Rutgers Environmental Health and Safety (REHS) Guidance Document

Title: Dental Waste Management for Dental Clinics

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BACKGROUND

Rutgers University has dental clinics located throughout New Jersey. These clinics generate different types of waste including:

- Hazardous Waste
- Expired Non-DEA Medications
- Dental Anesthesia
- Universal Waste (Batteries, Consumer Electronics, Fluorescent Bulbs, Mercury-Containing Equipment)
- Spent Light Ballasts

In addition to generating these types of waste, all dental clinics have an amalgam separator collection system. This guidance document will discuss the proper management of these dental clinic waste types as well as the proper routine maintenance which is required for amalgam separator collection systems.

Hazardous Waste

Rutgers University dental clinics generate small quantities of hazardous waste. The most common types of hazardous wastes include:

- Lead Foil
- Extracted Teeth in Ethanol
- Contact and Non-Contact Amalgam (including side chair suction traps when amalgam is present)
- Adhesives
- Dental Anesthesia (including novocaine, lidocaine, carbocaine, etc.)
- Used X-ray Film

Proper management of these wastes is required to ensure compliance with the Resource Conservation and Recovery Act (RCRA), a federal law enacted in 1976 to protect health and the environment.

A. Proper Container Management

Each waste type must be collected in the appropriate waste container.

Lead Foil - 5-gallon screw top pail with a poly liner

Contact/Non-Contact Amalgam (including solidified amalgam from side chair suction traps if amalgam is present) - 5-gallon screw top pail with a poly liner

Expired Medications and Dental Materials (including adhesives, bonding materials, anesthesia) - 5-gallon screw top pail

Extracted Teeth in Alcohol - An appropriately sized container with a tight fitting lid

Photographic Fixer - An appropriately sized container with a tight fitting lid

Used X-ray Film -5 gallon screw top pail with a poly liner

Each of these waste types must be stored separately in their own container. Wastes can only be combined in a single container if they are chemically compatible. The attached "Dental Clinic Miscellaneous Waste Inventory Sheet" must be used for each container of combined wastes.

The following waste containers and supplies are available from REHS:

- 5-gallon screw top plastic pail with poly liner
- 1-gallon screw top plastic jar
- Grey secondary containment bins

B. Proper Storage

Hazardous waste must be stored in a Satellite Accumulation Area (SAA). SAAs must be designated for every clinic where hazardous wastes are generated. Each SAA must be located near the point of generation, secured and under the generator's control. Incompatible waste streams must be separated with physical barriers such as secondary containment.

All containers in the SAA must be properly labeled, in good condition, and tightly closed/sealed when you are not actively adding waste. Any small spills or leaks in the SAA should be cleaned up immediately.

C. Labeling

All hazardous waste containers must have a black and white Rutgers Hazardous Waste label filled out and attached to them from the moment the first drop of waste is added. The hazardous waste label must be filled out completely with the full chemical name (no abbreviations or formulas) and concentrations of every component (totaling 100%) as well as the clinic's contact information.

HAZARDOUS WASTE
(For Satellite Accumulation Areas)
Rutgers, The State University of New Jersey

Chemical Contents: (% vol. or % weight) circle one

_____ % _____ %
_____ % _____ %
_____ % _____ %
_____ % _____ %

Are heavy metals present? Yes No (If yes, add to chemical contents section)

SAA Manager: _____ Telephone: _____

Campus: _____ Bldg.: _____ Rm#: _____

Have Accumulation Limits Been Exceeded: YES NO (Circle One)

(55-gallons Hazardous Waste and/or 1-Qt Acutely Hazardous Waste)

If yes, please indicate date excess accumulation began: ____/____/____

IN CASE OF EXCESS ACCUMULATION, CONTACT REHS IMMEDIATELY: 848/445-2550

☐ Ignitable ☐ Toxic ☐ Corrosive ☐ Compressed Gas ☐ Reactive

Hazardous Waste Pickups

Hazardous waste pick-up requests must be made in a timely manner to prevent stockpiling of waste. All hazardous waste pick-up requests must be submitted online at:

http://halflife.rutgers.edu/forms/hazwaste.php

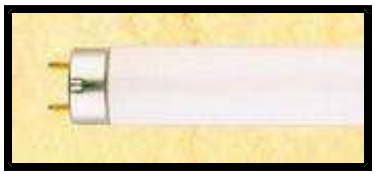
Please plan accordingly and make your request allowing 5 business days for pick-ups from on-campus clinics and 10 business days for off-campus clinics.

Universal Waste

There are four types of Universal Waste which are typically generated in clinics and include the following:

- Rechargeable Batteries
- Fluorescent Light Bulbs and Other Electric Lamps
- Consumer Electronics
- Mercury-Containing Equipment

In addition, PCB and non-PCB light ballasts are generated. Each of these waste streams must be properly managed to comply with regulations and protect the environment. Batteries and Lamps/Bulbs must be labeled with a black and white Rutgers Universal Waste label. Consumer Electronics will be labeled by Material Services after removal for storage. Light Ballasts must be labeled with a black and white Rutgers Spent Ballast label. Universal waste cannot be stored for more than one year from the time of generation. The following describes the proper management for each type of Universal Waste and light ballasts.



Rechargeable Batteries

Rechargeable batteries must be collected and labeled with the Rutgers Universal Waste Label. This includes the following batteries:

- Lead Acid
- Nickel Cadmium (NiCad)
- Nickel Metal Hydride (NiMH)
- Lithium (Ion and Metal)

The batteries listed above must be collected by REHS for proper disposal and/or recycling. Make sure the battery terminals are taped to prevent short circuiting. Complete a request for pickup at the following online link:

https://halflife.rutgers.edu/forms/hazwaste.php

NOTE: Alkaline batteries are not rechargeable and can be disposed of in the general trash.

Fluorescent Light Bulbs and Other Electric Lamps

Spent fluorescent light bulbs are managed by the Facilities Maintenance Department. These items are stored in various central locations throughout Rutgers. The following electric lamps are also regulated as Universal Waste:

- High Intensity Discharge
- Neon
- Mercury Vapor
- High-Pressure Sodium
- Metal Halide

Contact your Facilities Maintenance Zone Manager to request a pickup of spent fluorescent bulbs or other regulated electric lamps. Clinics without Facilities Maintenance agreements must dispose of bulbs directly through the University Approved Vendor.

NOTE: Incandescent bulbs can be discarded in the general trash.

Consumer Electronics

Consumer electronics such as computers, printers, monitors, televisions, VCRs, radios and other electronic equipment that contain circuit boards are regulated as Universal Waste. Other equipment that is destined for disposal must be evaluated for electronic hardware prior to disposal.

Contact Material Services at (848) 445-2255 for removal of these items. Alternatively, submit a surplus materials form at https://ipo.rutgers.edu/bs/surplus-pickups.

Light Ballasts

Light ballasts are divided into two categories, PCB and Non-PCB (i.e. mineral oil). Light ballast disposal is dependent on the presence of polychlorinated biphenyls (PCBs) in the ballast potting material. In 1979, the Toxic Substance Control Act prohibited the manufacturing of light ballasts containing PCBs.

Ballasts manufactured after 1979 should have a "Non-PCB" label affixed to the outside of the ballast. Any ballast manufactured prior to 1980 (1979 or earlier) must be classified as PCB regardless of labels. If there are no obvious dates or labels on the ballast to indicate the presence or absence of PCBs, it must be considered PCB.

Ballasts must be collected in appropriate containers and labeled with the Spent Ballast label. These labels are available from REHS. In addition, PCB ballasts must have the PCB label affixed to the storage container as well. Light ballasts are disposed of through Facilities Maintenance. Clinics without Facilities Maintenance agreements must dispose of ballasts directly through the University Approved Vendor.

Mercury-Containing Equipment

Mercury-containing switches, thermostats and intact thermometers are managed as Universal Waste. Place small items in a zip-lock bag labeled with the Rutgers Universal Waste Label.

Broken mercury thermometers must be managed as Hazardous Waste and labeled accordingly. In addition, mercury-containing equipment such as old sphygmomanometers must be drained of mercury prior to disposal. Mercury-containing items must be picked up by REHS. Complete a request for pickup at the following online link:

https://halflife.rutgers.edu/forms/hazwaste.php

Routine Maintenance and Documentation of Amalgam Separators

Dental clinics have amalgam separator systems that need to be properly maintained and serviced. Filters on these systems should be changed at least annually. System maintenance logs must be maintained and made available to REHS and NJDEP during routine inspections.

In addition, amalgam separator systems must be registered with the NJDEP. The NJDEP requires an annual certification to be completed in the first quarter of every year on each amalgam separator

system. Certification documentation needs to be made available during REHS and NJDEP inspections. Additional information about the NJDEP Dental Amalgam Program can be found at http://www.nj.gov/dep/dwq/dap.htm .

Dental Clinic - Miscellaneous Waste Inventory Sheet

Location _____

Date	Number of Containers	Container Volume	Waste Description