


NACWA Pretreatment & Pollution Prevention Committee


Proposed Dental Amalgam Separator Rule

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Rule History

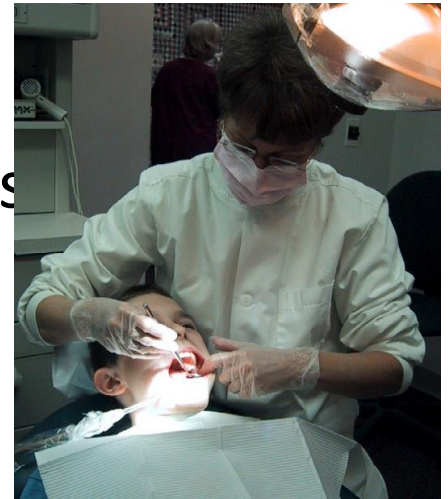
- Received comments of concern about dental amalgam for 2004 and 2006 effluent limitation guidelines (ELG) annual reviews
 - Investigated Health Services Industry in 2005 and 2006 annual reviews. Not enough information to make a decision on pass through or interference.
 - Preliminary 2006 ELG Plan: Identified Health Services Industry for detailed study, with focus on dental amalgam and unused pharmaceuticals
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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
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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)
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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
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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
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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?
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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
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Existing Program Perspective

Tim Potter

Environmental Compliance Superintendent

Central Contra Costa Sanitary District

Martinez, CA



Discussion

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