Excavations

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Abstract
The Occupational Safety and Health Administration (OSHA) issued its first Excavation and Trenching Standard in 1971 to protect workers from excavation hazards. Since then, OSHA has amended the standard several times to increase worker protection and to reduce the frequency and severity of excavation accidents and injuries. Despite these efforts, excavation-related accidents resulting in injuries and fatalities continue to occur. To better assist excavation firms and contractors, OSHA has completely updated the existing standard to simplify many of the existing provisions, add and clarify definitions, eliminate duplicate provisions and ambiguous language, and give employers added flexibility in providing protection for employees. In addition, the standard provides several new appendices. One appendix provides a consistent method of soil classification. Others provide sloping and benching requirements, pictorial examples of shoring and shielding devices, timber tables, hydraulic shoring tables, and selection charts that provide a graphic summary of the requirements contained in the standard.

Subject Terms

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This informational booklet is intended to provide a generic, non-exhaustive overview of a particular standards-related topic. This publication does not itself alter or determine compliance responsibilities, which are set forth in OSHA standards themselves, and the *Occupational Safety and Health Act*. Moreover, because interpretations and enforcement policy may change over time, for additional guidance on OSHA compliance requirements, the reader should consult current administrative interpretations and decisions by the Occupational Safety and Health Review Commission and the courts.

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Excavations

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Introduction

The Occupational Safety and Health Administration (OSHA) issued its first Excavation and Trenching Standard in 1971 to protect workers from excavation hazards. Since then, OSHA has amended the standard several times to increase worker protection and to reduce the frequency and severity of excavation accidents and injuries. Despite these efforts, excavation-related accidents resulting in injuries and fatalities continue to occur.

To better assist excavation firms and contractors, OSHA has completely updated the existing standard to simplify many of the existing provisions, add and clarify definitions, eliminate duplicate provisions and ambiguous language, and give employers added flexibility in providing protection for employees.

In addition, the standard provides several new appendices. One appendix provides a consistent method of soil classification. Others provide sloping and benching requirements, pictorial examples of shoring and shielding devices, timber tables, hydraulic shoring tables, and selection charts that provide a graphic summary of the requirements contained in the standard.

This booklet highlights the requirements in the updated standard for excavation and trenching operations, provides methods for protecting employees against cave-ins, and describes safe work practices for employees.

Employers and employees covered by an OSHA-approved state safety and health plan should check with their state agency, which may be enforcing standards and other procedures "at least as effective as," but not always identical to, federal requirements. See pages 14 and 18 for more information on state plans.

Scope and Application

OSHA's revised rule applies to all open excavations made in the earth's surface, which includes trenches.

According to the OSHA construction safety and health standards, a trench is referred to as a narrow excavation made below the surface of the ground in which the depth is greater than the width—the width not exceeding 15 feet (4.5 meters). An excavation is any man-made cut, cavity, trench, or depression in the

earth's surface formed by earth removal. This can include excavations for anything from cellars to highways.

The standard does not apply to house foundation/basement excavations (including those that become trenches by definition when formwork, foundations, or walls are constructed) when all of the following conditions are present:

- The house foundation/basement excavation is less than 7-1/2 feet (2.5 meters) deep or is benched for at least 2 feet (.61 meters) horizontally for every 5 feet (1.52 meters) or less of vertical height;
- The minimum horizontal width (excavation face to formwork/wall) at the bottom of the excavation is as wide as practicable but not less than 2 feet (.61 meters);
- There is no water, surface tension cracks, nor other environmental conditions present that reduce the stability of the excavation;
- There is no heavy equipment operating in the vicinity that causes vibration to the excavation while employees are in the excavation;
- All soil, equipment, and material surcharge loads are no closer in distance to the top edge of the excavation than the excavation is deep; however, when front end loaders are used to dig the excavations, the soil surcharge load shall be placed as far back from the edge of the excavation as possible, but never closer than 2 feet (.61 meters).
- Work crews in the excavation are the minimum number needed to perform the work; and
- The work has been planned and is carried out in a manner to minimize the time employees are in the excavation.

This policy applies to all such house foundation/basement excavations including those which become trenches by definition when formwork, foundations, or walls are constructed. This policy does not apply to utility excavations (trenches) where *29 Code of Federal Regulations (CFR)*, 1926.652 shall remain applicable.

General Requirements

Planning for Safety

Many on-the-job accidents are a direct result of inadequate initial planning. Correcting mistakes in shoring and/or sloping after work has begun slows down the operation, adds to the cost, and increases the possibility of an excavation failure. The contractor should build safety into the pre-bid planning in the same way all other pre-bid factors are considered.

It is a good idea for contractors to develop safety checklists before preparing a bid, to make certain there is adequate information about the job site and all needed items are on hand.

These checklists should incorporate elements of the relevant OSHA standards as well as other information necessary for safe operations.

Before preparing a bid, these specific site conditions should be taken into account:

- Traffic,
- Nearness of structures and their conditions,
- Soil,
- Surface and ground water,
- The water table,
- Overhead and underground utilities, and
- Weather.

These and other conditions can be determined by job site studies, observations, test borings for soil type or conditions, and consultations with local officials and utility companies.

Before any excavation actually begins, the standard requires the employer to determine the estimated location of utility installations—sewer, telephone, fuel, electric, water lines, or any other underground installations—that may be encountered during digging. Also, before starting the excavation, the contractor must contact the utility companies or owners involved and inform them, within established or customary local response times, of the proposed work. The contractor must also ask the utility companies or owners to find the exact location of the underground installations. If they cannot respond within 24 hours (unless the period required by state or local law is longer), or if they cannot find the

exact location of the utility installations, the contractor may proceed with caution. To find the exact location of underground installations, workers must use safe and acceptable means. If underground installations are exposed, OSHA regulations also require that they be removed, protected or properly supported.

When all the necessary specific information about the job site is assembled, the contractor is ready to determine the amount, kind, and cost of the safety equipment needed. A careful inventory of the safety items on hand should be made before deciding what additional safety material must be acquired. No matter how many trenching, shoring and backfilling jobs have been done in the past, each job should be approached with the utmost care and preparation.

Before Beginning the Job

It is important, before beginning the job, for the contractor to establish and maintain a safety and health program for the work site that provides adequate systematic policies, procedures, and practices to protect employees from, and allow them to recognize, job-related safety and health hazards.

An effective program includes provisions for the systematic identification, evaluation, and prevention or control of general workplace hazards, specific job hazards, and potential hazards that may arise from foreseeable conditions. The program may be written or verbal but it should reflect the unique characteristics of the job site.

To help contractors develop an effective safety and health program, in 1989, OSHA issued recommended guidelines for the effective management and protection of worker safety and health.

The complete original text of the nonmandatory guidelines is found in the *Federal Register* (54 FR (18):3904-3916, January 26, 1989).

A copy of the guidelines can be obtained from the U.S. Department of Labor, OSHA Publications, P.O. Box 37535, Washington, D.C. 20013-7535, or from the nearest OSHA regional office listed in this publication.

To be sure safety policies are implemented effectively, there must be cooperation among supervisors, employee groups, including unions, and individual employees. Each supervisor must

understand the degree of responsibility and authority he or she holds in a particular area. For effective labor support, affected unions should be notified of construction plans and asked to cooperate.

It is also important, before beginning work, for employers to provide employees who are exposed to public vehicular traffic with warning vests or other suitable garments marked with or made of reflectorized or high-visibility material and ensure that they wear them. Workers must also be instructed to remove or neutralize surface encumbrances that may create a hazard.

In addition, no employee should operate a piece of equipment without first being properly trained to handle it and fully alerted to its potential hazards.

In the training and in the site safety and health program, it also is important to incorporate procedures for fast notification and investigation of accidents.

On-the-Job Evaluation

The standard requires that a competent person inspect, on a daily basis, excavations and the adjacent areas for possible cave-ins, failures of protective systems and equipment, hazardous atmospheres, or other hazardous conditions. If these conditions are encountered, exposed employees must be removed from the hazardous area until the necessary safety precautions have been taken. Inspections are also required after natural (e.g., heavy rains) or man-made events such as blasting that may increase the potential for hazards.

Larger and more complex operations should have a full-time safety official who makes recommendations to improve the implementation of the safety plan. In a smaller operation, the safety official may be part-time and usually will be a supervisor.

Supervisors are the contractor’s representatives on the job. Supervisors should conduct inspections, investigate accidents, and anticipate hazards. They should ensure that employees receive on-the-job safety and health training. They should also review and strengthen overall safety and health precautions to guard against potential hazards, get the necessary worker cooperation in safety matters, and make frequent reports to the contractor.

It is important that managers and supervisors set the example for safety at the job site. It is essential that when visiting the job site, all managers, regardless of status, wear the prescribed personal protective equipment such as safety shoes, safety glasses, hard hats, and other necessary gear (see CFR 1926.100 and 102).

Employees also must take an active role in job safety. The contractor and supervisor should make certain that workers have been properly trained in the use and fit of the prescribed protective gear and equipment, that they are wearing and using the equipment correctly, and that they are using safe work practices.

Cave-ins and Protective Support Systems

Support Systems

Excavation workers are exposed to many hazards, but the chief hazard is danger of cave-ins. OSHA requires that in all excavations employees exposed to potential cave-ins must be protected by sloping or benching the sides of the excavation, by supporting the sides of the excavation, or by placing a shield between the side of the excavation and the work area.

Designing a protective system can be complex because of the number of factors involved—soil classification, depth of cut, water content of soil, changes due to weather and climate, or other operations in the vicinity. The standard, however, provides several different methods and approaches (four for sloping and four for shoring, including the use of shields)* for designing protective systems that can be used to provide the required level of protection against cave-ins.

One method of ensuring the safety and health of workers in an excavation is to slope the sides to an angle not steeper than one and one-half horizontal to one vertical (34 degrees measured from the horizontal). These slopes must be excavated to form configurations that are in accordance with those for Type C soil found in Appendix B of the standard. A slope of this gradation or less is considered safe for any type of soil (see Figure 1).

*See Appendix F to the standard for a complete overview of all options.

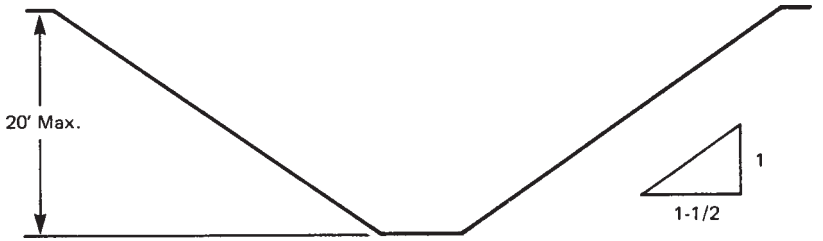

Figure 1. Excavations Made in Type C Soil

All simple slope excavations 20 feet (6.11 meters) or less in depth shall have a maximum allowable slope of 1 1/2:1.

A second design method, which can be applied for both sloping and shoring, involves using tabulated data, such as tables and charts, approved by a registered professional engineer. These data must be in writing and must include sufficient explanatory information to enable the user to make a selection, including the criteria for determining the selection and the limits on the use of the data.

At least one copy of the information, including the identity of the registered professional engineer who approved the data, must be kept at the worksite during construction of the protective system. Upon completion of the system, the data may be stored away from the job site, but a copy must be made available, upon request, to the Assistant Secretary of Labor for OSHA.

Contractors also may use a trench box or shield that is either designed or approved by a registered professional engineer or is based on tabulated data prepared or approved by a registered professional engineer. Timber, aluminum, or other suitable materials may also be used. OSHA standards permit the use of a trench shield (also known as a welder's hut) as long as the protection it provides is equal to or greater than the protection that would be provided by the appropriate shoring system (see Figure 2).

The employer is free to choose the most practical design approach for any particular circumstance. Once an approach has been selected, however, the required performance criteria must be met by that system.

The standard does not require the installation and use of a protective system when an excavation (1) is made entirely in stable rock, or (2) is less than 5 feet deep (1.52 meters), and a competent person has examined the ground and found no indication of a potential cave-in.

Safety Precautions

The standard requires the employer to provide support systems such as shoring, bracing, or underpinning to ensure the stability of adjacent structures such as buildings, walls, sidewalks or pavements.

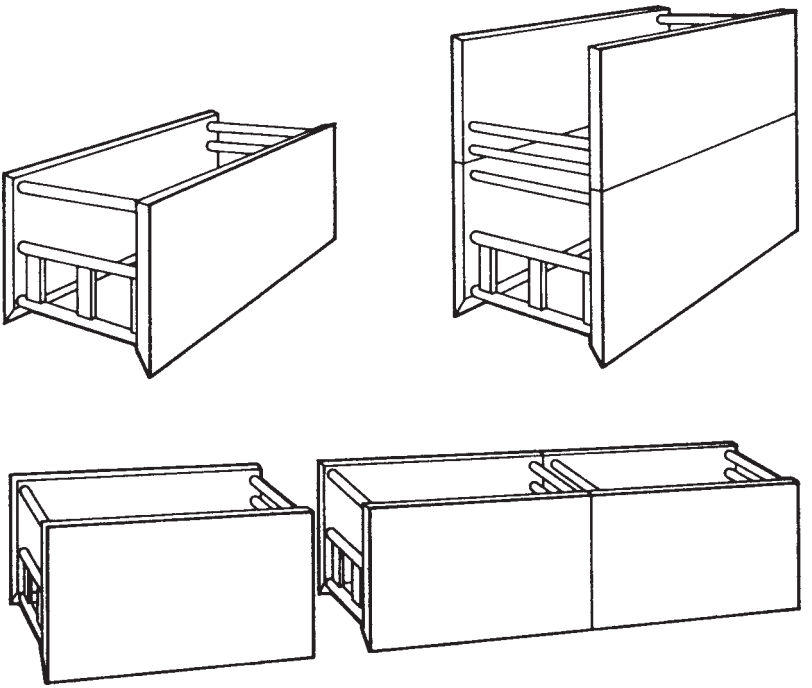

Figure 2. Trench Shields

The standard prohibits excavation below the level of the base or footing of any foundation or retaining wall unless (1) a support system such as underpinning is provided, (2) the excavation is in stable rock, or (3) a registered professional engineer determines that the structure is sufficiently removed from the excavation and that excavation will not pose a hazard to employees.

Excavations under sidewalks and pavements also are prohibited unless an appropriately designed support system is provided or another effective method is used.

Installation and Removal of Protective Systems

The standard requires the following procedures for the protection of employees when installing support systems:

- Securely connect members of support systems,
- Safely install support systems,
- Never overload members of support systems, and
- Install other structural members to carry loads imposed on the support system when temporary removal of individual members is necessary.

In addition, the standard permits excavation of 2 feet (.61 meters) or less below the bottom of the members of a support or shield system of a trench if (1) the system is designed to resist the forces calculated for the full depth of the trench, and

(2) there are no indications, while the trench is open, of a possible cave-in below the bottom of the support system. Also, the installation of support systems must be closely coordinated with the excavation of trenches.

As soon as work is completed, the excavation should be backfilled as the protective system is dismantled. After the excavation has been cleared, workers should slowly remove the protective system from the bottom up, taking care to release members slowly.

Materials and Equipment

The employer is responsible for the safe condition of materials and equipment used for protective systems. Defective and damaged materials and equipment can result in the failure of a protective system and cause excavation hazards.

To avoid possible failure of a protective system, the employer must ensure that (1) materials and equipment are free from damage or defects, (2) manufactured materials and equipment are used and maintained in a manner consistent with the recommendations of the manufacturer and in a way that will prevent employee exposure to hazards, and (3) while in operation, damaged materials and equipment are examined by a competent person to determine if they are suitable for continued use. If materials and equipment are not safe for use, they must be removed from service. These materials cannot be returned to service without the evaluation and approval of a registered professional engineer.

Other Hazards

Falls and Equipment

In addition to cave-in hazards and secondary hazards related to cave-ins, there are other hazards from which workers must be protected during excavation-related work. These hazards include exposure to falls, falling loads, and mobile equipment. To protect employees from these hazards, OSHA requires the employer to take the following precautions:

- Keep materials or equipment that might fall or roll into an excavation at least 2 feet (.61 meters) from the edge of excavations, or have retaining devices, or both.
- Provide warning systems such as mobile equipment, barricades, hand or mechanical signals, or stop logs, to alert operators of the edge of an excavation. If possible, keep the grade away from the excavation.
- Provide scaling to remove loose rock or soil or install protective barricades and other equivalent protection to protect employees against falling rock, soil, or materials.
- Prohibit employees from working on faces of sloped or benched excavations at levels above other employees unless employees at lower levels are adequately protected from the hazard of falling, rolling, or sliding material or equipment.
- Prohibit employees under loads that are handled by lifting or digging equipment. To avoid being struck by any spillage or falling materials, require employees to stand away from vehicles being loaded or unloaded. If cabs of vehicles provide

adequate protection from falling loads during loading and unloading operations, the operators may remain in them.

Water Accumulation

The standard prohibits employees from working in excavations where water has accumulated or is accumulating unless adequate protection has been taken. If water removal equipment is used to control or prevent water from accumulating, the equipment and operations of the equipment must be monitored by a competent person to ensure proper use.

OSHA standards also require that diversion ditches, dikes, or other suitable means be used to prevent surface water from entering an excavation and to provide adequate drainage of the area adjacent to the excavation. Also, a competent person must inspect excavations subject to runoffs from heavy rains.

Hazardous Atmospheres

Under this provision, a competent person must test excavations greater than 4 feet (1.22 meters) in depth as well as ones where oxygen deficiency or a hazardous atmosphere exists or could reasonably be expected to exist, before an employee enters the excavation. If hazardous conditions exist, controls such as proper respiratory protection or ventilation must be provided. Also, controls used to reduce atmospheric contaminants to acceptable levels must be tested regularly.

Where adverse atmospheric conditions may exist or develop in an excavation, the employer also must provide and ensure that emergency rescue equipment, (e.g., breathing apparatus, a safety harness and line, basket stretcher, etc.) is readily available. This equipment must be attended when used.

When an employee enters bell-bottom pier holes and similar deep and confined footing excavations, the employee must wear a harness with a lifeline. The lifeline must be securely attached to the harness and must be separate from any line used to handle materials. Also, while the employee wearing the lifeline is in the excavation, an observer must be present to ensure that the lifeline is working properly and to maintain communication with the employee.

Access and Egress

Under the standard, the employer must provide safe access and egress to all excavations. According to OSHA regulations, when employees are required to be in trench excavations 4-feet deep (1.22 meters) or more, adequate means of exit, such as ladders, steps, ramps or other safe means of egress, must be provided and be within 25 feet (7.62 meters) of lateral travel. If structural ramps are used as a means of access or egress, they must be designed by a competent person if used for employee access or egress, or a competent person qualified in structural design if used by vehicles. Also, structural members used for ramps or runways must be uniform in thickness and joined in a manner to prevent tripping or displacement.

Other Related Issues

Hazard Communication

The Hazard Communication Standard (29 CFR 1910.1200) requires employers to inform employees of the identities, properties, characteristics, and hazards of chemicals they use and the protective measures they can take to prevent adverse effects. The standard covers both physical hazards (e.g., flammability) and health hazards (e.g., lung damage, cancer). Knowledge acquired under the Hazard Communication Standard will help employers provide safer workplaces for their employees, establish proper work practices, and help prevent chemical-related illnesses and injuries.

Access to Medical and Exposure Records

Under the provision of the Access to Medical and Exposure Records standard (29 CFR 1910.20), employees, their designated representatives, and OSHA are permitted direct access to employer-maintained exposure and medical records. This access is designed to yield both direct and indirect improvements in the detection, treatment, and prevention of occupational disease. Also, access to these records will assist employees in the management of their own safety and health.

Recordkeeping

Each employer must preserve and maintain accurate medical and exposure records for each employee. The standard requires that exposure records be kept for 30 years and medical records be kept for at least the duration of employment plus 30 years. Background data for exposure records such as laboratory reports and work sheets need be kept only for 1 year. Records of employees who have worked for less than 1 year need not be retained after employment, but the employer must provide these records to the employee upon termination of employment. First-aid records of one-time treatment need not be retained for any specified period.

The employer must inform each employee of the existence, location, and availability of these records. When an employer plans to stop doing business and there is no successor employer to receive and maintain these records, the employer must notify employees of their right to access of their records at least 3 months before the employer ceases to do business. At the same time, the employer also must inform the National Institute for Occupational Safety and Health.

Summary

Trenching and excavation work presents serious risks to all workers involved. The greatest risk, and one of primary concern, is that of a cave-in. Furthermore, when cave-in accidents occur, they are much more likely to result in worker fatalities than other excavation-related accidents. Strict compliance, however, with all sections of the standard will prevent or greatly reduce the risk of cave-ins as well as other excavation-related accidents.

Other Sources of OSHA Assistance

Safety and Health Program Management Guidelines

Effective management of worker safety and health protection is a decisive factor in reducing the extent and severity of work-related injuries and illnesses and their related costs. To assist employers and employees in developing effective safety and health programs, OSHA published recommended *Safety and Health Program Management Guidelines (Federal Register 54 (18): 3908-3916,*

January 26, 1989). These voluntary guidelines apply to all places of employment covered by OSHA.

The guidelines identify four general elements that are critical to the development of a successful safety and health management program:

- Management commitment and employee involvement,
- Worksite analysis,
- Hazard prevention and control, and
- Safety and health training.

The guidelines recommend specific actions, under each of these general elements to achieve an effective safety and health program. A single free copy of the guidelines can be obtained from the U.S. Department of Labor, OSHA/OSHA Publications, P.O. Box 37535, Washington, DC 20013-7535, by sending a self-addressed mailing label with your request.

State Programs

The Occupational Safety and Health Act of 1970 encourages states to develop and operate their own job safety and health plans. States with plans approved under section 18(b) of the Act must adopt standards and enforce requirements that are at least as effective as federal requirements. There are currently 25 state plan states: 23 of these states administer plans covering both private and public (state and local government) employees; the other 2 states, Connecticut and New York, cover public employees only. Plan states must adopt standards comparable to federal requirements within 6 months of a federal standard's promulgation. Until such time as a state standard is promulgated, federal OSHA provides interim enforcement assistance, as appropriate, in these states. A listing of approved state plans appears at the end of this publication.

Consultation Services

Consultation assistance is available on request to employers who want help in establishing and maintaining a safe and healthful workplace. Largely funded by OSHA, the service is provided at no cost to the employer. Primarily developed for smaller employers with more hazardous operations, the consultation service is

delivered by state government agencies or universities employing professional safety consultants and health consultants. Comprehensive assistance includes an appraisal of all mechanical, physical work practices and environmental hazards of the workplace and all aspects of the employer's present job safety and health program.

The program is separate from OSHA's inspection efforts. No penalties are proposed or citations issued for any safety or health problems identified by the consultant. The service is confidential.

For more information concerning consultation assistance, see the list of consultation projects at the end of this publication.

Voluntary Protection Programs (VPPs)

Voluntary Protection Programs (VPPs) and onsite consultation services, when coupled with an effective enforcement program, expand worker protection to help meet the goals of the OSH Act. The three VPPs—Star, Merit, and Demonstration—are designed to recognize outstanding achievement by companies that have successfully incorporated comprehensive safety and health programs into their total management system. They motivate others to achieve excellent safety and health results in the same outstanding way as they establish a cooperative relationship among employers, employees, and OSHA.

For additional information on VPPs and how to apply, contact the OSHA area or regional offices listed at the end of this publication.

Training and Education

OSHA area offices offer a variety of information services, such as publications, audiovisual aids, technical advice, and speakers for special engagements. OSHA Training Institute in Des Plaines, IL, provides basic and advanced courses in safety and health for federal and state compliance officers, state consultants, federal agency personnel, and private sector employers, employees, and their representatives.

OSHA also provides funds to nonprofit organizations, through grants, to conduct workplace training and education in subjects where OSHA believes there is a lack of workplace training. Grants are awarded annually and grant recipients are expected to contribute 20 percent of the total grant cost.

For more information on grants, training and education, contact the OSHA Training Institute, Office of Training and Education, 1555 Times Drive, Des Plaines, IL 60018, (708)297-4810.

For further information on any OSHA program, contact your nearest OSHA area or regional office listed at the end of this publication.

Electronic Information

Labor News Bulletin Board—OSHA news releases, recent *Federal Register* notices, fact sheets, and other information are available by modem by dialing (202) 219-4784. Callers should set the modem at 300, 1,200, 2,400, 9,600, or 14,400 BAUD; Parity: None; Data Bits=8; Stop Bit=1. Voice phone (202) 219-8831.

Internet—OSHA standards, interpretations, directives, and additional information are now on the World Wide Web at http://www.osha.gov/ and http://www.osha-slc.gov/.

CD-ROM—A wide variety of OSHA materials including standards, interpreations, directives, and more can be purchased on CD-ROM from the Government Printing Office. To order, write to Superintendent of Documents, P.O. Box 371954, Pittsburgh, PA 15250-7954. Speicify OSHA Regulations, Documents and Technical Information on CD-ROM, (ORDT), S/N 729-013-00000-5. The price is $46.00 per year ($57.50 foreign); single copy $17.00 ($21.25 foreign).

OSHA FAX—OSHA news releases, fact sheets, and other short documents are available by fax for a nominal charge of $1.50 per minute. Callers should dial (900) 555-3400 to access this service.

Emergencies

For life-threatening situations, call (800) 321-OSHA. Complaints will go immediately to the nearest OSHA area or state office for help.

For further information on any OSHA program, contact your nearest OSHA area or regional office listed at the end of this publication.

OSHA Related Publications

A single free copy of the following publications can be obtained from the U.S. Department of Labor, OSHA/OSHA Publications, P.O. Box 37535, Washington, DC 20013-7535, (202) 693-1888, FAX (202) 693-2498.

All About OSHA - OSHA 2056

Chemical Hazard Communication - OSHA 3084

Consultation Services for the Employer - OSHA 3047

Ground-Fault Protection on Construction Sites - OSHA 3007

OSHA Inspections - OSHA 2098

Personal Protective Equipment - OSHA 3077

Respiratory Protection - OSHA 3079

Safety and Health Program Management Guidelines (Federal Register (54 FR (18):3904-3916, January 26, 1989))

A Hazard Communication Compliance Kit may be ordered from the Superintendent of Documents, Government Printing Office, Washington, D.C., 20402, for $18.00 ($22.00 for foreign addresses). OSHA Publication 3104, GPO order No. 029-016-00200-6. The kit can be ordered from GPO by phone using Visa or Mastercard; call (202) 512-1800.

States with Approved Plans

Commissioner
Alaska Department of Labor
1111 West 8th Street
Room 304
Juneau, AK 99801-1149
(907) 465-2700

Director
Industrial Commission
of Arizona
800 W. Washington
Phoenix, AZ 85007-2922
(602) 542-5795

Director
California Department
of Industrial Relations
455 Golden Gate Avenue
10th Floor
San Francisco, CA 94102
(415) 703-5050

Commissioner
Connecticut Department
of Labor
200 Folly Brook Boulevard
Wethersfield, CT 06109
(203) 566-5123

Director
Hawaii Department of Labor
and Industrial Relations
830 Punchbowl Street
Honolulu, HI 96813
(808) 586-8844

Commissioner
Indiana Department of Labor
State Office Building
402 West Washington Street
Room W195
Indianapolis, IN 46204-2751
(317) 232-2378

Commissioner
Iowa Division of Labor Services
1000 E. Grand Avenue
Des Moines, IA 50319-0209
(515) 281-3447

Secretary
Kentucky Labor Cabinet
1049 U.S. Highway, 127 South
Suite 4
Frankfort, KY 40601
(502) 564-3070

Commissioner
Maryland Division of Labor
and Industry
Department of Labor Licensing
and Regulation
1100 N. Eutaw Street, Room 613
Baltimore, MD 21201-2206
(410) 767-2215

Director
Michigan Department of
Consumer and Industry Service
P.O. Box 30643
Lansing, MI 48909-8143
(517) 322-1814

Commissioner
Minnesota Department of Labor and Industry
443 Lafayette Road
St. Paul, MN 55155-4307
(651) 296-2342

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(775) 687-3032

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P.O. Box 26110
Santa Fe, NM 87502
(505) 827-2850

Commissioner
New York Department of Labor
W. Averell Harriman State Office Building-12, Room 500
Albany, NY 12240
(518) 457-2741

Commissioner
North Carolina Department of Labor
4 West Edenton Street
Raleigh, NC 27601-1092
(919) 807-7166

Administrator
Oregon Occupational Safety and Health Division
Department of Consumer and Business Services
350 Winter Street, NE
Room 430
Salem, OR 97310-0220
(503) 378-3272

Secretary
Puerto Rico Department of Labor and Human Resources
Prudencio Rivera Martinez Building
505 Munoz Rivera Avenue
Hato Rey, PR 00918
(787) 754-2119

Commissioner
South Carolina Department of Labor, Licensing, and Regulation
Kroger Office Park, Kingstree Building
110 Centerview Drive
P.O. Box 11329
Columbia, SC 29210
(803) 896-4300

Commissioner
Tennessee Department of Labor
710 James Robertson Parkway
Nashville, TN 37243-0659
(615) 741-2582

Commissioner
Labor Commission of Utah
160 East 300 South, 3rd Floor
P.O. Box 146650
Salt Lake City, UT 84114-6650
(801) 530-6898

Commissioner
Vermont Department of Labor and Industry
National Life Building-Drawer 20
National Life Drive
Montpelier, VT 05620-3401
(802) 828-5098

Commissioner
Virgin Islands Department of Labor
2203 Church Street
Christiansted
St. Croix, VI 00840-4660
(340) 773-1994

Commissioner
Virginia Department of Labor and Industry
Powers-Taylor Building
13 South 13th Street
Richmond, VA 23219
(804) 786-2377

Director
Washington Department of Labor and Industries
P.O. Box 44001
Olympia, WA 98504-4001
(206) 956-4200

Administrator
Worker's Safety and Compensation Division (WSC)
Wyoming Department of Employment
Herschler Building, 2nd Floor East
122 West 25th Street
Cheyenne, WY 82002
(307) 777-7786

OSHA Consultation Project Directory

State	Telephone
Alabama	(205) 348-3033
Alaska	(907) 269-4939
Arizona	(602) 542-1695
Arkansas	(501) 682-4522
California	(415) 703-5270
Colorado	(970) 491-6151
Connecticut	(860) 566-4550
Delaware	(302) 761-8219
District of Columbia	(202) 576-6339
Florida	(850) 922-8955
Georgia	(404) 894-2643
Guam	011(671) 647-0136
Hawaii	(808) 586-9100
Idaho	(208) 426-3283
Illinois	(312) 814-2337
Indiana	(317) 232-2688
Iowa	(515) 965-7162
Kansas	(785) 296-4386
Kentucky	(502) 564-6895
Louisiana	(504) 342-9601
Maine	(207) 624-6460
Maryland	(410) 880-4970
Massachusetts	(617) 727-3982
Michigan	(517) 332-6823(H)
	(517) 322-1809(S)
Minnesota	(612) 297-2393
Mississippi	(601) 987-3981
Missouri	(573) 751-3403
Montana	(406) 444-6418
Nebraska	(402) 471-4717
Nevada	(702) 486-9140
New Hampshire	(603) 271-2024
New Jersey	(609) 292-3923
New Mexico	(505) 827-4230
New York	(518) 457-2238

(H) - Health
(S) - Safety

North Carolina	(919) 807-2905
North Dakota	(701) 328-5188
Ohio	(614) 644-2246
Oklahoma	(405) 528-1500
Oregon	(503) 378-3272
Pennsylvania	(724) 357-2396
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South Carolina	(803) 734-9614
South Dakota	(605) 688-4101
Tennessee	(615) 741-7036
Texas	(512) 804-4640
Utah	(801) 530-6901
Vermont	(802) 828-2765
Virginia	(804) 786-6359
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Washington	(360) 902-5638
West Virginia	(304) 558-7890
Wisconsin	(608) 266-8579(H)
	(262) 523-3040(S)
Wyoming	(307) 777-7786

(H) - Health
(S) - Safety

OSHA Area Offices

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Albany, NY	(518) 464-4338
Albuquerque, NM	(505) 248-5302
Allentown, PA	(610) 776-0592
Anchorage, AK	(907) 271-5152
Appleton, WI	(920) 734-4521
Austin, TX	(512) 916-5783
Avenel, NJ	(908) 750-3270
Bangor, ME	(207) 941-8179
Baton Rouge, LA	(225) 389-0474
Bayside, NY	(718) 279-9060
Bellevue, WA	(206) 553-7520
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Birmingham, AL	(205) 731-1534
Bismarck, ND	(701) 250-4521
Boise, ID	(208) 321-2960
Bowmansville, NY	(716) 684-3891
Braintree, MA	(617) 565-6924
Bridgeport, CT	(203) 579-5516
Calumet City, IL	(708) 891-3800
Carson City, NV	(702) 885-6963
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Cleveland, OH	(216) 522-3818
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Marlton, NJ ..... (609) 757-5181
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Milwaukee, WI ..... (414) 297-3315
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Sacramento, CA ..... (916) 566-7470
Salt Lake City, UT ..... (801) 487-0680
San Diego, CA ..... (619) 557-2909
Savannah, GA ..... (912) 652-4393
Smyrna, GA ..... (770) 984-8700
Springfield, MA ..... (413) 785-0123
St. Louis, MO ..... (314) 425-4249
Syracuse, NY ..... (315) 451-0808
Tampa, FL ..... (813) 626-1177
Tarrytown, NY ..... (914) 524-7510
Toledo, OH ..... (419) 259-7542
Tucker, GA ..... (770) 493-6644
Westbury, NY ..... (516) 334-3344
Wichita, KS ..... (316) 269-6644
Wilkes-Barre, PA ..... (717) 826-6538
Wilmington, DE ..... (302) 573-6115

U.S. Department of Labor
Occupational Safety and Health Administration
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Region I
(CT,* MA, ME, NH, RI, VT*)
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Region II
(NJ, NY,* PR,* VI*)
201 Varick Street
Room 670
New York, NY 10014
Telephone: (212) 337-2378

Region III
(DC, DE, MD,* PA, VA,* WV)
The Curtis Center
Suite 740 West
170 S. Independence Mall West
Philadelphia, PA 19106-3309
Telephone: (215) 861-4900

Region IV
(AL, FL, GA, KY,* MS, NC, SC,* TN*)
Atlanta Federal Center
61 Forsyth Street, SW
Room 6T50
Atlanta, GA 30303
Telephone: (404) 562-2300

Region V
(IL, IN,* MI,* MN,* OH, WI)
230 South Dearborn Street
Room 3244
Chicago, IL 60604
Telephone: (312) 353-2220

Region VI
(AR, LA, NM,* OK, TX)
525 Griffin Street
Room 602
Dallas, TX 75202
Telephone: (214) 767-4731

Region VII
(IA,* KS, MO, NE)
City Center Square
1100 Main Street, Suite 800
Kansas City, MO 64105
Telephone: (816) 426-5861

Region VIII
(CO, MT, ND, SD, UT,* WY*)
Suite 1690
1999 Broadway
Denver, CO 80202-5716
Telephone: (303) 844-1600

Region IX
(American Samoa, AZ,* CA,* Guam, HI,* NV,* Trust Territories of the Pacific)
71 Stevenson Street
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San Francisco, CA 94105
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Region X
(AK,* ID, OR,* WA*)
1111 Third Avenue
Suite 715
Seattle, WA 98101-3212
Telephone: (206) 553-5930

*These states and territories operate their own OSHA-approved job safety and health programs (Connecticut and New York plans cover public employees only). States with approved programs must have a standard that is identical to, or at least as effective as, the federal standard.