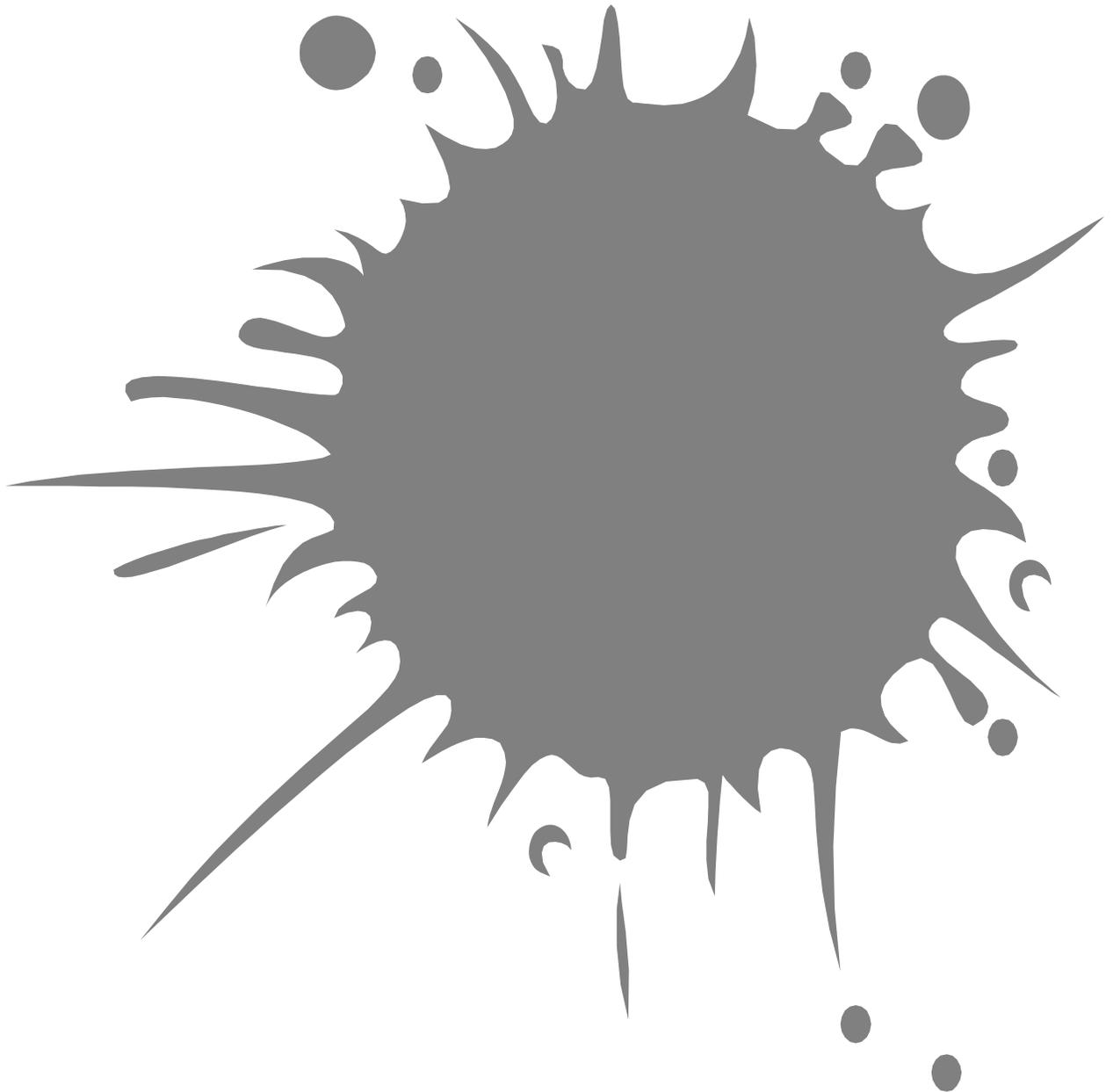


US EPA ARCHIVE DOCUMENT

**Management
Of
Recycled
Used Oil
and
Universal
Wastes**

ADEM

What Is Used Oil?



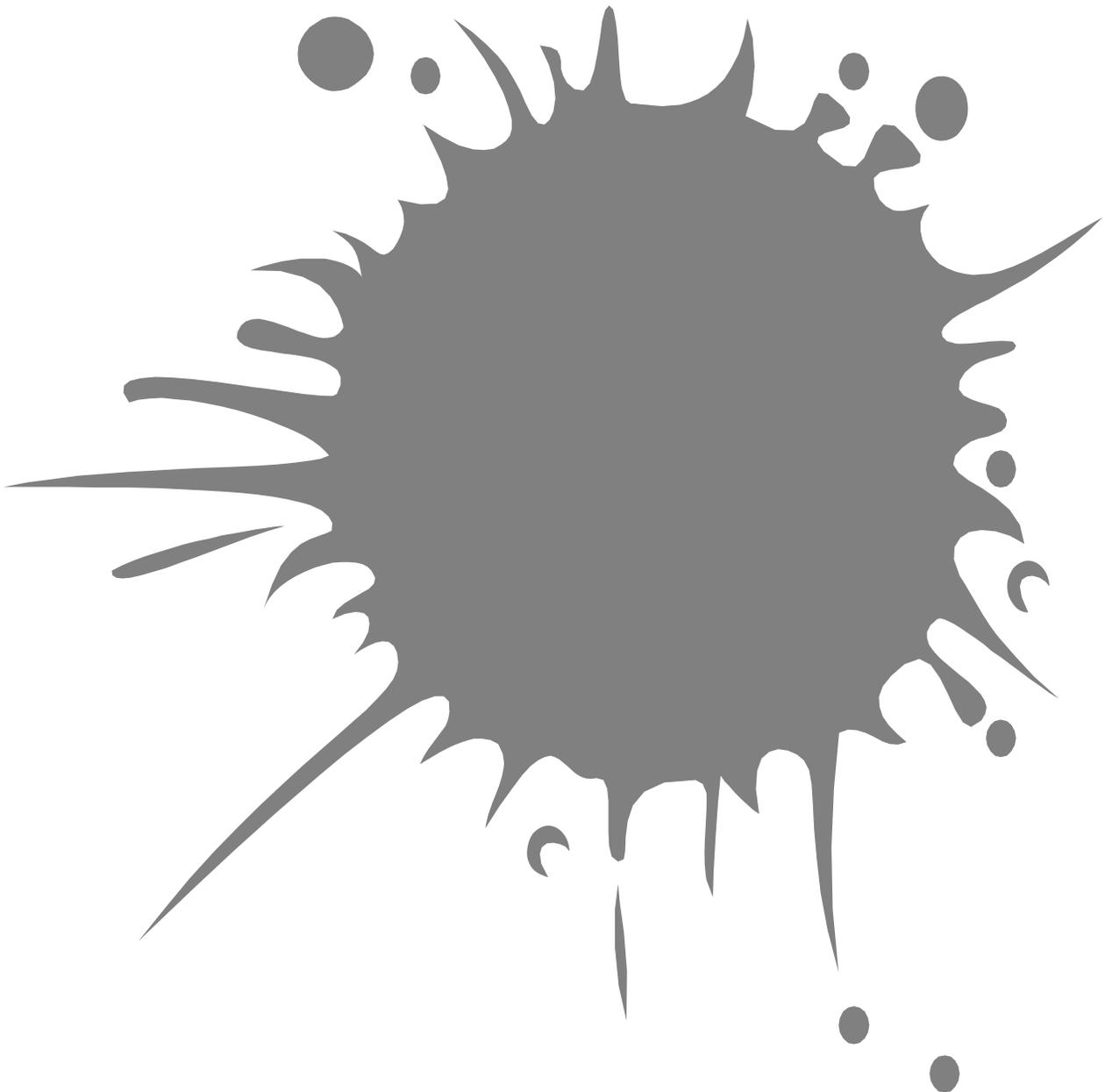


Used Oil - Definition

- "Used oil" is any oil that has been refined from crude or any synthetic oil that has been used and as a result of such use is contaminated by physical or chemical impurities.
- Rule 335-14-17-.01(1)



How Can I Tell Used Oil From Hazardous Waste?





RCRA Status Of Used Oil

- When recycled, used oil is regulated under the used oil management standards of Chapter 335-14-17, even if it displays one or more characteristics of hazardous waste.
- Rule 335-14-17-.02(1)(a)



Mixtures Of Used Oil And Listed HW

- Mixtures of used oil and hazardous waste listed in Rule 335-14-2-.04(4) are regulated as hazardous waste rather than as used oil.
- Rule 335-14-17-.02(1)(b)1.(i)



The Total Halogen Rule

- Used oil containing more than 1000 PPM total halogens is presumed to be a HW because it has been mixed with a listed hazardous waste.
- Rule 335-14-17-.02(1)(b)1.(ii)



Two Ways To Make The Total Halogen Determination

- Generator knowledge: a generator may, based on his knowledge of his process, certify that his used oil does contain over 1000 PPM of total halogens.
- Analysis: Use an SW-846 test method to demonstrate that the used oil does not contain over 1000 PPM of total halogens.



Rebuttable Presumption

- Persons may rebut this presumption (of mixing) by demonstrating that the used oil does not contain hazardous waste.
- Rule 335-14-17-.02 (1)(b)1.(ii)



Two Ways To Rebut The Mixing Presumption

- Generator knowledge: a generator may, based on his knowledge of his process, certify that his used oil has not been mixed with a listed HW.
- Analysis: Use an SW-846 test method to demonstrate that the used oil contains no halogenated hazardous constituents listed in Rule 335-14-2-.04(4).



Mixtures Of Used Oil And Characteristic Hazardous Waste

- Mixtures of used oil and toxic, corrosive, or reactive HW: are regulated as used oil if the mixture does not display any HW characteristic.
- This is considered to be treatment of a HW requiring an AHWMMMA treatment permit!



Mixtures Of Used Oil and Ignitable Hazardous Waste

- Mixtures of used oil and ignitable-only HW: are regulated as used oil if the mixture no longer displays the ignitability characteristic.
- Rule 335-14-17-.01



Other Mixtures Containing Used Oil

- Used oil and CESQG hazardous waste: regulated as used oil.
- Materials contaminated with used oil are regulated:
 - As used oil if the material has visible signs of free-flowing used oil or is destined to be burned for energy recovery; or
 - As a solid waste if the material has no visible signs of free-flowing used oil and is destined for disposal.



A Simple Rule Of Thumb

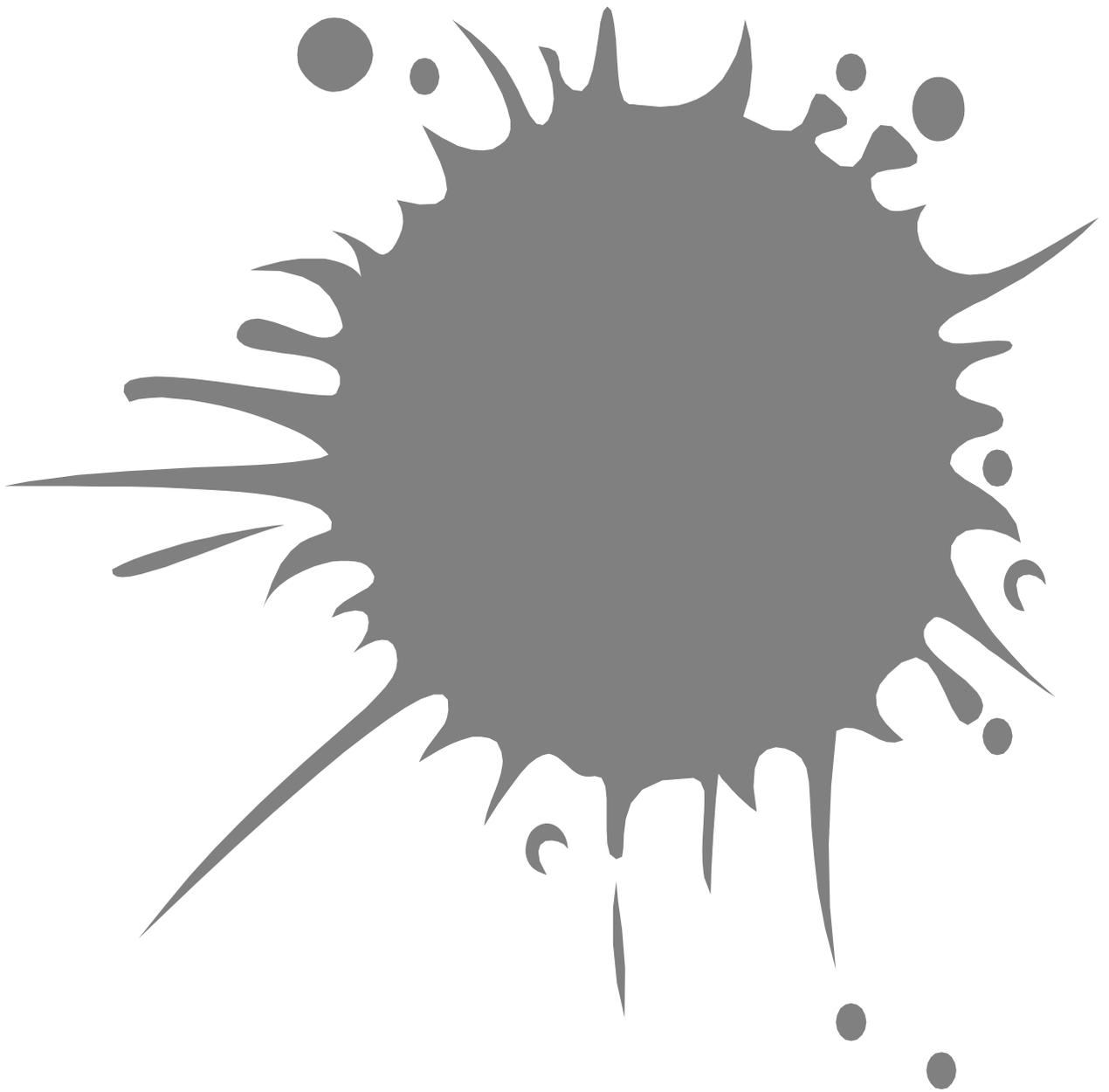
- If used oil that is destined for recycling is not mixed with other substances, then it *can't* become a hazardous waste.



Used Oil/Hazardous Waste Determination Flowchart



How Should A Used Oil Generator Handle Used Oil?





The Presumption Of Recycling

- The Department presumes that used oil is to be recycled unless a used oil handler disposes of used oil or sends used oil for disposal.
- Rule 335-14-17-.02(1)(a)



Managing Used Oil On-Site

- Must manage used oil in tanks or containers
- Storage units must be in good condition.
- Storage units must be labeled with the words “Used Oil”
- Containers must be kept closed except when adding or removing used oil.



Notification for Used Oil Generators

- A used oil generator that produces a monthly average of 25 gallons or more of used oil (i.e. 300 gallons per year) must notify the Department and receive an EPA Identification Number.
- To obtain an EPA Identification Number, call or write the ADEM and ask for a copy of ADEM Form 8700-12, "Notification of Regulated Waste Activity." The form can also be downloaded from the ADEM's website at www.adem.state.al.us.



Shipping Used Oil Off-Site

- Must use a transporter with an EPA identification number.
- May self-transport up to 55-gallons to an approved collection center or aggregation point.
- May have used oil transported under a tolling agreement.



Burning Used Oil In Space Heaters

- Used oil generators may burn used oil that they generate or used oil from HDIYers in space heaters provided that:
 - The heater has a maximum capacity of .5 million Btu/hr.
 - The heater is vented to ambient air.



Used Oil Transporter

Definition: A used oil transporter is any person who transports used oil, collects used oil from more than one generator and transports it, or is owner or operator of a used oil transfer facility.

Exceptions:

- Generator's self-transport
- Initial transportation of DIY used oil to a regulated used oil handler



Used Oil Processor

Definition: Any facility that performs any chemical or physical operations on used oil designed to produce from used oil, or to make used oil more amenable for the production of, fuel oils, lubricants, or other used oil-derived products.

Examples of processing include filtration, water separation, simple distillation, and re-refining.



Managing Used Antifreeze

DO (in order of preference):

- Recycle spent antifreeze on-site.
- Use a reputable off-site recycler of antifreeze.
- Use a reputable off-site disposal company for antifreeze.
- With permission of your local water treatment works, antifreeze may be poured into the sanitary sewer system.

DON'T:

- Pour antifreeze into a storm drain or out onto the ground.
- Put antifreeze into a septic system.



Mixing Contaminated Fuel and Used Oil

- Contaminated gasoline and diesel is considered an off-specification commercial chemical product.
- An off-spec. commercial chemical product fuel is not considered a solid waste when legitimately burned for energy recovery.

R.335-14-2-.01(2)(c)2.(ii) or
40 CFR 261.2(c)(1)(ii)



Managing Universal Wastes



What Are Universal Wastes?

- The Universal Waste Rule was established to streamline requirements for some widely generated hazardous wastes. It became effective under Federal programs in May, 1995 and in Alabama in March, 1996.
- Criteria for waste to be included in the Universal Waste Rule are:
 - The waste is generated in a wide variety of settings
 - The waste is generated by a vast community
 - The waste may be present in significant volumes in non-hazardous management systems



The Four General Types of Universal Waste



Universal Waste Batteries

- **Batteries**, such as nickel-cadmium (Ni-Cd) and sealed lead-acid batteries which are found in many common items in the home or business including electronic equipment, mobile telephones, portable computers, and emergency back-up lighting.
- All hazardous waste batteries are covered by this Rule including wet, dry, Ni-Cd, lead-acid, and caustic mercury.



Universal Waste Pesticides

- **Pesticides** that have been recalled or banned from use, are obsolete, have become damaged, or are no longer needed due to changes in cropping patterns or other factors.
- Only those pesticides, which are suspended or canceled as part of a recall, and unused pesticides collected as part of a waste pesticide collection program are covered by this Rule.



Universal Waste Mercury-containing Equipment

- **Mercury-containing Equipment** such as Thermostats, which can contain as much as three (3) grams of liquid mercury and are located in almost any building.
- Only mercury-containing equipment, thermostats, or ampules are covered by this Rule.



Universal Waste Lamps

- **Lamps**, which includes high intensity discharge (**HID**), and fluorescent lamps containing small amounts of mercury, lead, and sometimes cadmium.
- Note that the Rule can also apply to non-mercury lamps as long as they are a hazardous waste.



Handling Requirements For Each Specific Universal Waste



Universal Waste Batteries

- Universal waste batteries that show evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions in a container that is closed, structurally sound, compatible with the contents of the battery, and must lack evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions.
- A handler of universal waste batteries may:
 - Sort batteries by type;
 - Mix battery types in one container;
 - Discharge batteries;
 - Regenerate used batteries;
 - Disassemble battery packs into individual batteries or cells;
 - Remove batteries from consumer products; or
 - Remove electrolyte from batteries.



Universal Waste Pesticides

- Universal waste pesticides must be managed in a way that prevents releases to the environment. The universal waste pesticides must be contained in one or more of the following:
 - A container that remains closed, structurally sound, compatible with the pesticide, and that lacks evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions; or
 - A container that does not meet the above requirements., provided that the unacceptable container is overpacked in a container that does; or
 - A tank that meets the requirements of rule 335-14-6-.10, except for 335-14-6-.10(8)(e), (11), and (12); or
 - A transport vehicle or vessel that meets the above requirements.



Universal Waste Mercury-containing Equipment

- Universal waste mercury-containing equipment must be placed in a container if it:
 - shows any sign of non-contained elemental mercury; or
 - shows evidence of leakage, spillage, or damage that could cause leakage under reasonably foreseeable conditions.
- The container must be closed, structurally sound, compatible with the contents of the device, 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 mercury into the environment by volatilization or any other means.



Universal Waste Mercury-containing Equipment

- Mercury-containing ampules from universal waste mercury-containing may be removed provided that they are:
 - Removed in a manner designed to prevent breakage; and
 - Removed only over or in a containment device sufficient to collect and contain any mercury released in case of breakage; and
 - Removed where a clean-up system is readily available to immediately transfer any mercury resulting from spills or leaks to a container that meets the requirements of Rule 335-14-3-.03(5); and
 - Removed in an area that is well ventilated and monitored to ensure compliance with applicable OSHA exposure levels; and
 - Removed by employees thoroughly familiar with proper waste mercury handling and emergency procedures; and
 - Stored in closed, non-leaking containers that are in good condition and are packed with packing materials adequate to prevent breakage during storage, handling, and transportation.



Universal Waste Mercury-containing Equipment

- The open original housing holding the mercury from universal waste mercury-containing equipment that does not contain an ampule may be removed provided :
 - The original housing holding the mercury is immediately sealed with an air-tight seal to prevent the release of any mercury to the environment; and
 - All requirements for removing ampules and managing removed ampules are followed.



Universal Waste Lamps

- Universal waste lamps must be:
 - Contained in containers or packages that are structurally sound, adequate to prevent breakage, and compatible with the contents of the lamps.
 - Any lamp that shows evidence of breakage, leakage, or damage that could cause the release of mercury or other hazardous constituents to the environment must be immediately placed in a container.
 - Such containers must be closed, structurally sound, compatible with the contents of the lamps and must lack evidence of leakage, spillage or damage that could cause leakage or releases of mercury or other hazardous constituents to the environment under reasonable foreseeable conditions.



Universal Waste – General Requirements



Universal Waste Labeling

- Each item or container must be labeled or marked clearly as follows:
 - **Batteries** – "Universal Waste—Battery(ies)", or "Waste Battery(ies)", or "Used Battery(ies)";
 - **Pesticides** - The label that was on or accompanied the product as sold or distributed (if legible); and the words "Universal Waste-Pesticide(s)" or "Waste-Pesticide(s)";
 - **Mercury-containing equipment** - "Universal Waste-Mercury-Containing Equipment", "Waste Mercury-Containing Equipment", or "Used Mercury-Containing Equipment".
 - **Universal waste mercury-containing thermostats** - "Universal Waste-Mercury Thermostat(s)," "Waste Mercury Thermostat(s)," or "Used MercuryThermostat(s)."
 - **Universal waste lamps** - "Universal Waste -- Lamp(s)", or "Waste Lamp(s)", or "Used Lamp(s)".



Universal Waste Accumulation Time

- One year from the date the universal waste is generated, or received from another handler
- You 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 at your facility.



Universal Waste Employee Training

- You must inform all employees who handle or have responsibility for managing universal waste of the proper handling and emergency procedures appropriate to the type(s) of universal waste handled at your facility.

Universal Waste – Response to Releases



- You must immediately contain all releases of universal wastes and other residues from universal wastes.
- You must determine whether any material resulting from the release is hazardous waste, and if so, must manage the hazardous waste in compliance with all applicable requirements of 335-14-1 through 335-14-9.



Universal Waste – Facility Specific Requirements



Determining Which Requirements Apply To You

- **Small Quantity Handlers** of *universal wastes are facilities that do not accumulate more than 5,000 kilograms (11,000 pounds) of universal waste at any one time.*
- **Large Quantity Handlers** of universal waste are facilities that accumulate more than 5,000 kilograms (11,000 pounds) of universal waste at any one time (classification maintained until the end of the calendar year).



Offsite Shipments for Small Quantity Handlers

- A small quantity handler of universal waste is prohibited from sending or taking universal waste to a place other than another universal waste handler, a destination facility, or a foreign destination.
- If a universal waste being offered for off-site transportation meets the definition of hazardous materials under 49 CFR Parts 171 through 180, a small quantity handler of universal waste must package, label, mark and placard the shipment, and prepare the proper shipping papers in accordance with the applicable Department of Transportation regulations under 49 CFR Parts 172 through 180;
- Prior to sending a shipment of universal waste to another universal waste handler, the originating handler must ensure that the receiving handler agrees to receive the shipment.



Offsite Shipments for Large Quantity Handlers

- Comply with the requirements for Small Quantity Handlers
- A large quantity handler of universal waste must keep a record of each shipment of universal waste sent from the handler to other facilities. The record may take the form of a log, invoice, manifest, bill of lading or other shipping document.
- The record must include the following information:
 - The name and address of the handler, destination facility, or foreign destination to whom the universal waste was sent;
 - The quantity of each type of universal waste sent (e.g., batteries, pesticides, thermostats);
 - The date the shipment left the facility.
- The record of each shipment must be kept for three years from the date that the shipment left the facility.



Notification for Large Quantity Handlers

- A large quantity handler of universal waste must have sent written notification of universal waste management to the Department, and received an EPA Identification Number, before meeting or exceeding the 5,000 kilogram storage limit.
- If the large quantity handler of universal waste has already notified the Department of his hazardous waste management activities and has received an EPA Identification Number is not required to renotify or universal waste.
- A large quantity handler of universal waste who manages recalled universal waste pesticides and who has sent notification to EPA as required by 40 CFR Part 165 is not required to notify for those recalled universal waste pesticides under this rule