

OREGON DEPARTMENT OF CORRECTIONS
Operations Division
Health Services Section Policy and Procedure #P-B-01.3

SUBJECT: HEAVY METAL DESTRUCTION AND RECYCLING PROGRAM

POLICY: The Health Services Section will maintain effective heavy metal destruction and recycling program, which will assure a safe waste stream management and healthy environment for both inmates and staff. The incidence of exposure to heavy metals will be minimized utilizing a quality improvement process utilizing standards and guidelines.

REFERENCE: NCCHC Standard P-B-01
CDC Guidelines for Sterilization of and Destruction of Heavy Metals in the Work Place
ADA: Best Management Practices of Oregon Guideline of Waste Stream Management

DEFINITIONS: **Non-contact Amalgam:** Scrap is excess mix leftover at the end of a dental procedure.

Contact Amalgam: is the amalgam that has been in contact with the patient; examples are extracted teeth with amalgam restorations, carving scrap collected at the chair side, and amalgam captured by chair side traps, filters or screens.

PROCEDURE:

- A. As sources of heavy metals in the work place are identified, the proper destruction and/or recycling methods will be utilized.
1. Mercury: amalgam fillings used in dentistry including but not limited to: Contact and non-contact amalgam from procedures, amalgam containers (capsules), extracted teeth with silver fillings, and amalgam/silver waste in suction traps and filters.
 2. Lead: Lead foil from dental x-rays. Other lead containing products in the Health Care area must also be disposed of through appropriate sources, (worn out lead aprons, lead lined boxes or shields).
 3. Silver: Radiology services both dental and medical including, old films and spent fixer.
- B. Employees identified as being at risk of exposure to bio-hazardous materials in the course of their job responsibilities are trained in appropriate methods for handling and disposing of bio-hazardous materials and spills.

Heavy Metal Destruction and Recycling Program

Salvage and store all contact and non-contact scrap amalgam in separate, appropriately labeled tightly closed containers. Recycle scrap amalgam through an amalgam recycler or hazardous waste hauler. Follow the requirements of your amalgam recycler for the storage, disinfection and shipping of scrap amalgam.

- If contact amalgam must be disinfected before shipment to your recycler, do not use any method that utilizes heat. The heat will cause the mercury to volatilize and be released into the environment.
- If you store scrap amalgam in water, or other liquid, do not decant the liquid down the drain, under any circumstance. Contact your dental amalgam recycler or hazardous waste hauler for more information on how to dispose of this material properly.
- Change or clean chair-side traps as often as necessary per the manufacturers directions. Use universal precautions when handling the chair-side trap.
- Flush the vacuum system with disinfectant before changing the trap.
- Open the chair-side dental unit to expose the amalgam trap.
 - a. Do not put the suction trap or its contents into the sharps container, red biomedical bag, the trash or rinse its contents down the drain.
 - b. Replace vacuum pump filters regularly as recommended by the equipment manufacturer. Use universal precautions when handling the filters.
 - c. Remove the filter and suction trap, and discard in the established waste container.

C. An integral component of the Heavy Metal Control Program is the proper handling of the products and Waste Stream Management. When at all possible the heavy metal products will be recycled through authorized recycling agencies.

1. Mercury: Dental Recycling of North America (DRNA) container will be used in each clinic to store identified contact and non-contact amalgam waste prior to shipping directly for recycling service.
 - Salvage and store all contact and non-contact scrap amalgam in appropriately labeled, tightly closed containers. Recycle scrap amalgam through an amalgam recycler or hazardous waste hauler. Follow the requirements of your amalgam recycler for the storage, disinfection and shipping of scrap amalgam.
 - If contact amalgam must be disinfected before shipment to your recycler, do not use any method that utilizes heat. The heat will cause the mercury to volatilize and be released into the environment.

Heavy Metal Destruction and Recycling Program

- If you store scrap amalgam under used radio-graphic fixer, water, or other liquid, do not decant the liquid down the drain, under any circumstance. Contact your dental amalgam recycler or hazardous waste hauler for more information on how to dispose of this material properly.
 - Put the lid on the filter and place it in the box in which it was originally shipped. When the box is full, the filters must be recycled.
2. Lead: Dental x-rays are wiped with disinfectant prior to development; lead foil will be removed and placed in an established labeled container, when full the container will be sent to Central Stores for collection and recycling.
- Lead is a dangerous waste and should not be put in the garbage or in a red bag biomedical waste or sharps container.
 - Dispose of worn out aprons, lead lined x-ray boxes and shields are dangerous waste and will be placed in a clean container and shipped to Central Stores for recycling.
3. Silver: Developed x-ray film will be collected and stored for recycling. Used x-ray film contains silver. If the silver concentration is high enough, the used film would be a dangerous waste. Although most film does not contain enough silver to make it a dangerous waste, the best management practice is to collect it for silver recycling.
- Spent fixer will be collected at each facility and disposed of through the established radiology services (Sterling Eastside, Mari-x-ray Westside). Keep disposal receipts and attach to Heavy Metal Waste Stream Management log.
 - Collected used fixer must be kept in a container marked "Used fixer only." Keep fixer separate from developer.
- UNUSED developer contains hydroquinone which is a toxic substance, so unused developer cannot go down the drain. Because hydroquinone is used up in the developing process, used developer is non-hazardous and is safe to be disposed to sewer.
- Flush the drain thoroughly as you dispose of the used developer.
 - If used fixer and developer accidentally get mixed together, the mixture must be disposed of as dangerous waste.
- D. A Waste Stream Management Log will be maintained at each facility, see Attachment 1.

Effective Date: _____
Creation date: February 2007
Supersedes P&P dated: June 2006

HAZARDOUS WASTE

LEAD FOIL – RETURN TO STORES WHEN CONTAINER IS FULL.

Work Site: _____ Date Sent: _____
Weight of Full Container: _____ lb.
Staff Signature: _____

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