

SUBJECT: DISPOSAL OF HAZARDOUS MATERIALS GENERATED IN THE
DENTAL CLINIC

EFFECTIVE DATE: 06/18/2021

I. PURPOSE:

The purpose of this health services bulletin is to provide guidelines for the disposal of environmentally sensitive dental materials: x-ray fixer, lead foil backings from dental x-rays, scrap amalgam, and amalgam capsules.

These standards and responsibilities apply to both Department staff and Comprehensive Health Care Contractor (CHCC) staff.

II. DISCUSSION:

- A. Used dental x-ray fixer is considered an environmentally hazardous chemical and should not be poured directly into the sewer system. It should be disposed of through one of two methods: (1) as a hazardous chemical, or (2) through a filtering system whereby the filtered liquid may be discharged directly into the sewer system.
- B. The metallic foil used in intraoral radiographs consists of approximately 98% lead. Incineration of the lead foil is contraindicated. Since lead is highly recyclable, this should be the mechanism for disposal of the lead foil.
- C. Scrap amalgam and amalgam capsules contain trace amounts of mercury. In accordance with the Material Data Safety Sheet, scrap amalgam and amalgam capsules should not be incinerated; instead, they should be disposed of as scrap dental amalgam waste following specific guidelines.

III. ACTION:

- A. Disposal of Used Dental X-Ray Fixer
 - 1. The following methods are suggestions for the disposal of used dental x-ray fixer.
 - a. After the used dental x-ray fixer is placed in a suitable plastic container, it can be forwarded to the local hospital's radiology department (if arrangements have been made by both parties).
 - b. When agreed upon, it can be disposed of through the x-ray service.
 - c. The used dental x-ray fixer may be poured through a filtering device (ion exchange) designed specifically for this. The filtered dental x-ray fixer may then be poured directly into the sewer system. The material collected by the filter (ion exchange cartridge) must be disposed of according to the manufacturer's directions or forwarded to a company

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certified to reclaim the material obtained from the filtering process.

- d. Use a solidifier/chelation system; an example is Chemgon®

B. X-Ray Lead Foil Recycling

1. All x-ray lead foil from intraoral radiographs is to be recycled.
2. All x-ray lead foil is to be placed in the recycling container.
3. Should the x-ray lead foil be visibly contaminated with blood or other body fluids, it should be thoroughly rinsed with water before placing in the recycling container.
4. The outside covering and other disposable components of the intraoral x-ray are to be disposed of as regular waste.

C. Disposal of Scrap Dental Amalgam and Used Amalgam Capsules

1. All dental clinics must be equipped with an approved “Amalgam Separator” placed in the central vacuum system main outflow line. Any new or replacement amalgam separators must be registered thru the control authority of the Environmental Protection Agency (EPA).
2. Handling of Scrap Amalgam
 - a. Marker Container: Place scrap amalgam into a “sharps type” container (as defined by OSHA) that is initially marked “Biohazardous.” To differentiate from biomedical waste which is placed in a red bag or container, the scrap amalgam container should be a different color.
 - b. Decontaminate: When the container is full or ready for shipment, add enough 1:10 bleach: water solution to cover the scrap amalgam in the container. This ensures that the scrap amalgam has been decontaminated per OSHA. To ensure that the decontamination solution strength does not dissipate over time, do not add the solution until the container is full or ready for shipment.
 - c. Label: Cover the “Biohazardous” marking on the container with a label reading “Scrap amalgam decontaminated with 1:10 bleach: water solution on (month/day/year).” This ensures that the full residence time of the scrap amalgam is documented on the container label.
3. Shipping Scrap Amalgam

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EFFECTIVE: 06/18/2021

Follow these requirements when shipping scrap amalgam to a mercury reclamation facility:

- a. If you ship “less than two pounds” of scrap amalgam (one pound of mercury) per container, you are not required to meet any Department of Transportation regulations.
- b. Written records, including the name and address of the institution shipping the scrap amalgam, the amount shipped, the date of the shipment, and the name and address of the reclamation facility receiving the shipment must be retained for three (3) years.
- c. If the shipping container contains “two pounds or more” of scrap amalgam (one pound of mercury), it is regulated as a Department of Transportation Class 9 hazardous substance. In this case, a mercury reclamation facility should provide the needed documentation to meet all necessary Department of Transportation shipping requirements.

4. Reclamation Facilities

The Florida Department of Environmental Protection maintains a list of in-state and out-of-state mercury reclamation facilities that currently receive scrap amalgam and that have been investigated by the Department of Environmental Protection to verify proper management of scrap amalgam, including proper management of the mercury. Call the Department of Environmental Protection at (850) 245-8759 or visit the Department of Environmental Protection’s [Dental Amalgam Recyclers List](#).

- D. This health services bulletin will be updated as regulatory changes occur.

IV. RELEVANT FORMS and DOCUMENTS:

- A. *Material Data Safety Sheet*
- B. [Department of Environmental Protection Dental Amalgam Recycle List](#)

Health Services Director

Date

This Health Services Bulletin Supersedes:

HSB 15.04.12 dated 7/11/94, 03/07/01, 4/14/08, 4/15/14, 8/14/2017, AND 12/15/2019
