



Key facts about dental clinics and mercury

- Dental clinics are the main source of mercury discharges to Publicly Owned Treatment Works (POTWs)
- EPA estimates about 103,000 dental offices use or remove amalgam in the United States; almost all of these send their wastewater to POTWs.
- Dentists discharge approximately 5.1 tons of mercury each year to POTWs; most of this mercury is subsequently released to the environment.

Mercury-containing amalgam wastes may find their way into the environment when new fillings are placed or old mercury-containing fillings are drilled out and waste amalgam materials that are flushed into chair-side drains enter the wastewater stream. Mercury entering POTWs frequently partitions into the sludge, the solid material that remains after wastewater is treated. Mercury from waste amalgam therefore can make its way into the environment from the POTW through the incineration, landfilling, or land application of sludge or through surface water discharge

Compliance

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. The effective date of the rule is July 14, 2017. The compliance date for new dental offices ("new sources") is the effective date of the rule. Existing dental offices must comply by **July 14, 2020**.

- Existing amalgam separators may be operated for their lifetime or ten years, whichever comes first.
- When a separator needs replacement, or the ten-year period has ended, and the separator does not meet the standard of the final rule, a dental office must replace it with one that meets the requirements of the final rule.
- Final Rule <https://www.federalregister.gov/documents/2017/06/14/2017-12338/effluent-limitations-guidelines-and-standards-for-the-dental-category>
- Dental Effluent Guidelines - <https://www.epa.gov/eg/dental-effluent-guidelines>
- American Dental Association (ADA) dental amalgam compliance - https://success.ada.org/en/regulatory-legal/amalgam?utm_medium=VanityUrl
- FAQs – Dental Office Category Rule - https://www.epa.gov/sites/production/files/2017-12/documents/dental-office-category_frequent-questions_nov-2017.pdf

Amalgam Waste Do's and Don'ts

Dental best management practices for amalgam waste handling and disposal⁴ include use of chair-side traps, use of amalgam separators, regular inspection and cleaning of traps, and use of appropriate commercial waste service to recycle and/or dispose of collected amalgam (Table). Compliance with the EPA final rule on amalgam separators is required.



Table. Best Management Practices for Amalgam Waste⁴

Do	Don't
<i>Do</i> use precapsulated alloys and stock a variety of capsule sizes	<i>Don't</i> use bulk mercury
<i>Do</i> recycle used disposable amalgam capsules	<i>Don't</i> put used disposable amalgam capsules in biohazard containers
<i>Do</i> salvage, store, and recycle non-contact (scrap) amalgam	<i>Don't</i> put non-contact amalgam waste in biohazard containers, infectious waste containers (red bags), or regular garbage
<i>Do</i> salvage (contact) amalgam pieces from restorations after removal and recycle their contents	<i>Don't</i> put contact amalgam waste in biohazard containers, infectious waste containers (red bags), or regular garbage
<i>Do</i> use chair-side traps, vacuum pump filters, and amalgam separators to retain amalgam and recycle their contents	<i>Don't</i> rinse devices containing amalgam over drains or sinks
<i>Do</i> recycle teeth that contain amalgam restorations (Note: Ask your recycler whether extracted teeth with amalgam restorations require disinfection)	<i>Don't</i> dispose of extracted teeth that contain amalgam restorations in biohazard containers, infectious waste containers (red bags), sharps containers, or regular garbage
<i>Do</i> manage amalgam waste through recycling as much as possible	<i>Don't</i> flush amalgam waste down the drain or toilet
<i>Do</i> use line cleaners that minimize dissolution of amalgam	<i>Don't</i> use bleach or chlorine-containing cleaners to flush wastewater lines