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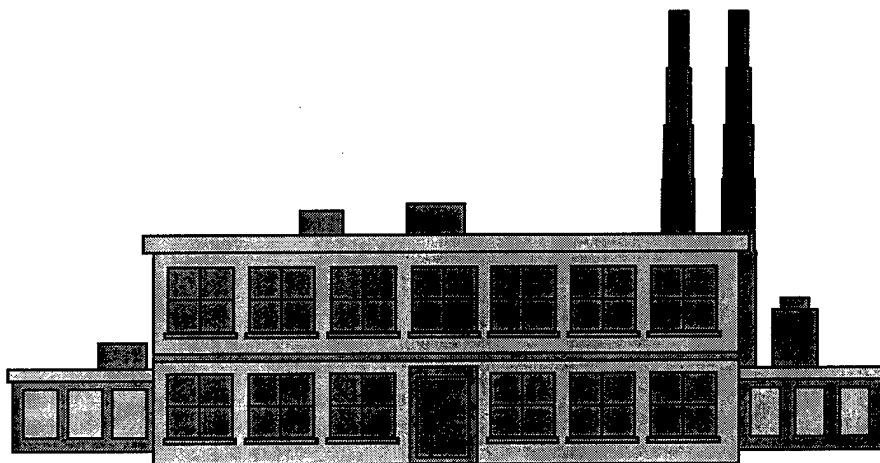
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# Protocol for the Preparation of Installation Pretreatment Programs

## Appendix D: Automated Installation Pretreatment Program Preparation User Guide

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This Protocol was prepared in the anticipation of pending USEPA guidance that will require Army installations to have formal Pretreatment Programs, prepared in accordance to guidance in 40 CFR 403. The Protocol is targeted for Army installation environmental program managers. The report is in two parts: (1) a written document with step-by-step instructions for accumulating the Industrial User information necessary for an Installation Pretreatment

Program; and (2) a Microsoft Access-based program for establishing local limits for industrial users, and for preparing tables and reports to present Industrial User information necessary for the Program. An example Installation Pretreatment Program that includes tables generated by the Access program is included as an appendix to the written Protocol (Volume 1). This User Guide accompanies the Access database.

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## FOREWORD

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# 1 INTRODUCTION

“Protocol for the Preparation of Pretreatment Programs” is a guide to help Army installations develop a program to manage non-domestic discharges to their domestic wastewater treatment systems.

Implementation of the Installation Pretreatment Program will protect the Federally Owned Treatment Works (FOTW) or Publicly Owned Treatment Works (POTW) from pollutants that may interfere with plant operation or pass through the plant untreated, and will improve opportunities for the treatment works to reuse treated wastewater and biosolids (sludges) that are generated.

A Microsoft Access database system has been developed to automate the protocol. This User Guide contains step-by-step guidance for using the automated protocol.

## 2 BEFORE YOU BEGIN

Before you can begin using the automated protocol, you must accumulate a considerable amount of information about your installation, the pretreatment devices on the installation, and the wastewater treatment facility. Having this data before you begin will ensure information entry goes as smoothly as possible. The checklist below contains a list of the information you will need.

### Checklist

You must obtain the following general installation and wastewater treatment plant (WWTP) information:

- \_\_\_\_\_ Installation name and Federal Facility ID number. MACOM name.
- \_\_\_\_\_ Design, peak, and average flows (in million gallons/day) for the WWTP.
- \_\_\_\_\_ Determine the maximum pollutant concentrations allowable in the WWTP influent. Information for determining these concentrations can be found in the "Establishing Discharge Goals/Requirements" chapter of the "Protocol for the Preparation of Installation Pretreatment Programs."

You must obtain the following information about each industrial source (a source is any pretreatment device or industrial wastewater stream without pretreatment) which discharges to the treatment works:

- \_\_\_\_\_ Facility Name. This MUST be unique for each source. It is recommended that the facility name contain identifying information, as this is the identifier that will be used in all reports. If there are two sources for a single facility, use a description of the source after the name. For example, ABC Motorpool has two separators. One services a vehicle washrack and the other discharge from an automatic parts washer. The facility names for these two discharges could

be, "ABC Motorpool, washrack" and "ABC Motorpool, parts washer."

- \_\_\_\_\_ Building number.
- \_\_\_\_\_ Point of Contact name and phone number for the facility.
- \_\_\_\_\_ A description of the activity. You will choose this from a list of activity types. See Chapter 12 of this guide for a copy of this list.
- \_\_\_\_\_ The NAICS code for the activity. A list of these codes can be found at <http://www.webplaces.com/naics/>.
- \_\_\_\_\_ The type of pretreatment device. You will choose this from a list of device types. See Chapter 12 of this guide for a copy of this list.
- \_\_\_\_\_ The GPS location of the pretreatment device, if available.
- \_\_\_\_\_ Flow information. The peak and average daily flows for the activity. If the flow is a slug flow, you will need to enter the duration and frequency of the flow.
- \_\_\_\_\_ A list of contributing pollutants for each device and the initial concentrations for each. See Chapter 12 of this guide for a list of pollutants.
- \_\_\_\_\_ If the activity is a categorical discharger, you will need the average rate of production for the facility. Refer to Chapter 3 of the *Protocol for the Preparation of Installation Pretreatment Programs* for information on categorical dischargers.
- \_\_\_\_\_ A list of any environmental permits that pertain to the activity.

## 3 INSTALLATION AND SETUP

### 3.1 Installation

To use this program, you must have Microsoft Access '97, or a later version, installed on your computer. Follow the installation instructions provided with the software package to correctly install Access. This user guide is designed for the automated protocol only. Detailed instructions for using Microsoft Access can be found in the Access user guide.

Once you have all of the information described in the "Before You Begin" section, and have installed Microsoft Access, copy the protocol.mdb file provided on the disk to your Access file directory.

### 3.2 Time Requirements

The time needed to complete the individual steps within the automated protocol varies greatly among the sections. Some sections require only minutes to complete, while others may require hours, depending on the number of facilities at a given installation. Below is a list of the different steps described in this user guide and a rough estimate of the time required to complete each. These estimates are all based on the assumption that the information described in the "Before You Begin" chapter of this guide has been accumulated.

1. Entering Installation Information. You will need only a few minutes to complete this section. You are required to enter information in six fields.
2. Entering Source Information. This is the most time consuming section of the automated protocol. You are required to enter detailed information about each industrial source at your installation. If your installation is large, you may have well over a hundred sources. Plan on spending approximately 10 minutes per source in this section.
3. List of Installation Pollutants. This section will take less than 5 minutes to complete. You must click the "yes" button several times, but no data entry is required. Depending on your computer speed,

the query itself may take a few minutes to run in the background.

4. **WWTP Influent Limits.** The amount of time required for this section will depend on the number of pollutants you have at your installation. Entering the influent limit for one pollutant will take less than a minute. However, you may have 20 different pollutants to complete.
5. **Calculating Source Limits.** This section, although it appears lengthy, is only a matter of running three separate queries in sequence. This should take less than 10 minutes to complete, depending on the speed of your computer.
6. **Assigning Concentration Limits to Sources.** The time required for this section of the protocol will depend on the number of sources at your installation and the number of pollutants at each source. A large installation with many sources may require hundreds of entries on this form.

### 3.3 Starting the Automated Protocol

To begin, start the Access program. Highlight the "File" menu, and select "Open Database." Select the protocol.mdb file and click on "Open."

Go to the "Forms" menu and highlight the [Main Menu] form. Click on "Open." The top of this form is shown below.

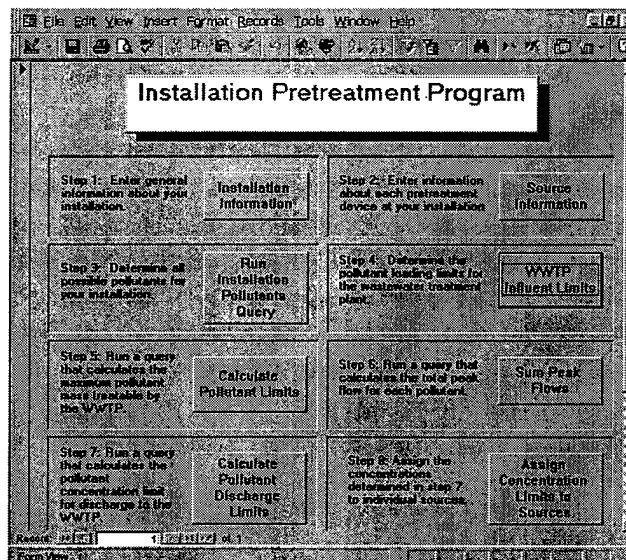


Figure 1. Main Menu Form.

## 4 INSTALLATION INFORMATION

Once you have opened the [Main Menu] form, you are ready to begin entering installation information. Click on the "Installation Information" button on the [Main Menu] form to open the [Installation Information] form. This form is shown below.

The screenshot shows a software window titled "Installation Info : Form" with a menu bar (File, Edit, View, Insert, Format, Records, Tools, Window, Help) and a toolbar. The main content area is titled "Installation Information" and contains the following fields and instructions:

- Installation Name:
- FFID:
- MACOM:
- FDTW Flow (million gal/day):
  - Design Flow:
  - Peak Flow:
  - Average Flow:

Enter this information in million gal/day.  
For example, if the design flow of the FDTW is 5 million gallons/day, enter a 5.

Record:  of 1

Figure 2. Installation Information Form.

Enter your installation name, Federal Facility ID number, and MACOM name. Then enter the design, peak, and average flows for the WWTP. Flow rates **MUST** be entered in million gallons/day. For example, if the design flow for your treatment plant is 5 million gal/day, enter a 5 in the "Design Flow" space.

Once you have completed the form, close it by clicking on the "x" in the upper right hand corner of the [Installation Information] form. You will return to the [Main Menu] form.

## 5 SOURCE INFORMATION

After you have completed the installation information section, you are ready to enter information about each of the individual sources (a source is any pretreatment device) that discharge to the WWTP.

To enter this information, click the "Source Information" button on the [Main Menu] form. This pulls up the [Source Information] form, shown below.

Source/Site Information

Facility Name:  Building Number:

Point of Contact:  Phone Number:

Activity Description:  NAICS Code:

Pretreatment Device Type:  GPS Location (optional):

Peak daily flow (gal/day):  Average daily flow (gal/day):

If the peak daily flow is a slug flow, enter the duration and frequency of the flow. Skag flow duration (minutes):  Skag flow frequency (per month):

Is this activity subject to categorical discharge limits:

Average rate of production:

Is this facility a significant industrial user:

Recommended P2 Measures:

Environmental permits for this facility:

Facility Name	Pollutant	Peak Daily Flow (gal/day)	Maximum Con
58th Transportation Battalion, Washrack	O & G	30720	
58th Transportation Battalion, Washrack		0	

Records: 1 of 1

Form View

Figure 3. Source Information Form.

Complete this form by entering the Facility Name (this MUST be unique to the pretreatment device), building number, and POC information. The activity description is entered by pulling down the pick list and selecting the appropriate entry. If none of the activity descriptions fit this facility, select the "other" option and type in a description.

Enter the NAICS code for the facility. A list of these codes is available at <http://www.webcodes.com/naics/>.

The pretreatment device type is also entered by pulling down a pick list. Enter this information along with the GPS location of the device (if available).

Continue filling in information by entering the peak and average daily flows for this device (these MUST be in gal/day). If the flow is a slug flow, enter the duration (in minutes) and the frequency (in times/month).

If this facility is a categorical discharger, select "yes" from the pull down menu next to this question. A "(C)" will appear at the end of the activity description of all categorical dischargers. Enter the rate of production for all categorical dischargers.

If the activity is a significant industrial user, select "Yes" from the pull down menu (otherwise, select "No"). Criteria for determining significant industrial users can be found in the "Significant Industrial Users" section of Chapter 1 in the *Protocol for the Preparation of Installation Pretreatment Programs*.

If there is pollution prevention (P2) measure that can be implemented at this facility, type the name in the "Recommended P2 Measures" box.

Finish the top portion of this form by entering any of the names of any environmental permits that apply to this facility.

After the top portion of the form is complete, you are ready to enter the pollutant information for this source. This is done in the table portion on the lower half of the [Source Information] form. To enter this information, click on the right side of the Pollutant column in this table. A pick list will appear. Select the appropriate pollutant (the Facility Name column will be automatically populated once you have made your selection).

After selecting the pollutant, enter the peak daily flow for this device in gallons/day. This should be the same amount that was entered in the peak flow section of the top of this form.

After selecting the pollutant, enter its initial maximum concentration, initial average concentration, and the date on which these were measured (average concentrations should be entered for categorical dischargers only).

Repeat this process until all pollutants are entered for this device. The peak flow must be filled out for all pollutants, but should be the same amount for all pollutants at this source.

When you have completed filling out the information for this source, click on the "Next Source" button on the right side of the form. This will bring up a blank form. You are ready to enter the same information about the next source at your installation. Repeat this process until you have filled out one form for each device at your installation.

Data in this form is saved as you enter it. If you need to close the form for any reason, your data will be saved. When you are ready to finish the process, open the form and click on the "Next Source" button until you find the spot where you stopped entering data.

When you are finished, click on the "x" at the upper right corner of the form to close the form. You will return to the [Main Menu] form.

## 6 LIST OF INSTALLATION POLLUTANTS

Now that information is entered about all pretreatment devices for the installation, you are ready to create a list of pollutants for your installation. This is a very quick step, and just requires a few clicks of the mouse. A query searches the database you built by entering source information. It searches the lists of pollutants you entered for each source and compiles a list of all pollutants entering the WWTP at your installation.

To begin, click on the "Run Installation Pollutants Query" button on the [Main Menu] form. A message will appear asking you if you wish to run the query and modify data in your table. This message is shown below.

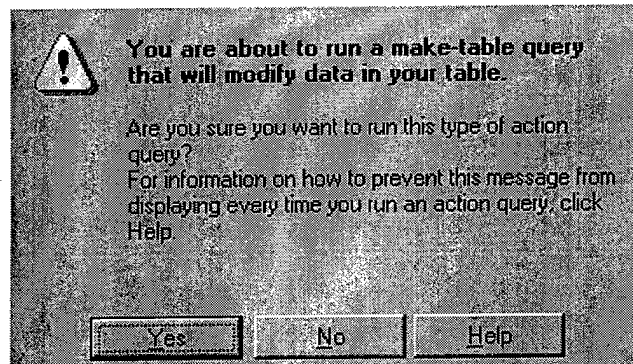


Figure 4. Message 1 Text.

Click "yes" to run the query. Another message appears telling you that the existing "Installation Pollutants" table will be deleted, and asking you if you wish to continue. This message is shown below.

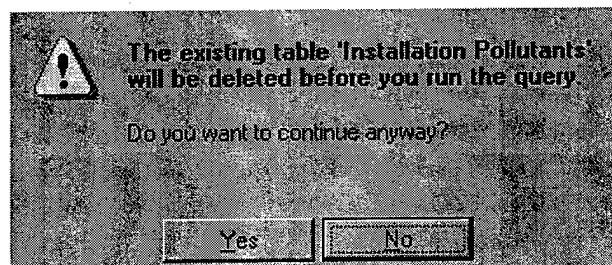


Figure 5. Message 2 Text.

Click on the “yes” button to continue. You will be creating a new “Installation Pollutants” table with this query. A third message appears telling you that you are about to paste rows into a table and asking if you wish to create a new table with the selected records. This message is shown below.

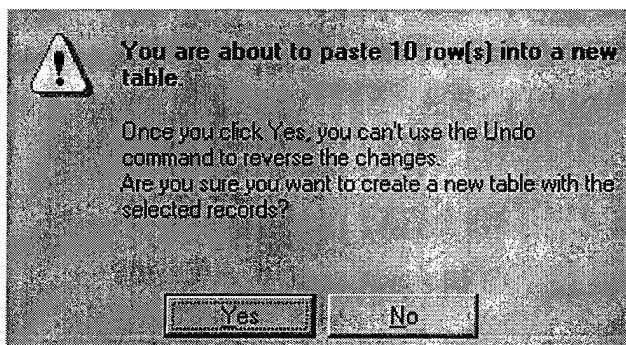


Figure 6. Message 3 Text.

Click the “yes” button to continue and create the new table.

## 7 WWTP INFLUENT LIMITS

At this point you have entered all installation and source specific information. An evaluation must have been completed to determine the maximum concentration for each pollutant that the WWTP can receive without causing pass-through, interference, or violations of the NPDES permit. Refer to Chapter 3, "Establishing Discharge Goals/ Requirements" and Appendix B, "Development of Technically Based Local Limits," of the "Protocol for the Development of Installation Pretreatment Programs" for more information on this topic.

Click on the "WWTP Influent Limits" button on the [Main Menu] form. The [WWTP Influent Pollutant Limits] form appears. This form is shown below.

The screenshot shows a software window titled "WWTP Influent Pollutant Limits". The window has a menu bar with "File", "Edit", "View", "Insert", "Format", "Records", "Tools", "Window", and "Help". Below the menu bar is a toolbar with various icons. The main area of the window contains the following text:

**WWTP Influent Pollutant Limits**

Enter the pollutants for your installation in the boxes below. Enter the maximum WWTP influent concentration for each pollutant. This must be in mg/L.

Pollutant	Maximum Concentration (in mg/L)
▼	

At the bottom of the window, there is a "Record" field with the value "1" and a "Form View" button.

Figure 7. WWTP Influent Pollutant Limits Form.

There is a pull down menu in the pollutant column of this form. To enter the pollutants from the installation pollutant list, open the pull down menu and highlight the first pollutant on the list.

Enter the maximum allowable WWTP influent concentration for the pollutant in the *Maximum Concentrations* column to the right of the *Pollutant* column. This **MUST** be entered in mg/L.

As soon as you enter the first pollutant, another set of boxes appears below it. This is shown in the figure below.

Pollutant	Maximum Concentration (in mg/L)
Benzene	2

Figure 8. WWTP Pollutant Discharge Limits Form – Entering Data.

Go to the next pollutant box and click on the pull down menu. Select the next pollutant on the list. Enter the maximum concentration in the column to the right.

Repeat this process for every pollutant on the list. When you have selected and entered the concentrations of all pollutants for your installation, the form will appear similar to the one below.

Pollutant	Maximum Concentration (in mg/L)
1,3,5-Trimethyl benzene	0.004
Benzene	0.01
Cadmium	0.03
Copper	0.03
Chromium	0.01
Cyanide	0.01
Ethyl Benzene	0.001
Lead	0.1
n-Propyl benzene	0.01
Naphthalene	0.01

Figure 9. WWTP Pollutant Discharge Limits Form with Concentrations Entered.

When you have finished, click on the “x” at the upper right corner of the form to return to the [Main Menu] form.

## 8 CALCULATING SOURCE LIMITS

You are now ready to begin calculating the pollutant concentration limits for discharge from each source. This process consists of calculating the maximum mass of each pollutant treatable by the WWTP, summing the flows from contributors of each pollutant, and then calculating the maximum concentration allowable from each source. Refer to the "Establishing Discharge Goals/ Requirements" Chapter 3 of the *Protocol for the Development of Installation Pretreatment Programs* for more information on the calculations performed in these queries. The steps described below take very little time to complete.

### 8.1 Calculating Maximum Mass

To calculate the maximum mass for each pollutant, click on the "Calculate Pollutant Limits" button on the [Main Menu] form. This runs a query that will automatically calculate these numbers based on information you have entered previously. You will receive "Are you sure?" messages similar to those received in the "List of Installation Pollutants" section of the program. See that section of this document for pictorial examples. Answer yes to each question asked. You will remain at the [Main Menu] form.

### 8.2 Summing Peak Flows

To add the peak flows for each source contributing specific pollutants, click on the "Sum Peak Flows" button on the [Main Menu] form. You will be running a query that searches the source information databases for the specific pollutants. If a source is found to contribute a pollutant, the flow from that source is added with flows from other sources contributing the same pollutant. When you click on the "Sum Peak Flows" button, you will receive messages similar to the ones received in the "List of Installation Pollutants" section of the program. Click the "yes" button at each of these messages. You will remain at the [Main Menu] form.

### 8.3 Calculate Maximum Source Concentrations

To calculate the maximum effluent pollutant concentrations for each source, click on the "Calculate Pollutant Discharge

Limits" button on the Main Menu. The query that runs calculates the pollutant concentrations based on information you have entered in previous steps in this program. After clicking on this button, you will receive messages similar to the ones received in the "List of Installation Pollutants" section of the program. Click the "yes" button at each of these messages. You will remain at the [Main Menu] form.

## 9 ASSIGNING CONCENTRATION LIMITS TO SOURCES

After calculating the pollutant limits for the sources you are ready to assign a limit for each pollutant at each source. You can assign limits to sources in several ways.

For non-categorical dischargers, you may:

1. Use the limit that is calculated by the steps described in Chapter 8.
2. Assign a limit based on other criteria such as the WWTP effluent criteria in your installation NPDES permit. For more information on setting discharge limits, see Chapter 3 and Appendix B of the *Protocol for Development of Installation Pretreatment Programs*.

For categorical dischargers, the limit you assign must be less than or equal to the regulatory limit for the particular category. Refer to Appendix A of the "Protocol for Development of Installation Pretreatment Programs" for a list of categorical dischargers typical at Army facilities and the CFR location for categorical limits. Categorical dischargers are identified on the form by a "(C)" after the activity description.

To begin assigning discharge limits to individual sources, click on the "Assign Concentration Limits to Sources" button on the [Main Menu] form. The [Assign Concentration Limits to Individual Sources] form appears. This form is shown below.

Facility Name	Pollutant	Max Conc. Allowed (mg/L)	Max Avg Conc. Allowed (mg/L) (categorical dischargers only)
50th Transportation Battalion, Wri	D & G	100	
5th Engineering Battalion	D & G	100	
Auto Craft Shop	1,3,5-Trimethyl benzene	2	
Auto Craft Shop	Benzene	2	
Auto Craft Shop	Ethyl Benzene	2	
Auto Craft Shop	n-Propyl benzene	2	
Auto Craft Shop	Naphthalene	2	
Auto Craft Shop	D & G	100	
Auto Craft Shop	o-m Xylenes	1.4	
Auto Craft Shop	pXylenes	0.6	
Auto Craft Shop	Phenol	0.5	

Figure 10. Assign Concentration Limits to Individual Sources Form.

A list of the installation sources and their pollutants is shown on this form, along with columns for entering the maximum and average concentration limits for each pollutant. Average concentration limits are entered for categorical dischargers only.

If you want to use the pollutant limits calculated by this program, select the appropriate limit from the pull down menu in the maximum concentrations column. The screen with the pull down menu showing is displayed below.

Facility Name	Pollutant	Max Conc. Allowed (mg/L)	Max Avg Conc. Allowed (mg/L) (categorical dischargers only)
58th Transportation Battalion, W/	O & G	2.00	
5th Engineering Battalion	O & G	5.00	
Auto Craft Shop	1,3,5-Trimethyl benzene	2.00	
Auto Craft Shop	Benzene	10.00	
Auto Craft Shop	Ethyl Benzene	1.40	
Auto Craft Shop	n-Propyl benzene	0.60	
Auto Craft Shop	Naphthalene	2.00	
Auto Craft Shop	O & G	100.00	
Auto Craft Shop	o-m-Xylenes	1.40	
Auto Craft Shop	p-Xylenes	0.60	
Auto Craft Shop	Phenol	0.50	

Figure 11. Pull Down Menu With Calculated Maximum Pollutant Concentrations.

If you want to assign limits other than those calculated by the program, type in the desired limits. Continue by typing in average concentration limits for all categorical dischargers.

Repeat this process for each source and pollutant on the list. Be sure to scroll down the page and enter a concentration for all pollutants.

Note: You must ensure that the maximum limit calculated for any categorical discharger is less than or equal to the limit imposed by regulations.\* If it is not, you must assign a limit less than or equal to the regulatory limit.

If you wish to change a limit to something other than what was calculated by the program, type in the new concentration rather than selecting from the pull down menu. The concentration must be in mg/L.

\* 40 CFR 403 provides for the altering of categorical discharge limits. Consult the "Allowable Changes to Categorical Discharge Limits" chapter of the "Protocol for the Development of Installation Pretreatment Programs" for more information.

## 10 MONITORING

The monitoring section of the automated protocol allows you to enter results from periodic sample analysis from individual sources at your installation.

To enter this information, click the “Monitoring” button on the [Main Menu] form. This opens the [Monitoring] form, shown below.

Facility Name	Peak Flow (gal/day)	Date	Time	Pollutant	Maximum Concentration
58th Transportation Battalion, Washrack	30720	5/5/98	3:30:00 PM	O & G	
58th Transportation Battalion, Washrack	28500	5/7/98	9:00:00 AM	O & G	
58th Transportation Battalion, Washrack		5/5/98	3:30:00 PM	Phenol	
58th Transportation Battalion, Washrack		5/5/98	3:30:00 PM	Sulfides	
58th Transportation Battalion, Washrack	0				

Figure 12. Monitoring Form.

The top portion of the form will be automatically populated with the first source for your installation (sources will be listed alphabetically). To scroll between sources, click the left and right arrows located in the bottom left corner of the screen.

When the correct facility name is displayed on the screen, you are ready to enter your sample results.

Enter the measured flow in the “Peak Flow” column of the first record. You only need enter this information once for each sampling event.

Enter the date and time for the first sample, and then select the pollutant from the pull down menu. Now enter the concentration (in mg/L) found for that pollutant. If the activity is a categorical discharger, enter the average concentration. Now enter the required average interval (i.e., 4-day average, monthly average, etc.).

For each pollutant, enter the sampling procedure (grab or composite), the name of the person who took the sample, and who performed the analysis.

Because a single sample is generally analyzed for more than one pollutant, you will need to repeat this process until all results are entered. Use the same date and time, select the pollutant, and then enter the sample information.

As you periodically sample the waste streams for your installation, use this form to keep historic records of the analysis. When results are available, enter them into this form. This form and the report based on it, described in the next section, allow you to look at how pollutant levels in the individual waste streams change over time.

## 11 PRINTING REPORTS

After you have completed the above steps, you are ready to print out reports of the information you have entered. Consult the Access user guide for information on setting up printers in Access. These reports will become the appendices of your installation pretreatment plan. You will also be using Microsoft Word to print out the text portions of your plan.

Click on the “Reports” button at the bottom of the [Main Menu] form to open the [Protocol Reports] form. This form is shown below.

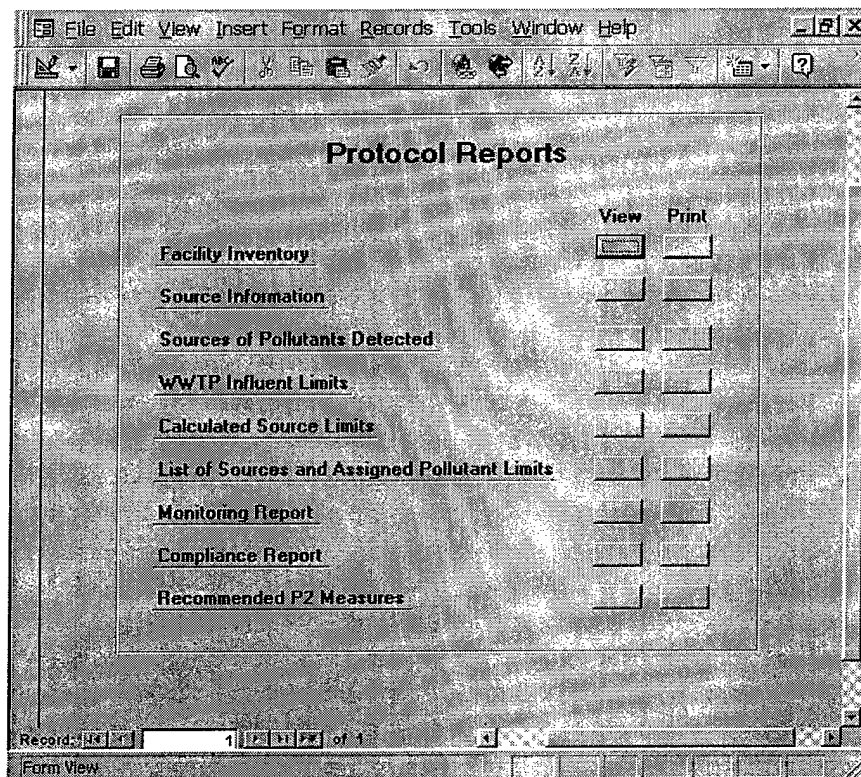


Figure 13 Protocol Reports.

The reports listed on this screen are each described below. To view the report on screen, simply click the “View” button. Clicking the “Print” button will print the report.

*Facility Inventory.* This report creates a list of all industrial sources at your installation. The report is organized by

building number and also contains points of contact and the facility name.

*Source Information.* The Source Information report provides individual summaries of all sources. Information includes a list of pollutants for each source.

*Sources of Pollutants Detected.* This report lists all pollutants for the installation and provides a list of sources that contribute that pollutant.

*WWTP Influent Limits.* This report lists all pollutants for the installation with the treatment works influent maximum concentrations.

*Calculated Source Limits.* This report lists each pollutant for the installation with its calculated source limit.

*List of Sources and Assigned Pollutant Limits.* This report lists all sources at the installation, pollutants for each source, and the assigned limits for each pollutant.

*Monitoring.* The "Monitoring" report is a summary of information entered in the [Monitoring] form. Each source is listed and the results of all sample analysis are included.

*Compliance.* The "Compliance" report compares the pollutant levels entered in the [Monitoring] form with the limits that have been assigned. If results are over the assigned limit, the words "Over Limit" appear.

*Recommended P2 Measures.* The "Recommended P2 Measures" report lists all recommended P2 alternatives along with a list of their applicable sources.

## 12 SETTING UP AND PRINTING THE PRETREATMENT PROGRAM DOCUMENT

This disc containing the automated protocol Access program also contains the Example Installation Pretreatment Program as a Microsoft Word document. To create an Installation Pretreatment Program document, the Example file must be edited to make it specific to the installation. Then inserting the Access reports is all that remains in establishing your installation's pretreatment plan.

Information to be edited into the document includes the installation name, the names and titles of personnel who are responsible for execution of the pretreatment program, and any program requirements that are specific to the installation.

Responsible personnel include:

- Manager/Commander (responsible for resourcing/staffing the program)
- Pretreatment Program Manager
- WWTP Manager
- Pretreatment Maintenance Manager.

After all of the above has been entered, print the document using Word's printing function. Insert the Access reports printed earlier (Chapter 11 of this document) into the correct appendix of the plan. You have now completed your pretreatment program document.

## 13 PULL DOWN MENUS

### 13.1 Industrial Activity Descriptions

The list of activity descriptions below is the same list as is found in the pull down menu on the [Source Information] form of the Access program.

#### Industrial Activity Description

Air Emission Systems (wet scrubber type)	Metal Finishing (C)
Aqueous Parts Washers	Metal Molding and Forming (C)
Automotive Craft Shops	Molding Shop
Battery Shops	Motorpools
Bladder/Tanker Purging	Oily Sludge Dewatering
Body Shop	Other _____
Dental Office or Complex	Packaging
DRMO	Paint Booth - Dry
Drum Rinsing	Paint Booth - Water Curtain
Dry Cleaners	Paint Stripping (Other than dry media blasting)
Drydocks	Pesticide, Insecticide Storage or Mixing Areas
Electrical Components Shops (C)	Photodeveloping (non-medical)
Engine Test Stand	Plating (C)
Explosives Manufacturing	Port-a-Potty Septage Collection/Pumping
Fire Fighting Foam Sumps/Lagoons	POV Car Wash
Fire Training Pit	Print Shops
Firing Ranges (indoors)	Printed Circuit Boards
Floor Washing	Quarry
Fuel/Chemical Storage Areas	Radiator Bath
Groundwater Remediation/Landfill	Radiator Shops
Leachate Systems	Sandblasting
Hangers	Septic Tank Pumping (to FOTW)
Hazardous Waste Storage Area (near floor drains)	Solvent Recycling (in-house)
Heating/Chilling Plants	Steam Electric Power Generation
Holding Tanks (wastewater)	Used Oil Reclamation & Re-refining
Hospitals	Veterinary Clinic
Laboratories (non-FOTW or medical)	Washracks, Central
Laundry (Industrial Clothing)	Washracks, Engine
Machine Shops	Washracks, Individual
Medical Clinics	Welding Shops
Metal Cleaning (acid/base type)	Woodworking Shop
Metal Cleaning (power washers - detergent)	X-ray Lab
Metal Cleaning (vapor degreasing)	

### 13.2 Pretreatment Device Types

Below is a list of pretreatment device types. This is the same list that appears on the pull down menu on the [Source Information] form.

#### Device Type

Oil/Water Separation - Cast-in-place/precast concrete gravity separator  
Oil/Water Separation - Cast-in-place/precast concrete separator w/ coalescer  
Oil/Water Separation - Pre-fab separator w/ coalescer and open top  
Oil/Water Separation - Pre-fab separator w/ coalescer and man-way access only  
Oil/Water Separation - Oil Filters  
Oil/Water Separation - Dissolved air floatation  
Oil/Water Separation - Centrifuge  
Grit and Solids Removal Basin  
Flow Equalization  
pH Control  
Centrifugation  
Filtration/Ultrafiltration - Granular filters  
Filtration/Ultrafiltration - Membrane filters  
Filtration/Ultrafiltration - Filter press  
Chemical Coagulation and Precipitation  
Biological Degradation - Aerated Basin  
Biological Degradation - Lagoon  
Biological Degradation - Trickling Filter  
Ion Exchange  
Carbon Adsorption  
Evaporation  
Chemical Oxidation  
Reverse Osmosis  
Disinfection  
Air Stripping  
Silver Recovery Unit  
None

### 13.3 Pollutants

The following list of pollutants is the same list that appears on the pull down menu on the [Source Information] form.

#### Pollutants

1,1,1-Trichloroethane	
1,1,2,2-Tetrachloroethane	COD
1,1,2-Trichloroethane	Copper
1,1-Dichloroethane	Chromium
1,1-Dichloroethylene	Cyanide
1,2,4-Trichlorobenzene	Dichlorobromomethane
1,2,4-Trimethyl Benzene	Ethyl Benzene
1,2,4-Trimethyl Benzene	Isopropyl Benzene
1,2-Dibromo Ethane	Lead
1,2-Dichlorobenzene	Mercury
1,2-Dichloroethane	Methyl Bromide
1,2-Dichloropropane	Methyl Chloride
1,2-trans-Dichloroethylene	Methyl ethyl ketone
1,3,5-Trimethyl Benzene	Methylene Chloride
1,3-Dichlorobenzene	n-Propyl Benzene
1,3-Dichloropropane	Naphthalene
1,4-Dichlorobenzene	Nickel
2,6-Dinitrotoluene	O & G
2-Chloro Toluene	o-m Xylenes
2-Chloroethyl vinyl ether	p-Xylenes
4-Chloro Toluene	PCB
Acenaphthene	Phenol
Acrylonitrile	Sec-Butyl Benzene
Arsenic	Silver
Benzene	Sulfur
Benzidine	Tetrachloro Ethene
BOD	Tetrachloroethylene
Bromoform	Toluene
Cadmium	Total Toxic Organics
Carbon Tetrachloride	Trichloro Ethane
Chlorobenzene	Trichloroethylene
Chlorodibromomethane	Trichloroethylene
Chloroethane	TSS
Chloroform	Zinc
	pH

## 14 MAKING CHANGES

### 14.1 Changing Installation Information

To change information listed on the [Installation Information] form, you need only to open the form and make the appropriate changes. If you change the "Average flow" field, you must re-run all the queries listed in Chapter 8, and re-enter the pollutant limits on the [Assign Concentration Limits to Sources] form.

### 14.2 Adding A Source

To add a new source to your pretreatment program, open the [Source Information] form from the [Main Menu] form. Click on the "Next Source" button until you reach the end of the list and a blank screen appears. Enter the information about the new source.

You will need to re-run the "Run Installation Pollutants" query if the new source contributes pollutants not in the influent of previously entered sources. You will also have to enter the maximum WWTP influent concentration for any new pollutants. This is done on the [WWTP Influent Limits] form.

To calculate new source concentration limits, you will need to re-run all three queries described in Chapter 8. This will ensure that the flow and pollutants from the new source are included in the source maximum concentration calculations.

Running these queries will change the calculated concentration limits for any pollutant listed for that source. You will need to open the [Assign Concentration Limits to Sources] form, described in Chapter 9 of this document, and change the limits for these pollutants.

After you have completed these steps, print new reports, as described in Chapter 10.

### 14.3 Deleting A Source

Deleting a source from the automated protocol is a bit more difficult than adding a new one. To delete a source, you must first remove its records from the underlying databases

constructed when the source was originally entered and then recalculate the pollutant concentration limits.

To delete a source, open the [Source Information] form from the [Main Menu] form. Click on the "Next Source" button until you reach the source you want to delete.

Go to the pollutant list section of this form, and select all rows of pollutants. Be sure that the entire row is selected. An example of this is shown below.

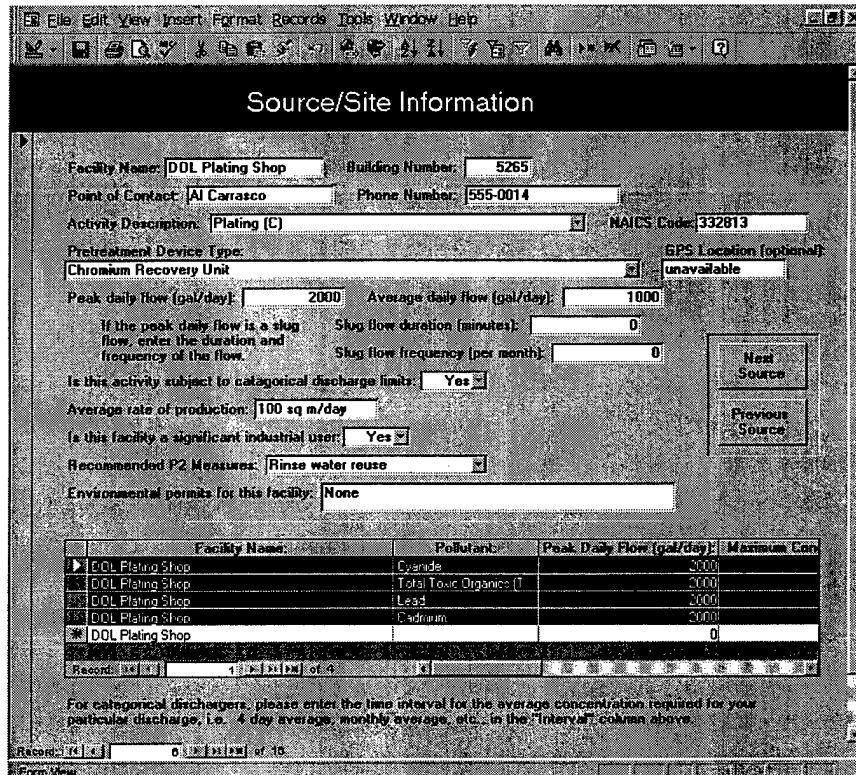


Figure 14 Deleting Rows on Source Information Form.

Press the delete key on your computer to delete the pollutant information. You will be asked to confirm your deletions.

After you have performed these deletions, scroll to the bottom of the [Source Information] form. You will see a "Delete Source" button. Click on this button to delete the source. You will be asked to confirm your deletions.

Close the [Source Information] form. You will return to the [Main Menu] form. Close this as well. Go to the "Table" section of the database. Select the {WWTP Limits}

table. Click "Open." Highlight all of the rows in this table and hit the delete key on your computer. This will delete all the rows in this table. You will be asked to confirm your deletions.

Close the table and return to the "Forms" list. Highlight the [Main Menu] form and click the "Open" button. The [Main Menu] form appears.

You will need to re-run the "Run Installation Pollutants" query. To do this, click on the "Run Installation Pollutants Query" button on the [Main Menu] form. You will also need to re-enter the maximum WWTP influent concentrations for all pollutants. This is done on the [WWTP Influent Limits] form.

To calculate new source concentration limits, you will need to re-run all three queries described in Chapter 8. This will ensure that the flow and pollutants from the deleted source are not included in the source maximum concentration calculations.

Running these queries will change the calculated maximum source concentrations for any pollutant listed for that source. You will need to open the [Assign Concentration Limits to Sources] form, described in Chapter 9 of this document, and change the limits for these pollutants. The old limits will still appear on the form. If you want to keep these limits, do nothing. If you want to change to the new calculated limit. Select the pull down menu. This will display the new limits. Highlight the appropriate pollutant to enter this limit.

After you have completed these steps, print new reports, as described in Chapter 10.

## **14.4 Changing Information For A Source**

### **14.4.1 Changing Site Information**

If you need to change site information for an individual source, i.e., building numbers, POCs, phone numbers, etc., open the [Source Information] form from the [Main Menu] form. You can then change the data as required. You will need to print new reports (Chapter 10) to reflect these changes.

## 14.4.2 Changing Pollutant Information

### *Adding a pollutant for a source.*

To add a pollutant to a source pollutant list, open the [Source Information] form from the [Main Menu] form. Click on the "Next Source" button until the source requiring change appears on the screen. Go to the bottom of the pollutant list and click on the pull down menu. Select the new pollutant and enter the peak daily flow.

If this pollutant has not been entered for any other source, you will need to re-run the "Run Installation Pollutants Query" from the [Main Menu] form. You must then open the [WWTP Influent Limits] form and add the pollutant to the list. Be sure to go to the bottom of the pollutant list and click on the pull down menu in a blank pollutant box. Entering the new pollutant in a populated box will overwrite the pollutant listed there. Enter the maximum concentration in the box to the right and close the form.

Whether the pollutant is new to the installation or not, you must then re-run the queries described in Chapter 8 and adjust the maximum source concentrations on the [Assign Concentration Limits to Sources] form.

You will need to print new reports (Chapter 10) to reflect these changes.

### *Deleting a pollutant from a source.*

To delete a pollutant from a source pollutant list, open the [Source Information] form from the [Main Menu] form. Click on the "Next Source" button until the source requiring change appears on the screen. Select the row that contains the pollutant to be deleted and delete the entire row.

If this pollutant was not entered for any other source, you will need to re-run the "Run Installation Pollutants Query" from the [Main Menu] form. Close the [Main Menu] form and go to the "Tables" section of the database. Open the "WWTP Limits" table and delete the row containing the removed pollutant. Be sure to delete the entire row. Close the table and return to the "Forms" section of the database. Open the [Main Menu] form.

Whether the pollutant was unique to one source or not, you must then re-run the queries described in Chapter 8 and adjust the maximum source concentrations on the [Assign Concentration Limits to Sources] form.

You will need to print new reports (Chapter 10) to reflect these changes.

#### ***14.5 Changing a WWTP Influent Limit***

To change a pollutant discharge limit entered on the [WWTP Influent Limits] form, first open the form from the [Main Menu] form. Find the pollutant that requires change and then change the maximum concentration in the box to the right.

You must then re-run the queries described in Chapter 8 and adjust the maximum source concentrations on the [Assign Concentration Limits to Sources] form.

You will need to print new reports (Chapter 10) to reflect these changes.

#### ***14.6 Changing a Pollutant Concentration Limit for a Source***

To change a pollutant concentration limit for an individual source, open the [Assign Concentration Limits to Sources] form from the [Main Menu] form. Find the source and pollutant requiring change and enter the new concentration in the maximum concentration box to the right.

You will need to print new reports (Chapter 10) to reflect these changes.

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