

## **Dental BMP Program**

**Includes Example POTW Legal Authority Language, Dental Survey Form, Inspection Form and an Annual Dental Certification Form.**

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This publication represents the professional opinions of the author. The POTW Pretreatment Program should request specific legal assistance to ensure that site specific requirements are met. This publication is also not intended to change what a specific Approval Authority may require. Rather, this document is intended to provide the POTW Pretreatment Program with specific information to allow a reasonable judgment to be made regarding development and implementation of pretreatment program requirements for dental dischargers.

EPA published new Effluent Guidelines for Dental dischargers (see new 40 CFR Part 441). The Dental BMPs in this document are more stringent than the EPA regulations. These BMPs clarify many of the more ambiguous parts of the EPA regulations. It is important for POTWs to know that they are not required to do anything more than what is stated in the regulations. If there are any POTWs that have not adopted BMP language consistent with the 2005 Pretreatment Streamlining changes, they need to do so. This can be done even where a State has not adopted the provisions (POTWs can be more stringent than the State).

4 documents are included: Example legal authority language in Attachment 1, an Industrial Waste Survey form for a Dental Discharger in Attachment 2, an Inspection form in Attachment 3 and an example Annual Certification Report form in Attachment 4. The POTW should refine each document for its specific approach.

# ATTACHMENT 1

## Example POTW Legal Authority Language

(a) Definitions

“Amalgam process wastewater” means any wastewater generated and discharged by a dental discharger through the practice of dentistry that may contain dental amalgam.

“Amalgam separator” means a collection device designed to capture and remove dental amalgam from the amalgam process wastewater of a Dental Discharger.

“Amalgam waste” means any waste containing mercury or residues from the preparation, use or removal of amalgam. This includes, but is not limited to, any mercury waste generated or collected by chair-side traps, screens, filters, vacuum systems filters, amalgam separators, elemental mercury, amalgam capsules and autoclaves or other equipment that come in contact with mercury.

“Dental amalgam” means an alloy of elemental mercury and other metal(s) that is used in the practice of dentistry.

“Dental Discharger” means a facility where the practice of dentistry is performed, including, but not limited to, institutions, permanent or temporary offices, clinics, home offices, and facilities owned and operated by Federal, state or local governments, that discharges wastewater to a publicly owned treatment works (POTW).

“Duly Authorized Representative” is defined in Section XX.XX of [this Article/these Rules and Regulations].

“Exempt Dental Practice” means any dental facility in which no amalgam is placed or removed nor is amalgam used at any time in the dental practice.

“Existing Sources” means a dental discharger that is not a new source.

“Mobile unit” means a specialized mobile self-contained van, trailer, or equipment used in providing dentistry services at multiple locations.

“New Sources” means a dental discharger whose first discharge to a POTW occurs on or after July 15, 2017, or where a transfer of ownership occurs.

“Publicly Owned Treatment Works” is defined in Section XX.XX of [this Article/these Rules and Regulations].

(b) General Best Management Practices for the Acceptance of Dental Amalgam

- (1) **Dental Discharger.** All dental facilities that discharge wastewater generated from the placement or removal of amalgam to the POTW are required to install an amalgam separator, implement BMPs, and meet specific reporting and certification requirements.
- (2) **Exempt Dental Practice.** These BMPs are not required for dental facilities meeting the definition of an Exempt Dental Discharger. A written request for a waiver shall be delivered to the City/District before the dental practice opens for business but in no case later than thirty (30) days from date the dental practice opens for business.
- (3) **Amalgam Separator.** Amalgam separators shall be installed in all dental facilities, except exempt dental practices. All amalgam separators shall meet the following criteria:
  - (A) The amalgam separator shall be ISO11143 certified and shall be designed and approved for a flow rate capable of handling the maximum volume discharged from the dental practice it serves.
  - (B) The amalgam separator shall be certified to meet at least a 99% solids removal or higher solids removal efficiency as specified by federal or state regulations.
  - (C) The amalgam separator shall allow the Dental Discharger to make direct observations as to the level of solids in the collection container, proper solid and liquid separation, and the condition of all plumbing connections.
  - (D) The amalgam separator shall be installed so that all amalgam-contaminated wastewater will pass through the unit before being discharged to the POTW.
  - (E) Amalgam separators shall be installed so they are accessible for cleaning and inspection.
  - (F) Each dental practice shall be responsible for inspecting the amalgam separator(s) at least once per week and recording if the level of solids is approaching the level where maintenance is required or other operational problems are identified. In addition, the date of visual inspection and the person performing the inspection shall be recorded on the log sheet.
  - (G) The amalgam separator shall be serviced, at a minimum, in accordance with manufacturer's instructions or more frequently if visual inspections

indicate that the level of solids is at or over 85% of the recommended maximum level.

- (H) Waste removed from the amalgam separator shall be collected and handled in accordance with the manufacturer's instructions and as described below.

(c) Best Management Practices.

- (1) New Source Dental Dischargers: BMPs shall be implemented by the Dental Discharger upon discharge to the POTW. The Duly Authorized Representative of the New Source Dental Discharger shall report to the City/District within 30 days of Discharge a report including the following information:
  - (A) The facility name, physical address, mailing address, and contact information.
  - (B) Name(s) of the operator(s) and owner(s).
  - (C) A description of the operation at the dental facility including: The total number of chairs, the total number of chairs at which dental amalgam may be present in the resulting wastewater, and a description of any existing amalgam separator(s) or equivalent device(s) currently operated to include, at a minimum, the make, model, year of installation.
  - (D) Certification that the amalgam separator(s) or equivalent device is designed and is being operated and maintained to meet the requirements specified in [this Article/these Rules and Regulations] and 40 CFR Part 441.
  - (E) Certification that the dental discharger is implementing BMPs specified in [this Article/these Rules and Regulations] and 40 CFR Part 441.
  - (F) The name of the third-party service provider that maintains the amalgam separator(s) or equivalent device(s) operated at the dental office, if applicable. If the Dental Discharger maintains the amalgam separator and other BMP requirements, the Dental Discharger shall provide a brief description of the practices employed by the facility to ensure proper operation and maintenance in accordance with [this Article/these Rules and Regulations] and 40 CFR Part 441.
  - (G) Signatory Certification as shown in Section e(4) below by the Duly Authorized Representative.
- (2) Existing Source Dental Discharger: Dental dischargers that are already operating and discharging before the effective date of [this Article/these Rules and

Regulations] shall install an appropriate amalgam separator and implement required BMPs within ninety (90) days of the effective date of [this Article/these Rules and Regulations]. The Existing Source Dental Discharger shall provide the report specified in Section (c)(1) above within 120 days of the effective date of this Article/these Rules and Regulations].

- (3) Each Dental Discharger shall ensure that all dental chairs are equipped with chair-side traps and that all vacuum pumps are equipped with traps and filters where recommended by the manufacturer. All equipment shall be operated and maintained in accordance with the manufacturer's instructions.
- (4) Each Dental Discharger shall use disinfecting line cleaners that have a pH in the range of 7-9 and are non-chlorine and non-oxidizing. When cleaning filters, the Dental Discharger shall not rinse filters or traps over sinks or drains that do not discharge through the amalgam separator. All water containing amalgam waste must be washed through amalgam separator lines.
- (5) Each Dental Discharger shall recycle all bulk mercury and all amalgam waste.
  - (A) All contact and non-contact scrap amalgam should be salvaged and stored in structurally sound, tightly closed and appropriately labeled containers and recycled no more than twelve (12) months from the date the first amalgam waste is added to the container. The beginning accumulation date shall be included on the outside of the container. State or federal hazardous waste authorities may have additional, more stringent requirements.
  - (B) The Dental Discharger shall never dispose of amalgam waste, infectious waste or biohazard containers in the garbage.
  - (C) The Dental Discharger shall use only pre-capsulated, single-use amalgam and shall stock a variety of sizes in order to minimize waste.
  - (D) The Dental Discharger shall not cause or contribute to Pass Through, Interference, violate a Specific Prohibition or cause the [City/District] to exercise its emergency authority specified in sections XX.XX and XX.XX of [this Article/these Rules and Regulations].
- (d) Recordkeeping. All records shall be kept on site for a minimum of three (3) years and shall be made available to the [City/District] on request as required by Section XX.XX of [this Article/these Rules and Regulations]. Each Dental Discharger shall maintain records of:
  - (1) Amalgam Disposal. Records shall include the date, name and address of the facility to which any waste amalgam is shipped and the amount shipped.

- (2) Weekly Visual Inspections: Records (logs) shall include the date and time of the visual inspection, name and initials of person conducting the inspection and whether or not the level of solids is such that the unit needs to have maintenance or other problems are identified (e.g. leaks).
  - (3) Amalgam Waste: Records of all maintenance and service completed on the amalgam separator.
- (e) Reporting. The Dental Discharger shall submit a certification provided by the [City/District] by January 28<sup>th</sup> of each year, a report that includes:

- (1) The manufacturer, model and date of installation for each amalgam separator;
- (2) The name of the installer(s) and the name of the company that maintains the amalgam separator or if performed in-house, the name of the person responsible;
- (3) Copies of the records in paragraph (e)(5)(A)-(C);
- (4) The following Signatory Certification shall be signed by the Authorized Representative:

“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.”

- (5) Reports shall be submitted to:

POTW MAILING ADDRESS

- (6) The Dental Discharger shall inform the [City/District] prior to:
  - (A) Sale or transfer of ownership of the business;
  - (B) Change in the trade name under which the business is operated;
  - (C) Change in the nature of the services provided that affect the potential to discharge amalgam; or
  - (D) Remodeling of the facility that may result in an increase in flow or pollutant loading or that otherwise requires the facility to submit plans or specifications for approval through a building or zoning department, or any other formal approval process of the [City/District], county or other

jurisdiction.

(f) Inspections and Data Collection.

- (1) The [City/District] may conduct inspections, require written waste surveys or other reporting for any Dental Discharger. Inspection may be conducted with or without notice for the purpose of determining applicability and/or compliance with these Dental Discharger BMPs.
- (2) If any inspection reveals non-compliance with any provision of this Dental Discharger BMPs, corrective action shall be required. The corrective action shall not limit the ability of the [City/District] to take an enforcement action.

(g) Closure.

The [City/District] may require closure of plumbing, treatment devices, storage components, containments, or other such physical structures that are no longer required for their intended purpose. Closure may include the removal of equipment, the filling in and/or cementing, capping, plugging, etc.

(h) Enforcement and Compliance.

- (1) These Dental Discharger BMPs form a part of [Chapter XX/Article XX] of the [City Code/District Rules and Regulations]. Enforcement is governed by the express terms herein and the compliance and enforcement provisions specified in Section XX.XX of [this Article/these Rules and Regulations].
- (2) Any extraordinary costs incurred by the [City/District] due to discharge from the Dental Discharger shall be paid by the Dental Discharger to the [City/District] and such costs shall become part of the total charges due and owing to the [City/District] and shall constitute a lien on the Dental Discharger until paid in full.

## ATTACHMENT 2

### Industrial Waste Survey for Dental Facilities

**Note to POTWs: Edit to only collect data you will use**

### Dental Wastewater Questionnaire [CITY/DISTRICT]

Submit one application for each site.

#### SECTION A – BUSINESS NAMES AND ADDRESSES

<b>Business Name</b>	<b>Business Address</b>	
<b>Authorized Person for this Business (Print)</b>	Title	Telephone
<b>Other Business Contact (Print)</b>	Title	Telephone

Date the Dental Discharge first began discharging to sewer system:

List names of all dentists practicing at this office and number of days per week that they normally work at this site.

Name	# of Days/ Week Worked at Site

**SECTION B – GENERAL BUSINESS INFORMATION**

Nature of practice

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Standard Industrial Classification (SIC) is	8021
Date Business Started at this Site	

**SECTION C – PRODUCT AND PROCESS DESCRIPTION**

	Number of Operating Days/Year	Include business hours you perform removal or placement of amalgam							Total number of Employees/Day
		Mon	Tue	Wed	Thur	Fri	Sat	Sun	
Business Hours									

Practice Activity	Number of chairs/cuspidors
Restorative chairs	
Hygiene-only chairs	
Use cuspidors (circle response)      Yes      No	
Vacuum pump (check type used):	<input type="checkbox"/> Liquid Ring <input type="checkbox"/> Re-circulating <input type="checkbox"/> Turbine Vacuum
Name of Disinfectant used for Line Cleaning	
Amalgam Separator Installed?	YES    NO

Manufacturer of Amalgam Separator:	
Make and model number:	
Average # of Amalgam fillings placed each week	
Average # of Amalgam fillings removed each week	

**Liquid Wastes and Sludges Removed**

Type of Waste/Substance	Where Disposed	Quantity Removed (e.g. liters, gallons, grams)	Monthly, quarterly, annually
Scrap amalgam			
Used fixer			
Used chair-side traps			
Used vacuum pump screens/filters			
Chemical sterilizing solutions			
Other			
Other			

**SECTION D – CERTIFICATION BY DENTAL DISCHARGER OWNER**

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 ensure 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.

\_\_\_\_\_  
Printed Name

\_\_\_\_\_  
Title

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

## ATTACHMENT 3 CWACS Dental Inspection Form

POTW LOGO	POTW ADDRESS		
<b>Amalgam Generator Inspection Report</b>			
Business Name:		<b>Inspection Information</b>	
Address:		Date	<input type="checkbox"/> Routine <input type="checkbox"/> Follow-up
Owner/Manager:		Time of Inspection	<input type="checkbox"/> Incident Response <input type="checkbox"/> Complaint
Phone:	Fax:		<input type="checkbox"/> Other: _____
Site ID:			
<b>Business Type</b>		<b>Number of Employees</b>	
<input type="checkbox"/> Dental Office <input type="checkbox"/> Oral Surgeon <input type="checkbox"/> Hospital <input type="checkbox"/> Medical Clinic <input type="checkbox"/> Periodontist <input type="checkbox"/> Other: _____		___ Administrative ___ Hygienists ___ Dentists ___ Surgeons ___ Other: _____ ___ Other: _____	
		<b>Device Type</b>	
		<input type="checkbox"/> Amalgam Separator (water driven) <input type="checkbox"/> Turbine (Dry Vacuum) model <input type="checkbox"/> Other: _____	
		Location of Device:	
<b>Facility Information/Practices</b>			
Number of Chairs		Use Cuspidors?    ___ YES ___ NO	
Number of Hygiene-Only Chairs			
X-Ray Unit (Film)?    ___ YES ___ NO		X-Ray Unit (Digital-only)?    ___ YES ___ NO	
Disposal Location of Chair Side Trap Wastes?			
Disposal Location of Scrap (unused) Amalgam?			
Name of Vacuum Line Cleaner?			
<b>Amalgam Separator Maintenance and Records</b>			
Brand and Model			
Date of Last Service (cartridge replacement)			
Records of Maintenance on-site?		___ YES ___ NO	
Company Receiving the Waste Amalgam?			
<b>Compliance</b>			
Was non-compliance with required BMPs observed?		<input type="checkbox"/> YES <input type="checkbox"/> NO	Notes:
<b>Further Action</b>			
Action Item		Recommended/Required	
<input type="checkbox"/> Clean Amalgam Separator within <span style="background-color: yellow;">    </span> days.		<input type="checkbox"/> Required	<input type="checkbox"/> Recommended
<input type="checkbox"/> Fax Cleaning Records to Pretreatment Program.		<input type="checkbox"/> Required	<input type="checkbox"/> Recommended
<input type="checkbox"/> Repair/Replace Amalgam Separator within <span style="background-color: yellow;">    </span> days		<input type="checkbox"/> Required	<input type="checkbox"/> Recommended
<input type="checkbox"/> Implement all Required BMPs (provided)		<input type="checkbox"/> Required	<input type="checkbox"/> Recommended

<input type="checkbox"/> Eliminate Use of Oxidizing Line Cleaner	<input type="checkbox"/> Required	<input type="checkbox"/> Recommended
<input type="checkbox"/> Other:	<input type="checkbox"/> Required	<input type="checkbox"/> Recommended
<input type="checkbox"/> Other:	<input type="checkbox"/> Required	<input type="checkbox"/> Recommended
<input type="checkbox"/> Other:	<input type="checkbox"/> Required	<input type="checkbox"/> Recommended

Inspector Name	Inspector Signature	Date

## ATTACHMENT 4

### Annual Report and Certification for Dental Office Best Management Practices

On behalf of \_\_\_\_\_ (Dental Discharger) located at \_\_\_\_\_ (Address) and being authorized to sign such certification, I, \_\_\_\_\_ (Authorized Representative) certify that this facility HAS/HAS NOT (Circle One) fully implemented and complied with the Best Management Practices for the Treatment and Disposal of Amalgam Wastes as required in Section XX of [Chapter XX of the City Code/Section XX of the Rules and Regulations] from the Dental Discharger] for the calendar year: \_\_\_\_\_.

Annual Reporting Requirement	Dental Discharger Response
Manufacturer, model, and date of installation for each amalgam separator installed during the calendar year (if same as previous calendar year, enter "No changes from previous year":	
Name and address of the installer for each amalgam separator (if same as previous calendar year, enter "No changes from previous year":	
Copies of records showing facility name, address, date and amount of waste amalgam shipped during the calendar year.	<input type="checkbox"/> Attached <input type="checkbox"/> Not Attached*
A copy of the weekly visual inspection records (logs).	<input type="checkbox"/> Attached <input type="checkbox"/> Not Attached*
A copy of all records of all maintenance and service completed on the amalgam separator.	<input type="checkbox"/> Attached <input type="checkbox"/> Not Attached*
* - Failure to maintain records or provide reports as required is a violation of the [City Ordinance/District Rules and Regulations] and may result in enforcement, including the imposition of penalties.	

Comments/Notes: \_\_\_\_\_  
\_\_\_\_\_

“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 (print or type): \_\_\_\_\_

Signature: \_\_\_\_\_

Title: \_\_\_\_\_

Date: \_\_\_\_\_

This form must be submitted annually (by January 28) to:

POTW MAILING ADDRESS

The [City/District] Pretreatment Program may be contacted at:

Name of Person or Program Contact  
(XXX) XXX-XXXX  
person@city