



US EPA Pretreatment Webcast Series

The Pretreatment 101 Series:
Overview of Pretreatment Standards

September 27, 2011



Resources

Pretreatment Program 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
OCPSF	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

Topic: General Links

EPA's Pretreatment website

<http://www.epa.gov/npdes/pretreatment>

EPS's Industrial Regulations website:

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

Topic: Overview of the National Pretreatment Program

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

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

Applicability of Categorical Pretreatment Standards to Industrial Users of Non-Discharging POTWs (June 27, 1985)

http://www.epa.gov/npdes/pubs/41_6-85.txt

Applicability of Categorical Pretreatment Standards to Research and Development (R&D) Facilities (June 26, 1987)

http://www.epa.gov/npdes/pubs/63_6-87.txt

Applicability of Effluent Guidelines and Categorical Pretreatment Standards to Biodiesel Manufacturing (August 11, 2008)

http://www.epa.gov/npdes/pubs/memo_biodieselpretreatment_aug08.pdf

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

Region III Guidance for Setting Local Limits for a Pollutant Where the Domestic Loading Exceeds the Maximum Allowable Headworks Loading

<http://www.epa.gov/npdes/pubs/m3llgu.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>

Occupational Safety and Health Administration (OSHA) Permissible Exposure Limits (PELs)

<http://www.osha.gov/SLTC/pel/>

National Fire Protection Association Frequently Asked Questions

Includes the definitions of flammable liquid and combustible liquid.

<http://www.nfpa.org/FAQ.asp?categoryid=920>

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/newsources_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>

Implementation of Organic Chemicals, Plastics and Synthetic Fibers Pretreatment Standards (August 8, 1988)

Memo to provide additional guidance on the implementation of organic chemicals, plastics and synthetic fibers pretreatment standards

http://www.epa.gov/npdes/pubs/74_8-88.txt

Implementation of the Organic Chemical Pretreatment Standards (December 30, 1987)

Memo on the implementation of the organic chemical pretreatment standards for the Organic Chemicals, Plastics, and Synthetic Fibers (OCPSF) Industry (52 FR 42522).

http://www.epa.gov/npdes/pubs/71_12-87.txt

National Pretreatment Program (40 CFR 403) Fact Sheet: Controlling Fats, Oils, and Grease Discharges from Food Service Establishments (July 1, 2007)

(EPA-833-F-07-007)

This fact sheet describes how states and local POTW's can use the National Pretreatment Program's regulatory tools to eliminate pollutant discharges caused by the discharge of Fats, Oils, and Grease (FOG) from food service establishments (FSE)

http://www.epa.gov/npdes/pubs/pretreatment_foodservice_fs.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

Preliminary Data Summary for Industrial Container and Drum Cleaning Industry (June 2002)

Sections 1-3:

http://water.epa.gov/scitech/wastetech/guide/drum/upload/2008_12_31_guide_drum_icdc.pdf

Section 4 – Attachment A:

http://water.epa.gov/scitech/wastetech/guide/drum/upload/2008_12_31_guide_drum_icdca.pdf

Product and Product Group Discharges Subject to Effluent Limitations and Standards for the Organic Chemicals, Plastics, and Synthetic Fibers Point Source Category (40 CFR 414)

(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://www.epa.gov/npdes/pubs/pretreatment_product_and_product.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>

Baseline Monitoring Report Requirements for Pesticide Formulating, Packaging and Repackaging Facilities (April 3, 1997):

<http://www.epa.gov/npdes/pubs/owm0128.pdf>

Regulatory Determination for the "PreKote" Surface Preparation Process

Memorandum clarifying whether the use of a particular metal surface painting preparation operation, a chemical marketed as "PreKote" and a liquid epoxy primer, conducted on aircraft aluminum surfaces prior to painting is regulated as a core operation under the Metal Finishing Effluent Guidelines (40 CFR 433). (April 1, 2003)

<http://www.epa.gov/npdes/pubs/prekote04012003-signed.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>

Centralized Waste Treatment Frequently Asked Questions #1 (November 2003)

http://water.epa.gov/scitech/wastetech/guide/treatment/upload/2006_12_28_guide_cwt_faqs.pdf

Centralized Waste Treatment Frequently Asked Questions #2 (December 2006)

<http://water.epa.gov/scitech/wastetech/guide/treatment/upload/faqv2.pdf>

Status of Textile Mills Pretreatment Standards

Memorandum stating some of the federal requirements for textile mills, and EPA's expectations of local and state control authorities. (May 31, 1984)

http://www.epa.gov/npdes/pubs/36_5-84.txt

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 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>

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>

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>