
ENVIRONMENTAL Fact Sheet



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Waste Mercury-Containing Devices: Management Requirements for Handlers and Transporters

A number of devices contain mercury and may pose a hazardous to human health or the environment when improperly managed. Examples of mercury-containing devices include certain types of thermostats, thermometers, switches, and relays. Due to this concern, the New Hampshire Department of Environmental Services (NHDES) has adopted Env-Hw 1101-1114, the Universal Waste Rule. This rule regulates the management of waste mercury-containing devices so as to promote recycling, pollution prevention and safe handling methods.

Why is mercury an environmental concern?

Mercury is a heavy metal that can accumulate in living tissue and cause adverse health effects. When a universal waste mercury-containing device is disposed of in a solid waste landfill or incinerator, the mercury can contaminate air, soil, surface water and groundwater. In New Hampshire, mercury has been detected in freshwater fish and a statewide fish consumption adviser has been issued by the NH Department of Health and Human Services. For more information on mercury in New Hampshire's environment, see NHDES' *New Hampshire Mercury Reduction Strategy*, published October 1998.

Requirements for Managing Mercury-Containing Devices

Waste mercury-containing devices generated by businesses, industry, and institutions may not be disposed of as a solid waste. It is illegal to dispose of any waste mercury containing device as a solid waste since January 1, 2008. In fact, any product that contains intentionally-added mercury is also banned from disposal in a solid waste landfill, incinerator, or transfer station.

Generators of waste are responsible for determining whether their wastes are hazardous and, if so, managing them in accordance with the requirements of the New Hampshire Hazardous Waste Rules. These requirements may include use of a uniform hazardous waste manifest, New Hampshire registered hazardous waste transporter, and delivery to an authorized hazardous waste facility.

Alternatively, waste mercury-containing devices may be handled under Env-Hw 1100 Universal Waste Rule, which went into effect October 13, 2001. NHDES believes that recycling is the preferred option for waste mercury-containing devices and that the Universal Waste Rule will promote the recycling and proper management of waste mercury-containing devices.

Universal Waste

"Universal wastes" are wastes that meet the definition of hazardous waste in the New Hampshire Hazardous Waste Rules, but which, during accumulation and transport, pose a relatively low risk compared to other hazardous wastes. Wastes that NHDES has determined meet universal waste criteria include antifreeze, mercury-containing lamps and devices, cathode ray tubes (CRTs), certain types of batteries, and recalled or suspended hazardous waste pesticides regulated under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA).

Generator Status

If waste mercury-containing devices and other universal wastes are managed in accordance with the Universal Waste Rule, Env-Hw 1100, such wastes do not need to be included in the calculation of hazardous waste generator's status (see Env-Hw 503). Universal wastes, when recycled, are also not subject to the generator fee at Env-Hw 512.02.

Universal Waste Consolidation

A facility may collect waste mercury-containing devices from other sites or generators without a permit provided the facility meets the handler requirements covered in the Universal Waste Rule Env-Hw 1101-1114 and complies with other applicable federal, state and local regulatory requirements.

Requirements for Handlers

A "handler" of waste mercury-containing devices means: (1) a generator of hazardous or universal waste mercury-containing devices; or (2) an owner or operator of a facility that receives hazardous or universal waste mercury-containing devices from other handlers, accumulates the devices, and sends the devices to another handler or to a destination facility. Handlers of universal waste mercury-containing devices must either meet the following standards or comply with the generator and/or facility requirements of the NH Hazardous Waste Rules.

1. Release Prevention

Manage waste mercury-containing devices in a way that prevents releases of mercury to the environment.

2. Quantity Limits

Universal waste handlers are either very large, large, or small quantity handlers:

- a. Small Quantity Handlers – accumulate less than 5,000 kilograms (approximately 11,000 pounds) of combined universal wastes on-site at any time. Approximately 17,600 48-inch fluorescent tubes would weigh 11,000 pounds.
- b. Large Quantity Handlers – accumulate 5,000 kilograms or more, but less than 20,000 kilograms, of combined universal wastes at any one time and must also comply with Env-Hw 1104 described in this fact sheet in the section titled, *Additional Requirements for Large Quantity Handlers*.
- c. Very Large Quantity Handlers – accumulate 20,000 kilograms or more of combined universal wastes at any one time and must also comply with Env-Hw 1104 and Env-Hw 1105 described in this fact sheet in the section titled, *Additional Requirements for Very Large Quantity Handlers*.

3. Labeling

Clearly label or mark each container of waste mercury-containing devices with any one of the following phrases: "Universal Waste – Mercury-Containing Device(s)," or "Waste Mercury-Containing Device(s)," or "Used Mercury-Containing Device(s)."

4. Containers

Store both intact and broken mercury-containing devices in containers that are compatible with the universal waste, in good condition, and closed at all times except when waste mercury-containing devices are being added to, or removed from, the container. Containers stored outside shall be covered to prevent precipitation from coming in contact with the waste.

5. Accumulation Time Limits

- a. Accumulate waste mercury-containing devices for no longer than one year from the date the mercury-containing devices are generated or received from another handler.
- b. Demonstrate the length of time that the waste mercury-containing devices have been accumulated from the date the mercury-containing devices became waste or were received. The handler may make this demonstration by:

- (1) Marking or labeling containers with the starting accumulation date; or
- (2) Maintaining an inventory system on-site that identifies the earliest date that waste mercury-containing devices were added to a container or received from off-site.

6. Training

Ensure that all employees who handle or have responsibility for managing waste mercury-containing devices are thoroughly familiar with the handling and emergency procedures.

7. Response to Releases

Broken waste mercury-containing devices may be managed as a universal waste but are considerably more expensive to recycle or dispose as compared to intact waste mercury-containing devices.

- a. Immediately contain and clean up all releases of from broken, leaking or damaged mercury-containing devices.
- b. Place any broken or damaged devices and any residues resulting from breakage or damage in a secure container.
- c. The container must be closed and sealed, structurally sound and compatible with the broken devices. A plastic lined box, fiber drum, or a plastic bucket with a lid that seals are recommended since some types of metal containers may be incompatible with mercury. Ensure the container is clean because if it is contaminated with other chemicals, those substances may react with the mercury.
- d. Mercury residues from broken devices must be handled in accordance with the New Hampshire Hazardous Waste Rules. The residues may be sent to a recycling facility or a hazardous waste treatment, storage, or disposal facility authorized to accept the waste. A New Hampshire Reregistered hazardous waste transporter and a uniform hazardous waste manifest must be used. Transporters who are transporting mercury residues must meet the requirements of the New Hampshire Hazardous Waste Rules. All applicable US DOT packaging and shipping requirements for broken mercury-containing devices must be met.

Any releases which pose a threat to human health or the environment must be reported immediately to NHDES at (603) 271-3899, Monday through Friday, 8 am to 4 pm or to New Hampshire Department of Safety (DOS) at (603) 223-4381, 24 hours/day and to the municipality in which the release occurred.

8. Off-Site Shipments

- a. Handlers are prohibited from sending or taking waste mercury-containing devices to a place other than another universal waste handler, a mercury-containing device recycling facility, or an authorized hazardous waste facility.
- b. Prior to sending a shipment of waste mercury-containing devices to another handler or destination facility, the originating handler must ensure that the receiving handler agrees to receive the shipment.
- c. Shipments must meet all applicable United States Department of Transportation (US DOT) and DOS regulations for waste mercury-containing devices.
- d. If a mercury-containing device shipment is rejected by an intermediate handler or destination facility, arrangements must be made by the originating handler to:
 - (1) Receive the waste back when notified that the shipment has been rejected, or
 - (2) Send the device shipment to an alternate facility.

9. Exports

A handler of waste mercury-containing devices who sends the devices to a foreign destination must comply with the requirements for international shipments as set forth in Env-Hw 1102.08 of the Universal Waste Rule.

Additional Requirements for Large Quantity Handlers

A handler who accumulates 5,000 kilograms or more of combined universal wastes must comply with Env-Hw 1104. These requirements include:

1. Prior to collecting 5,000 kilograms or more of combined universal wastes, notify NHDES of this activity and obtain an EPA Identification Number if one has not already been obtained.
2. Keep records for three years on each shipment of waste received or sent. These records must include:
 - a. The date of each shipment.
 - b. The quantities of each shipment.
 - c. The name and address of the handler or facility from which universal waste lamps were received or shipped to.

Additional Requirements for Very Large Quantity Handlers

A handler who accumulates 20,000 kilograms or more of combined universal wastes must comply with Env-Hw 1104 and Env-Hw 1105. These requirements include:

1. Submit a notification form for each on-site location where universal waste is accumulated.
2. Ensure universal waste is not stored within a 100-year floodplain.
3. Complete and document weekly inspections of all universal waste storage areas.
4. Establish and post contingency plans and emergency procedures and provide emergency response equipment.
5. Post emergency response information at each universal waste storage area and provide access security measures to universal waste storage areas.
6. Provide closure plans and sufficient financial assurance for closure.

Requirements for Transporters

1. Transporters are not required to obtain a New Hampshire hazardous waste transporter registration or use a hazardous waste manifest for waste mercury-containing devices, but must meet all applicable US DOT and DOS regulations.
2. Transporters are prohibited from sending or taking waste mercury-containing devices to a place other than:
 - a. Another handler;
 - b. A mercury-containing device recycling facility; or
 - c. An authorized hazardous waste facility.
3. Staging During Transportation:
 - a. Transporters who remove waste mercury-containing devices from their vehicles and stage them temporarily are not required to obtain a hazardous waste transfer facility permit, but are subject to US DOT and DOS regulations.
 - b. Transporters who stage waste mercury-containing devices for more than 10 days must also meet universal waste handler requirements.
 - c. Transporters must not stage more than a combined total of 5,000 kilograms (approximately 11,000 pounds) of waste mercury-containing devices and other universal wastes on-site at any time.

For more information:

Questions regarding this fact sheet should be directed to the NHDES Waste Management Division at (603) 271-2942 or toll-free within New Hampshire at 866-HAZWAST. For a complete description of the requirements, refer to the New Hampshire Hazardous Waste Rules, Env-Hw 100-1200, available from NHDES' website at www.des.nh.gov.