

Regulating Dental Offices in Pretreatment Programs

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Curt McCormick
CWA Consulting Services, LLC.

Curt@POTW.com
P.O. Box 620848 303-904-6049
Littleton, CO 80162 www.POTW.com

Why a Dental BMP Program?

- Mercury is toxic.
- Dental amalgam is 50% mercury by weight
 - Single Filling 350 mg
 - Double Filling 500 mg
 - Triple Filling 750 mg
- 50% or more of the mercury at the POTW headworks comes from dental facilities (ADA).
- Methods to reduce the discharge of mercury at dental facilities is well known and economic.
- A dental control program does not take significant resources for a POTW to operate.

States are looking at taking 4 different approaches (with the same outcome):

1. Requiring amalgam separator installations at all dentists.

Maine, New Hampshire, Vermont, Massachusetts, Connecticut, Rhode Island, New York, New Jersey, Oregon, Minnesota, Michigan (EPA Region 5 has notified State that regulation that limits POTW authority is in conflict with Clean Water Act) and New Mexico.

States approaches (continued)

2. Implementing reasonable potential and requiring Mercury control programs.
3. Implementing EPA's Methylmercury Permitting Guidance (final document dated January 2009).
4. Granting of Variances to Mercury Water Quality Standards.

The Great Lakes states and EPA Region 5 have granted many variances to WQS for mercury. The POTW receiving the variance is required to implement a voluntary mercury dental control program. This broad use of variances appears to be limited to EPA Region 5.

POTW Dental Programs

Based upon the CWACS Dental BMP Model Program document and past POTW Pretreatment Newsletters found at www.POTW.com

BMP Programs – Adopt and Make Enforceable

- As with other BMP or sector control programs, the POTW must first adopt legal authority language to allow the program to be enforceable.
- Keep the Ordinance/Rules as clear and simple as possible.
- Do not make dentists SIUs (this would make the POTW issue SIU permits and implement SIU required procedures).
- Training your staff, management and dentists.

Methods to Control Sector

- Most common and recommended methods to implement a dental program:
 - ❖ Self-implementing annual reporting/certification requirements.
 - ❖ Letter of Requirements
 - ❖ Non-SIU permit (a BMP permit).

Always monitor POTW influent to characterize mercury reductions and to evaluate effectiveness.

WATCH OUT: EPA WANTS TO MAKE THEM CATEGORICAL INDUSTRIAL USERS AND TELL YOU NOT TO WORRY, IT IS ALL GOOD!!!!!!

Outline of a Dental BMP Program

1. Ordinance/Rules containing required BMPs and Enforcement Authority (Sector Control Program).
2. Commercial User Survey form.
3. Method to require dentist to do something (e.g. letter of requirements, non-SIU permit, Sector Control Discharge Authorization, self-implementing).
4. Annual Certification form for Dentist with example log forms for weekly visual inspections.
5. Inspection/Site Visit form.

A few Highlights of the EPA Proposed Dental Category

40 CFR Part 441

**Taken from CWACS Dental Mercury BMP document at
www.POTW.com**

40 CFR Part 441

- EPA wants to propose this new Categorical Standard.
- It has not gone to the Office of Management and Budget (OMB) as of today for a review.
- OMB review is required before EPA can propose it in the Federal Register for comment.
- EPA does not want its regulatory partners at the local level to review this document and is not communicating on its intentions (not much transparency here).

40 CFR Part 441

- The impact to local and state pretreatment program resources has not be evaluated or included as a cost in the draft regulation. EPA has only focused on cost to dentists.
- This regulation will require that POTW and state programs treat dentists as Significant Industrial Users unless the state and then the POTW make changes in their regulations.

40 CFR Part 441

- EPA is proposing to add >122,000 new Categorical Users without regard for resource implications to POTWs and states.

POTWs will have to track, inspect and review DIUs to insure that they are in full compliance. If not, the DIUs become SIUs requiring permits and other SIU requirements (this is on-going). If the DIU becomes a SIU before the annual periodic compliance report, EPA has not specified that the DIU must notify the POTW.

40 CFR Part 441

- The Categorical Standard will have Pretreatment Standards for Existing Sources (PSES) and Pretreatment Standards for New Sources (PSNS).
- Existing Sources have 3 years to comply and New Sources have to be in compliance upon Discharge.

Nothing like putting this off longer!

40 CFR Part 441 - Implementation

- A Dental Discharger can be classified as a Dental Industrial User (DIU) if the Discharger meets certain reporting requirements.
- A DIU has less reporting requirements than other Categorical Industrial Users.
- If a DIU does not comply with the Categorical Standard, the DIU will be immediately classified as a SIU and required to be permitted by the POTW.

Note: EPA requires DIUs to comply with 40 CFR Part 403, so if the user is causing or contributing to Pass Through or Interference, they must be treated as SIUs. This means if the POTW exceeds the Water Quality Standard for Mercury.

40 CFR Part 441

- Requires removal of at least 98.8% of total mercury from amalgam process wastewater (this shows that EPA does not understand that solids are what is removed by amalgam separators). This confusion is throughout the draft regulation.

Note: Does this require that dischargers make a demonstration of 98.8% removal for mercury since amalgam separators are for solids removal?

40 CFR Part 441

- EPA believes that once per month inspection of a treatment system by a dental facility is adequate to identify leaks, bypassing, accumulation of waste, etc. (EPA seems to be compromising program adequacy here).

This is likely a concession to the ADA rather than requiring the dental facility to have adequate (weekly?) visual checks of its treatment system.

This Approach

- Ignores the historic, existing “reasonable potential” and Methylmercury permitting approach that says if a POTW as a problem, it must control the pollutant.

States use this process to require identification of sources and reductions. EPA has failed require this to be implemented and is wanting a new Federal program to add another level of complexity to regulate Industrial Users.

Contact Information

Curt McCormick
CWA Consulting Services, LLC.

Curt@POTW.com

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