

Dental Amalgam Rule

Al Garcia

Region 8 Pretreatment Workshop

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Dental Amalgam

- Published on June 14, 2017
 - ...with correction – June 26, 2017
 - ...and corrections, *sigh* - July 5, 2017.
- 40 CFR Part 441
- Effective Date – July 14, 2017

<https://www.epa.gov/eg/dental-effluent-guidelines>

Dental Amalgam

- New Source Date – July 14, 2017
- Applicability
- Provisions:
 - Installation of an ISO 11143-compliant Amalgam Separator (or equivalent device)
- Compliance with 2 BMPs
 - Line cleaners
 - Waste amalgam must be treated



What is Amalgam?

- 49% Hg by weight
- 35% Ag, 9% Sn, 6%
 - 6% Cu, 1% Zn

Applicability

- Dental Facilities, including institutions, temporary offices, clinics, home offices and dental facilities owned by Federal, State or Local governments.

Exemptions

- Oral pathology/radiology/surgery, orthodontics, periodontics, prosthodontics
- Mobile Units
- Dental dischargers that do not discharge amalgam process wastewater to the POTW
- Dentists that transfer waste to a CWT facility

Exemptions (cont)

- Do not place or remove amalgam, except in limited emergency or unplanned, unanticipated circumstances, and
- Certify to the control authority to the effect that they do not and will not use or remove amalgam

Applicability

- Unless otherwise designated by the Control Authority, dental dischargers subject to this part are **not Significant Industrial Users** as defined in 40 CFR part 403, and are **not “Categorical Industrial Users”** or “industrial users subject to categorical pretreatment standards” as those terms and variations are used in 40 CFR part 403, as a result of applicability of this rule.

Best Management Practices

- Successful Sector Control Programs-based on BMPs:
 - Requirement to install Treatment Technology
 - Requirement for Adequate Sizing
 - Requirement to Operate and Maintain Treatment
 - Requirement to Maintain Records

Incorporation of BMPs

Installation of an adequately sized amalgam separator

- Meets ISO 11143 certification standards
- Removal efficiency of at least 95%
- What is an amalgam separator?
 - Solids collector
 - Capture Hg by default
 - Avg Annual Costs -\$800.00

Incorporation of BMPs

Installation of an adequately sized amalgam separator

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Incorporation of BMPs

Operation and Maintenance

- Inspected in accordance with manufacturers operating manual
- Must be repaired within 10 business days, if discovered to be not functional
- Maintained by replacing the cartridge, canister or unit collector of retained solids when the design capacity is reached.

Incorporation of BMPs

Housekeeping BMPs

- Prohibition of oxidizing line cleaners, including but not limited to bleach, chlorine, iodine or peroxide that have a pH lower than 6 or greater than 8.
- Ensure all amalgam process wastewater, including chair side traps, screens, vacuum pump filters, dental tools, cuspidors, or collection devices are treated through the amalgam separator.

Incorporation of BMPs

Recordkeeping

- Maintain for three years:
- Inspection records/logs
- Maintenance of Separator
- Manifest/shipping records of cartridge replacement
- Documentation of repairs or replacement

Existing vs. New Source

- Existing Source:
 - Compliance with Rule by July 14, 2020
 - Provide a one-time compliance report-
October 12, 2020
- New Source
 - Compliance with Rule upon startup
 - Provide a one-time compliance report within
90 days

Existing Source

- Grandfather Clause:
 - Separators installed prior to June 14, 2017 (publication date in FR)
 - Separator meets requirements until it is replaced or for 10 years (June 14, 2027)...whichever is sooner...and
 - If they continue to meet the requirements in the Rule

Dental Amalgam

- One time Compliance Report
 - Contact information
 - Characterize Dental office
 - Amalgam Separator information
 - O + M certifications
 - BMP certifications

<https://www.epa.gov/eg/dental-effluent-guidelines>

Pretreatment Implementation

- Legal authority
- Procedures
- Funding/Resources
- Local Limits
- Enforcement Response Plan
- IU inventory

Pretreatment Implementation

IU inventory

- You need to identify the universe of dental dischargers in your service area.

EPA Region 8

- Coordinated with State ADA offices
- Provided the EPA Region 8 One-time Compliance report
- Received about 25 reports from Dentists in non-approved program
- Phase II
 - IU inventory in 2019
 - Gather list of dentist offices

Questions from Dental Offices

Every report but 1 is incomplete; Outreach to every dental office to ensure interpretation of compliance

- Do I have to complete the report?
(Orthodontists, oral surgeon, etc.)
- If more than one dentist in the practice do we each have to complete the form?
- What about multiple practices in one building?

EPA Contact Info

Al Garcia

EPA Region 8 Pretreatment Coordinator

303.312.6382

garcia.al@epa.gov