

The U.S. EPA's New Universal Waste Rule 40 CFR Part 273 (May 11, 1995) Summary

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INTRODUCTION

In May of 1995, the U.S. Environmental Protection Agency (EPA) published and adopted new regulations on the management of certain widely generated wastes including hazardous waste batteries, certain pesticides, and mercury thermostats. The EPA calls these wastes "universal wastes" since they are generated by a large number of generators from a wide variety of sources in different settings, not just those associated with industrial hazardous waste generation. In addition, these "universal wastes" are found in significant amounts in municipal solid waste (MSW) and other municipal waste management systems. The State of Florida adopted EPA's Universal Waste Rule. These new streamlined regulations will encourage the collection and proper management of these wastes while reducing the regulatory burdens and barriers previously affecting generators, local governments, collection facilities and manufacturers/distributors who want to implement collection programs. Instead of going to MSW systems, these wastes can be diverted to permitted recycling or treatment and disposal facilities for proper management, thereby reducing greatly the contamination of MSW and potentially the environment with toxic chemicals, especially heavy metals such as mercury and cadmium. Hazardous waste batteries and thermostats are believed to be two of the largest sources of mercury and cadmium in MSW nation-wide and in Florida.

The U.S. EPA's UNIVERSAL WASTE RULE

Goals and Scope

The EPA promulgated the Universal Waste Rule (UWR) under 40 CFR Part 273 on May 11, 1995, with three goals in mind. They are to encourage resource conservation, to improve implementation of the hazardous waste program, and to facilitate the removal of universal wastes from the MSW and other municipal waste systems. The UWR covers universal wastes whether or not they are to be recycled or disposed of. However, by removing regulatory obstacles for persons wanting to collect these wastes for proper management, the EPA believes that the UWR will promote the development of recycling programs for these wastes.

The UWR provisions will be clearer and easier to understand by the diverse group of generators of these wastes and will not require unreasonable amounts of time or effort to implement them. Those generators who choose to manage their wastes under the UWR will not be required to count these wastes towards their hazardous waste accumulation, which will be a major incentive for participation in universal waste collection programs. Finally, the UWR will facilitate the removal of these wastes from the MSW stream based on the collection infrastructure expected to develop due to its reduced requirements.

Universal Wastes Included

The EPA has chosen to include hazardous waste batteries, pesticides and thermostats under the UWR at this time. In the future more hazardous wastes are expected to be added as it is shown that they meet the UWR petition requirements.

Hazardous Waste Batteries

Any hazardous waste wet or dry cell battery may be managed under the UWR's hazardous battery provisions. Since the UWR's provisions were designed to be simple, this will allow the collection and co-management of mixed hazardous and non-hazardous batteries so that generators and other handlers of these batteries will not need to make individual determinations about their batteries or battery types.

The definition of "hazardous waste battery", however, does not include the unit or device in which a battery is contained (e.g., a rechargeable product containing a non-easily removable battery). A unit or device containing a hazardous battery and that is discarded will be subject to the full hazardous waste regulations. If the unit or device is still a product, then it would not be regulated as a universal or a hazardous waste.

In the case of lead-acid batteries, the 40 CFR 266.80 provisions still apply and most of the handlers of these batteries that comply with these provisions are not subject to the UWR. The one exception is the lead-acid battery regeneration facility which becomes subject to the handler requirements under the UWR, but is exempted from the requirements for lead-acid battery reclamation facilities under 40 CFR 266.80. This is due to the UWR's removal of the 40 CFR 261.6 exemption for used batteries that are to be regenerated. Regeneration facilities for other hazardous waste batteries are now also subject to the handler requirements under the UWR.

Hazardous Waste Pesticides

Hazardous waste pesticides are the second category of wastes included under the UWR. They include recalled pesticides for which registrations have been suspended or canceled and are part of a voluntary or mandatory recall under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), those that are not in compliance with FIFRA and are part of a voluntary recall by the registrant, and stocks of other unused pesticide products that are being collected and managed as part of a waste pesticide collection program.

Under the UWR, there are a number of exclusions listed for pesticides that would not be covered by this rule. They include recalled pesticides, as described above, that are being disposed of by farmers on their farms in a manner consistent with the pesticide label disposal instructions and the container rinsing requirements provided for under 40 CFR 262.70 and 261.7(b)(3); any pesticide not meeting the conditions in the paragraph above; pesticides that are not hazardous wastes under 40 CFR Part 261; and pesticides that aren't considered to be wastes according to the UWR waste generation criteria for pesticides under 40 CFR 273.3(d). Hazardous waste pesticides not meeting the other conditions in the paragraph above are subject to full regulation under 40 CFR Parts 260 through 270 at the point of generation.

The UWR waste generation criteria for pesticides under 40 CFR 273.3(c) and (d) specify when a pesticide is or is not covered by its provisions. For recalled pesticides to be covered, the generator of the pesticide must agree to participate in the recall and the person conducting the recall must decide to discard the pesticide. At the time when both of these conditions are met, the pesticide becomes a waste. If the person conducting the recall sends the pesticide back for reclamation and reformulation, the pesticide would be considered an unused commercial chemical product being reclaimed and therefore would not be a solid or a hazardous waste. For unused pesticide products, they do not become wastes until the generator decides to discard them. Until that decision is made, the pesticides remain subject to FIFRA.

Hazardous Waste Thermostats

The third type of hazardous waste included under the UWR is mercury-containing hazardous waste thermostats. Since they pose little risk during accumulation and transport operations due to their design, the EPA decided to add them to the list of UWR wastes. In addition, a major manufacturer of thermostats is planning on conducting a nationwide collection and recycling program for these thermostats and needed the UWR to help facilitate an efficient, cost-effective collection network made up of its wholesalers and independent contractors.

The definition of thermostat includes ampoules of mercury that have been separated from thermostats. However, the ampoules must be removed following the specific handler management requirements under the UWR.

Participants in the Universal Waste System

There are four regulatory categories of participants in the UWR system. They are small quantity handlers of universal waste (UW), large quantity handlers of UW, transporters, and destination facilities.

Small and Large Quantity Handlers of UW

Small and large quantity handlers of UW include generators of UW; front-line collectors of UW such as wholesalers, retailers and local government UW collection centers; and transporters of UW that exceed the 10-day storage limitation set out in the UWR. The cut-off between small and large quantity handlers of UW is the accumulation of 5,000 kilograms (kg) or more of the total combined amount of UWs being accumulated. Small quantity handlers are those that do not accumulate 5,000 kg of UW at any time while large quantity handlers accumulate 5,000 kg or more of UW at any time. More requirements are placed on the large quantity handlers (LQHUU) under the UWR since they are storing and managing more UW than are the small quantity handlers (SQHUW). SQHUW and LQHUU only accumulate or store, and perhaps transport, UW at their locations. They do not treat (except where allowed under the UWR), dispose or recycle their UWs.

Transporters of UW

A transporter of UW is a person engaged in the off-site transportation of UW by air, rail, highway or water. It would include any commercial transport operation or a generator which self-transport its UW. A UW transporter must manage UWs in compliance with all applicable U.S. DOT regulations, including the Hazardous Materials Regulations (HMR, 49 CFR Parts 171-180). While UWs are not required to be transported under the Uniform Hazardous Waste Manifest requirements and are therefore not considered to be a hazardous waste by the U.S. DOT, a UW may meet the definition of a hazardous material under the U.S. DOT's HMR. If a UW is defined as a hazardous material, then a shipping paper with the required information (e.g., hazard class and identification number) must be generated by the transporter.

As mentioned above, a transporter which stores UW at its transfer facility for more than 10 days becomes either a SQHUW or LQHUU depending on the amount of UW being stored. The 10-day storage limitation applies to storage at the transfer facility and not to the total time period from pick-up of UW to its delivery to the specified destination.

Transporters of UW may only transport UW to a SQHUW, LQHUU, destination facility, or a foreign destination following the export requirements outlined under the UWR. The export provisions under the UWR are essentially equivalent to the hazardous waste export requirements except that hazardous waste manifests are not required for UW shipments.

Destination Facilities for UW

In the UWR, a destination facility is defined as a facility that treats (except for those activities that SQHUW and LQHUU are allowed to do under the UWR), disposes of, or recycles UW and is either a RCRA-permitted hazardous waste facility or a recycler regulated under 40 CFR 261.6(c)(2) which does not store hazardous waste prior to recycling. These facilities may only ship UWs to SQHUW, LQHUU, other destination facilities, or to foreign destinations in compliance with the UWR export requirements.

Since no manifests are required to accompany UW shipments, the destination facility is required to keep records for receipt of UW shipments in the same manner as required for LQHUU (outlined below). This will allow a comparison between outgoing shipments from LQHUU and the receipts of UW at a destination facility. However, no specific format is required by the EPA which believes that standard business records normally kept by the facility can fulfill this requirement.

A destination facility may reject a shipment containing UW or a portion of that shipment. If it does, then the facility must notify the shipper of the rejection and make plans for the reshipment of the rejected load. The rejected load must be sent back either to the original shipper, or to another destination facility mutually agreed upon by both the shipper and the owner or operator of the destination facility.

If a destination facility receives a shipment containing an unauthorized hazardous waste, the facility's owner or operator is required to immediately notify the appropriate regional EPA office (and the Department) about the illegal shipment and provide the name, address, and phone number of the shipper. The EPA and the Department will provide instructions for managing the hazardous waste.

UW Handler Requirements

As mentioned previously, more stringent UWR requirements are placed on LQHUU since they are managing larger quantities of UW. However, there are a number of requirements that apply to both SQHUU and LQHUU. These are described in the following paragraphs.

General

All UW handlers are prohibited from treating (except as allowed under the UWR) or disposing of UW. There are certain management activities allowed by the UWR for handlers of hazardous waste batteries and thermostats. These activities include sorting batteries by type, mixing different battery types in the same container, discharging batteries, regenerating used batteries, disassembling battery packs, removing batteries from discarded consumer products, removing electrolyte from batteries, and removing mercury-containing ampoules from thermostats. Any of the above activities relating to batteries are only allowed provided that the batteries or cell casings are not breached and remain closed and intact. Also, certain management standards have to be observed when conducting these activities. In addition, farmers may still dispose of waste pesticides from their own use on their farms in compliance with 40 CFR 262.70.

UW handlers are prohibited from sending or taking their UWs to a place other than another handler, a destination facility, or a foreign destination in compliance with the UWR's export requirements. In order to minimize or prevent rejected shipments, all UW handlers must ensure, before the shipment is sent, that the receiving facility agrees to receive it. Also, if for some reason the shipment is rejected by the receiving facility, the shipping handler must receive the UW shipment back or agree with the receiving facility

on a destination facility to which the shipment can be sent. If a handler receives an illegal shipment of hazardous waste, it would follow the same procedures as outlined earlier for destination facilities receiving such a shipment.

As for UW transporters, if the UW to be transported off-site meets the U.S. DOT's HMR definition for a hazardous material, the handler must comply with the HMR. The handler must package, label, mark, and placard the shipment in accordance with these requirements and must prepare the proper shipping papers. In addition, UW handlers are subject to the substantive Land Disposal Restrictions (LDR) under RCRA but not to the administrative LDR requirements including notifications or certifications to those destination facilities who will receive their UWs.

Handlers are also subject to the same UW management requirements for hazardous waste batteries, pesticides, and thermostats. In general, they are to manage UW in a way that prevents releases of UWs or components of a UW to the environment. Specifically, UW batteries, pesticides, and thermostats are to be properly stored, including provisions for use of non-leaking containers that are in good condition in cases where there is leakage coming from the UWs being managed.

All handlers of UW batteries and thermostats are required to label each individual UW or container holding these UWs with the words "Universal Waste Battery(ies)/Mercury Thermostat(s)", "Waste Battery(ies)/Mercury Thermostat(s)", or "Used Battery(ies)/Mercury Thermostat(s)". For UW pesticides, the UWR requires more specific labeling in addition to the general labels above. The more specific labeling would include either the original FIFRA label in the case of a recalled pesticide, or the original product label or the appropriate U.S. DOT HMR label in the case of an unused pesticide being collected as part of a waste pesticide collection program.

Under the UWR, all handlers have one year to accumulate or store their UWs. However, there is a provision to allow additional accumulation time if it is done solely for accumulating such quantities of UWs as are necessary to facilitate proper recovery, treatment, or disposal. Handlers must be able to clearly demonstrate the length of time that its UWs have been accumulated through the use of a marking/labeling, inventory, or some other appropriate method. It should also be noted that UW handlers, who are also conditionally exempt small quantity hazardous waste generators under 40 CFR 261.5, have the option of managing their UWs under these provisions rather than under the UWR.

All UW handlers are responsible for responding appropriately to releases of UWs or hazardous components of UWs. Handlers must determine if the residues resulting from releases are hazardous waste, and if they are, manage them under the full hazardous waste regulations. The EPA and the Department will consider any release of UW not cleaned up to constitute illegal disposal of hazardous waste which may lead to RCRA enforcement actions. Also, any release of hazardous substances from UWs above the reportable quantity threshold under CERCLA must be reported to the EPA and the Department.

Large Quantity Handlers of UW

There are a number of other UWR requirements that apply only to LQHUUW and not to SQHUUW or differ in how they are applied. These are summarized below.

All LQHUUW are required to notify the EPA and receive an EPA identification number. This does not apply to SQHUUW. However, if a SQHUUW anticipates accumulating 5,000 kg or more of UW at any time, it must send the notification and receive an EPA identification number before exceeding the 5,000 kg limit.

There are exceptions to the notification requirement for LQHUUW. A person who only handles UW recalled pesticides and who has already notified under FIFRA section 19(b) and 6(g), is not required to submit a notification under the UWR. Also, if a LQHUUW has already received an EPA identification number for other hazardous waste management activities, it is not required to re-notify the EPA under the UWR. As for other hazardous waste activities, a separate notification would be required for each LQHUUW activity located on a non-contiguous property.

There are training requirements for both SQHUUW and LQHUUW. However, those for SQHUUW are less burdensome. SQHUUW must inform all employees that handle or have responsibilities for managing UWs about the proper handling and emergency procedures that are appropriate. This can be done through distribution of either oral or written communication. For LQHUUW, their training requirements are analogous to those required for small quantity generators of hazardous waste. All LQHUUW employees handling UWs must be thoroughly familiar with proper waste handling and emergency procedures related to their responsibilities during normal facility operations and emergencies.

Finally, LQHUUW must track receipts and shipments of all UWs managed at their facilities. SQHUUW are not required to do this. The form of these required records may be a log, invoice, bill of lading, or other shipping document and must be retained for three years. The records for receipts and shipments must include the following information: (1) the name and address of the UW handler, destination facility, importer or foreign destination; (2) the quantity of each type of UW received or shipped; and (3) the date of receipt or shipment. These records can then be compared with those of destination facilities to insure that outgoing and incoming shipments match up.

The UWR in Florida

Florida adopted the UWR on September 7, 1995 by reference as Rule 62-730.185, Florida Administrative Code (F.A.C.). All provisions relating to hazardous waste batteries, pesticides, and thermostats were included. This made Florida the first state in the country to have adopted the complete UWR.

Plans are underway to work with the Department of Agriculture and Consumer Services (DACS), pesticide manufacturers/distributors, a rechargeable battery trade association and a major thermostat manufacturer to set up collection programs for pesticides, nickel-cadmium batteries and mercury-containing thermostats in Florida under the UWR framework. In the future, new wastes such as anti-freeze, mercury-containing lamps and other mercury-containing devices may be added to the UWR system.