

UNIVERSAL AND REGULATED WASTE MANAGEMENT

SAFETY POLICY MANUAL – SECTION 3 – POLICY NO. HM 1.4



SAFETY DEPARTMENT | 6001 UNIVERSITY BOULEVARD MOON TOWNSHIP, PA 15108

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I. PURPOSE:

The purpose of this policy is to define the procedures established for the safe and proper management of Universal Waste and other Regulated Waste. This policy establishes procedures that are recognized as environmentally sound, as well as, ensure compliance with the Pennsylvania – Department of Environmental Protection and Federal – Environmental Protection Agency regulations.

II. SCOPE AND APPLICABILITY:

This policy applies to those Universal Waste materials which are common and/or used in the university environment. This policy applies to Universal Waste **Mercury, Lamps, Batteries, and Pesticides**. This policy also applies to other regulated waste including, **Waste Oil, PCBs and CFCs**.

III. DEFINITIONS:

- A. Mercury containing device = A product or component of a product (excluding batteries) which contains elemental mercury that is necessary for operation of the device. Examples of universal wastes that contain mercury include thermostats, switches and lamps.
- B. Battery = a device consisting of one or more electrically connected electrochemical cells which is designed to receive, store, and deliver electric energy.
- C. Lamp or universal waste lamp = a bulb or tube portion of an electric lighting device. Examples of lamps include, but are not limited to, fluorescent, high intensity discharge, neon, mercury vapor, high pressure sodium and metal halide.
- D. Pesticide = any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest, or intended for use as a plant regulator, defoliant, or desiccant, other than any those exempted in 40 CFR 273.9.
- E. Small Quantity Handler of Universal Waste (SQHUW) = person who does not accumulate 5,000 kilograms (11,000 pounds) or more of “universal waste”.
- F. Universal Waste = means any of the following are subject to the universal waste requirements; batteries, pesticides, mercury/thermostats, lamps.

IV. PROCEDURE:**A. MANAGING UNIVERSAL WASTE (MERCURY):**

- 1. All universal waste mercury shall be handled to prevent release to the environment.
- 2. All universal waste mercury or mercury containing devices that show signs of leakage, spillage, or damage that could result in leakage shall be contained in an appropriate container. An appropriate container shall be closed, structurally sound and compatible for the contents.
- 3. Authorized personnel are permitted to remove mercury containing ampules from devices as long as the following conditions are met:

- a) Ampules are removed in a manner to prevent breakage.
 - sealed glass capsule (e.g. thermometer)
- b) Ampules are removed over a containment device (tray or pan) sufficient to contain any mercury in the event of breakage.
- c) Mercury clean-up system/kit is available to clean and contain materials from leakage or spills.
- d) Immediately contains mercury resulting from spills or leaks to an acceptable container.
- e) Conducts such work activity in a well ventilated area.
- f) Authorized personnel shall be provided information and be familiar with proper handling and emergency procedures including, transfer procedures.
- g) Stores mercury or removed ampules in closed, non-leaking containers that are in good condition
- h) Packages devices/ampules in containers to prevent breakage during storage, handling and transportation.
- i) Mercury from spills, leaks, or other residual materials containing mercury may need to be treated as a hazardous waste. RMU personnel shall consult with Environmental Health & Safety (EH&S) for disposal of these materials.

B. MANAGING UNIVERSAL WASTE – LAMPS:

- 1. Lamps shall be handled to prevent the release to the environment.
- 2. All waste lamps shall be placed in containers or packages that are adequate to prevent breakage and are compatible for the contents. Cardboard boxes/containers shall be sufficient.
- 3. Containers must be closed and lack evidence of leaks, spills or damage.
- 4. Any lamp that is broken or shows signs of breakage, damage or leakage shall be cleaned up and placed in a container as noted above.

C. MANAGING UNIVERSAL WASTE – BATTERIES:

- 1. Waste batteries containing elements such as cadmium, lead, and mercury shall be handled to prevent release to the environment.
- 2. All universal waste batteries or batteries that show signs of leakage, spillage or damage shall be placed in an appropriate container for disposal.

3. Containers must be closed, compatible for the contents, and not show evidence of leaks, spill, or damage.

D. MANAGING UNIVERSAL WASTE – PESTICIDES:

1. All universal waste pesticides shall be handled to prevent release to the environment.
2. Universal waste pesticides shall be contained in an appropriate container that remains closed, is structurally sound, compatible with the waste material and does not show evidence of leaks, spills or damage that could cause leakage.

E. MANAGING REGULATED WASTE – OIL:

1. Waste oil shall be handled to prevent release to the environment.
2. Waste oil shall be stored in containers that are in good condition with no visible rust, deteriorations, or visible leaks.
3. Waste oil containers shall be stored with secondary containment. At a minimum, the secondary containment system must have the capacity to hold at least 10% of the total volume of the primary containers, or 100% of the volume of the largest container, whichever is greater.
4. Off-site transportation/shipment shall be provided by a transporter who has obtained an EPA Identification Number.

F. MANAGING CFCs:

1. All refrigerants containing Class I - CFCs and/or Class II - HCFCs shall be managed using best practices to minimize release to the environment. All refrigerants are recovered to be Re-Used or Recycled/Destroyed as appropriate.
2. All refrigerant work is completed by licensed personnel regarding “Proper Refrigerant Practices” per 40 CFR part 82, subpart F.
3. All refrigerant shall be in an approved and properly labeled cylinder.
4. All refrigerant transfers including, usage/installation and removal from units must be documented in the “Refrigerant Maintenance Log”.

G. MANAGING PCBs:

1. Equipment (such as light ballasts) may contain PCBs. The presence of any PCB-containing equipment will be verified during any maintenance, renovation or demolition activities and will be handled as PCB containing waste.

V. LABELING:

- A. All Universal Waste - Mercury devices or containers which mercury is being disposed, must be labeled with the following:
 - 1. “Universal Waste Mercury-Containing Device(s)” or “Waste Mercury-Containing Device(s)” or “Used Mercury-Containing Device(s)”.
 - 2. Also, each container label shall be marked with the date the waste was first generated.
- B. All Universal Waste Lamps or containers containing such lamps shall be labeled with the following:
 - 1. “Universal Waste – Lamp(s)” or “Used Lamp(s)”.
 - 2. Also, each container of universal waste lamps shall be marked with the date the waste was first generated.
- C. All Universal Waste Batteries or containers in which waste batteries are placed, must be labeled with the following:
 - 1. “Universal Waste Battery (ies)” or Waste Battery (ies)”.
 - 2. Also, each container shall be marked with the date the waste was first generated.
- D. All Universal Waste Pesticides shall be in appropriate containers and labeled with the following:
 - 1. The label that was on or accompanied the product as sold or distributed.
 - 2. The words “Universal Waste – Pesticide(s)” or “Waste Pesticide(s)”.
 - 3. The date the waste was first generated.
- E. Waste Oil shall be placed in an appropriate container and labeled with the following.
 - 1. The words “Used Oil”.
 - 2. The date the waste was first generated.
- F. Waste Refrigerant or Contaminated Waste Refrigerant: (CFCs & HCFCs) shall be placed in an approved gas cylinder. Waste refrigerant cylinders should be labeled with the following:
 - 1. The words “Waste Refrigerant” and
 - 2. The name of the specific refrigerant (ex. R-12).



3. The date the waste was generated.
4. All empty equipment/units (ex. Compressors) must be labeled with a completed “Environmental Safety Notice” tag or sticker identifying the refrigerant has been properly removed.

VI. ACCUMULATION TIME:

- A. RMU shall not accumulate and hold “Universal Waste” or other waste materials noted in this policy for a period no longer than one year from the date the universal waste was first generated.
- B. Each of the products, materials or other items listed in this policy (mercury, lamps, batteries, and pesticides) becomes a waste on the date the handler decides to discard it.
- C. RMU should not accumulate and hold “Waste Oil” for a period no longer than one (1) year.

VII. UNIVERSAL & REGULATED WASTE DISPOSAL:

Departments shall coordinate disposal of each/any of the above noted Universal Waste with the Facilities Management - Safety Services Department.

A. UNIVERSAL WASTE – MERCURY:

RMU will contract with an approved vendor (such as Arcwood Environmental) for the disposal of all Universal Waste – Mercury. Universal Waste – Mercury shall be placed in an appropriated waste container (provided by Heritage Environmental Corporation) as described above.

B. UNIVERSAL WASTE – LAMPS:

RMU will contract with an approved vendor (such as Scott Electric) for the disposal of waste lamps. Lamps will be containerized, labeled and accumulated as noted in this policy. RMU will contact and coordinate with the noted vendor for waste disposal.

C. UNIVERSAL WASTE – BATTERIES:

RMU will contract with an approved vendor/distributor for the disposal of all Universal Waste – Batteries. Universal Waste Batteries shall include all “Lead Acid Batteries”. All waste batteries shall be taken to the waste storage area and prepared (appropriate container/packaging and labeling) for pickup by the noted vendor(such as Scott Electric).

D. UNIVERSAL WASTE – PESTICIDES:

RMU shall dispose of all universal waste pesticide(s) through the Pennsylvania Department of Agriculture – CHEMSWEEP Program. The CHEMSWEEP Program Office in Harrisburg can be contacted at (717)772-5210. RMU departments/staff shall coordinate this disposal with the University- Safety Officer.

E. WASTE OIL:

RMU will contract with an approved vendor (such as Arcwood Environmental) for the disposal of all Waste Oil. Waste Oil shall be stored in an appropriated waste container as described above.

F. PCB WASTE:

RMU will contract with an approved vendor (such as Arcwood Environmental or Scott Electric) for the disposal of Waste – PCBs. PCB containing waste shall be accumulated in a safe/secure area. RMU will coordinate with the noted vendor for the proper disposal or recycling of PCB waste.

G. CFC WASTE:

RMU may contract with Arcwood Environmental or an appropriate distributor for the disposal of Waste Refrigerant.

H. E-Waste:

RMU will contract with an approved vendor (such as Infinite Electronics Recycling LLC) for the disposal of E-Waste. E-Waste shall be accumulated and stored in a safe/secure area.

VIII.EMPLOYEE TRAINING:

- A. All RMU personnel who handle or are responsible for managing universal waste are provided information/training. This information/training includes, but not limited to, handling and emergency procedures.

IX. RESPONSE TO RELEASES:

- A. RMU personnel shall handle any release or spill in accordance with the procedures noted in this policy, RMU's SSPC and/or PPC plans as appropriate.
- B. RMU personnel/handlers of used oil shall implement the following minimum responses in the event of a spill or release:
 - 1. Stop the release.
 - 2. Contain the released oil/material.
 - 3. Clean-up the released oil/material with appropriate absorbent or similar media.
 - 4. Repair or replace the container as appropriate.



X. WASTE SHIPMENT AND DISPOSAL RECORDS:

- A. A small quantity generator accumulates a total of not more than 5,000 kilograms of Universal Waste at one time and is not required to obtain an EPA Identification Number or keep records of waste shipments (according to US EPA 40 CFR 273 and PA DEP 25).
- B. Departments and/or personnel who dispose of “Universal Waste” shall obtain a copy of all waste shipment, manifests, and similar records from the vendor and provide a copy to the Safety Officer
- C. Generators of “**Waste Oil**” shall retain the following records for 3-years:
 - 1. Type of oil used.
 - 2. Description of process the oil was used.
 - 3. Record of test used to determine if the waste contains more than 1,000 ppm total halogens.
 - 4. Record of information used to rebut the presumptions in chapter 298.10(b) (1) (ii) if waste contains more than 1,000 ppm total halogens.
 - 5. The type and quantity of any hazardous waste generated and analysis of hazardous waste characteristics.

XI. Approvals:

Implementation Date: March 28, 2007

Last Reviewed/Revised: May 2025