

Chapter XXXII

Universal Waste Management Standards

A. GENERAL.

1. The universal waste regulations (40 CFR 273) establish an alternative hazardous waste management program designed to streamline regulations governing the collection and management of certain widely generated wastes. These designated waste streams are referred to as “universal waste”.

2. *DRMOs have the option of managing these wastes under the universal waste regulations or the traditional RCRA Subtitle C requirements.* DRMOs will cooperate and manage these waste streams based on the preference of the generating activity and/or host installation.

3. The following hazardous waste streams are eligible for management as universal waste:

- a. Batteries
- b. Pesticides
- c. Mercury Thermostats
- d. Lamps that Exhibit a Hazardous Characteristic

4. The universal waste management standards are effective in states or US territories that do not have RCRA authorization, (i.e., Alaska, Hawaii, Iowa; and Puerto Rico). For states and territories with authorized RCRA programs, the state RCRA program must first adopt the universal waste standards before the universal waste program can be implemented.

5. The law does not mandate states to implement the universal waste program for all or any of the waste covered under the Federal program. For example, a state could adopt standards cover-

ing only batteries and pesticides, but not thermostats. States may also add new waste streams to their universal waste regulations. In addition, EPA will add other wastes to the universal waste regulations periodically.

6. State-Specific Universal Waste (UW). To determine whether or not some states have added their own state-specific UW, such as Cathode Ray Tubes (CRTs) or consumer electronic devices (also refer to paragraph E.5 below), DRMOs should check with their respective states to determine the status of the universal waste management requirements and standards in the specific state the DRMO services.

The environmental section of the DRMS web site contains a link to the EPA web site (i.e., http://www.epa.gov/epaoswer/hazwaste/state/stats/stats_bystate.htm) that contains a map showing which states have adopted and received authorization to implement the universal waste standards. Additionally, the EPA has a State-Specific Universal Waste Regulation website at <http://www.epa.gov/epaoswer/hazwaste/id/univwast/uwsum.htm>. You may also access this website through the DRMS web site (go to Environmental, click Environmental Links, go to Environmental Reference Links, go to State Environmental Web Sites, click on State Specific Universal Waste Regulations). This website contains a map showing the states that have universal waste regulations and which of those states have added universal waste categories in addition to the federal UW categories. This web site also has links to individual state’s universal waste regulations, and at the bottom of the web site there is a list of the additional universal waste categories added by the respective states. Note that this website may not be completely up-to-date and you may still have to contact the state for the most current information. The Defense Environmental Information System (DENIX) is also a good source of state regula-

tory information and can be found at the following web site <https://osiris.cso.uiuc.edu/denix/denix.html>. New users of DENIX may need to apply for a user name and password; this can be done at the DENIX web site. 15 Jan 04

B. BACKGROUND.

1. Under the universal waste rule, there are Generators, Small Quantity Handlers of Universal Waste (SQHUWs), Large Quantity Handlers of Universal Waste (LQHUWs), Transporters, and Destination Facilities (RCRA TSDFs). The universal waste rule does not make any changes to the RCRA regulations or requirements governing the disposal of universal wastes at destination facilities. The intent of the universal waste rule is to relax the standards for generators and handlers of universal waste in order to simplify collection and to reduce the quantity of these wastes going to municipal solid waste landfills or incinerators.

2. A universal waste generator is the person who generates or creates a universal waste, such as a DoD generating activity. A universal waste handler (**DRMO**), is a person or facility that receives universal waste from generators or other handlers, consolidates the waste, and sends it to other handlers, or to a destination facility (treatment/disposal facility).

C. TRANSPORTATION.

1. Under the universal waste standards, a HW manifest and a transporter with an EPA ID number is not required for the transportation of universal waste. Universal waste may be shipped on a bill-of-lading and Land Disposal Restriction notifications are not required. Universal waste shipments must comply with appropriate DOT requirements.

2. Interstate transportation can be complicated by some states having adopted the universal waste standards while others have not. Situations may exist where universal waste will be shipped from a state that has adopted the universal waste

program to or through states that have not adopted the universal waste program. When this occurs, the portion of the trip through a state or states that has not adopted the universal waste standard requires a manifest and the transporter used must be in compliance with 40 CFR part 263 (i.e., have an EPA ID number).

3. When shipments between universal waste states and non-universal waste states occurs, the DRMO or generator (e.g., disposal contractor) should complete a manifest to accompany the shipment through the state(s) where the waste is not a universal waste. The receiving facility (TSDF) should sign the manifest and send a copy to DRMO/generator. EPA recommends the DRMO/generator note in block 15 of the manifest that the waste is covered under universal waste regulations in the initiating state but not in the receiving state's facility.

4. Because not all states will seek authorization for the universal waste rules or for certain waste streams, DRMOs need to work with their contractor and host/state contacts to determine when and if a manifest is required.

5. Offsite Shipments of Universal Waste.

a. Universal waste may only be sent to another universal waste handler, a destination facility or a foreign destination.

b. Prior to shipping a universal waste to another universal waste handler, the originating handler must ensure that the receiving handler agrees to receive the shipment. DRMOs should check with their disposal contractor to ensure that this has been met.

c. If a shipment (or portion of a shipment) is rejected by either a handler or a destination facility, the DRMO/disposal contractor must:

- receive the waste back,
- agree on an alternate destination facility.

d. If a DRMO receives an offsite shipment of universal waste that is not a universal waste,

but rather a different hazardous waste, the DRMO must notify the regional EPA/state regulatory agency of receipt of hazardous waste that is not a universal waste.

D. IMPACTS ON DRMS/DRMO OPERATIONS.

1. **Hazardous Disposal Contracts.** Universal waste recycled or disposed through DRMS disposal contracts do not require special CLINs for these waste streams. Disposal of universal waste will be ordered using the appropriate RCRA CLIN based on the characteristic/listing of the waste or CLIN description. Universal waste must still be treated/reclaimed/disposed of at a hazardous waste facility authorized under RCRA to manage that specific waste. All destination facilities (disposal facilities) and transporters for universal waste must be listed as approved in the contract.

2. **Coordination with the host and generators.** DoD 4160.21-M, Chapter 10 requires DRMOs to coordinate the establishment of a universal waste management program with their generating activities. DRMOs will work with their host in implementing their universal waste management practices. DRMOs will manage hazardous wastes as universal waste when requested by the generator. Some DRMOs may be requested or may want to become an installation centralized collection center for universal waste. Appendix 1 provides additional guidance and management options that DRMOs can implement to act as universal waste collection points for their installation.

3. **Hazardous waste generations.** Wastes managed under the universal rule do not count toward the total quantity of hazardous waste used in determining generator regulatory status or to the quantity of waste reported in RCRA annual/biennial reports. Therefore, DRMS reports to generators on annual waste generations should not reflect universal waste amounts disposed by the generator.

4. **Receipt Processing.** Because universal wastes are not counted as hazardous waste, a special procedure for receiving and processing of these wastes has been developed in order to separate these wastes from normal hazardous waste in our accounting system. *Upon receipt of universal waste, DRMO's are to perform the DAISY receipt according to the intended disposition.*

a. If the item is to undergo RTDS efforts, receive the item as 'HM', and perform the DAISY receipt input using the 'M' code. The Ultimate Disposal Justification Code (UDJ Code) field will default to code 'Z', and should be left as 'Z', unless code 'V' applies. If the item subsequently fails RTDS efforts, refer the item for ultimate disposal and then enter the UDJ Code of 'F'.

b. If the item is to bypass any RTDS efforts, then receive the item as 'HW' and perform the DAISY receipt input using the 'W' code. The UDJ Code will default to 'Z', and should then be changed to 'F'. 19 Sep 2003

c. This enables Management Information, Distribution and Access System (MIDAS) reports to be generated that identify universal waste.

E.

1. Batteries (40 CFR 273.2).

a. Batteries eligible as universal waste:

- Any battery meeting a characteristic of a hazardous waste.

b. Batteries not eligible as universal waste:

- Spent lead-acid batteries that are managed under 40 CFR 266.80 Subpart G. **NOTE:** Lead acid batteries may be managed under either the universal waste standards (40 CFR 273) or the existing standards (40 CFR 266).

- Batteries that are not RCRA hazardous waste when discarded, i.e. alkaline batteries,

(does not exhibit one or more of the characteristics identified in 40 CFR part 261, Subpart C).

- Batteries that are not yet waste (no intent to discard) under part 261, including those that do not meet the criteria for waste generation as described in E1b1 and E1b2 above. This includes batteries that are intended to go through RTDS.

2. Pesticides (40 CFR 273.3).

a. *Pesticides eligible as universal waste:*

(1) *Recalled pesticides.* Recalled pesticides are defined as:

- Stocks of a suspended and canceled pesticide that are part of a voluntary or mandatory recall under Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) Section 19 (b), including, but not limited to, those owned by the registrant responsible for conducting the recall or;

- Stocks of a suspended or canceled pesticide or a pesticide that is not in compliance with FIFRA, that are part of a voluntary recall by the registrant.

(2) Stocks of other unused pesticide products that are collected and managed as part of a waste pesticide collection program.

b. *Pesticides not eligible as universal waste:*

(1) Recalled and unused pesticide products as described above that are managed by farmers in compliance with 40 CFR 262.70;

(2) Pesticides not meeting the definition of paragraph E2a above. These pesticides must be managed in compliance with the hazardous waste regulations in 40 CFR parts 260 through 272;

(3) Pesticides that are not waste under 40 CFR 261 criteria, including those that do not meet

the criteria for waste generation or those that are not waste as described below, and;

3. Mercury-Containing Thermostats (40 CFR 273.4).

a. A thermostat is a temperature control device that contains metallic mercury in an ampule attached to a bimetal sensing element, and mercury-containing ampules that have been removed from these temperature control devices in compliance with the requirements of 40 CFR 273.13 (c)(2) or 273.33 (c)(2).

b. *Thermostats eligible as universal waste:*

(1) A used thermostat becomes a waste on the date it is discarded (e.g., sent for reclamation);

(2) An unused thermostat becomes a waste on the date the handler decides to discard it.

c. *Thermostats not eligible as universal waste:*

(1) Thermostats that are not yet considered a waste (i.e., will undergo RTDS);

(2) Thermostats that are not a hazardous waste when discarded. A thermostat is a hazardous waste if it exhibits one or more of the characteristics identified in 40 CFR part 261, subpart C.

4. Universal Waste Lamps. (40 CFR 273.5)

a. *Lamps eligible as universal waste:*

Any lamp or light that exhibits a hazardous waste characteristic. This includes mercury-containing fluorescent, high intensity discharge (HID), mercury vapor, metal halide, high pressure sodium, and ordinary incandescent lamps. However, not all lamps identified above are necessarily hazardous waste when disposed. Several manufacturers of these lamps have developed lamps that do not meet a hazardous waste characteristic.

b. **Lamps not eligible as universal waste:** Lamps that do not meet a hazardous characteristic.

c. **Lamps and State Authorization.** Some states have added spent lamps to their universal waste programs before EPA added them to the federal universal waste program. While these actions are allowed under the universal waste rule, these states have to review their current regulations and determine whether their program meets the EPA requirements. If the existing state universal waste regulations are less stringent than the final rule, states have to amend their programs to make them equivalent to the final rule. Some states have approved the crushing of lamps as part of their universal waste program. However, the federal regulations for managing lamps as universal waste prohibit the crushing of lamps by handlers. EPA has indicated that they will be flexible in their review of a state program that allows crushing of lamps. Approval of crushing provisions in state programs will be based on whether adequate safeguards are included in the state regulations that enables a state program to meet the federal standard equivalent (no releases). DRMOs should work with their installations and contact a state regulatory official as necessary to determine their state specific status.

5. Cathode Ray Tubes (CRTs) and Used Electronics (select states only)

a. *Several states are regulating CRTs, used electronics (e.g., computers, cell telephones, answering machines, radios, compact disc player/recorders, etc.) and/or mercury containing devices as state-specific universal waste (UW). DRMOs need to review the specific state regulations to determine whether or not their states have expanded the list of UW.*

b. *The EPA's State-Specific Universal Waste Regulation web link (i.e., <http://www.epa.gov/epaoswer/hazwaste/id/univwast/uwsum.htm#al>) provides a map of the states outlining the applicable universal waste regulations for each state, links to each state's universal waste regulations, and list of different universal wastes in states (also referred to as "state-*

only universal wastes"). The above listed EPA web-link may not be the most current, therefore the DRMOs may need to contact the appropriate state regulator for most up-to-date information. See paragraph A.6 above for additional web site information.

c. *CRTs and electronic equipment, which survive R/T/D and usable sales efforts are normally subjected to a demanufacturing process, either through a commercial contract or through a Memorandum of Agreement with UNICOR (described under Donation in lieu of Abandonment & Destruction). Demanufacturing through commercial contracts adheres to the procedures found at the following web link: <http://www.drms.dla.mil/environmental/DRMSdeman.pdf> 15 Jan 04*

F. REQUIREMENTS FOR DRMOs MANAGING UNIVERSAL WASTE.

DRMOs will manage universal wastes as either generators (if they generate universal waste only) or handlers (if they accept other generator's universal waste). There are two sets of regulations for handlers of universal waste. **DRMOs managing universal wastes will operate as either a SQHUW or LQHUW, depending on the total quantity managed.**

1. Small Quantity Handlers of Universal Waste (SQHUW).

Subpart B of part 40 CFR 273 provides the requirements SQHUWs must follow. SQHUWs do not accumulate 5,000 kilograms (11,025 pounds) or more (all universal wastes categories combined) at their location at any time. DRMOs may operate as SQHUWs, provided they can demonstrate that the quantities of universal waste managed meet the criteria.

2. Large Quantity Handlers Of Universal Waste (LQHUW).

Subpart C of part 40 CFR 273 provides the requirements LQHUWs must follow. LQHUWs accumulate 5,000 kilograms (11,025 pounds) or more total of universal waste at any one time. Once a handler (i.e., DRMO) accumulates 5,000 kilograms or more total universal waste, they be-

come a LQHUUW and maintain this designation for the remainder of the calendar year.

3. Notification.

Most DRMOs already operate under EPA identification numbers for their hazardous waste management activities and are not required to renotify EPA. Otherwise, DRMOs must send a one-time notification of universal waste management to EPA and receive an EPA identification number before they exceed 5,000 kilograms (11,025 pounds) of universal waste. The notification must include the types of universal waste that the DRMO is accumulating.

NOTE: *SQHUUW are exempt from notification requirements and shipment tracking requirements.*

4. Turn-In and General Management Requirements.

a. Universal waste will be turned-in as HM and in accordance with the turn-in procedures in DoD 4160.21-M, Chapter 10.

b. Information must be available at turn-in to properly identify the item and to determine proper handling and storage compatibility. This can consist of either a hazardous waste profile sheet or material safety data sheet, unless the item is exempted under 29 CFR 1900.1200(b)(5) and (6).

c. DRMOs must manage universal wastes in a manner that prevents releases of any universal waste or component of a universal waste to the environment.

d. DRMOs must take actions or implement their host contingency plan for any universal waste that shows evidence of leakage, spillage, or damage that could cause leakage under reasonable foreseeable conditions. This includes re-packaging or overpacking.

e. All releases of universal waste and residues from universal wastes must be immediately contained in accordance with the DRMO's contingency plan. Any material resulting from a re-

lease of universal waste must be managed under the RCRA hazardous waste requirements (40 CFR 260-272)

f. Universal waste items being turned-in to a DRMO should be labeled and marked as specified in 40 CFR 273.14 and 273.34 and described in paragraph F3c. DRMOs that generate or accumulate universal waste from DRMO operations must also label universal waste items or containers. If universal waste labels are not available, DRMOs should use a paint marker or other permanent marker.

5. Storage.

Universal waste is subject to applicable storage requirements associated with hazardous materials in DRMS-I 6050.1, Chapters III (HM Storage), XXI (Batteries), and XXVI (Pesticides).

G. SPECIFIC UNIVERSAL WASTE REQUIREMENTS.

1. Batteries (40 CFR 273.33(a)).

a. DRMOs will not accept battery accumulations with mixed types of batteries (i.e., mercury, lithium, etc.) in a single container; even though the universal waste standards allow generators to mix batteries.

b. Containers holding damaged batteries must be kept closed and must be compatible with the contents of the battery.

c. Universal waste batteries (i.e., each battery) or a container in which the batteries are contained, must be labeled or marked clearly with one of the phrases: **“Universal Waste--Battery(ies) or Waste Battery(ies), or Used Battery(ies)”**. The turn-in document must still identify the specific type of battery;

2. Pesticides (40 CFR 273.33(b)).

Universal waste pesticides must be contained in one or more of the following:

- A container that remains closed, structurally sound, and compatible with the pesticide,

and one that lacks evidence of leakage, spillage, or damage; or if unsound, is overpacked in a container that meets these requirements. This could be the original container.

- A container, or multiple container package unit, tank, transport vehicle or vessel in which universal waste pesticides are contained must be labeled or marked clearly with:

- a. If the pesticide was recalled: the label that was on or accompanied the product as sold or distributed; and the words **“Universal Waste-Pesticide(s)”** or **“Waste Pesticide(s)”**;

- b. For unused pesticides:

- The label that was on the product when purchased, if still legible; **or**

- The appropriate label as required under the Department of Transportation regulation 49 CFR part 172; **or**

- Another label prescribed or designated by the waste pesticide collection program administered or recognized by a state and the words **“Universal Waste-Pesticide(s)”** or **“Waste Pesticide(s)”**.

3. Thermostats.

- a. Generators may remove mercury-containing ampules from universal waste thermostats, prior to turn-in to the DRMO.

- b. Generators that remove mercury-containing ampules from thermostats must determine whether the ampules exhibit a characteristic of hazardous waste identified in 40 CFR part 261, subpart C:

- c. Ampules must be stored in closed, non-leaking containers in good condition. Ampules must be packed in the container with packing materials adequate to prevent breakage.

- d. Universal Waste Thermostats, i.e., each thermostat, or a container in which the thermo-

stats are contained, must be labeled or marked clearly with any one of the following phrases: **“Universal Waste--Mercury Thermostat(s)”**, **or “Waste Mercury Thermostat(s)”** or **“Used Mercury Thermostat(s).”**

4. Universal Waste Lamps.

- a. Universal waste lamps must be packaged to minimize breakage and packaging materials must be designed to contain potential releases due to breakage during transport. Universal waste lamps must be stored in containers that remain closed, are structurally sound, will prevent breakage, are compatible with the lamps, and lack evidence of spills or damage that could cause leakage. Acceptable packaging consists of the original packaging or could include placing the lamps evenly spaced in double or triple ply cardboard containers with lids.

- b. DRMOs must contain any universal waste lamp that shows evidence of damage (breakage) and that could cause a release of mercury to the environment. DRMOs will place any unintentionally broken lamps in closed drums. DRMOs must take actions to contain all releases and any residues from universal waste lamps.

- c. Containers of universal waste lamps must be labeled with the words **“Universal Waste – Lamps”**; **“Waste Lamps”**; or **“Used Lamps”**.

- d. **Crushing of Lamps/Treatment.** EPA has determined that the crushing of mercury containing lamps falls within the definition of treatment. As a result, the crushing of lamps being managed as a universal waste is prohibited. However, EPA is aware that a number of states have already added spent lamps to their universal waste programs and some of these states allow crushing under regulatory requirements that control air emissions. To address this inconsistency, EPA will consider authorization of a state program that allows crushing of lamps on a case by case basis, only where the state demonstrates in its application for authorization that the state program meets the equivalency to the federal prohibition. **If a generator crushes lamps prior to turn-in,**

DRMOs must check with their state to determine whether this is acceptable.

5. Accumulation.

a. DRMOs may accumulate universal wastes for 1 year from the date the universal waste is generated or received from a DoD generating activity. A RCRA Part B permit is not required.

b. The DRMO must be able to demonstrate the length of time that the universal waste has been accumulated from the date it becomes a waste or is received. This can be accomplished by either of the following:

- Placing the universal waste in a container and marking the container with the date that the first item of universal waste was placed in the container.

- Marking each individual item with the date that it became a universal waste.

- Maintaining an inventory system onsite that will identify that date the universal waste became a waste or was received. (The receipt date on the turn-in document or the date it is referred for ultimate disposal.)

- Maintaining an inventory system onsite that identifies the earliest date that any universal waste in a group of universal waste items or containers of universal waste became a waste.

- Place the universal waste in a specific accumulation area and identifying the earliest date that any universal waste in that area became a waste or was received.

c. With an *approved waiver* from DRMS-LH, DRMOs may accumulate universal waste for longer than 1 year from the date the universal waste is generated, or received from another handler. A waiver is warranted only if the DRMO

can show that accumulation longer than 1 year is necessary for the purpose of generating quantities to facilitate proper recovery, treatment, or disposal.

6. Record keeping.

a. *Small Quantity Handlers.* No records of universal waste shipments must be kept for regulatory compliance. However, standard DRMS accountability requirements apply.

b. *Large Quantity Handlers.*

- DRMOs must keep records of each shipment of universal waste received onsite, including the quantity of each type.

- DRMOs must keep records of each shipment of universal waste shipped offsite, including the quantity of each type.

- DRMOs must maintain all shipment records for at least three (3) years from the date of receipt or shipment.

H. IMPORT (RETROGRADE) REQUIREMENTS.

The universal waste regulations for the import of universal waste are found in subpart F of 273. Once a universal waste enters the United States it is subject to the same universal waste requirements that would apply if it had been generated in the United States.

I. INTERNATIONAL REQUIREMENTS.

With the exception of paragraph H above, Universal Waste rules have no application to International DRMOs, other than Hawaii and Guam. International DRMOs retrograding wastes that may be considered Universal Wastes should contact the gaining CONUS DRMO for instructions prior to shipment.