NACWA Pretreatment & Pollution Prevention Committee
Proposed Dental Amalgam Separator Rule

• **During the call, please DO NOT put your phone on HOLD.**

• **Please keep your phone on MUTE by:**
  – *using your phone’s mute button, OR*
  – *Pressing *6 to mute, and #6 to unmute*
Rule History

• Received comments of concern about dental amalgam for 2004 and 2006 effluent limitation guidelines (ELG) annual reviews

• Investigated Health Services Industry in 2005 and 2006 annual reviews. Not enough information to make a decision on pass through or interference.

• Preliminary 2006 ELG Plan: Identified Health Services Industry for detailed study, with focus on dental amalgam and unused pharmaceuticals
Rule History

• Final 2008 ELG Plan: Did not identify dental facilities for ELG rulemaking
  – EPA will “continue to examine the percentage of dentists using amalgam separators and their effectiveness at recovering dental amalgam”
• EPA/ADA/NACWA MOU signed Dec. 29, 2008
  – Promote use of ADA’s BMPs
  – Increase dental amalgam recycling
  – Reduce mercury discharges to POTWs
ADA BMPs

- Reduce waste by stocking amalgam capsules of different sizes
- Recycle waste amalgam
- Use chair-side traps, vacuum pump filters, and dental amalgam separators
- Recycle teeth containing amalgam
- Flush lines with cleaners that minimize mercury dissolution
Rule History

• Preliminary Plan (Dec. 28, 2009) – Reaffirmed EPA’s decision to not pursue rulemaking for dental amalgam

• Final Plan (Oct. 26, 2011)

  “Given the human health and aquatic-life impacts associated with mercury, the level of stakeholder interest, and the availability of a technological solution, EPA decided to initiate rulemaking to develop pretreatment standards for dental mercury to more thoroughly and expeditiously address this water pollution problem.”
Rule History

- Sept. 27, 2010 Press Release: EPA will propose rule to protect waterways by reducing mercury from dental offices
- Oct./Nov. 2010: EPA met with stakeholder groups, including NACWA
- EPA created a dental amalgam workgroup
- 2012: EPA tells NACWA that the rule has been drafted, but that it raised concerns with the White House’s Office of Management & Budget (OMB)
Rule History

- May 2014: EPA formally submits proposal to OMB
- August 2014: NACWA meets with OMB
- October 22, 2014: Proposal published in the *Federal Register*
Components of the Rule

• Pretreatment standard: requires dental offices to install separators, follow BMPs, and certify that they have met requirements
• POTWs and other control authorities provide oversight
• General Pretreatment Regulations revised to include Dental Industrial User (DIU) category
• Compliance date: 3 years after effective date of final rule
Pretreatment Standard

• At least 99.0% of total mercury must be removed from amalgam process wastewater, based on best available technology
• This requirement may be met by installing and operating at least one dental amalgam separator certified to achieve a 99% reduction of total mercury according to the 2008 ISO 11143 standard.
• Dental offices with existing separators may keep using them until 10 years from effective date of rule
Best Management Practices

• Scrap amalgam (including from chair-side traps, screens, vacuum pump filters, and dental tools) must not be flushed down the drain

• Chair-side traps must be cleaned at least weekly with non-bleach, non-chlorine cleaners with pH of 6-8.
Dental Office Reports

• One-time baseline report and initial compliance report
• Annual Certification statement to the proper Control Authority
• Dental Offices that do not apply or remove amalgam must certify this and report baseline information
Control Authority Responsibilities

• Provide oversight of DIUs
• DIUs would not be subject to the requirements of SIUs unless they were in significant noncompliance
• Enforcement triggered by certification report being 45 days late
• Compliance must be achieved within 90 days, including inspection and verification by Control Authority, or DIU becomes an SIU
Financial and Environmental Impacts

EPA estimates:

• The annual cost of the proposed rule would be $44 to $49 million
• Control Authorities would spend an average of 17,400 hours and $960,000 each year to review the info submitted by dentists
• 860 lb of mercury would be removed from POTW discharge each year

*This results in a cost of $50,000/lb of mercury removed*
Issues with Enviro/Financial Impacts

• EPA’s use of a 90% mercury removal rate from the 1982 50 POTW study
• Cost and time estimates for POTWs and other Control Authorities to oversee dental offices are too low
• Potential overestimation of number of restorations (EPA used 2005 data, and amalgam use continues to drop)
• Others?
Issues with Components of the Rule

- DIUs becoming SIUs if in noncompliance
- No guarantee that a POTW would not need to develop a pretreatment program to only regulate dental offices
- Resource constraints on state agency level pretreatment staff to conduct oversight and the receipt of reports for communities that do not have a delegated or partially-delegated program.
- Others?
NACWA/ADA 60-Day Comment Extension Request

• Additional time needed to collect information and data from our members to better understand the potential impact

• Proposal needs thoughtful review, especially given the long history of the rule and EPA’s previous decision that a rule was not needed

• Documents still being added to www.regulations.gov

*Other associations encouraged to submit comment extension requests
North Carolina Survey

Martie Groome, City of Greensboro Water Resources Dept.

• Requests 2011, 2012, and 2013 data from POTWs
  – Average flow
  – Min, max, and average mercury in influent, effluent, and biosolids
  – Removal efficiency for mercury
  – WET test information
  – POTW inhibition and/or interference caused by mercury
  – Number of SIUs and dentists in service area
Existing Program Perspective

Tim Potter
Environmental Compliance Superintendent
Central Contra Costa Sanitary District
Martinez, CA
Discussion

• Please DO NOT put your phone on HOLD.
• Please keep your phone on MUTE by:
  – using your phone’s mute button, OR
  – Pressing *6 to mute, and #6 to unmute