

National Pretreatment Program Update: Streamlining Progress and National Update

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Regulations Training
Regional Water Quality Control Board-Colorado River Basin**

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Activities at the “National Level” in the Pretreatment Program

- Streamlining Rule Summary
- Streamlining Rule Implementation
(Guidance Update, Tool Development)
- Industry Sectors / Effluent Guidelines / Analytical Methods Update
- Contaminants of Emerging Concern
(PPCPs, POTW & Sludge Survey, etc.)
- Miscellaneous Topics: Biodiesel, NPEs/APEs, etc.

Pretreatment Streamlining Rule:

Summary of Final Rule Changes

- 13 Changes to 40 CFR 403 that must be adopted by States and POTW Pretreatment Programs

- Other Changes to 40 CFR 403 are optional for States and POTW Pretreatment Programs
 - Fact Sheet 1.0: Pretreatment Streamlining Rule: Summary of Changes Made Under the Streamlining Rule
http://www.epa.gov/npdes/pubs/streamline_factsheet_1.0.pdf

 - Fact Sheet 2.0: Required Changes
http://www.epa.gov/npdes/pubs/pretreatment_streamlining_required_changes.pdf

Pretreatment Streamlining Rule:

Summary of Final Rule Changes

- POTW Pretreatment Programs cannot be less stringent than State regulations
- Revised Local Authorities (ordinances) and Program Procedures must be submitted for approval

Pretreatment Streamlining Rule:

Summary of Final Rule Changes

Issue	Rule Change
Pollutants not present	CAs can grant sampling waivers where CIU demonstrates that a regulated pollutant is neither present nor expected to be present
General control mechanisms	CAs may issue general control mechanisms to groups of SIUs that are substantially similar
BMPs as local limits	1) BMPs may be used in lieu of numeric local limits 2) Control Mechanisms must contain BMPs required by applicable Pretreatment Standards; SIU reports must contain required BMP documentation; SIUs must keep records of required BMP compliance.
Slug control plans	1) POTWs may determine how often they evaluate SIUs for the need for slug control plans or other requirements, but SIUs existing in 2005 must have been evaluated for SCPs by October 14, 2006, and new SIUs must be first evaluated SCPs within 1st year 2) Any requirements must be reflected in control mechanism
Equivalent Conc. Limits	CAs can use existing concentration-based standards instead of converting to flow-based mass limits for CIUs in OCPSF, Petroleum Refining, Pesticide Chemicals
Grab and Composite Sampling	Clarifies and updates application of sampling requirements; Provides flexibility to CA in certain sampling protocols

Pretreatment Streamlining Rule:

Summary of Final Rule Changes (cont'd)

Issue	Rule Change
SNC – Publication	POTW can publish SNC violations in any paper of general circulation
SNC – Applicability	SNC criteria apply only to SIUs and to those IUs that have adversely affected pretreatment program
SNC – Daily Max. or Avge. Limits	Broadens scope of violations covered by chronic, TRC, and other violations
SNC – Late Reports	SNC violation occurs when reports submitted more than 45 days after deadline
SNC – TRC, Rolling Quarters, pH	No changes made to Pre-Streamlining rules
Resampling within 30- days of Violation Detection Awareness	Control Authorities, if performing IU sampling, must perform resampling of IU discharge if IU discharge is in violation, unless IU is required to do the resampling
Removal Credits - Overflows	Retains and updates Pre-Streamlining formula to adjust removal credits by number of hours of sewer overflows per year (Required to be updated if Removal Credits are allowed in your jurisdiction)
Miscellaneous Changes	Updates or corrects provisions re: to signatory requirements, net/gross calculations, requirement to report all monitoring data, report to Control Authority & POTWs if POTW is not Control Authority, and notification of changes

Pretreatment Streamlining Rule:

Summary of Final Rule Changes (cont'd)

Issue	Rule Change
Equivalent Mass Limits	CIUs can request, and Control Authorities have discretion to approve, the conversion of concentration-based categorical standards to equivalent mass limits
CIU Oversight	<p>1) Establishes Non-Significant CIU (NSCIU) category (discharges < 100 gpd)</p> <ul style="list-style-type: none">■ CIU reporting can be reduced to yearly compliance certification■ CA oversight can be reduced to annual evaluation of the CIU's certification <p>2) Establishes "Middle Tier" CIU category (discharges don't exceed (a) the smaller of 5,000 gpd or 0.01 % of POTW design dry weather hydraulic capacity; (b) 0.01 % of POTW design organic treatment capacity; and (c) 0.01 % of the MAHL)</p> <ul style="list-style-type: none">■ CIU reporting can be reduced to once annually■ CA oversight can be reduced to one inspection and sampling event every other year

Pretreatment Streamlining Rule: **Tool Development**

Fact Sheets: http://cfpub.epa.gov/npdes/home.cfm?program_id=3

1. **Summary of Changes**
2. **Required Changes**
3. **Equivalent Mass Limits**
4. **Equivalent Concentration Limits**
5. **New Classifications for CIU**
6. **Sampling/Pollutants-Not-Present**
7. **Best Management Practices (BMPs)**
8. **Slug Control Plans**
9. **Significant Non-Compliance (SNC) – *in review***
10. **General Permits – *in development***

Pretreatment Streamlining Rule: **More Tools in Development**

- **Guidance Manual Updates/Revisions**
 - **Model Sewer Use Ordinance** – *Word and pdf*
 - **Checklist - Model Sewer Use Ordinance Reviews** – *Word and pdf*
 - “Control Authority Pretreatment Audit Checklist and Instructions” – *in review*
 - “Introduction to the National Pretreatment Program” – *in review*
 - “Industrial User Permitting Guidance Manual” – *in review*

http://cfpub.epa.gov/npdes/docs.cfm?document_type_id=1&view=1&program_id=3&sort=date_published

OR: Go to: http://cfpub.epa.gov/npdes/home.cfm?program_id=3

Click on “Publications” (right column); Click on “Policy and Guidance Documents”

Pretreatment Tools:

Other Tools / Guidance in Development

- “New Source Dates for Direct and Indirect Dischargers” –
memorandum dated Sept. 28, 2006
http://www.epa.gov/npdes/pubs/newsource_dates.pdf
- Fact Sheet: Controlling Fats, Oils, and Grease Discharges from Food Service Establishments
EPA-833-F-07-007, July 2007
http://www.epa.gov/npdes/pubs/pretreatment_foodservice_fs.pdf

Industry Sector and Effluent Guidelines:

Final 2008 Effluent Guidelines Program Plan

- Published September 15, 2008: 73 FR 53218-53241
<http://www.epa.gov/fedrgstr/EPA-WATER/2008/September/Day-15/w21484.pdf>
- Presents the 2008 Annual Review of Existing Effluent Guidelines and Pretreatment Standards for all 56 Point Source Categories
- Reviews Pollutant Discharges from the TRI Database
- Provides Status Updates and Findings for the 4 Detailed Studies
 - Coalbed Methane Extraction
 - Steam Electric Power Generating Detailed Study (Interim Study)
 - Coal Mining
 - Health Services Sector:
 - Dental Amalgam Management and Best Practices
 - Unused Pharmaceuticals Mgmt and Best Practices (Interim Study)
- Requests Comments on EPA's Preliminary 2009 Annual Review
- Requests Comment to Identify Sectors and Facilities that Use Water Efficient Practices

Industry Sector and Effluent Guidelines:

Detailed Study: Steam Electric Power Generating

What have we accomplished so far?

- Site visits to 19 coal-fired and 4 nuclear plants
- Wastewater sampling at 5 plants (4 FGD systems; 4 ash ponds)
- Questionnaire sent to 9 companies (30 plants)
- Obtained information from treatment system vendors, Electric Power Research Institute (EPRI), & Utility Water Act Group (UWAG)

What have we learned about FGD wastes?

- **Wastestream characteristics**
 - FGD discharges contain substantial levels of metals and nutrients.
+ Includes bioaccumulative metals: mercury, selenium, arsenic & cadmium.
- **Treatment technologies**
 - ELG limitations (TSS, oil & grease) are inadequate for controlling metals & nitrogen.
 - Identified several candidate BAT/NSPS technologies.
- **Current NPDES permits & industry practices**
 - Most permits lack effluent limits for the pollutants of concern.
 - Widespread reliance on settling ponds and dilution, rather than treatment, to meet WQBELs. This practice continues even for newly-installed FGD systems.

Industry Sector and Effluent Guidelines:

Detailed Study: Health Services (Unused Pharmaceuticals)

■ **What is the Scope of the Study?**

- Looking to highlight good voluntary practices on an industry that may have significant discharges of consequence to the environment
- Focus is primarily on:
 - Unused or leftover and expired pharmaceutical discharges to municipal wastewater treatment plants from hospitals, long-term care facilities, hospice, and veterinarians

■ **What are We Studying?**

- Current industry practices, guidance and regulatory requirements, best management practices (BMPs)
- Source, and pass through or inhibition, associated with these discharges at municipal wastewater treatment plants

■ **Who are our Stakeholders?**

- Industry Groups, States, Other Federal Agencies, POTWs, and Other Local Governments.

Industry Sector and Effluent Guidelines:

Detailed Study: Health Services (Unused Pharmaceuticals)

■ **Current Efforts – Unused Pharmaceuticals**

- Outreach to better understand the issues surrounding pharmaceutical discharges from long-term care facilities, hospitals, and veterinarians
 - Within EPA, Other Federal Agencies, and Industry Groups
- Identifying current management of unused pharmaceuticals at long term care facilities, hospitals, hospice, and veterinarians
- Summarizing federal, local, and regional requirements, guidance, and voluntary initiatives
- Summarizing Best Management Practices (BMPs) at facilities

■ **Schedule:**

- 9/2008: Complete data collection for identifying current industry practices, existing guidance/requirements, and BMPs
- 9/2010: Estimate pollutant loadings, identify possible best practices for controlling pollutant discharges and associated costs, and final report.

Industry Sector and Effluent Guidelines:

Detailed Study: Health Services (Unused Pharmaceuticals)

Preliminary Observations from the HSI Study

- Unused pharmaceutical management is a national interest of concern to state and local pretreatment programs.
- Management of the unused pharmaceuticals at hospitals and long term care facilities is greatly influenced by Federal (CSA, RCRA, HIPPA) and state regulations (flush within 72 hours, stricter RCRA), ease of disposal method, and costs.
- Policies range from flushing leftover medicines to disposal to a reverse distributor for incineration.

Comments on Preliminary 2008 Plan

- “Help is desperately needed for better disposal programs at hospice and home healthcare.” (Nancy Busen, City of Bentonville, AR).
- “No cost effective or efficient system exists for facilities to use to determine which pharmaceuticals are classified as hazardous under RCRA, therefore facilities tend to flush pharm waste to the sewer system.” (Gus Changaris, EXP Pharmaceutical Services Corp)

Interim Report on Unused Pharmaceuticals in the Health Care Industry

- On August 6th, EPA published an “Interim Report” that briefly summarizes what EPA has learned to date from its study of unused pharmaceuticals from health care facilities: <http://epa.gov/waterscience/ppcp/>

Industry Sector and Effluent Guidelines:

Health Services (Unused Pharmaceuticals) -

Data Needs:

- EPA found little publicly available data on the amount of unused pharmaceuticals being disposed into water
- How can you help?
 - Suggest publicly available sources
 - Provide data relevant to your operation
- On August 12th, EPA published the first of two Federal Register notices for the industry information collection request (survey):
 - More survey information at: <http://epa.gov/waterscience/ppcp/>
 - ICR involved two questionnaires, one for medical facilities and one for veterinary facilities (~ 3,500 facilities in total)
 - Solicit information from selected facilities, want to know amounts discharged, costs, and BMPs
 - Comment Period Closes on November 10th. (We welcome your comments on the draft survey and the study!)



Unused Drugs at Nebraska Veterans Home, Grand Island, NE

Industry Sector and Effluent Guidelines:

Detailed Study: Health Services (Dental Amalgam)

Observations from the HSI Study:

- **An ADA-funded study showed that approximately 50% of mercury entering POTWs is from dental offices (6.5 tons).**
- Amalgam separators increase the amount of amalgam that is recycled (amalgam separators are at least 95% efficient).
- Use of amalgam separators generally results in reductions in POTW influent and biosolids mercury concentrations.
- Use of amalgam separators does not always result in reductions in POTW effluent since most amalgam particles are removed with biosolids (29-50% reduction in biosolids has been reported).
- Approximately 11 States and at least 20 local mandatory pretreatment programs require dental facilities to use amalgam separators.



Industry Sector and Effluent Guidelines:

Tool / Guidance Development

Analytical Methods:

- Methods Update Rule – March 12, 2007

<http://www.epa.gov/fedrgstr/EPA-WATER/2007/March/Day-12/w1073.pdf>

Frequent Questions:

<http://www.epa.gov/waterscience/methods/update/questions.html>

- New methods for Biological Pollutants in Wastewater and Sewage Sludge (in 40 CFR Part 136.3) - March 26, 2007

<http://www.epa.gov/fedrgstr/EPA-WATER/2007/March/Day-26/w1455.pdf>

- Solutions to Analytical Chemistry Problems with Clean Water Act Methods – March 2007

<http://www.epa.gov/waterscience/methods/pumpkin.pdf>

- See Also POTW Study (several slides ahead of us!)

Miscellaneous Topics

Pharmaceuticals & Personal Care Products (PPCP) *Strengthening the Science*

POTW Study

- Contaminants of Emerging Concern (CECs) are increasingly being detected in the environment and there is concern that wastewater may be a significant source of these pollutants.

- CECs include:
 - Flame Retardants
 - Hormones
 - Pharmaceuticals
 - Steroids
 - Nonylphenols
 - Pesticides

- EPA is sampling nine POTWs to characterize the occurrence of a variety of pharmaceuticals and other CECs.

- Preliminary Report expected December 2008;
study to be complete 2009

Miscellaneous Topics

Biodiesel Manufacturing - *Hot off the Press!*

- Are Biodiesel Manufacturing operations subject to any ELGs or Pretreatment Standards?

- EPA studied the manufacturing process and the regulatory history of a number of potentially similar industry sectors.
 - Grain Mills (Part 406)
 - OCPSF (Part 414)
 - Soap and Detergent Manufacturing (Part 417)
 - Meat and Poultry Products (Part 432)
 - Centralized Waste Treatment (Part 437)
 - Miscellaneous Foods and Beverages.

- After careful review EPA concluded:
Currently there are no applicable effluent guidelines for this sector. General pretreatment standards and NPDES regulations still apply.

For more information...

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