National Water Program Update
Criteria, Standards and Guidelines

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Clean Water Act Statutory Framework

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

State Water Quality Standards
Surface Water Assessment & Listing
TMDLs

NPDES Permits
Nonpoint Source Program
Trading
• 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, septics)
- Accountability and versification
- Reporting on progress
- Continued Progress toward Adopting Numeric Criteria
Progress Toward Clean Water Act
Adopted Numeric Nutrient Criteria

Legend
- Statewide numeric nutrient criteria for one or more class of water bodies
- Some site-specific numeric nutrient criteria
- No numeric nutrient criteria

- N for rivers/streams
- P for rivers/streams
- N for lakes/reservoirs
- P for lakes/reservoirs
- N for wetlands
- P for wetlands
- N for estuaries
- P for estuaries

*NJ
Statewide for P
Site-specific for N

**VT
Statewide for N
Site-specific for P

***FL
Statewide for N
Site-specific for P

American Samoa
Puerto Rico
Guam
US Virgin Islands
Commonwealth of Northern Mariana
Effluent Guidelines Program Plan
Process for Annual Review and Biennial Plan

START

Solicit Stakeholder Recommendations on revising existing guidelines and on targeting point source categories for new guidelines

Screening Level Analyses that Review Pollutant Discharges by Point Source Category

Resolve Major Data Quality Questions or Other Issues

Issue Final Plan

Publish Preliminary Plan Identifying Categories for Detailed & Preliminary Study

Decide Which Categories to Identify for Potential Guidelines Revisions or New Guidelines

Conduct Additional Outreach Meetings with Stakeholders

Perform Detailed and Preliminary Investigations

Collect Public Comments
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
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
  
  [Link](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.
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…