



US EPA Pretreatment Webcast Series

The Pretreatment 101 Series:
Introduction to the National Pretreatment Program

June 30, 2011



Acronym List

Acronym	Full Phrase
AA	Approval Authority
AO	Administrative Order
BAT	Best Available Technology Economically Achievable
BCT	Best Conventional Pollutant Control Technology
BMP	Best Management Practices
BMR	Baseline Monitoring Report
BOD5	5-day Biochemical Oxygen Demand
BPJ	Best Professional Judgment
BPT	Best Practicable Control Technology Currently Available
CA	Control Authority
CERCLA	Comprehensive Environmental Remediation, Compensation and Liability Act
CFR	Code of Federal Regulations
CIU	Categorical Industrial User
COD	Chemical Oxygen Demand
CSO	Combined Sewer Overflow
CWA	Clean Water Act (formerly referred to as the Federal Water Pollution Control Act or Federal Water Pollution Control Act Amendments of 1972) Pub. L. 92-500, as amended by Pub. L. 95- 217, Pub. L. 95-576, Pub. L. 96-483, Pub. L. 97-117, and Pub. L. 100-4, 33 U.S.C. 1251 et seq.
CWF	Combined Wastestream Formula
CWT	Centralized Waste Treater
DMR	Discharge Monitoring Report
DSE	Domestic Sewage Exclusion
DSS	Domestic Sewage Study
ELG	Effluent Limitations Guideline
EP	Extraction Procedure
EPA	Environmental Protection Agency
EPCRA	Emergency Preparedness and Community Right to Know Act
ERP	Enforcement Response Plan
FDF	Fundamentally Different Factors
FR	Federal Register
FTE	Full-time equivalent
FWA	Flow Weighted Average
gpd	Gallons per Day
ICIS	Integrated Compliance Information System

IU	Industrial User
IWS	Industrial Waste Survey
LEL	Lower Explosive Limit
MAHL	Maximum Allowable Headworks Loading
MAIL	Maximum Allowable Industrial Loading
MGD	Million Gallons per Day
mg/l	Milligrams Per Liter
MSDS	Material Safety Data Sheet
MSW	Municipal solid waste
MTCIU	Middle Tier Categorical Industrial User
NAICS	North American Industry Classification System (replaces SIC coding system in 1998)
NOV	Notice of Violation
NPDES	National Pollutant Discharge Elimination System
NRDC	Natural Resources Defense Council
NSCIU	Nonsignificant Categorical Industrial User
NSPS	New Source Performance Standard
O&G	Oil and Grease
O&M	Operations and Maintenance
OCPSPF	Organic Chemicals, Plastics, and Synthetic Fibers
P2	Pollution Prevention
PCA	Pretreatment Compliance Audit
PCI	Pretreatment Compliance Inspection
PCS	Permit Compliance System
PIRT	Pretreatment Implementation Review Task Force
POTW	Publicly Owned Treatment Works
PSES	Pretreatment Standards for Existing Sources
PSNS	Pretreatment Standards for New Sources
QA/QC	Quality Assurance/Quality Control
RCRA	Resource Conservation and Recovery Act
RIDE	Required ICIS Data Element
RNC	Reportable Noncompliance
SDCP	Slug Discharge Control Plan
SIC	Standard Industrial Classification
SIU	Significant Industrial User
SPCC	Spill Prevention Control and Countermeasures
SNC	Significant Noncompliance
SSO	Sanitary Sewer Overflow
SUO	Sewer Use Ordinance
TCLP	Toxicity Characteristic Leachate Procedure
TIE	Toxicity Identification Evaluation
TMDL	Total maximum daily load
TOMP	Toxic Organic Management Program
TRE	Toxicity Reduction Evaluation
TRC	Technical Review Criteria
TRI	Toxic Release Inventory
TRIS	Toxics Release Inventory System
TSDF	Treatment, Storage, and Disposal Facility
TSS	Total Suspended Solids

TTO	Total Toxic Organics
USC	United States Code
UST	Underground Storage Tank
WENDB	Water Enforcement National Data Base
WET	Whole Effluent Toxicity
WWTF	Wastewater Treatment Facility
WWTP	Wastewater Treatment Plant

Resources

Topic: POTWs and the Need for the Pretreatment Program

Environmental Regulations and Technology: The National Pretreatment Program

(EPA Number: 625/10-86/005)

This document explains the need for the National Pretreatment Program; describes federal, state, and local roles in the program's implementation; and explores the program's future.

<http://www.epa.gov/npdes/pubs/owm0018.pdf>

EPA's National Pretreatment Program, 1973-2003: Thirty Years of Protecting the Environment

(EPA 833-F-03-001)

A four-page brochure highlighting 30 years of progress to reduce or eliminate discharges of pollutants to US waters and to POTWs, via the Pretreatment Program.

http://www.epa.gov/npdes/pubs/pretreatment_thirtyyears.pdf

National Pretreatment Program: Report to Congress

(EPA 21W-4004)

This report presents results of a study on the discharge of toxic pollutants to and from POTWs performed by the EPA in response to section 519 of the water quality act of 1987. The report constitutes a comprehensive evaluation of the national pretreatment program, with particular emphasis on topics listed in section 519.

The purpose of this evaluation is to determine, after the pretreatment program has been underway for over a decade, how the program can more effectively achieve the goals of the CWA and minimize the adverse environmental impacts of toxics that may be discharged from POTWs.

<http://www.epa.gov/npdes/pubs/owm0244.pdf>

Report to Congress on the Discharge of Hazardous Wastes to POTWs

(EPA 530-SW-86-004)

This report, provided to Congress, describes the discharge of hazardous wastes to POTWs.

http://www.epa.gov/npdes/pubs/pretreatment_reporttocongress_hazardouswaste.pdf

Topic: Overview of the National Pretreatment Program

Control Authority Pretreatment Audit Checklist and Instructions

(EPA 833-B-10-001)

This sample Pretreatment Compliance Audit checklist and its accompanying instructions identify information that might be reviewed by Approval Authorities (EPA and States) in order to assess a POTW's implementation of its approved Pretreatment Program with respect to approved program procedures, as well as state and federal policies and regulations.

http://www.epa.gov/npdes/pubs/final_pca_checklist_and_instructions_%20feb2010.pdf

Guidance for Conducting a Pretreatment Compliance Inspection

(EPA 300R92009)

This document provides guidance to an inspector for each step of conducting a pretreatment compliance inspection, including preparation for the inspection, review of industrial user files, visits to the industrial users, interview and closing conference with the control authorities, and follow-up reporting.

<http://nepis.epa.gov/Exe/ZyPURL.cgi?Dockey=50000629.txt>

Guidance for Reporting and Evaluating POTW Noncompliance with Pretreatment Implementation Requirements

(EPA September 1987)

This document provides guidance on how to determine reportable noncompliance for POTW pretreatment programs and how to evaluate adequate implementation.

<http://www.epa.gov/npdes/pubs/owm0386.pdf>

Guidance Manual for POTW Pretreatment Program Development

(EPA 833/B-83-100)

This manual provides information needed by a local POTW to develop an approvable pretreatment program. It also delineates what data and information the POTWs must include in its submittal package so that the appropriate approval authority can review and approve the program.

<http://www.epa.gov/npdes/pubs/owm0003.pdf>

Introduction to the National Pretreatment Program

(EPA-833-B-11-001)

This guidance manual is intended to explain the basic concepts that shape the National Pretreatment Program, discuss the current status of the program and program guidance, and serve as a tool for pretreatment program implementation.

http://www.epa.gov/npdes/pubs/pretreatment_program_intro_2011.pdf

Pretreatment Compliance Inspection and Audit Manual for Approval Authorities

(EPA 833/B-86-100)

This document provides information for the Approval Authorities on audits and inspections of approved local POTW pretreatment programs.

<http://www.epa.gov/npdes/pubs/owm0238.pdf>

Procedures Manual for Reviewing a POTW Pretreatment Program Submission

(EPA 833/B-83-200)

Guidance to EPA Regions and states on how to review local POTWs pretreatment program submissions.

<http://www.epa.gov/npdes/pubs/owm0024.pdf>

Topic: Pretreatment Standards

Guidance Manual for Implementing Total Toxic Organics (TTO) Pretreatment Standards (EPA September 1985)

Guidance manual for electroplaters on how to implement the total toxic organics categorical pretreatment standard.

<http://www.epa.gov/npdes/pubs/owm0021.pdf>

Guidance Manual for Preventing Interference at POTWs

(EPA 833/B-87-201)

Aids POTWs in identifying interference episodes caused by discharges, tracking, and mitigating of non-domestic wastes.

<http://www.epa.gov/npdes/pubs/owm0194.pdf>

Guidance Manual for the Identification of Hazardous Wastes Delivered to Publicly Owned Treatment Works by Truck, Rail, or Dedicated Pipe

(EPA 833/B-87-100)

Guidance to EPA regions and states on how to identify POTWs that receive hazardous wastes by truck, rail, or dedicated pipe, and what requirements to impose on those POTWs.

<http://www.epa.gov/npdes/pubs/owm0190.pdf>

Guidance Manual for the Use of Production-Based Pretreatment Standards and the Combined Wastestream Formula

(EPA 833/B-85-201)

How to implement categorical standards and the combined wastestream formula of the national pretreatment program.

<http://www.epa.gov/npdes/pubs/owm0260.pdf>

Local Limits Development Guidance

(EPA 833R-04-002A, 2004)

This guidance document was prepared to assist municipalities that own or operate POTWs in developing and implementing local pretreatment programs.

http://www.epa.gov/npdes/pubs/pretreatment_local_limits.pdf

Guidance to Protect POTW Workers from Toxic and Reactive Gases and Vapors

(EPA 812-B-92-001)

EPA issued regulations that require POTWs to identify and control potential exposures to substances in industrial wastewater.

<http://www.epa.gov/npdes/pubs/owm0256.pdf>

Supplemental Manual on the Development and Implementation of Local Discharge Limitations under the Pretreatment Program: Residential and Commercial Toxic Pollutant Loadings and POTW Removal Efficiency Estimation

(EPA 21W-4002)

Part 1 of the document provides background information on pollutant levels in residential wastewater and in wastewaters from commercial sources, and characterizes toxic pollutant discharges from these sources. Residential and commercial source monitoring data summarized in Part 1 are intended to supplement similar data found in the 1987 local limits guidance.

<http://www.epa.gov/npdes/pubs/owm0013.pdf>

New Source Dates for Direct and Indirect Dischargers

(EPA September 2006)

This memorandum summarizes EPA regulatory requirements for determining what sources are new sources. This document includes Appendix A which provides a summary of relevant regulatory criteria for consideration in this determination as well as Appendix B which provides a listing of applicable new source dates used in making new source determinations.

http://www.epa.gov/npdes/pubs/newsource_dates.pdf

Topic: Industry-Specific Guidance

Guidance Manual: Aluminum, Copper, and Nonferrous Metals Forming and Metal Powders Pretreatment Standards

(EPA 800B89001)

The manual provides guidance to POTWs on the implementation and enforcement of the categorical pretreatment standards for the aluminum forming, copper forming, and nonferrous metals forming and metal powders categories. This guidance is based primarily on two sources: Federal Register notices, which contain the official announcements of the categorical standards, and the final development documents for aluminum forming, copper forming, and nonferrous metals forming and metal powders categories, which provide a summary of the technical support for the regulations.

<http://nepis.epa.gov/Exe/ZyPURL.cgi?Dockey=20001NNP.txt>

Guidance Manual for Battery Manufacturing Pretreatment Standards

(EPA August 1987)

Guidance to battery manufacturers on how to comply with national pretreatment requirements.

<http://www.epa.gov/npdes/pubs/owm0193.pdf>

Guidance Manual for Electroplating and Metal Finishing Pretreatment Standard

(EPA-440/1-84/091g)

Guidance to electroplating and metal finishing manufacturers on how to comply with national pretreatment requirements.

<http://www.epa.gov/npdes/pubs/owm0022.pdf>

Guidance Manual for Iron and Steel Manufacturing Pretreatment Standards

(EPA September 1985)

Guidance to iron and steel manufacturers on how to comply with national pretreatment requirements.

<http://www.epa.gov/npdes/pubs/owm0019.pdf>

Guidance Manual for Leather Tanning and Finishing Pretreatment Standards

(EPA 833B86101)

Guidance to leather tanners and finishers on how to comply with pretreatment requirements.

<http://www.epa.gov/npdes/pubs/owm0405.pdf>

Guidance Manual for Pulp, Paper, and Paperboard and Builders' Paper and Board Mills Pretreatment Standards

(EPA July 1984)

Guidance to pulp, paper, and paperboard manufacturers on how to comply with national pretreatment requirements.

<http://www.epa.gov/npdes/pubs/owm0023.pdf>

Permitting Guidance for Semiconductor Manufacturing Facilities

(EPA April 1998)

Guidance document providing an overview of the semiconductor manufacturing process, a discussion of the overlap between Parts 469 and 433, and examining new and emerging manufacturing technologies and how these processes fit into the regulatory framework of Parts 469 and 433.

<http://www.epa.gov/npdes/pubs/owm0145.pdf>

Permit Guidance Document – Pulp, Paper and Paperboard Manufacturing Point Source Category
(EPA 821-B-00-003)

This document provides further permit technical support and guidance for NPDES permit and pretreatment control authorities to issue facility-specific NPDES permits and pretreatment agreements that implement the requirements of the Pulp and Paper Cluster Rule.

http://water.epa.gov/scitech/wastetech/guide/pulppaper/upload/200_05_15_pulppaper_permitguide_guidance.pdf

Permit Guidance Document – Transportation Equipment Cleaning
(EPA 821-R-01-021)

http://water.epa.gov/scitech/wastetech/guide/tec/upload/2009_01_23_guide_tec_tecguid.pdf

Small Entity Compliance Guide – CWT [Centralized Waste Treatment]
(EPA 821-B-01-003)

This Guide, designed for small entities, provides easy-to-read descriptions of the final wastewater regulations that EPA issued in December 2000. The Guide focuses on information that small businesses need to comply with the regulations.

<http://www.epa.gov/waterscience/guide/cwt/CWTguidefacts.html>

Product and Product Group Discharges (OCPSF)
(EPA April 2005)

The Part 414 regulations apply to discharges from the manufacture of *certain* organic chemical products by manufacturers who report data to the U.S. Department of Commerce for their facilities under the specific Federal classification codes that are identified in the Part 414 regulations. This document will aid the reader in determining whether the regulations in Part 414 apply to its discharges. It first explains how a facility determines whether Part 414 or one of the other subchapter N regulations noted above applies to its operation. Next, it provides an extensive list of products that may be subject to the Part 414 requirements.

http://water.epa.gov/scitech/wastetech/guide/ocpsf/upload/2007_10_22_guide_ocpsf_ocpsf-guidance.pdf

Pollution Prevention (P2) Manual for the Pesticide Formulating Packaging and Repackaging Industry
(EPA 821-B-98-017)

This Pollution Prevention (P2) manual discusses the applicability and implementation of effluent limitations guidelines and standards covering the pesticide formulating, packaging, and repackaging (PFPR) industry. The main purpose of the manual is to provide guidance to industry and permittees in the process of complying with this rule, in particular, complying with the P2 Alternative Option.

<http://water.epa.gov/scitech/wastetech/guide/pesticides/p2guide.cfm>

Topic: Pretreatment Program Responsibilities

CERCLA Site Discharges to POTWs Guidance Manual

(EPA 540G90005)

The purpose of the guidance manual is to provide the current regulatory framework and technical and administrative guidance that is necessary for a Feasibility Study (FS) evaluating the remedial alternative of discharging wastes from Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) sites to POTWs. The remedial alternative is to be evaluated and compared to other alternatives developed in the FS. The POTW discharge alternative consists of discharging untreated or pretreated wastes to a POTW for treatment and disposal. Aqueous wastes from CERCLA sites can constitute a majority of waste treated during remedial clean-up efforts. These wastes can include groundwater, leachate, surface runoff, and other aqueous wastes.

http://www.epa.gov/npdes/pubs/pretreatment_cercla_site_discharge.pdf

Control of Slug Loadings to POTWs: Guidance Manual

(EPA 21W-4001)

Guidance on measures to prevent slug loadings from indirect users of sewer systems from impairing treatment by POTWs.

<http://www.epa.gov/npdes/pubs/owm021.pdf>

Guidance for Developing Control Authority Enforcement Response Plans

(EPA September 1989)

This manual provides guidance to Control Authority personnel in developing an enforcement response plan to remedy violations of a local pretreatment program.

<http://www.epa.gov/npdes/pubs/owm0015.pdf>

Guidance Manual for POTWs to Calculate the Economic Benefit of Noncompliance (EPA 833B93007)

The document describes the step-by-step procedures that Control Authorities may use to manually calculate the economic benefit an industrial user is expected to have realized by delaying installation or proper operation of pretreatment equipment. The manual calculation described in this document is based on the theory and methodology used in EPA's BEN computer model.

http://www.epa.gov/npdes/pubs/pretreatment_calculating_economic_benefit.pdf

Industrial User Inspection and Sampling Manual for POTWs

(EPA 831-B-94-001)

This manual is intended to acquaint POTW personnel with the well-established inspection and wastewater sampling procedures which have been used in the NPDES program for many years. The information presented will guide the POTW inspector by providing a framework for conducting inspections and wastewater sampling.

<http://www.epa.gov/npdes/pubs/owm0025.pdf>

Industrial User Permitting Guidance Manual

(EPA September 1989)

Guidance for POTWs on the development and issuance of effective permits to industrial users of their sewer systems.

<http://www.epa.gov/npdes/pubs/owm0017.pdf>

Model Pretreatment Ordinance

(EPA 833B06002)

Guidance on municipal ordinances to implement and enforce a pretreatment program consistent with the Clean Water Act requirements. This document supersedes the June 1992 document of the same name. (Note: A municipality should not adopt this model ordinance verbatim.)

http://www.epa.gov/npdes/pubs/pretreatment_model_suo.pdf

Multijurisdictional Pretreatment Programs: Guidance Manual

(EPA 833-B-94-005)

This guidance document is intended to address these multijurisdictional program implementation and enforcement issues and offer some of the options that municipal entities may employ to satisfy federal and state program requirements.

<http://www.epa.gov/npdes/pubs/owm0248.pdf>

NPDES Compliance Inspection Manual

(EPA July 2004)

The National Pollutant Discharge Elimination System (NPDES) Compliance Inspection Manual provides guidance on NPDES inspections of wastewater treatment plants, storm water industrial and construction sites, pretreatment facilities, biosolids handling and treatment facilities, Concentrated Animal Feeding Operations (CAFOs), municipal wastewater collection systems (combined and separate from storm water) as well as pollution prevention and multimedia concerns. These procedures are fundamental to the NPDES compliance program and provide inspectors with a method for conducting inspections.

<http://www.epa.gov/compliance/resources/publications/monitoring/cwa/inspections/npdesinspect/npdesinspect.pdf>

POTW Sludge Sampling and Analysis Guidance Document

(EPA 833-B-89-100)

This manual was developed to provide guidance to POTW operators, engineers, managers, chemists and permit writers. It was intended to provide guidance in developing and implementing a sampling and analysis program and to gather information on sludge quality and determine compliance with permit conditions. This manual is based on current, state-of-the-art field and laboratory practices and therefore is recommended for all sludge sampling and analysis programs.

<http://www.epa.gov/npdes/pubs/owm012.pdf>

Pretreatment Compliance Monitoring and Enforcement Guidance

(EPA July 1986)

This guidance outlines activities POTWs must undertake to operate their approved pretreatment programs.

<http://www.epa.gov/npdes/pubs/owm0407.pdf>

RCRA Information on Hazardous Wastes for Publicly Owned Treatment Works

(EPA 833/B-85-2025)

This manual provides guidance to municipal personnel in understanding hazardous waste requirements of the Resource Conservation and Recovery Act (RCRA) and the implications of these RCRA requirements for the wastewater treatment plant operated by your municipality, for your local pretreatment program, and for local industries served by the treatment plant.

<http://www.epa.gov/npdes/pubs/owm0002.pdf>