

Effluent Limitation Guidelines and Standards for the Dental Category

Summary

EPA is proposing technology-based pretreatment standards under the Clean Water Act for discharges of pollutants into publicly owned treatment works (POTWs) from existing and new dental practices that involve the discharge of dental amalgam. The proposal would require dental practices to comply with requirements for controlling the discharge of dental amalgam pollutants into POTWs based on the best available technology or best available control technology and Best Management Practices.

EPA is also proposing to amend selected parts of the General Pretreatment Regulations (40 CFR Part 403) to streamline oversight requirements for the dental sector. EPA expects compliance with this proposed rule would reduce the discharge of metals to POTWs by at least 8.8 tons per year, half of which is mercury. EPA estimates the annual cost of the proposed rule would be \$44 to \$49 million.

Why is EPA proposing this rule?

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. Studies have shown that dental offices are the largest source of mercury discharges to POTWs, contributing about half of the mercury received by POTWs. Mercury is a persistent and bioaccumulative pollutant with well-documented effects on human health. When in water, certain microorganisms can change mercury into methylmercury, a highly toxic form that builds up in fish, shellfish and animals that eat fish. Fish and shellfish are the main sources of methylmercury exposure to humans.

The proposed rule would require all affected dentists to control mercury discharges to POTWs by reducing their discharge of dental

amalgam to a level achievable through the use of the best available technology (amalgam separators) and the use of Best Management Practices. In order to simplify compliance with, and enforcement of the numeric reduction requirements, the proposed rule would allow dentists to demonstrate compliance by installing, operating and maintaining amalgam separators. The proposal also includes a provision by which dental offices that have already installed amalgam separators that do not meet the proposed amalgam removal efficiency would still be considered in compliance with the rule for the life of the amalgam separator. Removing concentrated sources of mercury to POTWs opportunistically, such as through low-cost amalgam separators at dental offices (average annual cost per dental office: \$700), is a common sense solution to managing mercury that would otherwise be released to air, land, and water.

Proposed Pretreatment Standards for the Dental Category Include:

- Technology-based pretreatment standards for discharges of pollutants into POTWs from existing and new dental practices that involve the discharge of dental amalgam
- Dental offices covered by this proposed rule could control mercury discharges to POTWs by reducing their discharge of dental amalgam to a level achievable through the use of the best available technology (amalgam separators) and the use of Best Management Practices.
- Amendments to selected parts of the General Pretreatment Regulations (40 CFR Part 403) to streamline oversight requirements for the dental sector and to eliminate discharge monitoring for the dentists.

For More Information

You can view the Federal Register Notice at <http://www.epa.gov/guide/dental>. In addition, the proposed rule will be available at <http://www.regulations.gov> under Docket ID: EPA-HQ-OW-2014-0693. Upon Federal Register publication, EPA will accept public comments on this proposed rule for 60 days.

You may also contact Damon Highsmith at Highsmith.Damon@epa.gov.