.1)
Topcoats		
General	340 (2.8)	340 (2.8)
Metallic/Iridescent	420 (3.5)	340* (2.8*)
Multi-colored	685 (5.7)	685 (5.7)
Multistage	340* (2.8*)	340* (2.8*)
Specialty Coating	840 (7.0)	840 (7.0)

* Metallic/iridescent topcoat and multistage topcoat system VOC content limits do not apply to spot repairs of Group I vehicles and mobile equipment. The use of metallic/iridescent topcoats and multistage topcoat systems in spot repairs on Group I vehicles and mobile equipment is subject to VOC content limits.

Group II Vehicles: Passenger cars, small-sized trucks and vans, medium sized trucks and vans, motorcycles

Coating	VOC Content Limit (g/L (lb/gal) less water and exempt compounds)	
	On and After 1 January 1995	On and After 1 January 1997
Pretreatment	780 (6.5)	780 (6.5)
Primer/Primer Surfacer	250 (2.1)	250 (2.1)
Primer Sealer	420 (3.5)	340 (2.8)
Topcoats		
General	420** (3.5**)	420 (3.5)
Metallic/Iridescent	520 (4.3)	420 (3.5)
Multi-colored	685 (5.7)	685 (5.7)
Multistage System	420** (3.5**)	420 (3.5)
Multi-colored Multistage	480 (4.0)	420 (3.5)
Specialty Coating	840 (7.0)	840 (7.0)

** The 1 January 1995, topcoat system VOC limits do not apply to spot repairs on pre-1986 model year Group II Vehicles until 1 January 1996. The 1 July 1993 topcoat system VOC applies to spot repairs of pre-1986 model year Group II Vehicles until and including 31 December 1995.

Appendix 1-17

VOC Limits for Plastic, Glass, or Rubber Coatings

(Source: SCAQMD Regulation 11, Rule 1145(b))

	VOC Limits (Less Water and Less Exempt Compounds)	
Coating	**g/L**	**lb/gal**
General Coatings		
One-component	275	2.3
Two-component	420	3.5
Military Spec. Coating		
One-component	340	2.8
Two-component	420	3.5
Multi-Colored Coatings	685	5.7
Mold Seal Coatings	750	6.3
Vacuum Metalizing Coatings	800	6.7
Mirror Backing		
Curtain Coated	500	4.2
Roll Coated	430	3.6
Optical Coatings	800	6.7
Electric Dissipating Coatings and Shock-Free Coatings	800	6.7
Metallic Coatings	420	3.5

Appendix 1-18

VOC Content Limits for Wood Products Coatings

(Source: SCAQMD Regulation 11, Rule 1136(c)(1))

Coating	VOC Limits (g/L of coating or material, less water and exempt compounds)	
	On and after 1 July 1996	
	(g/L)	(lb/gal)
Clear Topcoats		
with Group II exempt compounds	275	2.3
without Group II Exempt compounds	275	2.3
Extreme Performance Coatings	275	2.3
Filler	275	2.3
High-Solid Stains	240	2.0
Inks	500	4.2
Fiberboard and Particleboard	275	2.3
Mold-Seal Coating	750	6.3
Multi-Colored Coating	275	2.3
Pigmented Coating	275	2.3
Sealers		
with Group II exempt compounds	240	2.0
without Group II exempt compounds	240	2.0
Low-Solid Stain, Toners, or Washcoats		
with Group II exempt compounds	120	1.0
without Group II exempt compounds	120	1.0

Appendix 1-19

VOC Content Limits for Adhesive Application Operations

(Source: SCAQMD Regulation 11, Rule 1168(b))

Welding or Installation Operations

Operations	VOC Limits (g/L, less water and exempt compounds)	
	Effective 1 January 1994	Effective 1 January 1998
Nonvinyl Backed Indoor Carpet Installation	150	150
Carpet Pad Installation	150	150
Wood Flooring Installation	150	150
Ceramic Tile Installation	130	130
Dry Wall and Panel Installation	200	200
Subfloor Installation	200	200
Rubber Floor Installation	150	150
VCT and Asphalt Tile Installation	150	150
PVC Welding	450	250
CPVC Welding	450	250
ABS Welding	350	350
Plastic Cement Welding	350	250
Cove Base Installation	150	150
Adhesive Primer for Plastic	650	250
Computer Diskette Manufacturing		350

For adhesives not regulated by the above operations and applied by specific substrates:

Substrate	g/L
Metal to Metal	30
Plastic Foams	120
Porous Material (except wood)	120
Wood	30
Fiberglass	200

NOTE: If adhesive is used to bond dissimilar substrates together, the adhesive with the highest VOC content is allowed.

Appendix 1-20

Emission Limits for VOCs in Cleaning Solvents

(Source: SCAQMD Regulation XI, Rule 1171)

Solvent Cleaning Activity	VOC Limits	
	g/L	mm Hg @ 20 °C (68 °F)
Product Cleaning During Manufacturing Processes or Surface Preparation for Coating, Adhesive, or Ink Application		
General	70	
Electronic Components or Medical Device	900	33
Repair or Maintenance Cleaning	900	20
Cleaning of Coating or Adhesive Application Equipment	950	35
Cleaning of Ink Application Equipment		
General	100	3
Flexographic or Gravure Printing	100	3
Lithographic or Letterpress Printing	900	25
Screen Printing	1070	5
Ultraviolet inks (except screen printing)	800	33
Specialty Flexographic Printing	810	21
Cleaning of Polyester Resin Application Equipment	200	1

Appendix 1-21

Limits of Allowable NO_x Emissions from Steam Generating Equipment

(Source: SCAQMD Regulation 4, Rule 474(b))

Maximum Gross Heat Input Rate in Millions per Hour		
Fuel	**kg-calories 140 or more**	**Btu 555 or more**
Gas	125 ppm NO_x	
Liquid or Solid	225 ppm NO_x	

Appendix 1-22

Contaminants and Their Limits

(Source: SCAQMD Regulation 4, Rule 53A)

Element or Compound	Limit (ppm by volume)
Hydrogen Fluoride (HF)	400
Hydrogen Chloride (HCl)	800
Hydrogen Bromide (HBr)	50
Bromide (Br_2)	50
Chlorine (Cl_2)	450
Fluorine (F_2)	50

INSTALLATION:	COMPLIANCE CATEGORY: AIR EMISSIONS MANAGEMENT SCAQMD - California Supplement	DATE:	REVIEWER(S):
STATUS NA C RMA	REVIEWER COMMENTS:		

SECTION 10

STORAGE TANK MANAGEMENT

South Coast Air Quality Management District (SCAQMD) - California Supplement

SECTION 10

STORAGE TANK MANAGEMENT

South Coast Air Quality Management District (SCAQMD)

California Supplement

This section covers the state requirements for Storage Tank Management and is intended to supplement the TEAM Guide. Refer to the TEAM Guide and the DOD Component Supplements for Federal, DOD, and service-specific requirements.

Definitions

- *Aspirator-Assist System* - a Phase II vapor recovery system that uses an aspirator to create a vacuum during gasoline dispensing to capture gasoline vapors. An aspirator-assist system may also incorporate a gasoline vapor incinerator and/or bellows-less nozzles (SCAQMD Regulation IV, Rule 461).

- *Background* - the ambient concentration of organic vapors in the air measured according to the USEPA Method 21 subsection 4.3.2 (SCAQMD Regulation IV, Rule 462).

- *Ballasting* - the loading of water or other liquid into a marine tank vessel's cargo tank to obtain proper, propeller, rudder, and hull immersion (SCAQMD Regulation XI, Rule 1142).

- *Balance System* - a Phase II vapor recovery system that operates on the principle of vapor displacement (SCAQMD Regulation IV, Rule 461).

- *Bellows-Less Nozzle* - any nozzle that incorporates both an assist system and a gasoline vapor capture mechanism at the motor vehicle filler neck, such that vapors are collected at the vehicle filler neck without the need for an interfacing flexible bellows, and which is certified by the California Air Resources Board (CARB) for operation as a bellows-less nozzle (SCAQMD Regulation IV, Rule 461).

- *CARB* - California Air Resources Board.

- *CARB Certified Vapor Recovery System* - any Phase I or Phase II vapor recovery system which has been certified by CARB as capable of recovering or processing displaced gasoline vapors to an efficiency of 95 percent or greater (SCAQMD Regulation IV, Rule 461).

- *CARB Executive Orders* - Orders published by CARB that document the requirements of specific vapor control equipment and procedures used in Phase I and Phase II vapor recovery systems (SCAQMD Regulation IV, Rule 461).

- *Certified Person* - a person who has successfully completed the District tank self-inspection program, and who holds a certificate issued by the EO evidencing that such person is in good standing in this program (SCAQMD Regulation IV, Rule 463).

- *Class A Facility* - any facility which loads 20,000 gal (75,700 L) or more on any one day of organic liquids into any tank truck, trailer, or railroad tank car (SCAQMD Regulation IV, Rule 462).

- *Class B Facility* - any facility that was (SCAQMD Regulation IV, Rule 462):
    1. constructed before 9 January 1976 and loads more than 15,140 L (4000 gal), but not more than 75,500 L (20,000 gal), of gasoline on any one day into any tank truck, trailer, or railroad tank car
    2. constructed before 9 January 1976 and loads not more than 15,140 L (4000 gal) of gasoline on any one day, but more than 1,892,500 L (500,000 gal) of gasoline in any one calendar year into any tank truck, trailer, or railroad tank car
    2. constructed after 9 January 1976 and loads not more than 75,700 L (20,000 gal) of gasoline on any one day into a tank truck, trailer, or railroad tank car.

- *Class C Facility* - any facility existing before 9 January 1976 which loads not more than 4000 gal (15,140 L) of gasoline on any one day and not more than 500,000 gal in any one calendar year, into any tank truck, trailer, or railroad tank car (SCAQMD Regulation IV, Rule 462).

- *Cleaning* - the process of washing or rinsing a stationary tank, reservoir, or other container or removing vapor, sludge, or rinsing liquid from a stationary tank, reservoir, or other container (SCAQMD Regulation XI, Rule 1149).

- *Coaxial Hose* - a hose that contains two passages with a configuration of a hose within a hose. One of the passages dispenses the liquid gasoline into the vehicle fuel tank while the other passage carries the gasoline vapor from the vehicle fuel tank to the storage tank (SCAQMD Regulation IV, Rule 461).

- *Degassing* - the process of removing organic gases from a stationary tank, reservoir, or other container (SCAQMD Regulation XI, Rule 1149).

- *District* - the South Coast Air Quality Management District.

- *Emission Control Equipment* - any equipment, machinery, apparatus, or device used to collect, store, or reduce the emission of VOCs in the atmosphere (SCAQMD Regulation XI, Rule 1142).

- *Exempt Compounds* - any of the following compounds that have been determined to be nonprecursors of ozone:
    1. Group I (General)
        trifluoromethane (HFC-123)
        pentafluoroethane (HFC-125)
        1,1,2,2-tetrafluoroethane (HFC-134)
        tetrafluoroethane (HFC-134a)
        1,1,1-trifluoroethane (HFC-143a)
        1,1-difluoroethane (HFC-152a)
        chlorodifluoromethane (HCFC-22)
        dichlorotrifluoroethane (HCFC-123)
        2,chloro-1,1,1,2-tetrafluoroethane (HCFC-124)
        dichlorofluoroethane (HCFC-141b)
        chlorodifluoroethane (HCFC-142b)
        cyclic, branched, or linear, completely fluorinated alkanes
        cyclic, branched, or linear, completely fluorinated ethers with no unsaturations
        cyclic, branched, or linear, completely fluorinated tertiary amines with no unsaturations

sulfur-containing perfluorocarbons with no unsaturations and with sulfur bonds only to carbon and fluorine

2. Group II

methylene chloride
1,1,1-trichloroethane (methyl chloroform)
trifluoromethane (FC-123)
trichlorotrifluoroethane (CFC-113)
dichlorodifluoromethane (CFC-12)
trichlorofluoromethane (CFC-11)
dichlorotetrafluoroethane (CFC-114)
chloropentafluoroethane (CFC-115)

The use of Group II compounds and/or carbon tetrachloride may be restricted in the future because they are toxic, potentially toxic, or upper atmospheric ozone depleters, or cause other environmental impacts. By 1 January 1996, chlorofluorocarbons (CFC), 1,1,1-trichloroethane (methyl chloroform), and carbon tetrachloride will be phased out in accordance with the Code of Federal Regulations Title 40 (40 CFR), Part 82 (10 December 1993) (SCAQMD Regulation IV, Rule 462).

- *Facility* - an organic liquid or gasoline loading rack or set of such racks that load organic liquid or gasoline into tanks, trailers or railroad cars, which are located on one or more contiguous properties within the District, in actual physical contact or separated solely by a public roadway or other public right-of-way, and are owned or operated by the same person or persons under common control (SCAQMD Regulation IV, Rule 462).

- *Facility Vapor Leak* - an escape of organic vapors from a source other than the tank truck, trailer or railroad tank car in excess of 3000 ppm as methane above background when measured at a distance of 2 cm from the source according to USEPA Method 21. A facility vapor leak source does not include liquid spillage or condensate resulting from "liquid leaks" (SCAQMD Regulation IV, Rule 462).

- *Fleet* - any group of vehicles at a single location as determined by the EO (SCAQMD Regulation XI, Rule 1170).

- *Gaseous Leak* - a condition that exists when the reading on a portable hydrocarbon meter, measured 1 cm or less from any source, exceeds 1000 ppm, expressed as methane, above background (SCAQMD Regulation XI, Rule 1142).

- *Gasoline* - any petroleum distillate or petroleum distillate/alcohol blend having a vapor pressure greater than 200 mm Hg (3.9 psi) and less than 760 mm Hg (14.7 psi) at 100 ºF, as determined by ASTM Method D323-89 (SCAQMD Regulation IV, Rule 461).

- *Gasoline Transfer and Dispensing Facility* - a mobile system or a stationary facility consisting of one or more storage tanks, and associated equipment which receive, store, and dispense gasoline subject to the provisions of this section (SCAQMD Regulation IV, Rule 461).

- *Gasoline Vapors* - the organic compounds in vapor form displaced during gasoline transfer and dispensing operations, and includes entrained liquid gasoline (SCAQMD Regulation IV, Rule 461).

- *Housekeeping* - consist of altering the composition of gases contained within marine vessel tanks by tank washing, gas freeing, or purging (SCAQMD Regulation XI, Rule 1142).

- *Insertion Interlock Mechanism* - any CARB certified mechanism that ensures a tight fit at the nozzle fill pipe interface and prohibits the dispensing of gasoline unless the bellows is compressed (SCAQMD Regulation IV, Rule 461).

- *Lightering* - the transfer of organic liquid into a cargo tank from one marine tank vessel to another (SCAQMD Regulation XI, Rule 1142).

- *Liquid Balancing* - a process in which an organic liquid having a Reid vapor pressure subject to this rule is replaced in the storage tank by an organic liquid with a Reid vapor pressure that is not subject to this rule (SCAQMD Regulation XI, Rule 1149).

- *Liquid Leak* - a dripping of liquid organic compounds at a rate in excess of three drops per minute from any single leak source other than the liquid fill line and vapor line of disconnect operations (SCAQMD Regulation IV, Rule 462).

- *Liquid Leak from Disconnect Operations* - defined as either:
  1. more than 2 mL of liquid drainage per disconnect from a top loading operation
  2. more than 10 mL of liquid drainage per disconnect from a bottom loading operation.

  Such liquid drainage shall be determined by computing the average drainage from three consecutive disconnects at any one loading arm (SCAQMD Regulation IV, Rule 462).

- *Liquid Removal Device* - a device designed specifically to remove trapped liquid from the vapor passages of a coaxial hose (SCAQMD Regulation IV, Rule 461).

- *Liquid Tight* - a liquid leak rate not exceeding three drops per minute (SCAQMD Regulation IV, Rule 461).

- *Marine Tank Vessel* - any tugboat, tanker, freighter, passenger ship, barge, boat, ship, or watercraft, which is specifically constructed or converted to carry liquid cargo in tanks (SCAQMD Regulation XI, Rule 1142).

- *Marine Terminal* - any facility, equipment, or structure constructed to handle the loading or unloading or organic liquid into or out of marine tank vessels (SCAQMD Regulation XI, Rule 1142).

- *Methanol* - a light, volatile, flammable, poisonous, corrosive, liquid alcohol with a chemical formula of CH_3OH (SCAQMD Regulation XI, Rule 1170).

- *Methanol Fuel* - a fuel containing at least 85 percent methanol, or as approved by the EO, and used in motor vehicles or internal combustion engines (SCAQMD Regulation XI, Rule 1170).

- *Mobile Fueler* - any tank truck or trailer that is used to transport and dispense gasoline form an onboard storage tank into any motor vehicle fuel tank (SCAQMD Regulation IV, Rule 461).

- *Motor Vehicle* - any self-propelled vehicle as defined in Section 415 of the California Vehicle Code (SCAQMD Regulation IV, Rule 461).

- *Motor Vehicle Fuel Storage Tank* - an underground fuel storage tank that contains a fuel intended to be used in motor vehicles or internal combustion engines (SCAQMD Regulation XI, Rule 1170).

- *New Motor Vehicle Fuel Storage Tank* - any manufactured, repaired, refurbished, or used motor vehicle fuel storage tank which is installed after 6 May 1988 (SCAQMD Regulation XI, Rule 1170).

- *Organic Liquid* - any liquid compound containing the element carbon that has a vapor pressure of 1.5 psia (77.5 m Hg) or greater under actual loading conditions excluding liquefied gases (LPG), methane, CO, CO_2, carbonic acid, metallic carbides or carbonates, ammonium carbonate, and exempt compounds (SCAQMD Regulation IV, Rule 462).

- *Poppetted Dry Break* - a Phase I vapor recovery device that opens only by connection to a mating device to ensure that no gasoline vapors escape from the underground storage tank before the vapor return line is connected (SCAQMD Regulation IV, Rule 461).

- *PPM* - parts per million by volume expressed on a gas basis.

- *Pressure/Vacuum Relief Valve* - a valve that is installed on the vent pipes of the gasoline storage tanks to relieve pressure or vacuum buildup at preset values of pressure or vacuum (SCAQMD Regulation IV, Rule 461).

- *PSI* - pounds per square inch.

- *Rebuilt Equipment* - any component of a vapor recovery system that has undergone repair or replacement of any or all of its internal parts (SCAQMD Regulation IV, Rule 461).

- *Retail Gasoline Transfer and Dispensing Facility* - any gasoline transfer and dispensing facility subject to the payment of California sales tax for the sale of gasoline to the public (SCAQMD Regulation IV, Rule 461).

- *SCAQMD* - the South Coast Air Quality Management District.

- *Seal* - a closure device between the tank wall and the floating roof edge that controls emissions of volatile organic compounds. Approved floating roof tank seals are categorized as follows:
    1. Category "A" seals are seals approved by the EO as most effective in the control of VOCs and are deemed Best Available Control Technology (BACT)
    2. Category "B" seals are seals approved by the EO that are considered more effective than Category "C" seals
    3. Category "C" seals are seals approved by the EO which are currently in service but are considered least effective in the control of VOCs (SCAQMD Regulation IV, Rule 463).

- *Soil Decontamination Measure* - any process approved by the EO or designee to remediate, destroy, remove, or encapsulate VOC and VOC-contaminated soil (SCAQMD Regulation XI, Rule 1166).

- *South Coast Waters* - the Pacific Ocean area beginning at the intersection of the Pacific Ocean and the Los Angeles-Ventura County boundary; and proceeding southwesterly to the intersection of the boundary of the California Coastal Waters at a point having the coordinates of 33 ° North Latitude and 119.5 ° West Longitude; then southeasterly along said boundary of the California Coastal Waters to a point having the coordinates of 32.5 ° North Latitude and 118.5 ° West Longitude; and then northeasterly to the intersection of the Pacific Ocean and the Orange-San Diego County boundary (SCAQMD Regulation XI, Rule 1142).

- *Spill Box* - an enclosed container around a Phase I fill pipe that is designed to collect gasoline spillage resulting from disconnection between the liquid gasoline delivery hose and the fill pipe (SCAQMD Regulation IV, Rule 461).

- *Submerged Fill Loading* - a type of organic liquid loading operations where the discharge opening is completely submerged when the liquid level above the bottom of the vessel is 8 cm (3.2 in.) or higher. (SCAQMD Regulation IV, Rule 462).

- *Switch Loading* - a transfer of organic liquids with a vapor pressure of less than 1.5 psia (77.5 mm Hg) under actual loading condition into any tank truck, trailer or railroad tank car that was loaded with an organic liquid with a vapor pressure of 1.5 psia (77.5 mm Hg) or greater immediately preceding the transfer (SCAQMD Regulation IV, Rule 462).

- *Tank* - any stationary aboveground reservoir or any other stationary aboveground container used for storage of an organic liquid (SCAQMD Regulation IV, Rule 463).

- *Transfer Equipment* - all the components of the liquid loading line between the liquid pump and the transporting vessel, and the vapor return line from the transporting vessel to the storage tank, or to and including the vapor recovery system (SCAQMD Regulation IV, Rule 462).

- *Transport Vessel* - a tank truck, trailer or railroad tank car that is equipped to receive and transport organic liquid (SCAQMD Regulation IV, Rule 462).

- *Transport Vessel Vapor Leak* - an escape of organic vapors from a transport vessel in excess of 100 percent of the LEL when monitored according the CARB Test Procedure for Gasoline Vapor Leak Detection Using Combustible Gas Detector (SCAQMD Regulation IV, Rule 462).

- *Unauthorized Release* - the emission of methanol vapors from a motor vehicle fuel storage tank without prior written authorization from the EO (SCAQMD Regulation XI, Rule 1170).

- *Underground Storage Tank* - any one or combination of tanks, including pipes connected thereto, which is used for the storage of organic liquid which is more than 50 percent beneath the surface of the ground (SCAQMD Regulation XI, Rule 1166).

- *USEPA* - the United States Environmental Protection Agency.

- *Vacuum -Assist System* - a Phase II vapor recovery system that uses vacuum-producing device such as a compressor or turbine to create a vacuum during gasoline dispensing to capture gasoline vapors. Vacuum-assist systems may also incorporate gasoline vapor incinerators and/or bellows-less nozzles (SCAQMD Regulation IV, Rule 461).

- *Vapor Check Valve* - a valve that opens and closes the vapor passage to the storage tank to prevent gasoline vapors from escaping when the nozzle is not in use (SCAQMD Regulation IV, Rule 461).

- *Vapor Disposal System* - a control equipment designed and operated to reduce VOC emissions into the atmosphere (SCAQMD Regulation IV, Rule 462).

- *Vapor Leak* - the detection of gaseous VOCs in excess of 10,000 ppmv. Measurements of gaseous volatile organic compound concentrations are conducted according to USEPA Method 21, using an appropri-

ate analyzer calibrated with methane at a distance of 1 cm (0.4 in.) or less from the source (SCAQMD Regulation XI, Rule 1149).

- *Vapor Recovery System* - a vapor gathering system which is capable of collecting and returning discharged hydrocarbon vapors and gases during loading of organic liquids into transport vessels, back into a stationary storage container, or into an enclosed process system (SCAQMD Regulation IV, Rule 462).

- *Vapor Tight* - the detection of less than 10,000 ppm hydrocarbon concentration, as determined by USEPA Method 21, using an appropriate analyzer calibrated with methane (SCAQMD Regulation IV, Rule 416).

- *VOC* - please see "Volatile Organic Compound".

- *VOC-Contaminated Soil* - a soil which registers a concentration of 50 ppm or greater of VOCs, when measured at a distance of no more than 3 in. from the surface of the excavated soil with an organic vapor analyzer calibrated with hexane, complying with 40 CFR Part 60 Appendix A, USEPA Method 21 Section 3, or any equivalent method approved in writing by the EO or designee, the Chairman of the Air Resources Board or designee and the Administrator of the USEPA or designee. If other calibrating gases were used, then the measured readings is correlated to and expressed as hexane (SCAQMD Regulation XI, Rule 1166).

- *VOC-Contaminated Soil Mitigation Plan* - a plan to minimize VOC emissions during excavation and any subsequent handling of VOC-contaminated soil (SCAQMD Regulation XI, Rule 1166).

- *Volatile Organic Compound* - any volatile compound containing the element carbon, excluding methane, CO, CO_2, carbonic acid, metallic carbides or carbonates, ammonium carbonate, and exempt compounds (SCAQMD Regulation IV, Rule 462).

STORAGE TANK MANAGEMENT

GUIDANCE FOR SCAQMD CHECKLIST USERS

	REFER TO CHECKLIST ITEMS:	REFER TO PAGE NUMBERS:
Emissions From POL Storage Vessels		
General	ST.10.1.CA.SC. and ST.10.2.CA.SC.	10-11
Transfer	ST.10.3.CA.SC. through ST.10.11.CA.SC.	10-11
Emissions From VOL Storage Vessels		
General	ST.20.1.CA.SC. through ST.20.10.CA.SC.	10-19
Transfer of VOL	ST.20.11.CA.SC. through ST.20.19.CA.SC.	10-27
UST Releases	ST.155.1.CA.SC. through ST.155.3.CA.SC.	10-33

GUIDANCE FOR APPENDIX USERS

REFER TO APPENDIX NUMBERS:	REFER TO APPENDIX TITLES:	REFER TO PAGE NUMBERS:
1-1	California Code of Regulations, Section 94006, Subchapter 8, Chapter 1, Part 111 of Title 17	10-35
1-2	Daily Maintenance Inspection Protocol	10-37
1-3	Periodic Compliance Inspection Protocol	10-39

COMPLIANCE CATEGORY: STORAGE TANK MANAGEMENT South Coast Air Quality Management District (SCAQMD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
ST.15. EMISSIONS FROM POL STORAGE VESSELS **General**	
ST.10.1.CA.SC. Installations storing gasoline in any tank with a capacity of between 950 L (251 gal) and 75,000 L (19,815 gal) must meet specific design requirements (SCAQMD Regulation IV, Rule 463(d)(1)).	Verify that the tank is either: - equipped with a pressure-vacuum valve set to within 10 percent of the maximum allowable working pressure of the container - equipped with a vapor loss control device meeting the requirements set forth for tanks storing organic liquid with a true vapor pressure of 25.8 mm Hg (0.5 psi) absolute or greater under actual storage conditions in any tank of 150,000 L (39,630 gal) or an organic liquid with a true vapor pressure of 77.5 mm Hg (1.5 psi) absolute or greater under actual storage conditions in any tank of more than 75,000 (19,815 gal) (see Emissions from VOL Storage Vessels-General).
ST.10.2.CA.SC. Installations refilling a tank with a capacity of between 950 L (251 gal) and 75,000 L (19,815 gal) with gasoline after the tank has been gas-freed must meet specific operating requirements (SCAQMD Regulation IV, Rule 463(d)(3)).	Verify that if a tank has been gas-freed and is to be refilled with gasoline, the roof is refloated with water or by an equivalent procedure approved by the EO. (NOTE: This requirement does not apply to gasoline storage tanks at bulk gasoline distribution terminals which do not have the following: - existing facilities for treatment of waste water used to refloat the tank roof - facilities for equivalent emission control when refloating the roof with organic liquid.)
Transfer	(NOTE: These transfer requirements do not apply to the transfer of gasoline under the following conditions: - into or from any stationary storage tank or mobile fueler if 75 or more percent of its monthly throughput is used for fueling of implements of husbandry, provided such a tank is equipped with a submerged fill tube - into or from any stationary storage tank or mobile fueler used exclusively for fueling agricultural wind machines - from any mobile fueler of greater than 454 L (120 gal) into any motor vehicle fuel tank of grater than 19 L (5 gal) capacity until 1 January 1998.)

COMPLIANCE CATEGORY:
STORAGE TANK MANAGEMENT
South Coast Air Quality Management District (SCAQMD)-California Supplement

REGULATORY REQUIREMENTS:	REVIEWER CHECKS: September 1996
ST.10.3.CA.SC. Installations that transfer, permit the transfer, or provide equipment for the transfer of gasoline from any tank truck, trailer, or railroad car into stationary storage tanks with a capacity of 950 L (251 gal) or more or into mobile fueler tanks with a capacity of greater than 454 L (120 gal) must meet specific equipment requirements (SCAQMD Regulation IV, Rule 461(c)(1)).	Verify that the tank is equipped with a "CARB certified" submerged fill tube. Verify that the tank is equipped with a "CARB certified" vapor recovery system, maintained and operated according to manufacturers specifications. Verify that all vapor return lines are connected between tank truck, trailer, or railroad tank car and the stationary storage tank or mobile fueler. Verify that all associated hoses, fittings, and couplings are maintained in a liquid-tight and vapor-tight condition. Verify that the hatch on any tank truck, trailer, or railroad tank car is not opened for more than 3 min for each visual inspection, provided: - transfer or pumping has been stopped for at least 3 min prior to opening - the hatch is closed before transfer or pumping is resumed. Verify that underground tank lines are gravity drained, and aboveground tanks are equipped with dry breaks, or as approved by the District, so that upon line disconnect the liquid leak rate does not exceed 3 drops/min. Verify that equipment subject to these requirements is operated and maintained according to all of the following requirements: - all fill tubes are equipped with vapor-tight covers, including gaskets - all dry breaks are equipped with vapor-tight seals and dust covers - fixed or spring-loaded coaxial fill tubes are operated so that vapor passage from the stationary storage tank or mobile fueler back to the tank truck, trailer, or railroad tank car is not obstructed - the fill tube assembly, including fill tube, fittings, and gaskets, is maintained to prevent vapor leakage from any portion of the vapor recovery system - all stationary storage tank or the mobile fueler vapor return lines without dry breaks are equipped with vapor-tight covers, including gaskets. Verify that any time an underground stationary storage tank is installed or replaced at any gasoline transfer and dispensing facility, a "CARB certified" spill box is installed. Verify that the spill box is equipped with an integral vapor-tight drain valve to return spilled gasoline to the underground stationary storage tank. Verify that the installation does not install or permit installation of any Phase I vapor recovery system of coaxial design at any gasoline transfer and dispensing facility, unless the system was certified by CARB after 1 January 1994. **ST.10.3.CA.SC. Continued on Next Page**

COMPLIANCE CATEGORY: STORAGE TANK MANAGEMENT South Coast Air Quality Management District (SCAQMD)-California Supplement	
REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
ST.10.3.CA.SC. (continued)	Verify that the installation does not install or permit installation of any Phase I vapor recovery system of dual-point design at any gasoline transfer and dispensing facility, unless the system incorporates "CARB certified" poppetted drybreaks or spring-loaded vapor check valves on the vapor return coupler.
ST.10.4.CA.SC. Installations transferring, permitting the transfer, or providing equipment for the transfer of gasoline from a stationary storage tank or a mobile fueler of greater than 454 L (120 gal) capacity into any mobile fueler of greater than 450 L (120 gal) capacity or any motor vehicle fuel tank of greater than 19 L (5 gal) capacity must meet specific equipment requirements (SCAQMD Regulation IV, Rule 461(c)(2)).	Verify that the dispensing unit used to transfer gasoline from the stationary storage tank or mobile fueler to the mobile fueler or motor vehicle fuel tank is equipped with a "CARB certified" vapor recovery system. Verify that the vapor recovery system and associated components are operated and maintained in a vapor-tight and liquid-tight manner in accordance with manufacturer's specifications and applicable CARB certification. Verify that equipment subject to these requirements is operated and maintained with none of the defects listed in Appendix 1-1. Verify that the installation does not install or permit installation of any balance system bellows-equipped nozzle at any gasoline transfer and dispensing facility, unless the nozzle is equipped with a "CARB certified" insertion interlock mechanism. Verify that the installation does not install or permit installation of any balance-system nozzle at a new or altered gasoline transfer and dispensing facility, unless a vapor check valve is located in the nozzle. Verify that, effective 1 January 1997, the installation does not operate or permit the operation of any balance-system nozzle, unless a vapor check valve is located in the nozzle. Verify that the installation does not install or permit installation of any nozzle at a new or altered gasoline transfer and dispensing facility, unless the nozzle is equipped with a coaxial hose. Verify that, effective 1 January 1998, the installation does not operate any gasoline-dispensing nozzle, unless the nozzle is equipped with a coaxial hose. Verify that, unless otherwise specified in applicable CARB Executive Orders, the inside diameter of the connection between the riser and dispenser cabinet at a new or altered gasoline transfer and dispensing facility is not less than 0.75 in. Verify that, if flexible tubing is used for this connection, the material is appropriate for use with gasoline and is equipped with a clearly visible bonding strap. Verify that, unless otherwise specified in applicable CARB Executive Orders, all liquid removal devices installed for any gasoline-dispensing nozzle with a dispensing rate of greater than 5 gal/min are "CARB certified" with a minimum liquid removal rate of 5 mL/gal transferred.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
ST.10.5.CA.SC. All installations transferring gasoline from any tank truck, trailer, or railroad tank car into any stationary storage tank or mobile fueler, and from any stationary storage tank or mobile fueler into any mobile fueler or motor vehicle fuel tank must meet specific additional requirements (SCAQMD Regulation IV, Rule 461(c)(3)(A) through (D) and (F) through (L)).	Verify that no new, used, or rebuilt vapor recovery equipment is sold, offered for sale, or installed, unless components and parts are clearly identified or marked by the certified manufacturing company and/or rebuilding company. Verify that gasoline is not transferred in bulk from a storage tank of 950 L (251 gal) or more, unless performed using a vapor collection and transfer system capable of returning the displaced vapors to the stationary storage tank. Verify that gasoline is not stored in any stationary storage tank with a capacity of 950 L (251 gal) or more unless the tank is both: - equipped with a Phase I vapor recovery system - operated and maintained with an integral vapor-tight drain valve to return spilled gasoline to the storage tank if equipped with a spill container. Verify that a dispenser not intended to be used to fuel motor vehicles has a sign posted on it to that effect. Verify that the installation does not install or permit installation of any vent pipes on gasoline storage tanks at any gasoline transfer and dispensing facility without a "CARB certified" pressure-vacuum relief valve. Verify that written approval from the District has been received prior to installation or relocation of such vent pipes. Verify that, effective 1 January 1997, all open vent pipes on gasoline storage tanks are equipped with a "CARB certified" pressure-vacuum relief valve. Verify that, unless otherwise specified in applicable CARB Executive Orders, pressure relief is set at 3 in. water column and vacuum relief is set at 8 in. water column. (NOTE: Vent pipes of gasoline storage tanks may be manifolded to a single valve when stationary storage tanks are manifolded according to applicable CARB Executive Order.) Verify that gasoline is not stored in open containers of any size or handled in any manner that permits gasoline or gasoline vapors to enter the atmosphere, contaminate the ground, or enter the sewer. **ST.10.5.CA.SC. Continued on Next Page**

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
ST.10.5.CA.SC. (continued)	Verify that noncompliant equipment is tagged "Out of Order," the equipment is not used, and the sign is not removed, except during repair activity, unless all of the following conditions are met: - noncompliant equipment has been repaired, replaced, or adjusted, as necessary - the installation has notified the District of repairs by completing, signing, and submitting the form supplied by the District - noncompliant equipment has been reinspected and/or authorized for use by the District. Verify that installations operating a new or altered gasoline transfer and dispensing facility have all UST installation and associated piping configuration inspected prior to backfilling in order to verify all underground equipment is properly installed in accordance with requirements specified in the applicable CARB Executive Order. Verify that the District is notified by telephone at least 24 h prior to backfilling. Verify that installations operating a new or altered gasoline transfer and dispensing facility have all phase I and phase II vapor recovery systems inspected upon completion of construction to verify that all components were installed in accordance with the description specified in the Permit to Construct and in compliance with all District requirements. Verify that the District is notified in writing of any changes to the information and specifications submitted with the application under which the Permit to Construct was issued.
ST.10.6.CA.SC. Installations transferring gasoline from any tank truck, trailer, or railroad tank car into any stationary storage tank or mobile fueler, and from any stationary storage tank or mobile fueler into any mobile fueler or motor vehicle fuel tank must post specific signs (SCAQMD Regulation IV, Rule 461(c)(3)(E) and Attachment B).	Verify that the following signs are conspicuously posted in the immediate gasoline dispensing area: - "NOZZLE" operating instructions - "SCAQMD" toll-free telephone number - A "warning" stating: "TOXIC RISK - FOR YOUR OWN PROTECTION DO NOT BREATHE FUMES DO NOT TOP TANKS" Verify that the signs meet all of the following requirements: - for decal signs: - each sign is located adjacent to the dispenser price indicator (per gallon) on each side next to the driveway it serves - signs are readable from a distance of 3 ft [approximately 0.91 m] **ST.10.6.CA.SC. Continued on Next Page**

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
ST.10.6.CA.SC. (continued)	- all other signs: - for pump toppers, one double-back sign per island - for permanent (nondecal) signs, two single- or one double-sided sign per two dispensers - all signs are readable from a distance of 6 ft [approximately 1.83 m].
ST.10.7.CA.SC. Installations operating a new or altered gasoline and dispensing facility must conduct specific tests (SCAQMD Regulation IV, Rule 461(c)(4)).	Verify that, within 30 calendar days of initial operation, the installation has the following performance tests conducted to verify the proper installation and function of Phase I and Phase II vapor recovery systems: - for the Phase I vapor recovery system, a static pressure (leak-decay) test - for Phase II vapor recovery system: - static pressure (leak-decay) test - dynamic pressure (back-pressure) test - air-to-liquid (A/L) ratio (only for bellows-less nozzles) - liquid removal rate (only for systems with a liquid removal device required by CARB Executive Orders). Verify that the written test results are submitted to the District within 30 calendar days of each testing. Verify that the installation has the following reverification tests conducted, unless otherwise specified in the applicable CARB Executive Order, to verify the proper function of the Phase II vapor recovery system: - for a facility with a vacuum-assist or aspirator- assist Phase II vapor recovery system, a static pressure (leak-decay) test once every calendar year - for a facility with a balance Phase II vapor recovery system, a static pressure (leak-decay) test once every five calendar years - for a facility with bellows-less nozzles, an air-to- liquid (A/L) ratio test once every five calendar years - a dynamic pressure (back-pressure) test once every five calendar years. Verify that, for any required reverification testing which has not been conducted since 1 January 1993, an initial reverification test is conducted by 1 January 1998 and written test results are submitted to the District within 30 calendar days of each testing.

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ST.10.8.CA.SC. Installations operating any retail gasoline transfer and dispensing facility must implement a District-approved self-compliance program (SCAQMD Regulation IV, Rule 461(c)(5)).	Verify that the installation implements a District-approved self-compliance program. Verify that the program includes the following elements: - daily maintenance inspections conducted in accordance with the protocol specified in Appendix 1-2 to ensure proper operating conditions of all components of the vapor recovery systems - periodic compliance inspections conducted at least once every calendar year and in accordance with the protocol specified in Appendix 1-3 to verify compliance with all applicable District rules and regulations, as well as all permit conditions. Verify that any noncompliant equipment identified during daily maintenance inspections or periodic compliance inspections are removed from service, repaired, and brought into compliance before being returned to service. (NOTE: Only violations documented during District inspections constitute a violation.) Verify that the self-compliance program is submitted in writing to the District for approval by the date permit application for a new facility is filed.
ST.10.9.CA.SC. Persons who conduct maintenance or compliance inspections must be trained (SCAQMD Regulation IV, Rule 461(c)(6)).	Verify that a person who conducts daily maintenance inspections has completed a District-approved training program. Verify that a person who conduct periodic compliance inspections has completed a District-approved training program in the inspection and maintenance of vapor recovery systems and has received a certificate issued by the District.
ST.10.10.CA.SC. Installations operating any gasoline transfer and dispensing facility must meet specific recordkeeping requirements (SCAQMD Regulation IV, Rule 461(c)(7)).	Verify that the installation keeps the following records: - records of all inspections and repairs (e.g. receipts for parts used in the repair, work orders, etc.) - records of all test results - throughput records as required by permit conditions. Verify that all records, except test results, are maintained for 2 yr and that records of tests results are maintained for 5 yr. Verify that all records are made available to the District upon request.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
ST.10.11.CA.SC. Installations installing or replacing one or more underground motor vehicle fuel storage tank(s) must make provisions for methanol compatibility (SCAQMD Regulation XI, Rule 1170).	(NOTE: The following types of storage tanks are exempt from these standards: - new motor vehicle fuel storage tanks of less than 5000 gal [18927.06 L] capacity, unless intended for fleet vehicles - motor vehicle fueling facilities dispensing less than 20,000 gal/mo [75,708.24 L/mo] annual average, except for fleet fueling facilities - motor vehicle fueling facilities located on farmland and used primarily for agricultural purposes or animal husbandry, including pest control and aviation - onsite repair not involving installation or replacement of motor vehicle fuel storage tank(s).) Verify that at least one motor vehicle fuel storage tank(s) of any installed since 1 July 1988 is capable, along with all associated underground pipes, of safely storing and transporting methanol fuel as evidenced by the manufacturer's written certification. Verify that the manufacturer's certification meets Underwriters Laboratory (UL) standards for methanol fuel. Verify that there is no unauthorized release from underground motor vehicle fuel storage tanks or associated underground pipes.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
ST.20. **EMISSIONS FROM VOL STORAGE VESSELS** **General**	
ST.20.1.CA.SC. Installations, when storing organic liquid with a true vapor pressure of 25.8 mm Hg (0.5 psi) absolute or greater under actual storage conditions in any tank of 150,000 L (39,630 gal) or an organic liquid with a true vapor pressure of 77.5 mm Hg (1.5 psi) absolute or greater under actual storage conditions in any tank of more than 75,000 (19,815 gal) must meet specific VOL emission requirements (SCAQMD Regulation IV, Rule 463(c)).	Verify that the installation uses a a pressure tank which maintains working pressures sufficient at all times to prevent organic vapor loss to the atmosphere, or is designed and equipped with one of the following, properly installed and continuously maintained in good operating condition: - external floating roof - internal floating-type cover - vapor recovery system.
ST.20.2.CA.SC. Installations must meet specific design and construction criteria when using an external floating roof to prevent vapor loss when storing organic liquid with a true vapor pressure of 25.8 mm Hg (0.5 psi) absolute or greater under actual storage conditions in any tank of 150,000 L (39,630 gal) or an organic liquid with a true vapor pressure of 77.5 mm Hg (1.5 psi) absolute or greater under actual storage conditions in any tank of more than 75,000 (19,815 gal) (SCAQMD Regulation IV, Rule 463(c)(1) and (d)(2), (3), (4), (5), and (6)).	Verify that the external floating roof consists of a pontoon-type or double deck-type cover continuously resting on the surface of the organic liquid and equipped with a closure device between the tank shell and roof edge. Verify that the closure device consists of two seals, with one seal placed above the other. (NOTE: The one seal below is designated as the primary seal, and the seal above is designated as the secondary seal.) Verify that a seal which is not identified on the current list of seals approved by the EO is not be installed or used unless the EO approves it. Verify that a closure device on a welded or a riveted tank shell using a metallic shoe-type seal as its primary seal meets the following requirements: - primary seal: - gaps between tank shell and primary seal do not exceed 1.3 cm (0.5 in.) for a cumulative length of 30 percent of the circumference of the tank, and 0.32 cm (0.125 in.) for 60 percent of the circumference of the tank **ST.20.2.CA.SC. Continued on Next Page**

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
ST.20.2.CA.SC. (continued)	- no gap between tank shell and primary seal exceeds 3.8 cm (1.5 in.) - no continuous gap between tank shell and primary seal greater than 0.32 cm (1/8 in.) exceeds 10 percent of the circumference of the tank - secondary seal: - gaps between tank shell and secondary seal do not exceed 0.32 cm (0.125 in.) for a cumulative length of 95 percent of the circumference of the tank - no gap between tank shell and secondary seal exceeds 1.3 cm (0.5 in.). - metallic-shoe-type seals installed on or after 1 August 1977 are installed so that one end of the shoe extends into the stored organic liquid and the other end extends a minimum vertical distance of 61 cm (24 in.) above the stored organic liquid surface - the geometry of the shoe is such that the maximum gap between shoe and tank shell is no greater than double the gap allowed by the seal gap criteria for a primary seal for a length of at least 46 cm (18 in.) in the vertical plane above the liquid surface. Verify that a closure device using a resilient-toroid-type seal as its primary seal meets the primary and secondary seal requirements for metallic shoe-type seals on welded or riveted tank shells. Verify that the installation meets the following requirements regarding primary and secondary seals: - the primary seal envelope is made available for unobstructed inspection by the EO along its circumference - in the case of riveted tanks with resilient toroid-type seals, at least eight such locations are made available - for all other types of seals, at least four such locations are made available. - the secondary seal is installed in a way that permits the EO to insert probes up to 3.8 cm (1.5 in.) in width to measure gaps in the primary seal - the secondary seal extends from roof to tank shell and is not attached to the primary seal. (NOTE: Notwithstanding secondary and primary seal requirements of metallic shoe-type seals, a secondary or primary seal may be loosened or removed for preventive maintenance, inspection, or repair for a period not exceeding 72 h with prior notification to the EO.) Verify that all openings in the roof, except pressure-vacuum valves, provide a projection below the liquid surface to prevent belching, escape, or entrainment of organic liquid, and are equipped with a cover, seal, or lid. Verify that this cover, seal, or lid is at all times in a closed position with no visible gaps, except when the device or appurtenance is in use. **ST.20.2.CA.SC. Continued on Next Page**

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
ST.20.2.CA.SC. (continued)	Verify that pressure vacuum valves are set to within 10 percent of the maximum allowable working pressure of the roof. Verify that there are no holes, tears, or openings in the secondary seal or in the primary seal envelope surrounding the annular vapor space enclosed by the roof edge, seal fabric, and secondary seal. Verify that any emergency roof is provided with a slotted membrane fabric cover, or equivalent device, covering at least nine-tenths of the area of the opening. Verify that the roof of any internal or external floating roof tank floats on the organic liquid at all times (i.e. free of the roof leg supports), except when the tank is being completely emptied for cleaning or repair. Verify that the process of emptying, or refilling, when the roof is resting on leg supports, is continuous. (NOTE: This requirement for the roof of the tank to float on the organic liquid at all times does not apply to gasoline storage tanks at bulk gasoline distribution terminals which do not have the following: - existing facilities for treatment of waste water used to refloat the tank roof - facilities for equivalent emission control when refloating the roof with organic liquid.) Verify that no crude oil containing in excess of 70 ppm by weight of hydrogen sulfide is stored in a floating roof tank. Verify that a fixed roof tank with an external floating roof cover is not used for storing organic liquids having a true vapor pressure of 11 psia (569 mm Hg) or greater under actual storage conditions. Verify that a seal on a floating roof tank is made only with a seal chosen from the current list of seals approved by the EO: - Category "A" seals are replaced only by Category "A" seals - Category "B" seals are replaced only by Category "A" or Category "B" seals. - Category "C" seals are replaced only by Category "A" or Category "B" seals.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS:** **September 1996**
ST.20.3.CA.SC. Installations must meet specific design and construction criteria when using an internal floating-type cover to prevent vapor loss when storing organic liquid with a true vapor pressure of 25.8 mm Hg (0.5 psi) absolute or greater under actual storage conditions in any tank of 150,000 L (39,630 gal) or an organic liquid with a true vapor pressure of 77.5 mm Hg (1.5 psi) absolute or greater under actual storage conditions in any tank of more than 75,000 (19,815 gal) (SCAQMD Regulation IV, Rule 463(c)(2) and (d)(2), (3), (5), and (6)).	Verify that a fixed roof tank with an existing internal floating-type cover approved by the EO on or before 1 June 1984 meets the requirements applicable at the time approval was given. Verify that a fixed roof tank which has an internal floating-type cover installed, modified, or replaced after 1 June 1984, shall has closure device consisting of either a single liquid mounted primary seal or a primary and a secondary seal. Verify that all openings and fittings are fully gasketed or controlled in a manner specified by the EO. Verify that the closure device controls vapor loss with an effectiveness equivalent to a closure device which meets the requirements for metallic shoe-type seals. Verify that seal designs not identified on the current list of seals approved by the EO are not installed or used unless the EO has given prior written approval to its installation or use. Verify that the concentration of organic vapor in the vapor space above the internal floating-type cover does not exceed 50 percent of its lower explosive limit (LEL) for those installed prior to 1 June 1984 and 30 percent of the LEL for those installed after 1 June 1984. (NOTE: Compliance is verified by the use of an exposimeter.) Verify that the roof of any internal or external floating roof tank floats on the organic liquid at all times (i.e. free of the roof leg supports), except when the tank is being completely emptied for cleaning or repair. Verify that the process of emptying, or refilling, when the roof is resting on leg supports, is continuous. (NOTE: This requirement for the roof of the tank to float on the organic liquid at all times does not apply to gasoline storage tanks at bulk gasoline distribution terminals which do not have the following: - existing facilities for treatment of waste water used to refloat the tank roof - facilities for equivalent emission control when refloating the roof with organic liquid.) Verify that no crude oil containing in excess of 70 ppm by weight of hydrogen sulfide is stored in a floating roof tank. **ST.20.3.CA.SC. Continued on Next Page**

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
ST.20.3.CA.SC. (continued)	Verify that a fixed roof tank with an internal floating-type cover is not used for storing organic liquids having a true vapor pressure of 11 psia (569 mm Hg) or greater under actual storage conditions. Verify that a seal on a floating roof tank is made only with a seal chosen from the current list of seals approved by the EO: - Category "A" seals are replaced only by Category "A" seals - Category "B" seals are replaced only by Category "A" or Category "B" seals. - Category "C" seals are replaced only by Category "A" or Category "B" seals.
ST.20.4.CA.SC. Installations with floating roof tanks must conduct self-inspections (SCAQMD Regulation IV, Rule 463(e)(1) through (3)).	Verify that the installation has submitted an Inspection and Maintenance Plan to the EO for his/her approval. Verify that the plan includes the following: - inventory of tanks subject to this requirement - proposed self-inspection schedule - number of certified persons to be dedicated to the program - any self-inspection procedures proposed in addition to those required by the District - a copy of the owner or operator's safety procedures used for floating roof tanks. Verify that the tank inventory includes tank identification number, maximum design capacity, product, shell type, dimensions, seal type and manufacturer, floating roof type, date of construction, and location. Verify that these tanks are clearly and visibly identified by a sign on the outside wall for inventory, inspection, and recordkeeping purposes. Verify that any changes in tank identification require prior written approval by the EO. Verify that these tanks are inspected by a certified person twice a year at 4 to 8 mo intervals according to the procedures and guidelines set forth in the "Inspection Procedures and Compliance Report Form." Verify that the primary and secondary seals are inspected by a certified person each time a tank is emptied and degassed. Verify that gap measurements are performed on an external floating roof tank when the liquid surface is still, but not more than 24 h after the tank roof is refloated. Verify that the EO is notified in writing at least 2 weeks prior to the start of any tank-emptying or roof-refloating operation for planned maintenance of a tank.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
ST.20.5.CA.SC. Installations with floating roof tanks must meet specific record-keeping requirements (SCAQMD Regulation IV, Rule 463(e)(5) and (6)).	Verify that all inspections are recorded on compliance inspection report forms approved by the EO. Verify that all compliance inspection reports and documents are submitted to the EO within five working days of completion of the self-inspection. Verify that, if a tank is determined to be in violation of these requirements, a written report is submitted to the EO within 120 h of the determination of noncompliance, indicating corrective actions taken to achieve compliance. Verify that all records of owner or operator inspection and repair are maintained at the facility for 3 yr and are made available to the EO upon request.
ST.20.6.CA.SC. Installations must meet specific design and construction criteria when using a vapor recovery system to prevent vapor loss when storing organic liquid with a true vapor pressure of 25.8 mm Hg (0.5 psi) absolute or greater under actual storage conditions in any tank of 150,000 L (39,630 gal) or an organic liquid with a true vapor pressure of 77.5 mm Hg (1.5 psi) absolute or greater under actual storage conditions in any tank of more than 75,000 (19,815 gal) (SCAQMD Regulation IV, Rule 463(c)(3)).	Verify that any tank gauging or sampling device on a tank vented to a vapor recovery system is equipped with a vapor-tight cover which is closed at all times, except during gauging or sampling. Verify that the roof of the tank is properly maintained to be vapor-tight with no holes, tears, or uncovered openings. Verify that all piping, valves, and fittings are constructed and maintained in a vapor-tight condition. Verify that the efficiency of a vapor recovery system is determined by making a comparison of controlled emissions to those emissions which would occur from a fixed cone roof tank holding the same organic liquid without a vapor control or vapor recovery system. Verify that the vapor recovery system has an efficiency of at least 95 percent by weight.

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
ST.20.7.CA.SC. Installations conducting storage tank cleaning and degassing operations on aboveground tanks with a capacity of more than 150,000 L (39,630 gal) storing any organic with a Reid vapor pressure greater than 134 mm Hg (2.6 psi), or with a capacity of between 75,000 L (19,815 gal) and 150,000 L [39,630 gal] storing any organic liquid having a Reid vapor pressure of 202 mm Hg (3.9 psi) or greater must meet specific operational and reporting requirements (SCAQMD Regulation XI, Rule 1149(c)(1)).	Verify that the tanks have one of the following emission control controls: - liquid balancing which results in lower vapor pressures - negative pressure displacement and subsequent incineration in a manner approved by the EO - a refrigerated condenser which reduces vapor temperature to -100 °F [approximately -38 °C] or less and is capable of handling displaced vapors - any other control method or equipment approved by the EO that is at least 90 percent effective in reducing VOC emissions.
ST.20.8.CA.SC. Installations conducting storage tank degassing of underground tanks with a capacity of greater than 500 gal [approximately 1892.71 L] storing liquids with a Reid vapor pressure greater than 202 mm Hg (3.9 psi) must meet specific operational requirements (SCAQMD Regulation XI, Rule 1149(c)(2) and (e)(2)).	(NOTE: These requirements do not apply to underground tanks specified as exemptions in the Health and Safety Code Section 25281.) Verify that the tanks have VOC emissions controlled by a device approved by the EO or designee to be at least 90 percent efficient. (NOTE: For the purposes of this requirement, any UST that is removed from the ground and is to be later cleaned above ground, is still considered an underground tank. Any subsequent tank cleaning or degassing, even though the tank is above ground, is subject to applicable requirements for USTs.)
ST.20.9.CA.SC. Installations conducting storage tank degassing operations of any tank must meet specific operational requirements (SCAQMD Regulation XI, Rule 1149(c)(3), (5), (7) (B), (9), (10)).	Verify that equipment used in the cleaning or degassing process is free of liquid and vapor leaks, including, but not limited to: - the degassing equipment - vacuum truck - pumps, hoses, and connections. **ST.20.9.CA.SC. Continued on Next Page**

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
ST.20.9.CA.SC. (continued)	Verify that degassing of any container subject to these requirements is done in one of the following ways: - displaced gas remains vented to the refrigerated vapor condenser, or equivalent control system, for a length of time determined by the following relationship: $$t = \frac{2.3\ V}{Q}$$ Where: t = time (h) V = volume of the gas to be freed (ft^3) Q = flow rate through condenser (ft^3/h) - displaced gas remains vented to the control equipment until 90 percent of the vapor volume in the tank is displaced by an equal volume of the liquid into the control equipment. Verify that installations engaged in offsite cleaning or degassing of stationary storage tanks complete the cleaning and degassing operations, with VOC emissions controlled by a device approved by the EO or designee to be at least 90 percent efficient, within 14 days of receiving the tanks. Verify that regeneration of spent carbon from carbon adsorbers is done only with equipment having a valid permit to operate. Verify that any condensed liquid is handled and disposed of in a manner previously approved by the EO.
ST.20.10.CA.SC. Installations conducting storage tank degassing must meet specific monitoring and reporting requirements (SCAQMD Regulation XI, Rule 1149(c)(4), (6), (7)(A), (8), and (11)).	Verify that, except in emergency cases, the installation notifies the EO by telephone during normal business hours and receives authorization at least 1 day and no more than 10 days prior to the start of tank degassing operations. Verify that, when carbon adsorption is used, an approved organic vapor monitor/analyzer is installed and operated at any exit of the carbon adsorption device to determine the concentration of hydrocarbon discharged. Verify that, when refrigeration is used, the tank operator monitors condenser temperature and flow rate into the condenser documenting any interruption in service. **ST.20.10.CA.SC. Continued on Next Page**

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REGULATORY REQUIREMENTS:	**REVIEWER CHECKS: September 1996**
ST.20.10.CA.SC(continued)	Verify that any information obtained as a result of the required monitoring and/or degassing is recorded, kept for 2 yr, and is available to the EO or designee upon request. Verify that the following records are maintained for 2 yr and are made available to the EO or designee upon request: - tank owner and address - tank degassing operator's name, permit number, contact person, and telephone number - tank capacity and materials stored - flow rate and VOC concentration vented to the degassing equipment - control efficiency of the degassing equipment - total amount of VOC processed in the degassing equipment.
Transfer of VOL	
ST.20.11.CA.SC. Installations operating Class A facilities which load organic liquids with a vapor pressure of 1.5 psia (77.5 mm Hg) or greater under actual loading conditions into any tank truck, trailer, or railroad tank car must meet specific operational and design requirements (SCAQMD Regulation IV, Rule 462(d)(1) and (5), (e)(1), and (i)(1)).	Verify that, from 9 June 1995 until 31 January 1999, each facility is equipped with a vapor recovery and/or disposal system approved by the EO or designee. Verify that, effective 1 February 1999, each facility is equipped with a CARB certified vapor recovery system and/or disposal system. Verify that each vapor recovery and/or disposal system is equipped with a continuous monitoring system (CMS) installed, operated, and maintained according to the manufacturer's specifications and is approved by the EO or designee. Verify that the transfer of organic liquids is accomplished so that displaced organic vapors and air are vented under design conditions to the vapor recovery and/or disposal system. Verify that, from 9 June 1995 until 31 January 1998, each system reduces the emission of VOCs to 0.29 lb or less per 1000 gal (35 g/1000 L) of liquid transferred. Verify that, effective 1 February 1998, each system reduces the emissions of VOCs to 0.08 lb or less per 1000 gal (10 g/1000 L) of organic liquid transferred. Verify that any Class A facility transferring gasoline into any truck, trailer, or railroad tank car is designed and operated for bottom loading only and transfer equipment is operated and maintained so that there are no overfills, facility vapor leaks, liquid leaks, or liquid leaks from disconnect operations. **ST.20.11.CA.SC. Continued on Next Page**

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ST.20.11.CA.SC(continued)	(NOTE: Components found with vapor or liquid leaks detected and recorded originally by the installation are not considered a violation, provided repair or replacement of the equipment is completed within the period of time allowed.) Verify that uncontrolled switch loading is prohibited. Verify that these installations meet the following compliance schedule: - by 1 July 1996, submit an application to the EO or designee for permit to construct a new or modified vapor recovery and/or disposal system where applicable - by 1 February 1997, submit a CMS Plan to the EO or designee for the approval - by 1 February 1998, demonstrate compliance with the organic vapor emission limit of 0.08 lb/1000 gal of organic liquid transferred - within 30 calendar days after completing construction of a new or modified vapor recovery and/or disposal system, a written request is submitted to CARB for certification of the system - by 1 February 1999, demonstrate compliance with the CARB certification of the existing or modified vapor recovery and/or disposal system.
ST.20.12.CA.SC. Installations operating Class B facilities which load organic liquids with a vapor pressure of 1.5 psia (77.5 mm Hg) or greater under actual loading conditions into any tank truck, trailer, or railroad tank car must meet specific operational and design requirements (SCAQMD Regulation IV, Rule 462(d)(2) and (5), (e)(2) and (3), and (i)(1)).	Verify that, from 9 June 1995 until 31 January 1999, each Class B facility is equipped with a vapor recovery system which is approved by the EO or designee. Verify that, effective 1 February 1999, each Class B facility is equipped with a CARB certified vapor recovery system. Verify that these vapor recovery systems are designed and operated to recover at least 90 percent of displaced vapors. Verify that backpressure in the vapor recovery system does not exceed 18 in. of water pressure. Verify that any Class B facility transferring gasoline into any truck, trailer, or railroad tank car are designed for bottom loading only. Verify that transfer equipment is operated and maintained so that there are no overfills, facility vapor leaks, liquid leaks, or liquid leaks from disconnect operations. (NOTE: Components found with vapor or liquid leaks detected and recorded originally by the installation are not considered a violation, provided repair or replacement of the equipment is completed within the period of time allowed.) Verify that uncontrolled switch loading is prohibited. **ST.20.12.CA.SC. Continued on Next Page**

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ST.20.12.CA.SC(continued)	Verify that, by 1 February 1999, these installations demonstrate compliance with CARB certification of the existing vapor recovery system. Verify that, installations operating Class B facilities that were Class C facilities prior to 9 June 1995 meet the following compliance schedule: - by 1 January 1996, submit an application to the EO or designee for permit to construct and permit to operate a vapor recovery system where applicable - by 1 February 1998, demonstrate compliance with the requirement of 90 percent recovery of displaced vapors - within 30 calendar days after completing construction of a new or modified vapor recovery system, a written request is submitted to CARB for certification of the system - by 1 February 1999, demonstrate compliance with the CARB certification requirement.
ST.20.13.CA.SC. Installations operating Class C facilities which load organic liquids with a vapor pressure of 1.5 psia (77.5 mm Hg) or greater under actual loading conditions into any tank truck, trailer, or railroad tank car must meet specific operational and design requirements (SCAQMD Regulation IV, Rule 462(d)(3) and (i)(1)).	Verify that each Class C facility is equipped and operated for submerged fill loading or bottom fill loading. Verify that all gasoline or equivalent vapor pressure organic liquids are transferred in this manner. Verify that transfer equipment is operated and maintained so that there are no overfills, liquid leaks, or liquid leak from disconnect operations. (NOTE: Components found with vapor or liquid leaks detected and recorded originally by the installation are not considered a violation, provided repair or replacement of the equipment is completed within the period of time allowed.)
ST.20.14.CA.SC. Installations operating Class A, B, or C facilities which load organic liquids with a vapor pressure of 1.5 psia (77.5 mm Hg) or greater under actual loading conditions into any tank truck, trailer, or railroad tank car must meet specific leak inspection requirements (SCAQMD Regulation IV, Rule 462(d)(6)).	Verify that the installation performs an inspection of the vapor collection system, the vapor disposal system, and each loading rack handling organic liquids for facility vapor leaks or liquid leaks of VOCs on one of the following schedules: - monthly if sight, sound, and small are used as detection methods - quarterly if an organic vapor analyzer (OVA) is used Verify that each leak is repaired or the component is replaced within 72 h of detection, and the repaired or replacement component is reinspected the first time it is in operation after repair or replacement.

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ST.20.15.CA.SC. Installations operating Class A, B, or C facilities which load organic liquids with a vapor pressure of 1.5 psia (77.5 mm Hg) or greater under actual loading conditions into any tank truck, trailer, or railroad tank car must meet specific recordkeeping requirements (SCAQMD Regulation IV, Rule 462(g)).	Verify that the installation, in order to determine the classification of each facility, maintains a daily log of throughput and a summary of throughput for the calendar year to date. Verify that the installation maintains records for verification of compliance with leak inspection requirements, including, but are not limited to, the following: - inspection dates - description of leaks detected - repair/replacement dates - reinspection dates. (NOTE: A single compliant daily log will suffice to satisfy this requirement.) Verify that all records are maintained at the facility for at least 2 yr and are available to the EO or designee upon request.
ST.20.16.CA.SC. Installations which load organic liquids with a vapor pressure of 1.5 psia (77.5 mm Hg) or greater under actual loading conditions into any tank truck, trailer, or railroad tank car must meet specific transport vessel requirements (SCAQMD Regulation IV, Rule 462(d)(4)).	Verify that any transport vessel has valid certification of vapor integrity, as defined by applicable Air Resources Board Certification and Test Procedures. Verify that transport vessel vapor leaks from dome covers, pressure vacuum vents, or other sources are determined in accordance with the CARB Test Procedure for Gasoline Vapor Leak Detection Using a Combustible Gas Detector dated, 1 September 1982. Verify that transport equipment is operated so that there are no liquid leaks.
ST.20.17.CA.SC. Installations operating organic liquid loading facilities must meet specific recordkeeping requirements (SCAQMD Regulation IV, Rule 462(d)(5)).	Verify that these installations prepare a daily log of the throughput and a summary of the throughput for the calendar year to date of liquid organic compounds. Verify that such records are maintained and available for a period of at least 2 yr.

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ST.20.18.CA.SC. Installations with a marine tank vessel must meet specific operating requirements when loading, lightering, ballasting, or housekeeping (SCAQMD Regulation XI, Rule 1142(c)(1) through (3)).	Verify that the installation does not conduct these activities while in South Coast waters, unless: - emissions of VOCs are limited to 5.7 g/m^3 (2 lb/1000 barrels) of liquid loaded into a marine tank vessel - emissions of VOCs are reduced by at least 95 percent by weight form uncontrolled conditions. Verify that all hatches, pressure relief valves, connections, gauging ports and vents, and other equipment associated with these activities are maintained free of liquid or gaseous leaks. Verify that any liquid or gaseous leak is tagged upon detection and repaired within 4 h of detection. Verify that emission control equipment is designed and operated to collect, store, and process all emissions of VOCs resulting from one of these activities.
ST.20.19.CA.SC. Installations with a marine tank vessel must meet specific reporting and recordkeeping requirements (SCAQMD Regulation XI, Rule 1142(g) and (h)).	Verify that any such installation planning to engage in a loading, lightering, ballasting, or housekeeping event notifies the District EO in writing, or by telephone, in or person at least 48 h prior to the event. Verify that the notice includes the names of marine tank vessels, description of operations, cargo, location, and estimated start time and duration of the event. Verify that the installation maintains two sets of records regarding each loading, lightering, ballasting, or housekeeping event, one kept on board the marine tank vessel and the other kept at the marine terminal. Verify that the records are maintained for at least 2 yr and are made available to the District staff upon request. Verify that the records are submitted annually on standard forms specified by the District, and contain all the information required on the form.

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UST RELEASES	(NOTE: These requirements do not apply to the following activities: - excavation, handling, and treating of less than 1 yd^3 of contaminated soil - removal of soil for sampling purposes - accidental spillage of 5 gal or less of VOC.)
ST.155.1.CA.SC. Installations excavating a UST and/or transfer piping storing or previously storing VOCs must take specific steps when leakage, accidental spills, or other source of deposition has contaminated the soil (SCAQMD Regulation XI, Rule 1166(c)(1) and (d)(3)).	(NOTE: These requirements do not apply to soil excavation or handling as a result of an emergency declared by an authorized health officer, agricultural commissioner, fire protection officer, or other authorized agency officer, provided the EO is notified in writing no later than 48 h following the excavation. Whenever possible, the EO or designee is notified by telephone prior to beginning such excavations.) Verify that the installation takes the following steps: - obtains an approved mitigation plan from the EO or designee prior to beginning excavation - notifies the EO or designee by telephone at least 24 h prior to excavation. Verify that the notification includes the following information: - name and telephone number of the property owner - name and telephone number of the person excavating soil - location of the facility and location of the excavation - VOC previously stored in the tank - number and sizes of tanks to be removed or repaired - approved mitigation plan number - start and expected completion dates of the excavation. (NOTE: If the excavation does not begin on start date, renotification is required. An alternative notification procedure may be authorized for multiple excavations within a single facility, with prior written approval from the EO or designee.) Verify that excavated material is monitored for VOC contamination at least once every 15 min and all VOC concentration readings are recorded in a format approved by the EO or designee. Verify that, if contaminated soil is detected, the approved mitigation plan is implemented, and the EO or designee is notified within 24 h of detection of VOC-contaminated soil.

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ST.155.2.CA.SC. Installations handling VOC contaminated soil must take specific steps (SCAQMD Regulation XI, Rule 1166(c)(2) and (d)(2) and (3)).	(NOTE: These requirements do not apply to the following soil: - soil containing organic compounds with initial boiling points of 302 °F or greater, provided the soil is not heated - soil which is contaminated through natural seepage of VOC from oil and gas wells or other natural sources - soil containing organic compounds with a Reid vapor pressure (RVP) less than 80 mm Hg (1.55 psi), or an absolute vapor pressure (AVP) less than 36 mm Hg (0.7 psi) at 20 °C.) Or to soil excavation or handling as a result of an emergency declared by an authorized health officer, agricultural commissioner, fire protection officer, or other authorized agency officer, provided the EO is notified in writing no later than 48 h following the excavation. Whenever possible, the EO or designee is notified by telephone prior to beginning such excavations.) Verify that the installation obtains an approved mitigation plan from the EO or designee. Verify that the installation implements the approved mitigation plan.
ST.155.3.CA.SC. Installations treating VOC contaminated soil must take specific steps (SCAQMD Regulation XI, Rule 1166(c)(3) and (4) and (d)(2)).	(NOTE: These requirements do not apply to the following soil: - soil containing organic compounds with initial boiling points of 302 °F or greater, provided the soil is not heated - soil which is contaminated through natural seepage of VOC from oil and gas wells or other natural sources - soil containing organic compounds with a Reid vapor pressure (RVP) less than 80 mm Hg (1.55 psi), or an absolute vapor pressure (AVP) less than 36 mm Hg (0.7 psi) at 20 °C.) Verify that the installation obtains a permit to construct and/or operate control equipment, as applicable, from the EO or designee. Verify that the installation implements VOC-contaminated soil decontamination measures, as approved in writing by the EO or designee, which result in Best Available Control Technology during all segments, and which include, but are not limited to, at least one of the following: - installation and operation of an underground VOC collection system and a disposal system prior to excavation - collection and disposal of the VOC from the excavated soil onsite using equipment approved by the EO or designee - any equivalent VOC-contaminated soil control measure previously approved in writing by the EO or designee. Verify that the contaminated soil is not spread onsite or offsite resulting in uncontrolled evaporation of VOCs.

Appendix 1-1

California Code of Regulations, Section 94006, Subchapter 8 Chapter 1, Part III of Title 17

(SCAQMD Regulation IV, Rule 461, Attachment A)

Section 94006. Defects Substantially Impairing the Effectiveness of Vapor Recovery Systems Used in Motor Vehicle Fueling Operations.

For the purposes of Section 41960.2 of the Health and Safety Code, the following constitute equipment defects in systems for the control of gasoline vapors resulting from motor vehicle fueling operations which substantially impair the effectiveness of the systems in reducing air contaminants:

1. Absence or disconnection of any component required to be used in the Executive Order(s) that certified the system.
2. A vapor hose which is crimped or flattened such that the vapor passage is blocked, or the pressure drop through the vapor hose exceeds by a factor of two or more the requirements in the system certified in the CARB Executive Order(s) applicable to the system.
3. A nozzle bellows which is torn in one or more of the following manner:
   a. triangular-shaped or similar tear 1/2 in. or more to a side, or hole 1/2 in. or more in diameter
   b. Slit 1 in. or more in length.
4. Faceplate or flexible cone which is damaged in the following manner:
   a. For balance nozzles and for nozzles for aspirator and eductor-assist type systems, damage is such that the capability to achieve a seal with a fill pipe interface is affected for 1/4 of the circumference of the faceplate (accumulated).
   b. For nozzles for vacuum assist-type systems, more than 1/4 of the flexible cone missing.
5. Nozzle shutoff mechanisms which malfunction in any manner.
6. Vapor return lines, including such components as swivels, anti-recirculation valves and underground piping, which malfunction or are blocked, or restricted such that pressure drop through the lines exceeds by factor of two or more requirements specified in the Executive Order(s) that certified the system.
7. Vapor processing unit which is inoperative.
8. Vacuum producing device which is inoperative.
9. Pressure/vacuum relief valves, vapor check valves, or dry breaks which are inoperative.
10. Any equipment defect which is identified in an Executive Order certifying a system pursuant to the Certification Procedures incorporated in Section 94001 of Title 17, California Code of Regulations, as substantially impairing the effectiveness of the system in reducing air contaminants.

All nozzles affected by the above defects are to be considered defective.

Appendix 1-2

Daily Maintenance Inspection Protocol

(SCAQMD Regulation IV, Rule 461, Attachment C)

- PHASE I VAPOR RECOVERY SYSTEM INSPECTION

1. The spill container is clean and does not contain gasoline.
2. The fill caps are not missing, damaged or loose.
3. If applicable,:
   a. the spring-loaded submerged fill tube seals properly against the coaxial fitting.
   b. the dry break (poppet valve) is not missing or damaged.
4. The submerged fill tube is not missing or damaged.

- PHASE II VAPOR RECOVERY SYSTEM INSPECTION

1. The fueling instructions are clearly displayed with the appropriate toll-free complaint phone number and toxic warnings signs.
2. The following nozzle components are in place and in good condition:
   a. faceplate/facecone; vapor splash guard/fill guard/efficiency compliance device (ECD)
   b. bellows
   c. latching device
   d. spring
   e. vapor check valve
   f. spout (proper diameter/vapor collection holes)
   g. insertion interlock mechanism
   h. automatic shut-off mechanism
3. The hoses are not torn, flattened or crimped.
4. For vacuum-assist systems, the vapor processing unit and burner are functioning properly.

Appendix 1-3

Periodic Compliance Inspection Protocol

(SCAQMD Regulation IV, Rule 461, Attachment D)

- GENERAL INSPECTION

1. The district permit is current
2. The equipment and District permit description match.
3. The facility complies with all permit conditions.
4. The required sign is properly posted and the sign contains all the necessary information. (i.e. toll-free compliant phone number, toxic warning sign, etc.)

- PHASE I VAPOR RECOVERY SYSTEM INSPECTION

1. The spill container is clean and does not contain gasoline.
2. The fill caps are not missing, damaged or loose.
3. If applicable,:
   a. the spring-loaded submerged fill tube seals properly against the coaxial fitting
   b. the dry break (poppet valve) is not missing or damaged.
4. The submerged fill tube is not missing or damaged.
5. The distance between the bottom of the submerged fill tube and the bottom of the stationary storage tank does not exceed 6 in.
6. The Phase I vapor recovery system complies with required CARB certification and is properly installed.
7. The spill box complies with required CARB certification and is properly installed.
8. The vent pipes are equipped with required pressure/vacuum relief valves.

- PHASE II VAPOR RECOVERY SYSTEM INSPECTION

1. The fueling instructions are clearly displayed.
2. Each nozzle is the current CARB-certified model.
3. Each nozzle is installed in accordance with the applicable CARB Executive Orders.
4. The following nozzle components are in place and in good condition:
   a. faceplate/facecone; vapor splash guard/fill guard/efficiency compliance device (ECD)
   b. bellows
   c. latching device
   d. spring
   e. vapor check valve
   f. spout (proper diameter/vapor collection holes)
   g. insertion interlock mechanism
   h. automatic shut-off mechanism
5. The hoses are not torn, flattened or crimped.
6. The vapor recovery hoses are the required size and length.
7. The hoses with retractors are adjusted to maintain a proper loop, and the bottom of the loop is within the distance from the island surface certified by the CARB Executive Order for that particular dispenser configuration.
8. The vapor recovery nozzles are equipped with required hoses.

(continued)

9. the bellows-equipped vapor recovery nozzles are equipped with CARB certified insertion interlock mechanisms.
10. If required, the flow limiter is not missing and is installed properly.
11. the swivels are not missing, defective, or leaking, and the dispenser-end swivels are Fire-Marshall approved with 90-degree stops.
12. If required, the liquid removal devices comply with required CARB certifications and are properly installed.
13. For bellows-less nozzles, the hoses are inverted coaxial type and the vapor collection holes are not obstructed.
14. For vacuum-assist systems, the vapor processing unit and burner are functioning properly.
15. For aspirator-assist systems, the major components (i.e. aspirator or jet pump, modulating valve, vapor check valve) are present inside each dispenser. For aspirator- assist systems with certification-required calibration stickers, the current calibration sticker is present.

INSTALLATION:	COMPLIANCE CATEGORY: STORAGE TANK MANAGEMENT SCAQMD - California Supplement	DATE:	REVIEWER(S):
STATUS NA C RMA	REVIEWER COMMENTS:		