



# National Water Program Update Criteria, Standards and Guidelines

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# Clean Water Act Statutory Framework

## Set Standards

### **Technology-Based Standards**

Minimum national standards for industrial and municipal discharges (ELGs & BPJ)

**&**

### **Water Quality-Based Standards**

EPA develops recommended water quality criteria  
Used by states in adopting water quality standards



## Implement Programs

**State Water Quality Standards**

**Surface Water Assessment & Listing**

**TMDLs**

**NPDES Permits**

**Nonpoint Source Program**

**Trading**



# Science

## Water Quality Criteria – Aquatic Life

- Aquatic life criteria for 56 pollutants (45 numerics)
  - » >50% of the numeric criteria are over 20 years old
  - » Developing process for updating old criteria and associated information in an expedited manner
- Undertaking an update the 1985 Water Quality Guidelines Methodology to address methodological and scientific advances, and contaminants of emerging concern
- Developing common “effects assessment” with Office of Pesticides Programs (OPP) and Office of Research and Development (ORD)
- Criteria under development: carbaryl, chloride, conductivity, selenium, ammonia



# Water Quality Standards

- Three elements:
  - » Criteria
  - » Use designation
  - » Antidegradation policy
- 50 states, 39 Tribes, and 5 Territories under national program
- EPA annually reviews about 50-60 State/Tribal WQS submissions



# Water Quality Standards

- Support Development of Numeric Nutrient Standards by States
- Revised Recreational Water Quality Criteria
  - » Proposed December 2011
  - » Final revised criteria in October 2012 (Consent Decree)
- Water Quality Standards Regulatory Revisions
  - » Will address EPA “determinations,” triennial reviews, anti-degradation, variances, presumptive fishable/swimmable use classifications
  - » Proposal under OMB review







# Partnership and Nutrient Framework

## “Stoner Memo” March 16, 2011

### Partnership with States to Address Phosphorus and Nitrogen Pollution

#### Recommended Elements

- Prioritize watersheds
- Set Load Reduction Goals
- Ensure effective NPDES permits
- Address Nonpoint Sources (Ag, stormwater, septic)
- Accountability and verification
- Reporting on progress
- Continued Progress toward Adopting Numeric Criteria





# Effluent Guidelines Program Plan Process for Annual Review and Biennial Plan







# Effluent Guidelines

## Biennial Plan (CWA §304(m))

- CWA requires EPA to periodically review effluent limitation guidelines and pretreatment standards
  - summarize status and recent activity for ongoing and new rulemakings.
- Final 2010 Plan
  - Federal Register Notice - Oct 26, 2011  
76 FR 66286 – 66304
- Preliminary and Final 2012 Plan under development



# Effluent Guidelines

- **Steam Electric Power Generation**
  - » Since 2009, EPA started a rulemaking (information collection and sampling) to revise the effluent guidelines issued in 1982.
  - » These standards apply to ~1,200 steam electric power plants using nuclear or fossil fuels, such as coal, oil and natural gas.
- **Cooling Water Intake Structures (316(b))**
  - » Standards for existing power plants with large withdrawals of water, known as the 316(b) Phase II rule issued Feb 2004 followed by a final rule for Phase III (June 2006) which applied to all existing manufacturing plants with low flow and to new offshore oil and gas facilities. Litigation followed both actions.
  - » EPA issued a new proposed rule for all existing facilities (both Phase II and III) on March 28, 2011.
  - » NODA under interagency review

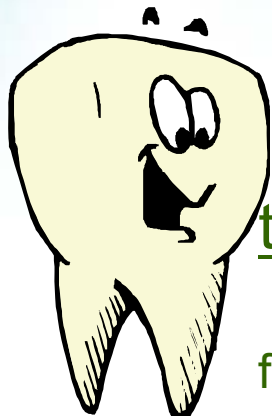


# Effluent Guidelines

- Airport Deicing
  - » August 2009, EPA proposed effluent guidelines to control the runoff of deicing fluids and urea used to deice aircraft and runways.
  - » Final rule signed – April 25, 2012
- Coalbed Methane and Shale Gas Extraction
  - » Produced water and other discharges are estimated at 22 billion gallons annually
  - » EPA's decision on these growing industry sectors was announced in the final 2010 Effluent Guidelines Program



# Dental Amalgam Categorical Standards



## Why?

- Dental amalgams, or fillings containing mercury, account for 3.7 tons of mercury discharged from 120,000 dental offices annually.
- Approximately 50 percent of mercury entering POTWs comes from dental amalgam waste.

## Types of Controls or Treatment Available?

- Amalgam separators - inexpensive, effective (> 98% removals), and currently the basis for many existing state and local requirements.
- Evaluating a range of BMPs to ensure proper operation of the amalgam separators and management of amalgam waste.
- Implementation costs and burdens including record-keeping, and reporting options for dental offices and POTWs.

Goal: 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/>





# Dental Amalgam Categorical Standards

- Detailed Study – Aug.2008
- MOU with NACWA, ADA, EPA – Dec. 2008
- Press Release Announcement  
Sept 27, 2010:
- Proposed Rule –
- Final Rule –
- Webinar broadcast 6/9/2009  
<http://www.epa.gov/Npdes/training>





# Technology Considerations

- An amalgam separator is a solids collector installed in the main vacuum line of the facility
  - » Separators currently on the market remove 98.8% or greater of solids as certified to the ISO 11143 standard
  - » Important operation and maintenance practices
    - Periodic canister changes
    - Visual inspection to ensure proper functioning
  - » Low cost technology: annualized average dental office cost is less than \$750



# Potential Accommodations for Early Adopters

- Accommodate dentists who have already installed separators
  - » Existing separators achieve 95% solids reduction
  - » States have expressed concerns that their dentists could be required to replace separators that were originally installed to comply with existing state requirements



# Potential Considerations to Reduce Categorical Industrial User (CIU) Burden

- Existing General Pretreatment Standards (40 CFR Part 403)
  - Originally envisioned for large industrial users and/or those discharging significant quantities of toxic pollutants
  - Currently 12,000 CIUs
  - Establishing pretreatment standards for dentists would create 120,000 new CIUs
- Potential ways to reduce burden on dentists and POTWs
  - Establish dental industrial user (DIU)
  - Reduce burden to control authority for oversight of DIUs
  - Reduce reporting burden for dentists





# Effluent Guidelines

## 2009 Construction & Development ELG

- Enforceable numeric limits and monitoring requirements on discharges from construction sites
- Petitions filed including two that claimed EPA erred in calculating the turbidity limit
- Seventh Circuit Court of Appeals responded to EPA's Motion (August 12, 2010) and returned the rule to EPA for action
- January 2012 EPA published FR Notice seeking data and information on the performance of treatment technologies to remove turbidity.
- Comment period closed March 5; EPA is reviewing the comments and data and will determine next steps.



# Secondary Treatment Petition

- In 2007 NRDC petitioned EPA to initiate rulemaking to establish POTW effluent limits for nitrogen and phosphorus.
- EPA is working on a report addressing the capability of current secondary treatment technology.
- Some have raised concerns about legal authority to redefine secondary treatment, costs, and energy impacts.
- In March 2012 EPA received a law suit on the failure to respond to the 2007 petition citing unreasonable delay.
- EPA continues to evaluate the petition and recent lawsuit



# Analytical Methods Update Rule

- EPA establishes approved methods for NPDES and other compliance monitoring.
- EPA periodically updates the approved methods to reflect advances in technology and provide more choices.
- Proposed Rule (September 23, 2010) includes:
  - » New and revised wastewater methods
  - » New Alternate Test Procedures
  - » Clarifications and corrections to previously approved methods
  - » Revisions to preservation and holding times
  - » Revisions to method modification provisions
- Final Rule signed April 17, 2012



Questions?

Thanks for making it work at the local level...  
Where water resource protection happens...