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2. Must manage universal waste in a manner that prevents release to the environment;
3. Must label or mark the containers with the words “universal waste batteries”, “waste batteries”, “waste pesticides”, “waste mercury lamps” or similar wording;
4. May accumulate universal wastes for no more than one year from the date the waste is first generated or received, and must be able to demonstrate how long the waste has been stored;
5. Must inform employees of proper handling and disposal.

Universal Waste

UAH may conduct the following activities, so long as the casing of each individual battery cell is not breached and remains intact and closed:

- Sort the batteries by type;

- Mix battery types in one container;

- Discharge batteries to remove the electric charge;

- Regenerate used batteries;

- Disassemble batteries or battery packs into individual batteries or cells;

- Remove batteries from consumer products; and

- Remove the electrolyte from batteries (cells may be opened to remove the electrolyte but must be immediately closed after removal).

Electrolyte from batteries, or other solid waste (e.g., battery pack materials, discarded consumer products) is generated as a result of the activities listed above, it must be determined whether the electrolyte and/or other solid waste exhibit a characteristic of hazardous waste identified in 40 CFR part 261, subpart C.

Containers of universal waste batteries must be marked with the words:

- Universal Waste – Batteries, or
Waste

Thermostats and Other Mercury-containing Equipment

Mercury-containing equipment consists of devices, items, or articles (excluding batteries and lamps) that contain varying amounts of elemental mercury that is integral to their functions. FD-0306 (Rev. 11/01)

from mercury-containing equipment in its original housing must determine whether the following exhibit a characteristic of hazardous waste identified in 40 CFR part 261, subpart C:

- A. Mercury or clean-up residues resulting from spills or leaks and/or
 - B. Other solid waste generated as a result of the removal of mercury-containing ampules or housings (e.g., the remaining mercury-containing device).
- II. If the mercury, residues, and/or other solid waste exhibits a characteristic of hazardous waste, it must be managed in compliance with all applicable requirements of 40 CFR parts 260 through 272. The handler is considered the generator of the mercury, residues, and/or other waste and must manage it in compliance with 40 CFR part 262.

Containers must be labeled with the words

Universal Waste – Thermostats, **or**

Waste - Thermostats **or**

Used – Thermostats **and**

Date of the first thermostat was placed in the container

Lamps

Lamps are defined as the bulb or tube portion of an electric lighting device. Lamps can exhibit the toxicity characteristic for some heavy metals (i.e., mercury, lead, cadmium). Examples of universal waste lamps include incandescent, fluorescent, high intensity discharge, neon, mercury vapor, high pressure sodium and metal halide lamps.

Universal waste lamps must be managed in a way that prevents releases of any universal waste or hazardous waste to the environment, as follows:

Lamps must be placed in containers or packages that are structurally sound, adequate to prevent breakage, and compatible with the contents of the lamps. The original packaging, if sound, meets these requirements. Such containers and packages must remain closed and must lack evidence of damage that could cause leakage.

Any lamp that shows evidence of breakage, leakage, or damage that could cause the release of mercury must be immediately cleaned up and placed in a container. Containers must be kept closed, be structurally sound, be compatible with the contents of the lamps and must lack evidence of leakage, spillage of evidence of

Fluorescent Light Ballasts

Used fluorescent light ballasts and capacitors may also be disposed of as Universal Waste if stored and labeled properly. Ballasts manufactured after 1978 are usually marked

wide variety of equipment, particularly computer CPUs, keyboards, and other digital devices. In accordance with ADEM Admin. Code rule 335-14-2-.01(4)(a)22, used, intact CRTs are not solid waste unless they are disposed or accumulated speculatively. Contact Central Receiving Services for the disposal of CRTs.

Waste Antifreeze

Ethylene glycol and propylene glycol are the common constituents of antifreeze. Neither of these is regulated as a hazardous waste if not used in an automotive application. During automotive use, antifreeze chemically breaks down and becomes acidic, corroding the engine's cooling system. This corrosion causes the antifreeze to become contaminated with lead particles. Additionally, the antifreeze may become contaminated with gasoline, which contains benzene. Used antifreeze must be stored in containers. The container must be closed, structurally sound, compatible with the contents, must lack evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions, and must be reasonably designed to prevent the escape of antifreeze into the environment by volatilization or any other means.

Used antifreeze containers must be marked with one of the following:

- Universal Waste – antifreeze, **or**
- Waste - antifreeze **or**
- Used – antifreeze **and**
- Date that the waste was placed in the container

Off-Site Shipment/Transportation

Universal waste may only be sent to another universal waste handler or a Transfer, Storage, Disposal, or Recycling Facility (TSDRF). Prior to shipping universal waste off-site, the generator of the waste must obtain approval from the destination facility.

If a universal waste meets the definition of a hazardous material under US Department of Transportation regulations, the handler must comply with the DOT requirements set forth in 49 CFR Parts 172 through 180.

Record Keeping and Tracking

The handler must keep a record of each shipment. The record can be in the form of a log sheet, an invoice, a manifest, a bill of lading, or another type of shipping document. The record must include the following information:

- The name and address of the universal waste handler;
- Destination facility;
- Quantity of each type of universal waste; and
- Date of shipment.

Office of Environmental Health and Safety maintains all the documentations pertaining to the disposal of universal wastes. These records will be kept for at least three years from the date of shipment.

Responding to Releases: Standards for SOUWH

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Appendix

Universal Waste Lamps Label



