

December 1, 2018

**City of Gresham Dental Waste Management Program
Certification due by January 31, 2019**

The City of Gresham is implementing a Mercury Minimization Plan¹ that is required by our permit with the State of Oregon to operate our Wastewater Treatment Plant. This is a continuation of the Toxics Reduction Plan introduced in 2014 as required by Senate Bill 737 (Addressing Priority Persistent Pollutants). In addition, in July 2017, Environmental Protection Agency regulations were codified requiring dental offices to use recommended Best Management Practices including amalgam separators.¹

Municipal wastewater treatment plants are not designed to treat toxic metal pollutants such as silver and mercury. The City is required to regulate the sources of these pollutants to minimize their introduction into the plant and eventually the Columbia River.

Businesses discharging process wastewater to the Gresham Wastewater Treatment Plant cannot have mercury levels greater than 0.10 parts per million (ppm) and silver levels greater than 0.47 ppm. For businesses with the potential to discharge wastewater with these pollutants, there are two program options:

1. Permit Program – Receive a Gresham Industrial Waste Discharge Permit, have an annual inspection, conduct routine laboratory analysis of effluent, submit routine compliance reports, pay related fees. This option is best for industrial sources of mercury and silver.
2. Best Management Practices Program – Implement Oregon Dental Association’s best management practices (BMPs)¹ and annually certify adherence to the BMPs. No fees or routine inspections are required. This is the preferred option and is suitable for small business sources of these pollutants.

Complete the attached annual certification statement and provide accompanying records by January 31, 2019 (certification form enclosed). In the future, annual certification statements are due January 31st of each year.

Please contact me at Julia.Crown@GreshamOregon.gov or 503-618-2803, if you have questions. The City looks forward to partnering with our dental community and appreciates the efforts you make in protecting our environment and community.

Julia Crown
Environmental Specialist

- Enclosures:
1. Certification Form
 2. Dental Office Pollution Prevention Brochure
 3. Oregon Dental Association’s Safe Vacuum System Cleansers List

¹ www.GreshamOregon.gov/Mercury-Minimization

1333 N.W. Eastman Parkway | Gresham, OR 97030

**Dental Waste Best Management Practices
Annual Certification of Compliance Statement**

Facility Name: _____

Operator(s) and Owner(s) Name(s): _____

Physical Address: _____

Mailing Address: _____

Phone Number: _____ Date Practice Started: _____

Form of Dentistry Practiced: _____

_____ Total number of Chairs

_____ Total number of Chairs at which Dental amalgam may be present in resulting wastewater

If your dental practice does not place or remove amalgams and/or teeth containing amalgam fillings except in limited circumstances, please complete the waiver request on page 3 and sign the Certification Statement.

Amalgam Separator(s) Information

Amalgam Separator(s) Manufacturer:	
Model:	Year of Installation:
<input type="checkbox"/> Yes	1 Amalgam separators meet the current standard for amalgam separators ANSI/ADA Standard No. 108 or ISO 11143.
<input type="checkbox"/> Yes	2 All wastewater with potential to contain amalgam passes through an appropriately sized amalgam separator.
<input type="checkbox"/> Yes	3 Amalgam separators are inspected and maintained to ensure proper operation. Amalgam separators are repaired or replaced within 10 business days, if a malfunction is discovered.
<input type="checkbox"/> Yes	4 Amalgam retaining units are replaced routinely.
If No, provide explanation:	

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Oregon Dental Waste Best Management Practices All dental practices are required to annually certify that they are currently and will continue to be in compliance with implementing these Best Management Practices.¹

Check 'Yes' if you implement this Best Management Practice:	
<input type="checkbox"/> Yes	1 Use pre-capsulated alloys only (do not put capsules in red bag).
<input type="checkbox"/> Yes	2 Salvage, store and recycle non-contact amalgam (amalgam left over from a capsule not used in restoration).
<input type="checkbox"/> Yes	3 Recycle/dispose of extracted teeth with amalgam in one of the following ways: <ul style="list-style-type: none"> a. Disinfect (in bleach) and give to patient. b. Check with amalgam recycler/disposal services to see if they will accept teeth (store in sealed container following disinfection). <p style="text-align: center;">DO NOT PUT EXTRACTED TEETH WITH AMALGAM IN THE RED BAG!</p> <p style="text-align: center;">DO NOT PUT EXTRACTED TEETH WITH AMALGAM IN THE STERILIZER!</p>
<input type="checkbox"/> Yes	4 Extracted teeth with <i>no amalgam</i> can be put in the red bag.
<input type="checkbox"/> Yes	5 Use disposable chair side traps only. Recycle traps.
<input type="checkbox"/> Yes	6 Replace screens, traps, and vacuum pump filters regularly – do not rinse and re-use traps and filters.
<input type="checkbox"/> Yes	7 Handle chair-side traps and vacuum filters as amalgam waste .
<input type="checkbox"/> Yes <input type="checkbox"/> Yes	8 Store amalgam wastes in separate airtight, labeled containers . <p style="text-align: center;">DO NOT PLACE AMALGAM UNDER FIXER! STORE DRY!</p>
<input type="checkbox"/> Yes	9 Recycle all amalgam waste through an amalgam recycler or a Mercury collection event . <i>Waste amalgam must not be discharged to the sanitary sewer.</i> ⁱⁱ
<input type="checkbox"/> Yes	10 Train staff members in mercury/amalgam spill clean-up procedures .
<input type="checkbox"/> Yes	11 Recycle used lead foil (Due to potential liability, we do not recommend giving lead to patients, staff or others).
<input type="checkbox"/> Yes	12 DO NOT dump spent X-ray fixer down the drain. Recover and recycle. Maintain records of recycling.
<input type="checkbox"/> Yes	13 Line cleansers with bleach can dissolve mercury from amalgam particles in dental wastewater. Use non-oxidizing line cleansers that do not contain bleach or chlorine. See ODA's Safe Vacuum System Cleansers list (attached).
If No, provide explanation:	

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Record Keeping

Dental practice maintains records for 3 years of:	
<input type="checkbox"/> Yes	1 Dental practice records amalgam off-site disposal including: date, name of permitted/licensed treatment, receiving facility, and amount shipped.
<input type="checkbox"/> Yes	2 Dental practice records all maintenance and service completed on the amalgam separator.
<input type="checkbox"/> Yes	3 Record of amalgam disposal (for amalgam separator and waste scrap bucket) is attached to this form and submitted to the City of Gresham.
<input type="checkbox"/> Yes	4 Record of X-ray fixer recycling is attached to this form and submitted to the City of Gresham.
If No, provide explanation:	
If using 3 rd party service provider, provide name and contact information:	

Waiver Request

The dental practice of _____ does not place or remove amalgam.

How are extracted teeth containing amalgam disposed of? _____

Please sign Certification Statement.

Certification

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name _____ Title _____

Signature _____ Date _____

Complete the annual compliance form and copy accompanying records by January 31, 2019. Send the form and records to the City of Gresham address on the front of this form or scan and email to Julia.Crown@GreshamOregon.gov. For inquiries, please email or call 503.618.2803.

ⁱ GreshamOregon.gov/Mercury-Minimization

ⁱⁱ Italicized emphasis added.

Ask Your Recycler

- What kind of amalgam waste do you accept?
- Does your service include pick up or delivery?
- Do you provide packaging? If not, how should waste be packaged?
- Does your company accept empty amalgam capsules or extracted teeth with amalgam?
- Do you accept whole filters from the vacuum pump?
- What type of recycling licenses do you have?
- Do you provide documentation that the material was properly recycled?

Records

Maintain records on replacement and recycling of waste amalgam containers and amalgam separator collection units; also for x-ray silver fixer waste and lead foil waste (if you use traditional/non-digital x-rays).

More Information

For more information on dental office pollution prevention, Best Management Practices, and requirements under Oregon law please refer to the following.

- American Dental Association BMPs for Amalgam Waste - ada.org/1540.aspx
- Oregon Dental Association BMPs – oregondental.org
- Environmental Protection Agency Dental Amalgam - epa.gov/hq/dentalamalgam.html
- Clean Water Services Dental Waste - cleanwaterservices.org/DentalWaste



CITY OF GRESHAM

The Association of Clean Water Agencies (ACWA) has been working in partnership with the dental community for the last decade to minimize mercury, silver and lead discharges into the public sewer system. Vacuum lines, sinks and toilets in your office all lead to local wastewater facilities which clean the water and release it into surface waters. Our facilities aren't designed to remove metals like mercury and silver and we need support from businesses to comply with Oregon law and take steps to reduce pollution.

Mandatory amalgam separators have helped reduce pollution but public utilities are facing stricter permit requirements to further reduce the amount of mercury discharged. ACWA will be working in partnership with the Oregon Dental Association and the Oregon Board of Dentistry to inspect dental offices for compliance and to offer Best Management Practices (BMPs) to help prevent pollution.

Best Management Practices

Follow the Best Management Practices (BMPs) to comply with Oregon law and to help maintain water quality. Be sure to keep thorough records of all maintenance and recycling occurrences and check with your recycler for requirements.



Amalgam

- Don't put any type of amalgam (including teeth with amalgam) in the garbage, red bag, or down the drain.
- Don't rinse devices that contain amalgam over drains or sinks.
- Make sure your amalgam separators are properly maintained.
- Stock a variety of amalgam capsule sizes to help prevent waste.
- Be sure to place empty capsules in a well-sealed and clearly labeled container for recycling.



Chair-Side Traps and Vacuum Pump Filters

- Flush the vacuum system with non-oxidizing, non-bleach, non-chlorine line solution.
- Handle chair-side traps and vacuum filters as amalgam waste and store in separate airtight, labeled containers.
- Replace and recycle screens, traps and vacuum pump filters regularly. Consult with your recycler about their requirements for filters.



Non-oxidizing Line Cleaners

- Line cleansers with bleach can dissolve mercury from amalgam particles in dental wastewater. Use line cleansers that do not contain bleach or chlorine.

X-Ray Silver Fixer (if using traditional x-rays)

- Do not pour silver fixer down the drain.
- Make sure to keep fixer and developer separate.
- Contact your local photo developing company; they may accept your fixer.



X-Ray Lead Foil (if using traditional x-rays)

- Collect lead foil for recycling.
- Avoid giving lead foil to customers as this may become a liability.
- There are many mail-in programs for dentists for lead waste.
- Contact your local Les Schwab Tire Center to see if they will accept your lead waste.



Recyclers

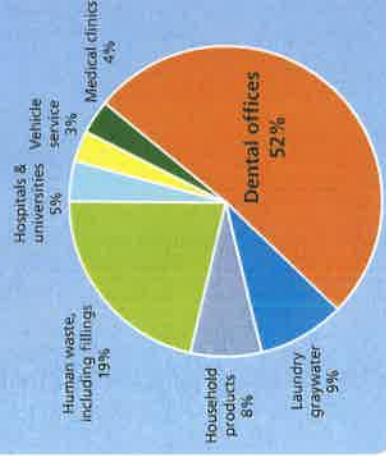
Find local, regional, and national recyclers of amalgam, lead foil, and silver fixer on the ODA website (oregondental.org) by following the links to Government Affairs>>Regulatory Information>>BMPs

Mercury sources to a Wastewater Treatment Facility

In the absence of dental Best Management Practices and amalgam separators, mercury amalgam waste from dental offices is estimated to be the single largest source of mercury to wastewater treatment facilities.

Dental Amalgam
A variety of amalgam waste is generated at a dental office:

- Scrap amalgam
- Used, leaking, or unusable amalgam capsules
- Amalgam captured in chairside traps and vacuum pump screens, including the traps and screens themselves
- Amalgam separator waste
- Contact* amalgam including teeth with amalgam restorations



Line cleansers with bleach can dissolve mercury from amalgam particles in dental wastewater. The following line cleansers, *among others*, do not contain bleach or chlorine:



Safe Vacuum System Cleansers

- Biocide
- BirexSe
- Cavicide
- Cetzyl-zyme Pro-Am Concentrate
- DRNA Vac
- EZ-Syme
- E-Vac
- Fresh-Vac
- GC Spray-Cide
- Green & Clean
- Gobble Plus
- MAXI-EVAC

- Microstat 2
- Patterson Ultrasonic Cleaner
- Pro-E Vac
- Purevac
- Sani-treat Plus
- Stay Clean
- Super Dent
- SRG Evacuation
- VAC-U-EZ
- Turbo-Vac
- Vacu-Cleanse
- Vacu-Sol Ultra
- Vacuum Clean

Some common chemicals of concern are:

- Acetone
- Ammonia
- Bleaches
- Chromium

- Formaldehydes
- Glutaraldehyde
- Phenols

Disinfectants, cleaning solutions, chemiclave solutions, and cold sterilants can be hazardous depending on their ingredients and concentrations. Before disposing of a solution containing these chemicals, determine if it is a hazardous waste. To avoid using these hazardous chemicals for sterilizing consider converting from a chemiclave to an autoclave.