

Fact Sheet: Effluent Limitations Guidelines and Standards for Dental Offices

Summary

EPA finalized technology-based pretreatment standards under the Clean Water Act to reduce discharges of mercury and other metals from dental offices into municipal sewage treatment plants known as publically owned treatment works (POTWs). Dental offices, which discharge mercury and other metals present in amalgam used for fillings, are the main source of mercury discharges to POTWs; these metals are subsequently released to the environment. The rule requires dental offices to comply with requirements based on practices recommended by the American Dental Association, including the use of amalgam separators. Once captured by the separator, dental amalgam can be recycled. Removing mercury when it is concentrated and easy to manage, such as through low-cost amalgam separators at dental offices (average annual cost per dental office is about \$800), is a common sense solution to managing mercury that would otherwise be released to air, land, and water.

In addition, this rule minimizes dental office reporting requirements and the administrative burden to federal, state, and local regulatory authorities responsible for oversight of the new requirements.

EPA expects compliance with this final rule will reduce the discharge of metals to POTWs by at least 10.2 tons per year, about half of which is mercury.

EPA projects the total annual cost of the final rule will be \$59 - \$61 million.

Background

Why are standards needed for the dental industry?

When dentists remove old amalgam fillings from cavities, or when dentists place a new filling, mercury in the form of dental amalgam enters the wastewater of the dental office. Mercury from waste amalgam can make its way into the environment from the POTW through the incineration, landfilling, or land application of sludge or through surface water discharge. Mercury is a potent neurotoxin that can have a wide range of health effects, and mercury pollution is a global concern. Once released into the aquatic environment, certain bacteria can change mercury into methylmercury, a highly toxic form of mercury that bioaccumulates in fish and shellfish. Eating fish and shellfish is the main source of people's exposure to methylmercury in the U.S.

Who is affected by this regulation?

This rule applies to offices, including large institutions such as dental schools and clinics, where dentistry is practiced that discharge to a POTW. It does not apply to mobile units or offices where the practice of dentistry consists only of the following dental specialties: oral pathology, oral and maxillofacial radiology, oral and maxillofacial surgery, orthodontics, periodontics, or prosthodontics.

Control Authorities (which are often the state or POTW) are responsible for oversight associated with this rule.

What does this rule require of dental offices?

Dental offices that discharge to POTWs that do not place or remove amalgam need only submit a one-time certification.

Dental offices that place or remove amalgam must operate and maintain an amalgam separator and must not discharge scrap amalgam or use certain kinds of line cleaners. They must also submit a One-Time Compliance Report.

Where can I find more information?

You can access the Federal Register notice on EPA's Effluent Guidelines website at: www.epa.gov/eg/dental-effluent-guidelines. In addition, the final rule will be available at regulations.gov under Docket ID: EPA-HQ-OW-2014-0693.

You may also email Karen Milam at milam.karen@epa.gov.
