



Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection

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BACKGROUND DOCUMENT

ON PROPOSED AMENDMENTS TO

310 CMR 73.00: *Amalgam Wastewater and Recycling Regulations for Dental Facilities*

[Date]

REGULATORY AUTHORITY:

M.G.L. c. 21, §§ 26 through 53, c. 21C, §§ 4 and 6, c.111 § 150A and c. 21A, §§ 2 and 8.

I. SUMMARY

The Massachusetts Department of Environmental Protection (MassDEP) is proposing amendments to the Environmental Results Program dental regulations at 310 CMR 73.00: *Amalgam Wastewater and Recycling for Dental Facilities* that would exempt dental facilities that certify annually or biennially to a local Publicly Owned Treatment Works (POTW) that has a pretreatment program approved by the U.S. Environmental Protection Agency (EPA), thereby eliminating duplicative certifications and fees on dental facilities.

II. BACKGROUND

Some dentists use mercury amalgam in dental fillings or produce waste mercury amalgam materials when conducting dental procedures on patients with mercury amalgam fillings. When mercury amalgam is discharged with wastewater, it can end up in sewage sludge, which is either burned in an incinerator or applied to land as a soil amendment. In both cases, precipitation can wash this mercury waste into lakes, ponds, and streams, leading to contamination and bioaccumulation in aquatic organisms. People are exposed to mercury primarily through consumption of contaminated fish. Mercury is a toxic metal that affects the nervous system, even at low levels of exposure. Massachusetts public health officials have advised people to limit their consumption of certain types of fish caught in state waterbodies that typically have high concentrations of mercury, with particular cautions for pregnant women, nursing mothers, women of child-bearing age, and young children. Children and fetuses are particularly vulnerable to mercury because it can damage their developing brains.

Massachusetts dentists using mercury amalgam became subject to 310 CMR 73.00 starting in 2006, at which time there were no federal regulations governing recycling and disposal of mercury contained in amalgam filling material from dental offices. Since that time, MassDEP has worked with dentists to decrease the amount of mercury amalgam released to the environment and increase the amount of mercury recycled.

In 2017, EPA promulgated pretreatment standards for reducing mercury discharges from dental operations to Publicly Owned Treatment Works (POTWs). This regulation, codified at 40 CFR 441: *Dental Office Point Source Category*, requires dental facilities to submit a one-time compliance report to an EPA approved control authority, which may be a local POTW, if the POTW is approved by EPA to administer the pretreatment program. Pursuant to 40 CFR 441, some POTWs have promulgated dental amalgam pretreatment standards for reducing mercury discharges from dental facilities and are required to certify under a program similar to MassDEP's program. Additional POTWs may also promulgate dental amalgam pretreatment standards in the future. As a result, some dental facilities that are currently required to file certifications with MassDEP pursuant to 310 CMR 73:00 also have to pay a fee and certify a local POTW on an annual or biennial basis. This would result in duplicative regulation by MassDEP and the POTWs.

The proposed amendment to 310 CMR 73.00 eliminates the duplicative certification and fee requirements by exempting from 310 CMR 73:00 those dental facilities that certify annually or biennially to a local POTW approved by EPA. Other proposed amendments to 310 CMR 73:00 would make the regulation more consistent with 40 CFR 441 and provide clarity to the regulated community. These revisions simplify program compliance for regulated dental facilities, and

improve efficiency of MassDEP implementation and enforcement, while maintaining oversight and standards for disposal of mercury amalgam.

In addition, EPA's regulation established a technical requirement that is different from MassDEP's regulatory requirements for acceptable pH ranges for drain and vacuum line cleaners.

III. DESCRIPTION OF PROPOSED AMENDMENTS

The proposed amendments:

- Add a definition in 310 CMR 73.02 of Publicly Owned Treatment Works;
- Add an exemption in 310 CMR 73.03(c) for dental facilities that certify to a POTW on an annual or biennial basis pursuant to the receiving POTW's regulations and 40 CFR 441: Dental Office Point Source Category;
- Change the pH range of acceptable drain and vacuum line cleaners from 6.5 – 9.0, to 6.5 to 8.0 to align with EPA's regulations
- Change the recertification deadline from March 30th to March 31th to align with dental license renewal dates;
- Make other minor revisions to add clarity to the regulations.

IV. IMPACTS OF PROPOSED AMENDMENTS

Economic Impacts

The proposed amendments will positively impact some regulated dental facilities by removing duplicative certification and fee requirements for dental facilities that discharge mercury amalgam wastewater to an EPA authorized POTW. MassDEP estimates that approximately 1,200 dental facilities out of 2,400 will no longer be subject to MassDEP's regulation. Dental facilities not regulated by an EPA authorized POTW will not be affected and will continue to certify and pay a fee to MassDEP.

Impacts on Massachusetts Municipalities

Pursuant to Executive Order 145, state agencies must assess the fiscal impact of new regulations on the Commonwealth's municipalities. The proposed amendments to 310 CMR 73.00 will not have a fiscal impact on any municipality because municipalities are not providing services to dispose or recycle dental amalgam and are therefore not subject to this regulation.

Massachusetts Environmental Policy Act (MEPA)

Pursuant to 301 CMR 11.03(12) (Massachusetts Environmental Policy Act Regulations), MassDEP is not required to file an Environmental Notification Form (ENF) regarding the proposed amendments. The proposed amendments do not reduce standards for environmental protection, nor do they reduce opportunities for public participation in review processes or public access to information generated or provided in accordance with the regulations.

V. PUBLIC HEARING AND COMMENT

MassDEP will hold public hearings on the proposed amendments in accordance with M.G.L c. 30A. MassDEP will accept written comments for 10 days after the public hearing. The public hearing notice and proposed amendments are available on MassDEP's website at: <http://www.mass.gov/eea/agencies/massdep/service/regulations/proposed-and-recently-promulgated-regulations.html> . For further information, please contact Veronica WanchoO'Donnell at 617-574-6859 or via email at veronica.odonnell@mass.gov.