

---

# Effluent Guidelines Program Update

18 May 2011



**Presented to:**

NACWA Pretreatment & Pollutant  
Prevention Workshop  
St. Louis, MO

**Presented by:**

Carey A. Johnston, P.E.  
U.S. EPA, Office of Water  
Washington, DC



---

Office of Water

# Overview

---

- Update on Effluent Guidelines Program Activities
  - 2010 Effluent Guidelines Program Plan
  - Dental Amalgam Categorical Standards (summary only)
  - Unused Pharmaceutical Guidance (summary only)
  - Updating Clean Water Act Methods: Proposed Rule
  - Effluent Guidelines Website Revision & Release of Beta Version of DMR Pollutant Loading Tool
- Questions/Answers



## 2010 Effluent Guidelines Program Plan

---

- Under section 304(b) the CWA requires EPA to annually review its existing effluent guidelines for direct discharges and revise such guidelines “if appropriate.”
- For point source categories with existing pretreatment standards:
  - EPA must annually review these existing pretreatment standards and revise such guidelines “if appropriate (section 304(g)) or “from time to time, as control technologies, processes, operating methods, or other alternatives change” (section 307(b)).
- For point source categories without existing pretreatment standards:
  - EPA must establish pretreatment standards for pollutants not susceptible to treatment by Publicly Owned Treatment Works (POTWs) or that would interfere with the operation of POTWs (section 307(b)).



## 2010 Effluent Guidelines Program Plan

---

- The 1987 Clean Water Act Amendments added Section 304(m), which re-enforced Congress' intent that effluent guidelines keep pace with pollution prevention and treatment technology.
- Every other year: after proposal and public comment, EPA must publish a two-year plan for the guidelines program.
- EPA provided updates on three studies with its publication of the preliminary 2010 plan (28 December 2009).
  - Coalbed Methane Extraction;
  - Health Care Industry (Unused Pharm./Dental Amalgam); and
  - Ore Mining and Dressing.
- EPA initiated an effluent guidelines rulemaking for dental offices (mercury amalgam) on 27 September 2010 (more on this later).
- EPA submitted the final 2010 Plan to OMB on 24 January 2011. EPA anticipates publication this Spring.



## 2010 Effluent Guidelines Program Plan: Commenters

---

- **Key industry organizations that commented:**  
American Petroleum Institute, American Health Care Association, Independent Petroleum Association of America, NACWA, American Dental Association, AWWA, National Mining Association, Quicksilver Caucus
- **6 environmental groups** (N. Plains Res. Council, Earth Justice, EIP, Powder River Basin Council -- CBM/shale gas extraction)
- **Seven States or state representing organizations**  
(WY, MT, NY, WI, OR, FL, ID)
- **22 Individuals:**  
A "letter-writing campaign" on the issue of the environmental impacts of hydraulic fracturing for CBM. Most of these are from individuals in NY and PA.
- **One Tribal Nation** (Northern Cheyenne)
- **4 local organizations** (Tompkins County SSC, St. Paul MetroCouncil, Bay Area Poll. Prev. Group, Albany Med. College)



# 2010 Effluent Guidelines Program Plan: Commenters

---

## In order of abundance:

- Coal Bed Methane and shale gas extraction (**40** comments)
  - Currently there are no CBM ELGs or national pretreatment standards for shale gas extraction. EPA is considering proposing effluent guidelines rules on CBM and pretreatment standards for shale gas extraction.
- Health Care Industry-- unused pharmaceuticals (**35** comments)
- Ore Mining and Dressing (**2** comments)
- Steam Electric (**2** comments)
- ELGs and 304m Plan process in general (**2** comments)
- Dental Amalgam (**1** comment)
- Other (**2** comments)

<http://water.epa.gov/lawsregs/lawsguidance/cwa/304m/>



# Dental Amalgam Categorical Standards

---

- Dental amalgams, or fillings containing mercury, account for 3.7 tons of mercury discharged from dental offices each year. Approximately 50 percent of mercury entering POTWs comes from dental amalgam waste.
- Dental facilities may employ a variety of controls and management practices to reduce the discharge of mercury amalgam in wastewater.
  - EPA is focusing its analysis on amalgam separators because they are inexpensive, effective (> 98% solids removal), and currently the basis for many existing state and local requirements.
  - EPA is also evaluating a range of BMPs to ensure proper operation of the amalgam separators and management of amalgam waste.
- EPA is focusing particular attention on the burden and costs for implementation, record-keeping, and reporting options for dental offices and POTWs.
- The goal of the rulemaking is to recycle as much mercury waste with best available technology with an effective but efficient compliance program.

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



# Detailed Study: Health Care (Unused Pharmaceuticals)

---

## Goals

- Scope of study includes Hospitals, Long Term Care Facilities (LTCFs), Doctors' Offices, Health Care Clinics, Hospices and Veterinary Facilities.
- Summarizing Federal and State Regulations.
- Identify current practices and best management practices.

## Preliminary Observations

- Unused pharmaceutical management is a concern to state and local pretreatment programs.
- Current policies for managing unused pharmaceuticals include flushing, disposal in municipal trash, steam sterilization with medical waste, incineration, and using a reverse distributor to return unused pharmaceuticals.

## Draft Guidance Document:

- In August 2010 EPA released its draft "Best Management Practices for Unused Pharmaceuticals at Health Care Facilities". EPA received over 90 comments.
- EPA is preparing responses these comments and revising its guidance document.
- EPA expects to publish the revised document later this year.



[http://water.epa.gov/scitech/wastetech/guide/unusedpharms\\_index.cfm](http://water.epa.gov/scitech/wastetech/guide/unusedpharms_index.cfm)



## Updating Clean Water Act Methods: Proposed Rule

---

- EPA proposed updates to its CWA analytic methods on 23 September 2010.
- EPA proposed new and revised methods published by EPA, voluntary consensus organizations (e.g., ASTM) and commercial entities, for use in water quality monitoring programs.
- These changes and additional methods will provide increased flexibility to the regulated community and laboratories.
- Final rule is expected in Fall 2011. For more information see:

[http://water.epa.gov/scitech/methods/cwa/update\\_index.cfm](http://water.epa.gov/scitech/methods/cwa/update_index.cfm)



## Revised Effluent Guidelines Website

---

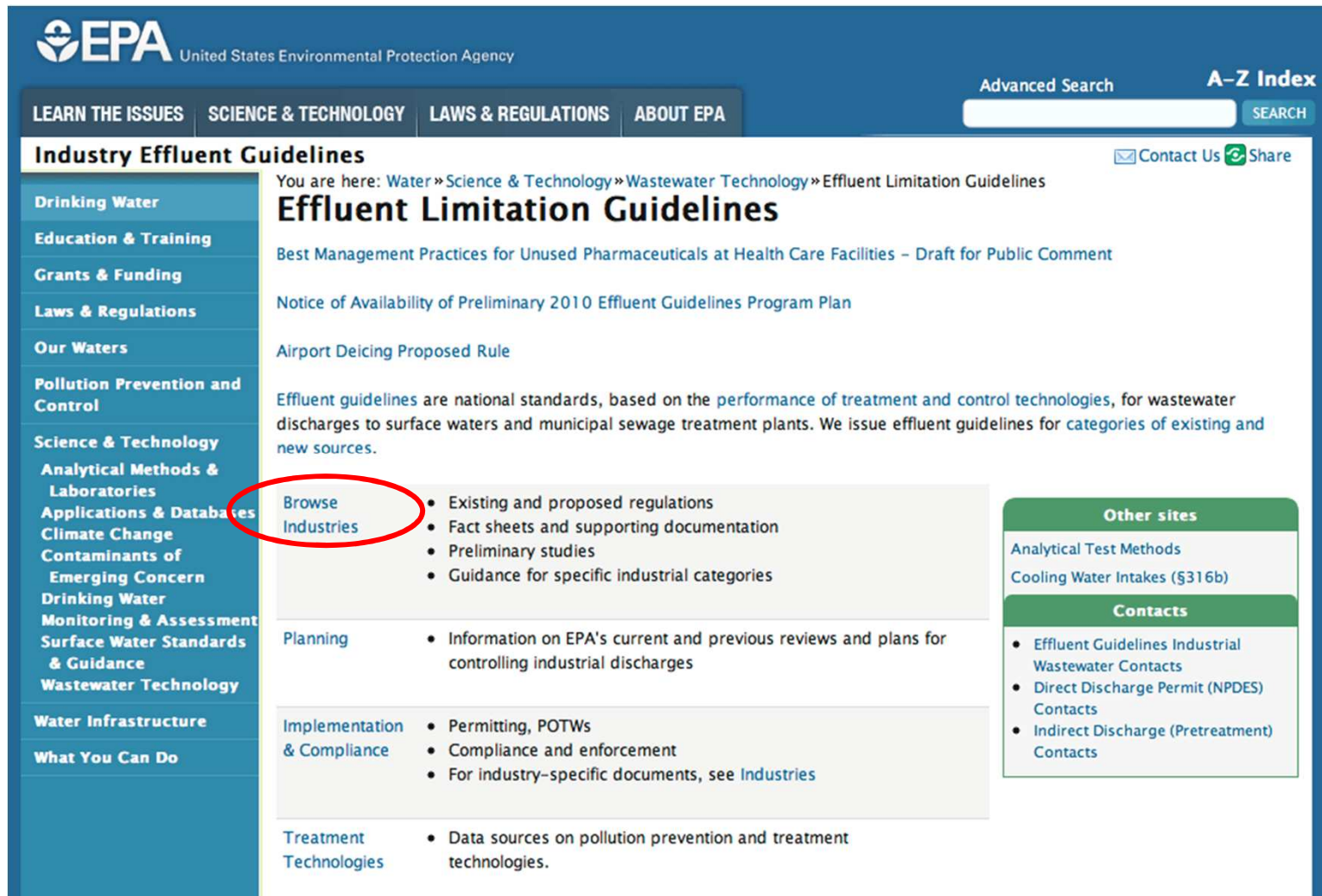
- EPA's Office of Water has overhauled its website to make its content management easier. Please note that many URLs have changed.

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

- We are requesting your help in identifying the next round of industry ELG webpages for updates.
  - Which industry ELG webpages do you want updated?
  - What topics would you like to see more information on to help you with your program?
  - Do you have any suggestions on how to improve the layout or style of the webpages?
- Comments and suggestions are welcome!



# Revised Effluent Guidelines Website



**EPA** United States Environmental Protection Agency

LEARN THE ISSUES SCIENCE & TECHNOLOGY LAWS & REGULATIONS ABOUT EPA

Advanced Search A-Z Index

Industry Effluent Guidelines

You are here: Water » Science & Technology » Wastewater Technology » Effluent Limitation Guidelines

## Effluent Limitation Guidelines

Best Management Practices for Unused Pharmaceuticals at Health Care Facilities – Draft for Public Comment

Notice of Availability of Preliminary 2010 Effluent Guidelines Program Plan

Airport Deicing Proposed Rule

Effluent guidelines are national standards, based on the performance of treatment and control technologies, for wastewater discharges to surface waters and municipal sewage treatment plants. We issue effluent guidelines for categories of existing and new sources.

**Browse Industries**

- Existing and proposed regulations
- Fact sheets and supporting documentation
- Preliminary studies
- Guidance for specific industrial categories

**Planning**

- Information on EPA's current and previous reviews and plans for controlling industrial discharges

**Implementation & Compliance**

- Permitting, POTWs
- Compliance and enforcement
- For industry-specific documents, see [Industries](#)

**Treatment Technologies**

- Data sources on pollution prevention and treatment technologies.

**Other sites**

- Analytical Test Methods
- Cooling Water Intakes (§316b)

**Contacts**

- Effluent Guidelines Industrial Wastewater Contacts
- Direct Discharge Permit (NPDES) Contacts
- Indirect Discharge (Pretreatment) Contacts

**Left Sidebar:**

- Drinking Water
- Education & Training
- Grants & Funding
- Laws & Regulations
- Our Waters
- Pollution Prevention and Control
- Science & Technology
  - Analytical Methods & Laboratories
  - Applications & Databases
  - Climate Change
  - Contaminants of Emerging Concern
  - Drinking Water
  - Monitoring & Assessment
  - Surface Water Standards & Guidance
  - Wastewater Technology
- Water Infrastructure
- What You Can Do



# Revised Effluent Guidelines Website

## Existing Regulations

The table below lists the effluent guidelines promulgated by EPA, sorted alphabetically by industry category. The links in the 'Industry Category' column provide an overview of the regulation and available EPA publications for the category. The links under '40 CFR' go directly to the [Code of Federal Regulations \(CFR\)](#).

For many of the newer guidelines (especially those promulgated after 1995), we provide individual industry pp. with the Federal Register notices of proposed and final rules, supplemental notices, fact sheets and other background information. For older guidelines, individual pp. are being developed. We provide an interim link to an EPA staff contact.

Existing Effluent Guidelines			
Industry Category	40 CFR Part	First Promulgated	Limitations and Standards
<a href="#">Aluminum Forming</a>	467	1983	BPT, BAT, NSPS, PSES, PSNS
<a href="#">Asbestos Manufacturing</a>	427	1974	BPT, BCT, BAT, NSPS
<a href="#">Battery Manufacturing</a>	461	1984	BPT, BAT, NSPS, PSES, PSNS
<a href="#">Canned and Preserved Fruits and Vegetable Processing</a>	407	1974	BPT, BCT, NSPS, PSES, PSNS
<a href="#">Canned and Preserved Seafood (Seafood Processing)</a>	408	1974	BPT, BCT, NSPS

Clicking on industry category leads to industry specific page or contact



# Revised Effluent Guidelines Website

---

## Industry specific page

### Effluent Guidelines: Metal Finishing

The metal finishing effluent guidelines ([40 CFR 433](#)) were promulgated in 1983 and regulate wastewater from wide variety of industries performing various metal finishing operations. EPA estimates that there are approximately 44,000 facilities performing various metal finishing operations that discharge process wastewater directly to surface waters or indirectly to surface waters through POTWs. The metal finishing effluent guidelines are incorporated into NPDES permits for direct dischargers or permits or other control mechanisms for indirect dischargers.



On July 15, 1983, this regulation amended the pretreatment standards for existing source electroplaters (electroplating PSES), [40 CFR Part 413](#).

- [What is Metal Finishing?](#)
- [Facilities Covered](#)
- [Final Rule](#)
- [Guidance and Background Documents](#)
- [Additional Information](#)
- [Proposed Rule](#)

You will need Adobe Reader to view some of the files on this page. See [EPA's PDF page](#) to learn more.

---

### What is Metal Finishing?

Metal finishing is the process of changing the surface of an object, for the purpose of improving its appearance and/or durability. Also, metal finishing is related to [electroplating](#), which is the production of a thin surface coating of the metal upon another by electrodeposition.





# Development of DMR Pollutant Loading Tool

---

- Similar to Toxics Release Inventory (TRI) – this new web tool is for CWA point source discharge monitoring data.
  - Who is discharging What and Where
- Calculates pollutant loads (pounds) from discharge monitoring data.
  - Pollutant Discharge Concentration (mg/L) X Flow (Million Gallons per Day) X 8.34 (conversion factor).
- Significant implications for:
  - Enforcement targeting and compliance assistance (providing better sense of the importance of effluent discharges and permit limit violations)
  - Public access
  - Effective and timely communication on characterizing point source dischargers
  - Better data for watershed modeling and pollution budgets (TMDLs), developing effluent limits, enhancing EPA Regional and State NPDES program quality, and EPA rulemakings (effluent guidelines)
- Data available for 23,720 facilities with discharge monitoring data.



## Development of Web Access for Pollutant Loading Tool (beta) – Released on 2 December 2010 (EPA's 40<sup>th</sup> anniversary)

---

- There are two main audiences for this on-line version of the tool:
  - General Public (Concerned Citizens, Researchers) - Anyone who would like quick access to DMR data based on simple queries (who is discharging what pollutant and where); and
  - Technical Users (NPDES Permit Writers, Watershed Modelers, Regulatory Agencies, Researchers, Enforcement Targeting).
- Goal is to provide greater transparency and utility of DMR data in PCS and ICIS-NPDES.
- EPA solicited public comments on the new web tool and received over thirty comments from a range of stakeholders
  - Most comments were positive with many providing input on potential improvements.
  - EPA conducted a webinar for NACWA in January 2011
- Current schedule is to incorporate as many of these comments into the tool as budget and schedule allows this FY.



# Development of Web Access for Pollutant Loading Tool (beta) – EZ Search – [www.epa.gov/pollutantdischarges](http://www.epa.gov/pollutantdischarges)

## EZ Search

**Instructions.** Change the criteria in any of the boxes below and click the Search button to retrieve DMR pollutant loadings information.

Select Reporting Year:

### 1 Location or Watershed

☒ **Nationwide**

---

☐ **Search by Location**

Zip Code

EPA Region:

OR

State

City

County

---

☐ **Search by Watershed**

Zip Code

12-Digit HUC

[Find 12-digit HUC on a map](#)

Major U.S. Watersheds:

### 2 Pollutant

☒ **All Pollutants**

---

☐ **Specify Pollutant**

Pollutant Name (or partial name)

Chemical Abstract Service Number (CAS)  
(without dashes)

---

☐ **Pollutant Categories**

- ☐ Metals
- ☐ Nitrogen
- ☐ Organic Enrichment
- ☐ Pathogen Indicators
- ☐ Phosphorus
- ☐ Priority Pollutants
- ☐ Solids
- ☐ Temperature

### 3 Industry

☒ **All Point Sources**

---

☐ **Publicly Owned Treatment Works (POTWs) Only**

---

☐ **Industrial Point Sources**

Point Source Category:

2-Digit SIC Code:

OR

Enter a 4-digit SIC Code:

[SIC Code lookup](#)

---

**Industrial Category Rankings**

[View EPA's current industrial category rankings](#)

If you would like more detailed information, try the [Advanced Search](#)





## For More Information...

Further updates on the EPA's effluent guidelines program including electronic copies of EPA supporting analyses and Federal Register notices can be found at:

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

OR

search on: EPA effluent guidelines

Name	Topic Area	Phone	E-mail
Bill Swietlik	Effluent Guidelines Planning	(202) 566 1129	swietlik.william@epa.gov
Damon Highsmith	Dental Amalgam Pretreatment Standards	(202) 566 2504	highsmith.damon@epa.gov
Meghan Hessenauer Samantha Lewis	Unused Pharmaceutical Guidance Document	(202) 566 1040 (202) 566 1058	hessenauer.meghan@epa.gov lewis.samantha@epa.gov
Maria Gomez-Taylor	Updating Clean Water Act Methods	(202) 566 1005	gomez-taylor.maria@epa.gov
Eric Strassler	Effluent Guidelines Website	(202) 566 1026	strassler.eric@epa.gov
Carey Johnston	DMR Pollutant Loading Tool	(202) 566 1014	johnston.carey@epa.gov





Any Questions?