



MANAGING DENTAL WASTE TO PREVENT MERCURY POLLUTION

Federal Dental Amalgam Rule

This federal rule is consistent with the state-level Dental Amalgam Rule established by the Washington Department of Ecology with support from the Washington State Dental Association. The rule is designed to prevent mercury, in the form of dental amalgam, from entering wastewater, and ultimately being released into the environment. In the aquatic environment, mercury bioaccumulates in fish and shellfish and is a potent neurotoxin that can cause a wide range of health issues.

The official name of the rule is Effluent Limitations Guidelines and Standards for the Dental Category, but it is referred to here as the Dental Amalgam Rule. This rule requires dental offices that place or remove dental amalgam to:

- Operate and maintain a dental amalgam separator
- Submit a one-time Compliance Report to LOTT
- Follow Best Management Practices
- Maintain documents

All dental offices must remove dental amalgam solids from all amalgam wastewater by using an approved dental amalgam separator or equivalent before discharging wastewater to the Lacey, Olympia, or Tumwater sewer system.

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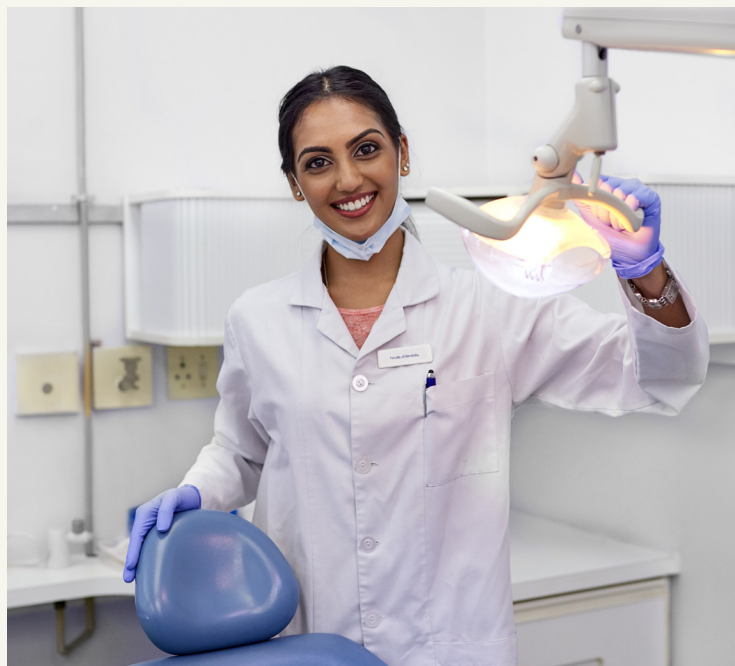
**DOWNLOAD ONE-TIME
COMPLIANCE REPORT FORM**

REPORTING, EXEMPT STATUS & DOCUMENTATION

Reporting

All dental offices must file a one-time Compliance Report according to the following:

- If your practice does not yet have an amalgam separator, you must install a compliant separator and file the Compliance Report.
- New practices must have an amalgam separator installed immediately and must file the Compliance Report within 90 days following the opening of the practice and discharging to the LOTT sewer system.
- If your practice does not place or remove amalgam, you must file the Compliance Report certifying your qualification for exempt status. Once you have done so, your practice is exempt from further requirement.
- Dental offices under new ownership must complete a new Compliance Report within 90 days of the transfer of ownership.
- All practices must keep a copy of the completed Compliance Report on record for the lifetime of dental practice ownership.



Exempt Status

Dentists that exclusively practice the following are exempt from requirements of the Dental Amalgam Rule:

- Oral pathology
- Oral and maxillofacial radiology
- Oral and maxillofacial surgery
- Orthodontics, periodontics, or prosthodontics
- Wastewater discharges from a mobile unit operated by a dental discharger
- Dental dischargers that do not discharge any amalgam process wastewater to the sewer system

Dental dischargers that do not place dental amalgam and do not remove amalgam except in limited emergency or unplanned, unanticipated circumstances* are also exempt from the Dental Amalgam Rule provided that they certify their exempt status in a one-time Compliance Report.

Documentation

Dental offices (or their representative) must maintain and make the following documents available for inspection in either paper or electronic form, for a minimum of three years:

1. Documentation of each inspection of the amalgam separator(s) including:
 - Date
 - Person(s) conducting the inspection
 - Results of each inspection of the amalgam separator(s)
 - Summary of follow-up actions, if needed
2. Documentation of replacement of the amalgam retaining container or equivalent.
3. Documentation of all dates that collected dental amalgam is picked up or shipped for proper disposal in accordance with 40 CFR 261.5(g)(3), and the name of the permitted treatment, storage, or disposal facility receiving the waste amalgam containers.
4. Documentation of any repair or replacement of an amalgam separator or equivalent device, including the date, person(s) making the repair or replacement, and a description of the repair or replacement (including make and model).

* Limited emergency or unplanned, unanticipated circumstances are defined by the EPA as dental offices that remove amalgam at a frequency less than 5% of its procedures. On average, this percent approximates to nine removals per office per year. A dental office that stocks amalgam capsules clearly intends to place amalgam and does not qualify for exemption.

AMALGAM STANDARDS & MAINTENANCE REQUIREMENTS

Standards

Dental offices must remove dental amalgam solids from their wastewater using an approved dental amalgam separator or equivalent before discharging wastewater to the LOTT sewer system.

An approved dental amalgam separator must meet one of these standards:

- American National Standards Institute (ANSI) American National Standard/American Dental Association (ADA) Specification 108 for Amalgam Separators (2009) with Technical Addendum (2011)
- International Organization for Standardization (ISO) 11143 Standard (2008) or subsequent versions requiring amalgam separators to achieve at least a 95% removal efficiency

Dental offices may install equivalent amalgam removal devices. These device(s) must have:

- A removal efficiency of at least 95% of the mass of solids from all amalgam process wastewater.
- Size to accommodate the maximum discharge rate of amalgam process wastewater.
- Manufacturer's manual providing instructions for use and maintenance.

Chair-side traps do not fulfill the requirements for amalgam separators. A chair-side trap uses a filter to retain "coarse" dental amalgam. A significant portion of dental amalgam passes through the filter. The amalgam separator is a larger tank where the remaining dental amalgam settles and is removed.

Maintenance Requirements

Amalgam separators must be inspected and maintained in accordance with the manufacturer's operation manual.

- Confirm that the amalgam process wastewater is flowing through the amalgam-separating portion of the device.
- If the device is not functioning properly, it must be repaired consistent with manufacturer instructions or replaced with an approved unit.
- The amalgam retaining unit(s) of the device(s) must be replaced as specified in the manufacturer's operating manual, or when the collecting container has reached the maximum filling level.
- Clean according to Best Management Practices.
- Replace or repair a malfunctioning amalgam separator within 10 business days of discovering a problem.
- Maintain, and make available for inspection, the manufacturer's manual for the current devices in either a physical or electronic format.



BEST PRACTICES, INSPECTIONS & MORE INFORMATION

Best Management Practices

Amalgam must not be discharged to the LOTT sewer system. This includes (but is not limited to) dental amalgam from chair-side traps, screens, vacuum pump filters, dental tools, cuspidors, and collection devices. Best Management Practices must be followed:

1. File a one-time Compliance Report with LOTT. Keep the report on record for the lifetime of dental practice ownership.
2. Monitor the amalgam separator according to manufacturers recommendations.
3. Maintain the separator by replacing amalgam retaining cartridge, separator canister, or units, as directed by the manufacturer or annually, whichever comes first.
4. Do not use oxidizing or acidic cleaners such as bleach, chlorine, iodine, or peroxide when cleaning lines that discharge to the separator or device.
5. The use of cleaners with a pH less than 6.0 standard units, or greater than 8.0 standard units, is prohibited in lines that discharge to the separator or device.
6. Amalgam wastes may not be disposed in the sewer system under any circumstances and they may not be discarded in the trash. They must be disposed of according to Washington Department of Ecology's hazardous waste regulations, which may require use of an authorized hazardous waste service provider to pick up and recycle your amalgam waste.

LOTT Facility Inspections

LOTT will inspect dental offices to verify compliance with the state and federal amalgam rules. Inspections will focus on amalgam separator maintenance, disposal practices, and record keeping.

While LOTT has the legal authority to sample business wastewater, LOTT has the option of enforcing Best Management Practices in lieu of sampling. Sampling may not be necessary if your dental office is following Best Management Practices, including having a properly maintained amalgam separator in place and meeting all reporting requirements.

Regulations and Guidance Links

Washington Department of Ecology

[Manage Dental Amalgam Waste](#)

Environmental Protection Agency

[EPA 40 CFR Part 441](#)

[Effluent Limitations Guidelines and Standards for Dental Offices](#)

American Dental Association (ADA)
Business Resources

[Amalgam Recovery Program](#)

[Best Management Practices for Amalgam Waste Video](#)



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