
Universal Waste Rule

April 2000

Introduction

Ohio EPA adopted the Universal Waste Rule (UWR) as written in the May 11, 1995 *Federal Register* on September 2, 1997. Ohio's UWR can be found in Ohio Administrative Code (OAC) Chapter 3745-273.

Universal Waste (UW) is a general descriptive term used that describes wastes that are generated by a large, diverse population. Businesses as well as unregulated households generate UW. This term is intended to be broad so that a wider range of wastes may be managed under the reduced requirements of the UWR. The UWR is intended to promote recycling as well as the proper disposal of wastes, if recycling is not a viable option by easing certain regulatory requirements.

The UWR's reduced management requirements will encourage UW collection programs. These programs may include the collection of household waste. The collection of household UW will keep these wastes out of the municipal waste streams.

Types of Universal Waste

The following wastes make up the three categories of UW that may be managed under the UWR.

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Unused Pesticides

This category includes hazardous waste pesticides that are either suspended and recalled under Section 6 of the Federal Insecticide, fungicide and Rodenticide Act (FIFRA), or collected in waste pesticide programs.

Mercury-containing Thermostats

This category includes all mercury-containing thermostats that fail the Toxicity Characteristic Leaching Procedure (TCLP).

Spent Batteries

This category includes all hazardous waste batteries such as nickel-cadmium batteries. Spent lead-acid batteries may also fall under this category. The handler has the option of managing spent lead-acid batteries under OAC Chapter 3745-273, the UWR or OAC rule 3745-58-70.

Definitions

Battery- This device consists of one or more electrically connected electrochemical cells which is designed to receive, store, and deliver

electric energy. An electrochemical cell consists of an anode, cathode, and electrolyte. A device is also considered a battery if it is intact, unbroken, and all of the electrolyte has been removed.

Mercury-containing thermostat- This temperature control device contains metallic mercury in an ampule attached to a bimetal sensing element and a mercury-containing ampule that has been removed from the device in compliance with the UWR.

Large Quantity Handler of Universal Waste (LQHUU)

This handler manages any of the three types of UW. A LQHUU collects greater than or equal to 5,000 kg. of the total accumulation of UW at any one given time, not by each type. A LQHUU may receive UW from other handlers and foreign destinations.

Small Quantity Handler of Universal Waste (SQHUW)

This handler manages any of the three types of UW. A SQHUW collects less than 5000 kg. of the total accumulation of UW at any one given time, not by each type. A SQHUW may receive UW from other handlers and foreign destinations.

Destination Facility- This handler may either treat, dispose of, or recycle UW. The owner of a destination facility receives UWs from transporters, SQHUW, and LQHUU. If storage of the waste is necessary prior to recycling then the destination handler must comply with paragraph (C)(2) of OAC rule 3745-51-06. If the handler is storing UW prior to recycling or is storing or treating UW before disposal, the facility must obtain a hazardous waste installation and operation permit prior to building the destination facility.

Transfer Facility- This transportation-related facility includes; loading docks, parking areas, storage areas, and other similar areas where shipments of UWs are held during the normal course of transportation.

Transporter- This handler engages in the off-site transfer of UW by air, rail, highway or water. This handler may transport UW from one UW handler to another, to destination facilities, or to foreign destinations.

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Requirements for Handlers of Universal Waste

Conditionally Exempt Small Quantity Generator (CESQG)- A CESQG (generates ≤ 100 kg of hazardous waste per month) has the option of handling its UW under the UWR or under the CESQG requirements in the Ohio Administrative Code (OAC). It should be noted that CESQGs must ensure delivery of their hazardous waste to a permitted facility.

Storage Time Limits

Small Quantity Handler of Universal Waste (SQHUW). A SQHUW may store UW on-site for up to one year. If greater than one year is required, a handler must prove that the accumulation is necessary to facilitate proper recovery, treatment or disposal.

Large Quantity Handler of Universal Waste (LQHUW). A LQHUW may store UW on-site for up to one year. If greater than one year is required, a handler must prove that the accumulation is necessary to facilitate proper recovery, treatment or disposal.

Transporter of Universal Waste. This handler may store UW at a transfer facility for up to ten days before delivering it to a

LQHUW, a SQHUW, or a destination facility.

Destination Facility. A hazardous waste installation and operation permit for storage is required for facilities that store UW prior to recycling. If a facility is intended to be used for disposal of UW, then that facility must be permitted for hazardous waste disposal.

Packaging & Labeling

The labeling requirements are identical for LQHUW and SQHUW. In addition to the requirements listed below, each container or outer container must be labeled with the date the material became a waste; the date when it was received from another handler; or some other method that identifies when the waste was received or generated. The containers should **never** be labeled "HAZARDOUS WASTE." The other general guidelines are as follows:

Universal Waste Batteries. Each battery or container holding batteries must be marked, "Universal Waste - Battery(ies)" or "Waste Battery(ies)" or "Used Battery(ies)."

Universal Waste Mercury-Containing Thermostats. The containers must be labeled, "Universal Waste - Mercury Thermostat(s)"

or "Waste Mercury thermostat(s)" or "Used Mercury Thermostat(s)."

Universal Waste Canceled Pesticides. The containers must be marked either, "Universal Waste - Pesticide(s)" or "Waste - Pesticide(s)." Containers other than original packaging may be used.

Universal Waste Recalled Pesticides. Tanks or containers holding the recalled pesticides must be marked with the original FIFRA label that would be required under FIFRA if the pesticide were a product.

Containers

Universal Waste Unused Pesticides. Pesticides are allowed to be stored in containers other than original packaging containers provided that:

- The container remains closed;
- The container is structurally sound;
- The container is compatible with the pesticide; and
- The container lacks evidence of leakage, spillage, or damage that could cause leakage. If the above conditions cannot be met then the pesticides must be over packed.

Universal Waste Batteries. Storing UW batteries in containers is considered proper management. The containers must meet the following criteria:

- The container must be closed;
- The container must be structurally sound;
- The container must be compatible with the contents of the battery; and
- The container must lack evidence of leakage, spillage, or damage that could cause leakage.

If the above conditions cannot be met then the batteries must be over packed.

Universal Waste Thermostats. Storing leaking and non-leaking UW thermostats in containers is considered proper management. The containers must meet the following criteria:

- The container must be closed;
- The container must be structurally sound;
- The container must be compatible with the contents of the thermostat; and
- The container must lack evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions.

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If the above conditions cannot be met then the thermostats must be over packed.

Transportation

SQHUU. This handler may transport its UW to another UW handler to a destination facility or to a foreign location.

LQHUU. This handler may transport its UW to another UW handler to a destination facility or to a foreign location.

Transporter of Universal Waste. A transporter must comply with all applicable U.S. D.O.T. regulations that would be applicable to the UW if it were being transported as a product (hazardous material). A UW handler or a destination facility may qualify as a transporter if self-transporting is involved. These handlers must also comply with all applicable U.S. D.O.T. regulations.

Destination Facility. This facility may transport its UW to another destination facility, to a UW handler or to a foreign destination.

Rejected Shipments. If a handler sends a shipment of UW to another handler or to a destination facility and the shipment is rejected, the originating handler shall either:

- Receive the waste back when notified that the shipment was rejected; or
- Agree with the receiving handler on a destination facility to which the shipment will be sent.

A UW handler may reject a shipment that was received from another handler. If a handler rejects a shipment or a portion of a shipment, the originating handler shall be notified of the rejected shipment. Reshipment of the load should be discussed. The handler shall:

- Send the shipment back to the originating handler; or
- Send the shipment to another destination facility, if agreed to by both parties.

The owner or operator of a destination facility may reject a shipment or a portion of a shipment. If the owner or operator rejects it, the shipper shall be notified of the rejection. Reshipment must be discussed. The owner or operator shall:

- Send the shipment back to the original shipper; or
- Send the shipment to another destination facility, if agreed to by both parties.

Required Analysis

SQHUU AND LQHUU.

A SQHUU and a LQHUU must evaluate wastes that are not covered by the UWR. The UWR only applies to the mercury-containing ampules and batteries, not the casings. If a SQHUU or a LQHUU separate the casings from the batteries or ampules, they must characterize them for hazardous constituents. If leaks or spills occur, the batteries and ampules may still be managed as UWs as long as they are contained. The casings, residues, and any other related wastes must be characterized for hazardous waste constituents. If any of these wastes exhibit any characteristic, then they are fully regulated as hazardous waste under all applicable chapters of OAC.

Destination Facility. This facility is subject to full hazardous waste regulation under OAC for treatment, storage, and disposal facilities. Included in the facility requirements is a waste analysis plan.

Training

SQHUU. This handler must inform all employees that manage UW of proper handling and emergency procedures appropriate to the type(s)

of UW handled at the facility.

LQHUU. This handler must ensure that all employees are thoroughly familiar with proper waste handling and emergency procedures related to his/her job during business hours and emergencies.

Transporter of Universal Waste. A transporter must follow all applicable U.S. D.O.T. requirements found in 40 CFR parts 171 through 180.

Destination Facility. A destination facility must follow the training requirements in OAC Chapter 3745-65, if the facility does not require a storage permit. If the UW(s) must be stored before recycling, then OAC Chapter 3745-54 applies.

Recordkeeping

Manifests are not required for **all** handlers of UW.

SQHUU. This handler is not required to keep records.

LQHUU. This handler must record all shipments received or shipped. Logs, invoices, bills of lading, manifests, or other shipping documents constitute acceptable forms of records. They must be maintained for at least three years. The shipping/receiving records should include:

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- The name and address of the originating UW handler or foreign shipper from whom the UW was sent;
- The quantity of each type of UW received; and
- The date of receipt of the shipment of UW.

Destination Facility. Operators of this facility must keep the same records for receipt of UW shipments as those kept by LQHUU.

Notification

The notification requirements apply to all three types of UW. Handlers who are accumulating recalled pesticides only and have notified EPA under the Federal Fungicide, Insecticide and Rodenticide Act (FIFRA) are not required to renotify again under the UWR.

SQHUU. This handler is not required to notify Ohio EPA of its activity or to obtain an Ohio EPA identification number.

LQHUU. This handler is required to notify Ohio EPA of its activity one time. The company must receive an Ohio EPA identification number.

Destination facility. A destination facility is required to notify Ohio EPA of its UW activity.

The following must be included:

- Name and mailing address
- Name and business phone number of the person at the site who should be contacted about the activity.
- A statement indicating that the generator accumulates greater than 5,000 kg. of UW and the types of UW accumulating.

Transporter. This handler is also not required to obtain an Ohio EPA identification number.

Response to Releases

All UW handlers must immediately contain any release of UW and any associated residues. These wastes must be characterized by using TCLP analysis. Failure to contain any UW release constitutes illegal disposal. Any release above the reportable quantity (RQ) requires reporting under Comprehensive Environmental Response Compensation & Liability Act (CERCLA).

Imports of Universal Waste

UW that is imported from another country must be managed, upon entry into the United States, in compliance with the appropriate UW requirements for transporters, handlers, or destination facilities.

Land Disposal Restrictions (LDRs)

The following are LDR requirements:

- Prohibition on accumulating prohibited wastes directly on the land;
- Wastes must meet the treatment standards prior to land disposal;
- Prohibition on dilution; and
- Prohibition on waste accumulation except for purposes of accumulating quantities sufficient for proper recovery, treatment, or disposal.

Each handler and transporter of universal waste must comply with all LDR requirements except for administrative requirements. Destination facilities must additionally comply with the administrative requirements.

For certain wastes, the treatment standard requires recycling. For example, cadmium-containing batteries with cadmium concentrations above 1 ppm and lead-containing batteries with lead concentrations above 5 ppm as well as mercury-containing wastes like thermostats with mercury concentrations above .2 ppm must be recycled. For these specific wastes, any other treatment process followed by land disposal is forbidden. Any residues, casings, etc., may follow other LDR treatment standards.

Acceptable UW Management Practices

Handlers are generally not allowed to treat UW batteries or thermostats without obtaining a Part B Hazardous Waste Installation and Operation Permit. However; they may conduct the following activities provided that they comply with the UWR. If the following criteria are not adhered to, then handlers are managing hazardous waste.

Universal Waste Batteries

- Sort batteries by type;
- Mix types in containers;
- Discharge batteries to remove the electric charge;

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- Regenerating batteries;
- Disassemble batteries or battery packs into individual batteries;
- Remove electrolyte; and
- Remove batteries from discarded consumer products.

Universal Waste Mercury-containing Thermostats

Handlers may remove mercury-containing ampules from the thermostats provided that:

- The ampules are removed in a manner designed to prevent breakage;
- The ampules are removed only over or in a containment device (tray or pan sufficient to contain any mercury released from an ampule in case of breakage);
- A mercury clean-up system is available to immediately transfer any mercury resulting from spills or leaks from broken ampules, from the containment device to a container;
- Any mercury resulting from spills or leaks is immediately transferred from broken ampules from the containment device into non-leaking containers. The containers must be in good

condition and closed upon placement of the spill material;

- The area in which ampules are removed is well-ventilated and monitored to ensure compliance with applicable OSHA exposure levels for mercury;
- The employees removing ampules are thoroughly familiar with proper waste mercury handling and emergency procedures, including transfer of mercury from containment devices to appropriate containers;

- Removed ampules are stored in closed, non-leaking containers that are in good condition; and

- Removed ampules are packed in containers with packing materials adequate to prevent breakage during storage, handling, and transportation.

Universal Waste Pesticides

No treatment is allowed by handlers.

Petitions for Including Other Wastes

A petition may be made to add a hazardous waste to the UWR. The Director will evaluate petitions using the factors listed in OAC rule 3745-

27-81. The petition must be addressed to the Director of Ohio EPA and answer the following:

- Why the waste or category of waste is appropriate for being classified as a UW;
- How management practices for the waste or category of waste will be improved; and
- How the addition of this waste will improve the hazardous waste program under RCRA;

The petitioner should attach a statement of the need and justification for the subject of the petition, consisting of any supporting tests, studies and other information including:

- The petitioner's name and address;
- A statement of the petitioner's interest in the subject of the petition; and
- A description of the subject of the petition, including suggested regulatory language.

If you have any questions concerning the petition process please call Ohio EPA's Division of Hazardous Waste Management, Technical Support Unit at (614) 644-2934.

Ohio EPA District Offices

Central District Office
3232 Alum Creek Drive
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(614) 728-3778

Northeast District Office
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Northwest District Office
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Southwest District Office
401 E. Fifth Street
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(937) 285-6357

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**Table 1
Universal Waste System vs. RCRA**

SQHUW	LQHUW	SQG	LQG
Accumulation accumulates < 5,000 kg. of UW at any time	Accumulates ≥ 5,000 kg. of UW at any given time	Generates between 100 and 1,000 kg./month of hazardous waste	Generates ≥ 1,000 kg./month of hazardous waste
Handler status on a yearly basis	Handler status on a yearly basis	Generator status on a monthly basis	Generator status on a monthly basis
Storage time limit may store UW for up to one year	May store UW for up to one year	May accumulate hazardous waste for up to 180 days	May accumulate hazardous waste for up to 90 days.
Notification - No notification requirement	Notification - Required	Notification - Required	Notification - Required
Transportation - Any transporter	Transportation - Any transporter	Transportation - hazardous waste transporter	Transportation - hazardous waste transporter
Manifesting - No manifesting	Manifesting - No manifesting	Manifesting - Required	Manifesting - Required
Training - Employees who manage UW must be informed of proper handling and emergency procedures	Training - Requirement similar to SQG requirements in OAC rule 3745-52-34(D)(5)(c)	Training - See OAC rule 375-52-34(D)(5)(c)	Training - Training program required
Labeling - Do not label hazardous waste	Labeling - Do not label hazardous waste	Labeling - Label hazardous waste	Labeling - Label hazardous waste