

ATTACHMENT 1



http://www.epa.gov/wastes/hazard/wastetypes/universal/

Last updated on Friday, October 01, 2010

## Wastes - Hazardous Waste - Universal Wastes

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### Universal Wastes

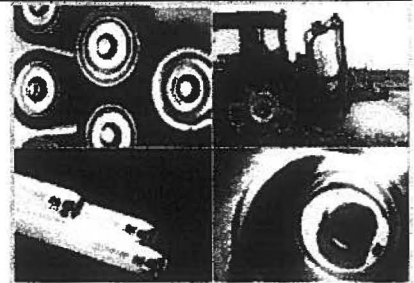
EPA's universal waste regulations streamline hazardous waste management standards for federally designated "universal wastes," which include:

- [batteries](#)
- [pesticides](#)
- [mercury-containing equipment](#) and
- [bulbs \(lamps\)](#)

The regulations govern the collection and management of these widely generated wastes, thus facilitating environmentally sound collection and proper recycling or treatment.

These regulations also ease the regulatory burden on retail stores and others that wish to collect these wastes and encourage the development of municipal and commercial programs to reduce the quantity of these wastes going to municipal solid waste landfills or combustors. In addition, the regulations also ensure that the wastes subject to this system will go to appropriate treatment or recycling facilities pursuant to the full hazardous waste regulatory controls.

The federal universal waste regulations are set forth in [40 CFR part 273](#). States can modify the universal waste rule and add additional universal waste(s) in individual state regulations so [check with your state](#) for the exact regulations that apply.



#### Kinds of Universal Waste

- [Batteries](#)
- [Pesticides](#)
- [Mercury-Containing Equipment](#)
- [Bulbs \(Lamps\)](#)

#### Proposed Addition to Universal Waste Rule

EPA has proposed adding hazardous pharmaceutical waste to the Universal Waste rule.

#### Related Link

[Frequent Questions](#)

ATTACHMENT 2



<http://www.epa.gov/wastes/hazard/wastetypes/universal/lamps/faqs.htm>

Last updated on Thursday, November 18, 2010

## Wastes - Hazardous Waste - Universal Wastes -

[Bulb/Lamp Recycling](#) [Hazardous Waste](#) [Waste Types](#) [Universal Waste](#)  
[Bulb/Lamp Recycling](#) Frequent Questions about Regulations that Affect the Management and Disposal of Mercury-Containing Light Bulbs (Lamps)

# Frequent Questions about Regulations that Affect the Management and Disposal of Mercury-Containing Light Bulbs (Lamps)

### Regulatory Overview

- How are mercury-containing bulbs (called "lamps" in the regulations) regulated?
- What are the proper recycling/disposal procedures for businesses under the Universal Waste Rule?

### More Information on Which Lamps are Subject to Waste Management Requirements

- How does EPA define the term "lamps" in its waste regulations?
- Do I need to recycle low-mercury ("green end cap") fluorescent lamps?
- When does a mercury-containing lamp become a waste?
- Do the lamps in tanning beds contain mercury? if so, how are they regulated?

### More Information on Who is Subject to Waste Management Requirements

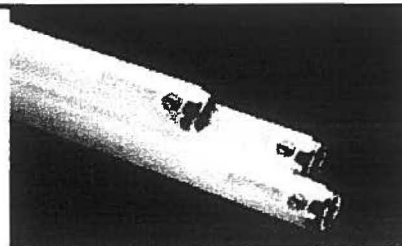
- Who is affected by the universal waste regulations?
- What are the waste management requirements for small quantity and large quantity handlers of universal waste lamps?
- What reduced requirements are applicable to generators of very few waste lamps?
- What are the labeling/marketing requirements for universal waste lamps?
- Who can transport universal waste lamps?

### Regulatory Overview

#### How are mercury-containing bulbs (called "lamps" in the regulations) regulated?

Mercury-containing lamps are managed under both federal and state regulations. Note that regulations may vary from state to state, and some states have regulations that are more stringent than those of the federal government. As a result, you should check with your state and local governments to learn how their regulations apply to you.

#### Federal Laws



### Types of Universal Waste

- Batteries
- Pesticides
- Mercury-Containing Equipment
- Mercury-Containing Light Bulbs (Lamps)

### Broken Lamps

Lamps are fragile and can easily break. The regulations distinguish between accidental breakage that occurs during normal transport and intentional breakage or crushing. While there is no specific amount of breakage that is considered accidental, less than 5% is generally acceptable. Anyone who chooses to recycle lamps under the Universal Waste Rule should take standard precautions to minimize breakage, such as using the boxes from new lamps to store old ones. More specific guidance on this is available from recyclers.

Read how to clean up a broken CFL or other fluorescent lamp.

***Determining whether your mercury-containing lamp is hazardous waste.***

Under federal regulations, the vast majority of mercury-containing lamps are considered a hazardous waste. If you do not test your mercury-containing lamps and prove them non-hazardous, you must assume they are hazardous waste and handle them accordingly.

***TESTING to determine if your lamp is a hazardous waste.*** Under federal regulations, a lamp is considered a hazardous waste if it exhibits the characteristic of hazardous waste toxicity. Waste generators must determine whether or not a lamp exhibits this characteristic by using the Toxicity Characteristic Leaching Procedure (TCLP) to test the lamp. This test measures the leachability of certain metals, including mercury and organic constituents. Under this procedure, the waste leachate must contain less than 0.2 milligrams per liter (mg/L) of mercury in order to pass the test.

- Lamps that pass the TCLP are not hazardous and therefore, are not subject to federal regulations.
- If the mercury concentration exceeds 0.2 mg/L, the lamp fails the toxicity test and should be managed as hazardous waste.

Note that regulations may vary from state-to-state. For more information specific to your state, contact your state environmental regulatory agency.

***USING GENERATOR KNOWLEDGE to determine if your lamp is hazardous waste:*** A generator may also use general knowledge to determine whether or not a lamp is hazardous. General knowledge may or may not be provided by a lamp manufacturer. Generators may be able to find out more about the regulatory status of mercury-containing lamps by contacting the manufacturer. However, generators should note that ***some states require generators to test their lamps*** to determine if the lamps are non-hazardous. Under both federal and state laws, the ultimate responsibility for determining whether a lamp is hazardous lies with the waste generator, not the lamp manufacturer. Again, if you do not test your mercury-containing lamps and prove them non-hazardous, assume they are hazardous waste and handle them accordingly.

***Universal Waste Rule.*** Disposal by businesses of lamps that fail the TCLP and are therefore considered hazardous may be managed under

- the Resource Conservation and Recovery Act (RCRA) full Subtitle C hazardous waste regulations; or
- the less stringent Universal Waste Rule (UWR).

Promulgated in 1995 (60 FR 25492 (PDF)); now at Title 40, Part 273 of the Code of Federal Regulations), the UWR established reduced regulations for generators of certain widely used hazardous wastes such as batteries, pesticides, and thermostats. Lamps were added to the Universal Waste Rule in 1999 (64 FR 36466 (PDF)).

Whether waste generators can manage their mercury-containing lamps under the Universal Waste Rule depends on the amount of hazardous waste generated each calendar month. Businesses disposing of less waste can follow the more streamlined

processes; businesses with more waste may have to comply with more complex requirements.

The Universal Waste Rule provides flexibility in the management of lamps, streamlined requirements for waste handlers, and promotes recycling. Easing the regulatory burden associated with the management of this waste reduces administrative, shipping, and disposal costs, making it easier to recycle this material. Handlers managing waste under the Universal Waste Rule have streamlined requirements for:

- Obtaining an EPA ID Number;
- Labeling containers;
- Storing materials on site;
- Responding to releases;
- Training personnel; and
- Tracking and transporting waste.

No permitting is needed and no special tracking or reporting is required when businesses send lamps to recyclers. Lamp recyclers can assist waste generators and other handlers in setting up recycling/management programs. [Learn more about how to establish a recycling program.](#)

[View a comparison of regulatory requirements under Subtitle C versus under the Universal Waste Rule.](#)

In addition, Congress specifically excluded [household waste](#) from the hazardous waste regulations (i.e., household exemption).

The federal hazardous waste regulations also set a minimum threshold for waste quantities, and hazardous wastes from small-volume generators are not regulated as stringently (i.e., [Conditionally Exempt Small Quantity Generator \(CESQG\)](#)).

As a result, waste lamps may, or may not, be regulated as hazardous waste under the federal hazardous waste regulations, depending upon the status of the generator of the waste and the specific lamps involved.

### **State Laws**

Each state has its own program for management of mercury-containing lamps. Most states have adopted and currently implement the federal Universal Waste Rule (UWR).

Note that several states have regulations that are more stringent than the federal UWR. For example, all mercury-containing wastes are banned from landfills in Vermont regardless of whether they were disposed of by CESQGs or households. New Hampshire does not have reduced requirements for CESQGs in its hazardous waste regulations, and businesses in Florida must dispose of less than ten lamps to qualify for the CESQG reduced requirements. Several other states (CA, MN, NY, ME, CT, and RI) either ban the disposal of mercury-containing lamps or have limited the amount of lamps entering disposal facilities. Other states are contemplating similar bans. Check with your state to determine your regulatory requirements. [For more information specific to your state, contact your state environmental regulatory agency.](#)

## **What are the proper recycling/disposal procedures for businesses under the Universal Waste Rule?**

While disposal requirements for mercury-containing lamps vary from state to state, the federal Universal Waste Rule ([see 40 CFR 273](#)) lays out the following basic standards for handling spent lamps:

- Used lamps that are accumulated for recycling should be stored in packaging that minimizes lamp breakage. Used lamps may be stored in drums, boxes, or the cartons they originally came in. The packaging must remain closed unless lamps are being added or removed. Any broken lamps must be stored separately in a sealed container. Used lamps must be clearly labeled as “Universal Waste Lamps” or “Waste Lamps” or “Used Lamps.”
- Used lamps should be stored and handled in a way that prevents breakage. Any releases to the environment from broken lamps must be contained immediately and handled properly. Learn the best way to [clean up a broken CFL or other mercury-containing bulb](#).
- Businesses are responsible for [educating their employees on the proper handling of used mercury-containing lamps and emergency procedures in case of breaks or spills](#).
- Businesses may accumulate and store used lamps for up to one year before sending them to a recycler. The container in which the used lamps are stored should be marked with the earliest date that the lamps were placed into the container. [Businesses should check with their state or municipality to see if any other regulations apply](#).
- Shipments must only be sent to other handlers of universal waste or a final destination facility where recycling occurs. Those transporting waste lamps must comply with Department of Transportation regulations in [49 CFR 171-180](#). Transporters are responsible for containing any releases to the environment.
- Neither a business nor transporters may dispose of, dilute (mix with other wastes), or treat mercury-containing lamps. Businesses should check with their state or municipality to see if other regulations apply.

### **Additional Information:**

- [Review the chapter on hazardous waste recycling and universal wastes in EPA’s RCRA Orientation Manual \(PDF\)](#) (10 pp, 118K)
- [Contact your state environmental regulatory agency for specific regulations and correct procedures](#)
- [Read more detailed information about how to establish a recycling program](#)
- [View a list of companies claiming to recycle or handle spent mercury-containing lamps](#)

[EXIT Disclaimer](#)

### **More Information on Which Lamps are Subject to Waste Management Requirements**

#### **How does EPA define the term “lamps” in its waste regulations? [40 CFR 273.9](#)**

*Lamp*, also referred to as “universal waste lamp,” is defined as the bulb or tube portion of an electric lighting device. A lamp is specifically designed to produce radiant energy, most often in the ultraviolet, visible, and infra-red regions of the electromagnetic spectrum. Examples of common universal waste electric lamps include, but are not limited to, fluorescent, high intensity discharge, neon, mercury vapor, high pressure sodium, and metal halide lamps. [View more information about universal wastes](#).

#### **Do I need to recycle low-mercury (“green end cap”) fluorescent lamps?**

Under federal regulations, the Toxicity Characteristic Leaching Procedure (TCLP) determines if a lamp is a hazardous waste. Lamps that pass the TCLP test for mercury are not hazardous and therefore, are not subject to federal regulation. This test measures the leachability of certain metals, including mercury and organic constituents. Under this procedure, the waste leachate

must contain less than 0.2 milligrams per liter (mg/L) of mercury in order to pass the test. Learn more about the TCLP. Some manufacturers of fluorescent tubes produce "low-mercury lamps" that they claim pass the TCLP test for mercury.

The amount of mercury in a low-mercury bulb can range from 3.5 to 4 milligrams compared to a standard fluorescent bulb which ranges from 8 to 14 milligrams of mercury. These lamps may be identified by green end caps (often referred to as green-tipped lamps), or green etchings on the lamps.

EPA encourages the recycling of all mercury-containing lamps, regardless of the mercury content. Note that if you do not test your low-mercury lamps and prove them non-hazardous, assume they are hazardous waste and handle them accordingly.

Some states require that all mercury-containing lamps be recycled or managed as a hazardous waste, regardless of the mercury content. For information specific to your state, contact your state environmental regulatory agency.

#### **When does a mercury-containing lamp become a waste?**

A used mercury-containing lamp becomes a waste on the date the generator/handler permanently removes it from its fixture. An unused mercury-containing lamp becomes a waste on the date the handler decides to discard it.

#### **Do the lamps in tanning beds contain mercury? If so, how are they regulated?**

The lamps in tanning beds contain as much or more mercury than standard fluorescent lamps that are managed under the Universal Waste Rule (UWR) or full Subtitle C hazardous waste regulations. For state-specific regulations, generators (i.e., tanning salons) should contact their state or local environmental regulatory agency to obtain current requirements for lamp disposal. Salon owners may also want to check with local or state health departments that often permit and regulate this industry.

### **More Information on Who is Subject to Waste Management Requirements**

#### **Who is affected by the universal waste regulations?**

Commercial and industrial businesses and other entities such as hospitals, schools and universities, and state and local governments that commonly use or manage lamps may be subject to the management requirements for universal waste lamps. These regulated entities may handle hazardous waste lamps as a universal waste and must comply with certain management standards depending upon how they are classified in the universal waste system:

- Small Quantity Handler of Universal Waste
- Large Quantity Handler of Universal Waste
- Transporter of Universal Waste
- Destination Facility

#### **Additional Information:**

- For detailed information on how the regulations apply to these four categories, please review the questions and answers below and the [Universal Waste Generation and Management Comparison Table](#).
- You can also view a [glossary of these terms](#).



**What are the waste management requirements for small quantity and large quantity handlers of universal waste lamps? 40 CFR 273.13(d) and 40 CFR 273.33(d)**

***Small Quantity Handlers***

(d) Lamps. A small quantity handler of universal waste must manage lamps in a way that prevents releases of any universal waste or component of a universal waste to the environment, as follows:

(1) A small quantity handler of universal waste must contain any lamp in containers or packages that are structurally sound, adequate to prevent breakage, and compatible with the contents of the lamps. Such containers and packages must remain closed and must lack evidence of leakage, spillage or damage that could cause leakage under reasonably foreseeable conditions.

(2) A small quantity handler of universal waste must immediately clean up and place in a container any lamp that is broken and must place in a container any lamp that shows evidence of breakage, leakage, or damage that could cause the release of mercury or other hazardous constituents to the environment. 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 reasonably foreseeable conditions.

[60 FR 25542, May 11, 1995, as amended at 64 FR 36489, July 6, 1999]

***Large Quantity Handlers***

(d) Lamps. A large quantity handler of universal waste must manage lamps in a way that prevents releases of any universal waste or component of a universal waste to the environment, as follows:

(1) A large quantity handler of universal waste must contain any lamp in containers or packages that are structurally sound, adequate to prevent breakage, and compatible with the contents of the lamps. Such containers and packages must remain closed and must lack evidence of leakage, spillage or damage that could cause leakage under reasonably foreseeable conditions.

(2) A large quantity handler of universal waste must immediately clean up and place in a container any lamp that is broken and must place in a container any lamp that shows evidence of breakage, leakage, or damage that could cause the release of mercury or other hazardous constituents to the environment. 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 reasonably foreseeable conditions.

[60 FR 25542, May 11, 1995, as amended at 64 FR 36489, July 6, 1999]

## **What reduced requirements are applicable to generators of very few waste lamps?**

### ***Conditionally Exempt Small Quantity Generator (CESQG) Requirements***

A generator that produces no more than 100 kg [220 lb] of hazardous waste, or no more than 1 kg [2.2 lb] of acutely hazardous waste, per calendar month is a Conditionally Exempt Small Quantity Generator (CESQG). This amount includes all hazardous waste, generated in a calendar month. Under federal regulations, this type of generator is exempt from the majority of hazardous waste regulations. However, CESQGs must ensure that their waste is sent to a permitted hazardous waste management facility, a permitted municipal or industrial solid waste facility, or a recycling facility. Contact your state environmental regulatory agency to see if your local municipal solid waste facility is permitted.

While federal regulations allow some mercury-containing lamps to be landfilled, certain states may prohibit this. Many states apply the CESQG requirement in a more stringent manner than the federal government and in other states the CESQG requirements are not applicable at all. For example, all mercury-containing wastes are banned from landfills in the state of Vermont regardless of whether they are disposed of by CESQGs or households. California enacted a similar ban in February 2006. New Hampshire does not have a CESQG exemption in its hazardous waste regulations and businesses in Florida must dispose of less than 10 lamps to qualify for the CESQG exemption. **Therefore, you are strongly encouraged to know what is required in your state.** For more information specific to your state, please contact your state or local environmental regulatory agency.

Whether your state regulates more stringently or not, all states and EPA encourage the recycling of used mercury-containing lamps.

### **What are the labeling/marketing requirements for universal waste lamps? 40 CFR 273.14**

A small quantity handler of universal waste must label or mark the universal waste to identify the type of universal waste as specified below:

... (e) Each lamp or a container or package in which such lamps are contained must be labeled or marked clearly with one of the following phrases: "Universal Waste -- Lamp(s)," or "Waste Lamp(s)," or "Used Lamp(s)."

### **Who can transport universal waste lamps?**

Anyone can, if the lamps are whole. Intact mercury-containing lamps that are managed as a universal waste can be shipped by using a common carrier and Standard Bill of Lading in all states. An exception exists in the state of New York which requires that certified haulers must be used for shipments weighing more than 500 pounds. Generators may self-transport their own lamps. Lamp recyclers can provide boxes that are designed to reduce breakage during transport to a recycling facility. Although the Universal Waste Rule eases restrictions on the transportation requirements for universal waste lamps, self-transport of used lamps must still comply with the Department of Transportation requirements. Transportation requirements for universal waste can be found in 40 CFR 273.50.

If the lamps are intentionally crushed, such lamps cannot be shipped as universal waste in many states; therefore, the full hazardous waste transportation requirements may apply, including the hazardous waste manifest and use of a licensed hazardous waste transporter. For specific requirements regarding crushed lamps, you should check with your state environmental agency.

ATTACHMENT 3



http://www.epa.gov/wastes/hazard/wastetypes/universal/glossary.htm

Last updated on Friday, September 26, 2008

## Wastes - Hazardous Waste - Universal Wastes

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## Glossary of Regulatory Terms

### **Adoption**

Referring to states adopting Federal regulations. As an initial step toward obtaining final authorization, a state typically adopts the federal regulations in some manner. Adopting the Federal program means either incorporating Federal rules into the State's rules, or creating state rules that are equivalent to federal rules. See [RCRA Orientation Manual Chapter 11: Authorizing States to Implement RCRA \(PDF\)](#) (7 pp, 95 KB) .

### **Authorized State**

A state that has been delegated the authority by EPA to implement and enforce its own regulations for hazardous waste management under RCRA. The state program must be at least as stringent as the federal standards. See [RCRA Orientation Manual Appendix D Glossary \(PDF\)](#) (24 pp, 328 KB) .

NOTE: A state can be authorized for some portions of the RCRA regulations and not others.

### **Battery**

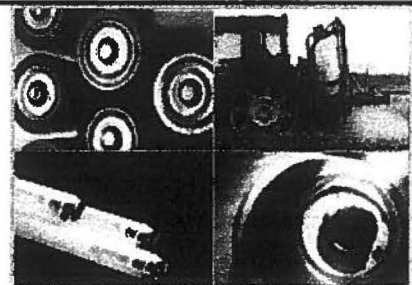
A device consisting of one or more electrically connected electrochemical cells which is designed to receive, store, and deliver electric energy. An electrochemical cell is a system consisting of an anode, cathode, and an electrolyte, plus such connections (electrical and mechanical) as may be needed to allow the cell to deliver or receive electrical energy. The term battery also includes an intact, unbroken battery from which the electrolyte has been removed. See [40 CFR 273.9](#)

### **CFR**

See [Code of Federal Regulations \(CFR\)](#)

### **Code of Federal Regulations (CFR)**

Document that codifies all rules of the executive departments and agencies of the federal government. It is divided into fifty volumes, known as titles. Title 40 of the CFR, referenced as 40 CFR, lists all environmental regulations (e.g., "40 CFR 273.81" lists a specific environmental



### **Kinds of Universal Waste**

- [Batteries](#)
- [Pesticides](#)
- [Mercury-Containing Equipment](#)
- [Bulbs \(Lamps\)](#)

You will need Adobe Reader to view some of the files on this page. See [EPA's PDF page](#) to learn more.

regulation). See EPA's [\*Terms of Environment\*](#).

### ***Conditionally Exempt Small Quantity Generator (CESQGs)***

Someone that produces (otherwise known as generates) less than 100 kg (220 lb) of hazardous waste, or less than 1 kg (2.2 lb) of acutely hazardous waste, per calendar month. Please see [40 CFR 261.5](#) for the specific applicability.

### ***Destination Facility***

Facility that treats, disposes of, or recycles a particular category of universal waste, except those management activities described in 40 CFR 273.13 (a) and (c) and 40 CFR 273.33 (a) and (c). A facility at which a particular category of universal waste is only accumulated, is not a destination facility for purposes of managing that category of universal waste. See [40 CFR 273.9](#).

### ***FIFRA***

[Federal Insecticide, Fungicide, and Rodenticide Act](#)

### ***FFDCA***

[Federal Food Drug And Cosmetic Act](#)

### ***Generator***

Any person, by site, whose act or process produces hazardous waste identified or listed in part 261 of this chapter or whose act first causes a hazardous waste to become subject to regulation. See [40 CFR 260.10](#).

### ***Hazardous Waste***

A waste with properties that make it dangerous, or capable of having a harmful effect on human health and the environment. Under the RCRA program, hazardous wastes are specifically defined as wastes that meet a particular listing of description or that exhibit a characteristic of hazardous waste. See [RCRA Orientation Manual Appendix D Glossary \(PDF\)](#). (24 pp, 328 KB)

NOTE: Hazardous wastes also are defined in [40 CFR 261.3](#).

### ***Lamps***

Lamp, also referred to as "universal waste lamp" is defined as the bulb or tube portion of an electric lighting device. A lamp is specifically designed to produce radiant energy, most often in the ultraviolet, visible, and infrared regions of the electromagnetic spectrum. Examples of common universal waste electric lamps include, but are not limited to, fluorescent, high intensity discharge, neon, mercury vapor, high pressure sodium, and metal halide lamps. See [40 CFR 273.9](#).

### ***Large Quantity Generators (LQGs)***

Facilities that generate more than 1,000 kg (2,200 lb) of hazardous waste per calendar month, or more than 1 kg (2.2 lb) of acutely hazardous waste per calendar month. See [RCRA Orientation Manual Appendix D Glossary \(PDF\)](#). (24 pp, 328 KB)

### ***Large Quantity Handler of Universal Waste***

Means a universal waste handler (as defined in this section) who accumulates 5,000 kg (11,000 lb) or more total of universal waste (batteries, pesticides, mercury-containing equipment, or lamps, calculated collectively) at any time. This designation as a large quantity handler of universal waste is retained through the end of the calendar year in which 5,000 kilograms or more total of universal waste is accumulated. See [40 CFR 273.9](#).

### ***Mercury-Containing Equipment***

Means a device or part of a device (including thermostats, but excluding batteries and lamps) that contains elemental mercury integral to its function. See [40 CFR 273.9](#).

### ***Pesticides***

Any substance or mixture of substances intended for preventing, destroying, repelling, or mitigating any pest, or intended for use as a plant regulator, defoliant, or desiccant, other than any article that: (1) Is a new animal drug under FFDCRA section 201(w), or (2) Is an animal drug that has been determined by regulation of the Secretary of Health and Human Services not to be a new animal drug, or (3) Is an animal feed under FFDCRA section 201(x) that bears or contains any substances described by paragraph (1) or (2) of this definition. See [40 CFR 273.9](#).

### ***RCRA***

See *Resource Conservation and Recovery Act*

### ***Resource Conservation and Recovery Act (RCRA)***

This was enacted by Congress in 1976 to address the huge volumes of municipal and industrial solid waste generated nationwide. This Act provides broad guidelines for the establishment of a national waste management program. The Act also provides the Administrator of the EPA (or his or her designee) with the necessary authority to develop these broad standards into specific requirements for the regulated community. For more detail, see [RCRA Orientation Manual Section I: Introduction to the Resource Conservation and Recovery Act \(PDF\)](#) (9 pp, 131 KB) or the general [RCRA Orientation Manual Web site](#).

### ***Small Quantity Generator (SQG)***

A generator who generates less than 1000 kg (2,200 lb) of hazardous waste in a calendar month. See [40 CFR 260.10](#).

### ***Small Quantity Handler of Universal Waste***

A universal waste handler that does not accumulate 5,000 kg (11,000 lb) of all universal waste categories combined at their location at any one time. See [40 CFR 273.9](#).

### ***State-Only Universal Waste***

A term used in this Web site to indicate a waste that has been added to a state's universal waste regulations but is not a federal universal waste category (batteries, pesticides, mercury-containing equipment including thermostats, or lamps).

### ***Thermostat***

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). See 40 CFR 273.9.

***Transfer Facility, Universal Waste Transfer Facility***

Any transportation-related facility including loading docks, parking areas, storage areas and other similar areas where shipments of universal waste are held during the normal course of transportation for ten days or less. See 40 CFR 273.9.

***Transporter, Universal Waste Transporter***

Means a person engaged in the off-site transportation of universal waste by air, rail, highway, or water. See 40 CFR 273.9.

***Universal Waste***

Means any of the following hazardous wastes that are managed under the universal waste requirements of 40 CFR part 273:

- (1) Batteries as described in 40 CFR 273.2;
- (2) Pesticides as described in 40 CFR 273.3;
- (3) Mercury-containing equipment (including thermostats) as described in 40 CFR 273.4; and
- (4) Lamps as described in 40 CFR 273.5.

***§, section symbol***

This designates a section. Example: §273.6 is also written as 40 CFR 273.6 (title 40, part 273, section 6). Environmental regulations are in title 40 in the Code of Federal Regulations (CFR).

ATTACHMENT 4



# AUTHORIZING STATES TO IMPLEMENT RCRA

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by EPA to do so. RCRA requires authorization to ensure state programs are at least equivalent to and consistent with the federal rules. Through state authorization, EPA establishes minimum federal standards to prevent overlapping or duplicative state regulatory programs. A state that has received final authorization, known as an **authorized state**, implements and enforces its hazardous waste regulations. Authorized state regulations act “in lieu of” federal regulations.

## DEVELOPING A STATE HAZARDOUS WASTE PROGRAM

Under RCRA, as enacted in 1976, states had two options for assuming the responsibility to administer the RCRA Subtitle C program: final or interim authorization. However, states no longer have the option of seeking interim authorization.

## OVERVIEW

When RCRA was written, it was Congress’ intent for the states to assume primary responsibility for implementing the hazardous waste regulations, with oversight from the federal government. Congress felt the states’ familiarity with the regulated community, and state and local needs would allow them to administer the hazardous waste program in the most effective manner.

In order for a state to assume the regulatory lead as the implementing agency, it must be authorized



## ■ Final Authorization

For a state to receive **final authorization**, it must be fully equivalent to, no less stringent than, and consistent with the federal program. However, states may impose requirements that are more stringent or broader in scope than the federal requirements. Some examples of rules that are more stringent are the decision by some states to not recognize the conditionally exempt small quantity generator (CESQG) exemption, or to require annual (rather than biennial) reports. An example of a rule that is broader in scope is the regulation of antifreeze as a listed waste in some states. In addition, the state's program must provide adequate enforcement authority to carry out its provisions, provide for public notice and hearing in the permitting process, and provide for public availability of information in "substantially the same manner and to the same degree" as the federal program.

As an initial step toward obtaining final authorization, a state typically adopts the federal rules in some manner. Adopting the federal program means either incorporating federal rules into the state's rules, or creating and adopting state rules that are equivalent to federal rules. Many states simply incorporate the federal rules by reference (this is known as **incorporation by reference**). This is when the regulatory language in a state's regulations actually cites, or refers to, the federal regulations. A state may also choose to create an analogous set of state regulations through the state legislative process. Even though a state may have adopted the federal program and its hazardous waste program is similar or identical to the federal program, it still does not have primacy for implementing and enforcing the hazardous waste regulations. To assume this role, the state must first be granted final authorization by EPA. As of August 2008, all states, with the exception of Alaska and

### ADOPTING FEDERAL REGULATIONS

As an initial step toward obtaining final authorization, a state typically adopts the federal rules in some manner. Adopting the federal program means either incorporating federal rules into the state's rules, or creating state rules that are equivalent to federal rules.

Iowa, are authorized to implement the RCRA hazardous waste program.

Any state that seeks final authorization for its hazardous waste program must submit an application to the EPA Administrator containing the following elements:

- A letter from the governor requesting program authorization
- A complete description of the state hazardous waste program
- An attorney general's statement
- A memorandum of agreement (MOA)
- Copies of all applicable state statutes and regulations, including those governing state administrative procedures
- Documentation of public participation activities.

### Governor's Letter

This is simply a letter, signed by the governor, formally requesting the EPA Administrator to authorize the state's hazardous waste program which will be implemented in lieu of the federal program.

### Program Description

The program description describes how the state intends to administer the hazardous waste program in place of the federal program. It includes the following:

- A narrative description of the scope, structure, coverage, and processes of the state program
- A description of the state agency or agencies responsible for running the program, including a description of state-level staff who will carry out the program
- A description of applicable state procedures, including permitting procedures and any state administrative or judicial review procedures
- A description of the state's manifest tracking system

- Copies of any forms used to administer the program under state law
- A complete description of the state's compliance tracking and enforcement program.

In addition, the program description must include estimates of:

- Costs involved in running the program and an itemization of the sources and amounts of funding available to support the program's operation
- The number of generators, transporters, and on-site and off-site disposal facilities (along with a brief description of the types of facilities and an indication of the permit status of these facilities)
- The annual quantities of hazardous waste generated within the state, transported into and out of the state, and stored, treated, or disposed of within the state (if available).

If the state chooses to develop a program that is more stringent or broader in scope (or both) than the one required by federal law, the program description should address those parts of the program that go above and beyond what is required under RCRA Subtitle C.

#### Attorney General's Statement

The attorney general's statement identifies the legal authorities — statutes, regulations, and where appropriate, case law — upon which the state is relying to demonstrate equivalence with the federal program. The statement must include citations to specific statutes, administrative regulations, and judicial decisions which demonstrate adequate authority. When differences from federal authorities exist in the state's program, the statement provides an explanation. The statement must be signed by the attorney general or an independent legal counsel authorized to represent the state agency in court. State statutes and regulations cited in the attorney general's statement must be lawfully adopted and fully effective at the time the program is authorized.

#### Memorandum of Agreement

Although a state with an authorized program assumes primary responsibility for administering Subtitle C hazardous waste regulations, EPA still retains enforcement authority and oversight responsibilities. In these instances, since the authorized state and EPA both possess regulatory authority to administer the regulations, there is a potential for problems or conflicts, such as dual permitting or dual enforcement of the regulations. The memorandum of agreement between the state Director and the EPA Regional Administrator outlines the nature of these responsibilities and oversight powers, and defines the level of coordination between the state and the EPA in implementing the program. While each MOA will contain provisions unique to each individual state's program, several provisions are common to all MOAs. These include provisions for:

- Establishing state procedures for assigning EPA identification numbers
- Specifying the frequency and content of reports that the state must submit to EPA
- Coordinating compliance monitoring and enforcement activities between the state and EPA.

#### SAMPLE MEMORANDUM OF AGREEMENT

This memorandum of agreement (hereinafter "Agreement") establishes policies, responsibilities, and procedures pursuant to 40 CFR §271.8 for the State of \_\_\_\_\_ Hazardous Waste Program (hereinafter "State Program") authorized under Section 3006 of the Resource Conservation and Recovery Act (hereinafter "RCRA" or "the Act") of 1976 (Public Law 94-580, 42 USC §6901 *et seq.*) and the United States Environmental Protection Agency (hereinafter EPA) Regional Office for Region \_\_\_\_\_. This Agreement further sets forth the manner in which the State and EPA will coordinate in the State's administration of the State program.

- Allowing EPA to conduct compliance inspections of the regulated community in the authorized state
- Joint processing of permits for those facilities that require a permit from both the state and EPA
- Specifying the types of permit applications that will be sent to the EPA Regional Administrator for review and comment
- Transferring permitting responsibilities upon authorization.
- Tentative determination — The EPA Regional Administrator must tentatively approve or disapprove the state's application. The tentative determination is published in the *Federal Register*.
- Public comment — The public is given an opportunity to comment on the state's application and the EPA Regional Administrator's tentative determination. The Agency places a newspaper notice to inform the public of this opportunity, and a public hearing will be held after the notice of the tentative determination is published in the *Federal Register*.

### State Statutes and Regulations

The state must submit copies of its statutes and regulations that are expected to act in lieu of the federal RCRA regulations. Where states adopt the federal regulations by reference, a document may be included outlining where in the state rules the federal rules are incorporated.

### Documentation of Public Participation

A state must demonstrate that the public was allowed to participate in the state's decision to seek final authorization. Prior to submitting the application to the Administrator, a state must have given public notice of its intent to apply for authorization. Public notice must take the form of publishing the announcement in major newspapers, sending information to individuals on the state agency mailing list, and allowing for a 30-day comment period. Proof of public participation may include copies of comments submitted by the public during the comment period, and transcripts, recordings, or summaries of any public hearings concerning state authorization.

## REVIEW OF THE PROPOSED STATE PROGRAM

Once the state has submitted a complete application for final authorization to EPA, the EPA Regional Administrator determines whether or not the state's program should be authorized.

The EPA Regional Administrator makes this determination according to the following steps:

- Final determination — After the notice of the tentative determination is published in the *Federal Register*, the EPA Regional Administrator must decide whether or not to authorize the state's program, taking into account all comments submitted. This final determination is then published in the *Federal Register*.

## REVISING AUTHORIZED STATE PROGRAMS

Once a state has gained final authorization, it must continually amend and revise its program to maintain its authorized status. As RCRA continues to evolve through new federal rulemakings, an authorized state is required to revise its program to reflect the changes in the federal program. An authorized state may also have to revise its program in order to incorporate any state statutory or regulatory changes that affect the state's hazardous waste program. Most of the authorization activity now involves revisions to authorized state programs rather than the authorization of new states.

All program revisions may be initiated by either EPA or the authorized state. To revise its authorized program, a state must submit copies of its regulations and may submit a modified program description, attorney general's statement, MOA, or other documents deemed necessary by EPA. EPA reviews the state's proposed modifications by applying the same standards used to review the

state's initial program application. The state's program revisions are effective once approved by EPA. Notice of all state program revisions are then published in the *Federal Register*.

A state with final authorization must modify its program on a yearly basis to reflect changes to the federal program resulting from the promulgation of new rules. New federal rules are grouped into annual clusters, and a state revises its program by adopting and becoming authorized for the entire cluster. A cluster begins on July 1 of each year and ends on June 30 of the following year. By July 1 of each year, an authorized state must adopt the cluster, which includes all changes to the federal program, that occurred during the 12 months preceding the previous July 1 (e.g., states must modify their programs by July 1, 2007, to reflect all changes made between July 1, 2005, and June 30, 2006). The deadlines for program modifications may also be extended for one year if state statutory amendments are necessary.

#### ■ **Withdrawing State Program Authorization**

Authorized state programs are continually subject to review. If the EPA Administrator determines that a state's authorized program no longer complies with the appropriate regulatory requirements and the state fails to amend its program accordingly, authorization may be withdrawn. An authorized state's program may be considered out of compliance for many reasons. One reason could be failure to promulgate or enact required regulations, leaving the state without the legal authority to implement or enforce its program. Also, the state legislature could limit or strike down the state's authority to enforce its program. A state could also be out of compliance by failing to issue required permits, or by continually issuing bad permits. If an authorized state fails to enforce its authorized program properly, does not act on violations, fails to assess proper penalties or fines, or fails to inspect and monitor properly, it may also be considered out of compliance. Finally, if the state fails to comply with the requirements of the MOA, the EPA Administrator may determine the state is out of compliance and may begin program withdrawal

procedures. If program authorization is withdrawn, responsibility for administering and enforcing RCRA Subtitle C reverts back to EPA.

Although EPA can withdraw hazardous waste program authorization for a state that fails to enforce its authorized program properly or take timely and appropriate action, the Agency can take other action without officially withdrawing authorization. In such instances, EPA may take independent enforcement action by **overfiling**, or enforcing a provision for which a particular state has authorization. EPA may also overfile if the state requests EPA to do so and provides justification based on unique, case-specific circumstances, or if a case could establish a legal precedent. In order to overfile, EPA must notify the state 30 days prior to issuing a compliance order or starting a civil action within that state.

#### ■ **Transferring Program Responsibility Back to EPA**

A state with an authorized program may voluntarily transfer the program back to EPA. To do this, the state must give the EPA Administrator 180 days notice and submit a plan for the orderly transfer to EPA of all relevant program information necessary for administering the program (e.g., permits and permit files, compliance records, permit applications, reports).

### **GRANTS AND OVERSIGHT**

While authorized states bear the primary responsibility for implementing the RCRA Subtitle C program, EPA still plays a role by offering financial assistance to states to help them develop and implement their hazardous waste programs, establishing broad national priorities, and ensuring that states properly carry out the RCRA program.

#### ■ **State Grants**

EPA provides grants to states to assist them in developing or implementing authorized hazardous waste management programs. Each EPA Regional Office receives an allotment based upon multiple

factors, such as population and the amounts and types of hazardous waste generated in the EPA Region. States then submit proposed work plans that outline planned activities in the upcoming year, including permitting, enforcement, and program management. EPA Regions then negotiate with each state over the specific work to be accomplished with these grant funds.

### ■ Priority Setting

EPA also sets RCRA national goals and priority program activities on an annual basis. Each year, EPA identifies the national priorities for implementing all of its programs, including the RCRA Subtitle C and D programs. These priorities form the basis for EPA regional and state workload negotiations for the upcoming year.

### ■ State Oversight

Ensuring that states properly implement their hazardous waste management programs is also an important EPA responsibility. As a result, EPA regional staff have oversight responsibilities to:

- Promote national consistency in RCRA implementation
- Encourage coordination and agreement between EPA and states on technical and management issues
- Ensure proper enforcement by the state
- Ensure appropriate expenditure of federal grant funds.

## INFORMATION MANAGEMENT

Several RCRA provisions require the regulated community to report hazardous waste management information to EPA and states. For example, biennial reporting provisions require large quantity generators and TSDFs to submit waste management information to EPA by March 1 of every even-numbered year. EPA and states, in turn, collect and track such information to ensure that the hazardous waste program is adequately managed at the EPA

Headquarters, EPA regional, and state levels, and to provide accurate and up-to-date information to both Congress and the general public. In order to achieve this goal, EPA compiles such data in the RCRAInfo database. EPA also maintains the State Authorization Tracking System, which it uses to track whether states have been authorized to implement or have adopted federal hazardous waste rulemakings.

### ■ RCRAInfo

In September 2000, EPA began managing data



supporting the Subtitle C program in its information system known as **RCRAInfo**. RCRAInfo consolidated EPA's former information systems into one national system. RCRAInfo is a national program management and inventory system of RCRA hazardous waste handlers, including generators, transporters, and treatment, storage, and disposal facilities (TSDFs). The information system captures identification, regulatory compliance status and cleanup activity data for all handlers, and tracks the permit and closure status of TSDFs. Additionally, RCRAInfo tracks state-collected data on the generation and management of RCRA hazardous waste from large quantity generators (LQGs) and TSDFs.

### ■ State Authorization Tracking System

The **State Authorization Tracking System (StATS)** is a tool used by EPA to chart the states that have been authorized to implement the RCRA hazardous waste program. By looking at StATS reports, an individual can determine if a particular state has been authorized to implement a specific rule. The reports also list the *Federal Register* citations for final authorization decisions for each state and rule.

## SUMMARY

Congress intended states to assume responsibility for implementing RCRA, with oversight from the federal government. In order for a state to receive authorization to implement and enforce the hazardous waste regulations in lieu of federal EPA, the state must demonstrate that its program:

- Is equivalent to, no less stringent than, and consistent with the federal program (state requirements may be more stringent or broader in scope)
- Provides adequate enforcement authority
- Provides for public availability of information in substantially the same manner and to the same degree as the federal program.

Any state that seeks final authorization for its hazardous waste program must submit an application to the EPA Administrator containing the following elements:

- A letter from the governor requesting program authorization
- A complete program description
- An attorney general's statement
- An MOA
- Copies of all applicable state statutes and regulations
- Documentation of public participation activities.

Once a state's program has been authorized, it must revise its program, on an annual basis, to reflect both changes in the federal program, and state statutory or regulatory changes. State programs are also subject to review by EPA, and a state's authorized status can be withdrawn if the program does not comply with appropriate regulatory requirements. Without officially withdrawing authorization, EPA may take independent enforcement action by overfiling, or enforcing a provision for which a particular state has authorization. States may also choose to transfer program responsibility back to EPA.

EPA works closely with states in implementing the hazardous waste management program by providing grants to states, setting national goals and priorities, and conducting program oversight.

EPA Headquarters, EPA regions, and states collect, compile, and track information on the RCRA hazardous waste program through RCRAInfo.

## ADDITIONAL RESOURCES

Additional information about state authorization can be found at [www.epa.gov/epaoswer/hazwaste/state](http://www.epa.gov/epaoswer/hazwaste/state).





ATTACHMENT 5

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# APPENDIX D

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## GLOSSARY

*The terms below are defined as they pertain to the Resource Conservation and Recovery Act.*

**Abandoned** For purposes of defining a material as a solid waste under RCRA Subtitle C, a material that is disposed of, burned, or incinerated.

**Accumulated Speculatively** Storage of a material in lieu of expeditious recycling. Materials are usually accumulated speculatively if the waste being stored has no viable market or if a facility cannot demonstrate that at least 75 percent of the material has been recycled in a calendar year.

**Acknowledgment of Consent** Notice sent by EPA to an exporter of hazardous waste, indicating that the importing country has agreed to accept such waste.

**Action Levels** For purposes of Subtitle C corrective action, risk-based concentrations of hazardous constituents in ground water, soil, or sediment that may trigger further investigation into possible contamination at a particular site.

**Administrative Action** Enforcement action taken by EPA or a state under its own authority, without involving a judicial court process.

**Administrative Procedures Act** The Act that establishes rulemaking procedures as well as site-specific licensing procedures, access to agency information, and procedures and standards for judicial review of agency actions. All environmental rulemakings proposed and finalized by EPA include public participation throughout the process.

**Aggregation Points** Centers that accept used oil only from places owned by the same owner and operator as the aggregation point, or from do-it-yourselfers.

**Alternative Concentration Limits** For purposes of TSDF ground water monitoring, hazardous constituent limits established by the EPA Regional Administrator that are allowed to be present in ground water.

**Annual Aggregate** For purposes of UST financial responsibility, the total amount of UST financial responsibility coverage required to cover all leaks that might occur in one year.

**Applicable or Relevant and Appropriate Requirements** Standards, criteria, or limitations under federal or more stringent state environmental laws, including RCRA, that may be required during a Superfund remedial action, unless site-specific waivers are obtained.

**Authorized State** A state that has been delegated the authority by EPA to implement and enforce its own regulations for hazardous waste management under RCRA. The state program must be at least as stringent as the federal standards.

**Automatic Tank Gauging** A release detection method for USTs that uses a probe in the tank that is wired to a monitor to provide information on product level and temperature.

**Basel Convention** The international treaty that establishes standards for global trade of hazardous waste, municipal waste, and municipal incinerator ash. Because the United States is not a party to the convention, U.S. businesses can only export waste to those countries with which the U.S. government has negotiated a separate waste trade agreement.

**Bentsen Wastes** Geothermal exploration, development, and production waste exempt from RCRA Subtitle C regulation.

**Best Demonstrated Available Technology** The technology that best minimizes the mobility or toxicity (or both) of the hazardous constituents for a particular waste.

**Bevill Wastes** Fossil fuel combustion wastes, mining and mineral processing wastes, and cement kiln dust wastes exempt from RCRA Subtitle C regulation.

**Biennial Report** A report submitted by hazardous waste LQCs and TSDFs in order to enable EPA and the states to track the quantities of hazardous waste generated and the movements of those hazardous wastes.

**Biennial Reporting System** A database that tracks hazardous waste activity reports, known as biennial reports, that are submitted by LQCs and TSDFs.

**Boiler** An enclosed device that uses controlled flame combustion to recover and deliver energy in the form of steam, heated fluid, or heated gases.

**Bottom Ash** Ash that collects at the bottom of a combustion chamber.

**Burners** Handlers who burn used oil for energy recovery in boilers, industrial furnaces, or hazardous waste incinerators.

**Burning for Energy Recovery** Burning hazardous waste for its heating value as a fuel, and using wastes to produce fuels or as ingredients in fuels.

**By-Products** Materials that are not one of the intended products of a production process. It is a catch-all term and includes most wastes that are not spent materials or sludges.

**California List** Interim LDR treatment standards that ensured adequate protection of human health and the environment during the time EPA was promulgating final LDR treatment standards.

**Capacity Assurance Plan** A written statement which ensures that a state has hazardous waste treatment and disposal capacity. This capacity must be for facilities that are in compliance with RCRA Subtitle C requirements and must be adequate to manage hazardous wastes projected to be generated within the state over 20 years.

**Cathodic Protection** A form of corrosion protection for USTs that uses sacrificial anodes or a direct current source to protect steel by halting the naturally occurring electrochemical process that causes corrosion.

**Change in Service** Using a formerly regulated UST system to store a nonregulated substance.

**Characteristic Waste** Waste that is considered hazardous under RCRA because it exhibits any of four different properties: ignitability, corrosivity, reactivity, and toxicity.

**Civil Action** A formal lawsuit, filed in court, against a person who has either failed to comply with a statutory or regulatory requirement or an administrative order, or against a person who has contributed to a release of hazardous waste or hazardous constituents.

**Clean Air Act** The Act that regulates air emissions from area, stationary, and mobile sources. CAA limits the emission of pollutants into the atmosphere in order to protect human health and the environment from the effects of airborne pollution.

**Clean Closure** The process of completely removing all waste that was treated, stored, or disposed in a hazardous waste unit.

**Clean Water Act** The Act that sets the basic structure for regulating discharges of pollutants to surface waters of the United States. CWA imposes contaminant limitations or guidelines for all discharges of wastewater into the nation's waterways.

**Closure** Procedure that a solid or hazardous waste management facility undergoes to cease operations and ensure protection of human health and the environment in the future.

**Codification** The process by which final regulations are incorporated into the CFR, which is published annually.

**Collection Centers** Centers that accept used oil from multiple sources, including both businesses and private citizens.

**Combustion** The controlled burning in an enclosed area as a means of treating or disposing of hazardous waste.

**Commercial Chemical Products** Unused or off-specification chemicals, spill or container residues, and other unused manufactured products that are not typically considered chemicals. For the purposes of hazardous waste listings, CCPs include only unused, pure chemical products and formulations.

**Compliance Monitoring** For purposes of RCRA TSDF ground water monitoring, a program that seeks to ensure that the amount of hazardous waste that has leaked into the uppermost aquifer does not exceed acceptable levels.

**Composting** Processes designed to optimize the natural decomposition or decay of organic matter, such as leaves and food. The end product of composting is a humus-like material that can be added to soils to increase soil fertility, aeration, and nutrient retention.

**Comprehensive Environmental Response, Compensation, and Liability Act** The Act that authorizes EPA to clean up uncontrolled or abandoned hazardous waste sites and respond to accidents, spills and other emergency releases of hazardous substances. CERCLA provides EPA with enforcement authority to ensure that responsible parties pay the cleanup costs of remediating a site contaminated with hazardous substances.

**Comprehensive Environmental Response, Compensation, and Liability Information System** A computerized database used to track hazardous substance sites.

**Comprehensive Procurement Guidelines** A list, updated annually, which designates items with recycled content that procuring agencies should aim to purchase. This list currently contains 36 items within 8 product categories.

**Concentration Limits** For purposes of TSDf ground water monitoring, the maximum levels of hazardous constituents allowed to be present in the ground water.

**Conditionally Exempt Small Quantity**

**Generators** Facilities that produce less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste, per calendar month. A CESQG may only accumulate less than 1,000 kg of hazardous waste, 1 kg of acutely hazardous waste, or 100 kg of spill residue from acutely hazardous waste at any one time.

**Construction Quality Assurance** A program required by EPA to ensure that a landfill, surface impoundment, or waste pile meets all of the technological requirements.

**Contained-In Policy** EPA's policy that determines the health threats posed by contaminated environmental media and debris, and whether such materials must be managed as RCRA hazardous wastes.

**Containers** Portable devices in which a material is stored, transported, treated, or otherwise handled.

**Containment Building** A completely enclosed structure used to store or treat noncontainerized waste.

**Cooperative Agreement** An agreement between a state and EPA which ensures that the state will spend money from the LUST Trust Fund for its intended purpose.

**Corporate Guarantee** The demonstration that a corporate grandparent, corporate parent, or sibling corporation can meet financial assurance requirements on behalf of a TSDf owner and operator, or the financial responsibility requirements on behalf of an UST owner and operator. Firms with a "substantial business relationship" with an UST owner and operator can also make this demonstration.

**Corrective Action** EPA's program to address the investigation and cleanup of contamination from solid waste facilities, hazardous waste facilities, and USTs.

**Corrective Action Management Unit** A physical, geographical area designated by EPA or states for managing remediation wastes during corrective action.

**Corrective Measures Implementation** A step in the RCRA Subtitle C corrective action process when the owner and operator performs detailed design, construction, operation, maintenance, and monitoring of a chosen cleanup remedy.

**Corrective Measures Study** A step in the RCRA Subtitle C corrective action process when the owner and operator identifies and evaluates remediation alternatives at a given contaminated site.

**Corrosivity Characteristic** The characteristic which identifies wastes that are acidic or alkaline (basic) and can readily corrode or dissolve flesh, metal, or other materials.

**Counting** Totaling the hazardous wastes at a given facility for a particular month in order to determine hazardous waste generator status.

**Covered State** States that participated in EPA's medical waste tracking program from June 22, 1989 to June 22, 1991, which included Connecticut, New Jersey, New York, Rhode Island, and the Commonwealth of Puerto Rico.

**Cradle to Grave** The time period referring to the initial generation of hazardous waste to its ultimate disposal.

**Criminal Action** Enforcement action reserved for the most serious violations, which can result in fines or imprisonment.

**De minimis** Very small amounts of hazardous waste that are discharged to wastewater treatment facilities and thus, are exempt from the mixture rule. De minimis also refers to small concentrations of regulated substances in an UST.

**Debris** A broad category of large manufactured and naturally occurring objects that are commonly discarded (e.g., construction materials, decommissioned industrial equipment, discarded manufactured objects, tree trunks, boulders).

**Delisting** A site-specific petition process whereby a handler can demonstrate to EPA that a particular wastestream generated at its facility that meets a listing description does not pose sufficient hazard to warrant RCRA regulation. Owners and operators can also use the delisting process for wastes that are hazardous under the mixture and derived-from rules that pose minimal hazard to human health and the environment.

**Derived-From Rule** A rule that regulates residues from the treatment of listed hazardous wastes.

**Destination Facilities** Facilities that treat, dispose of, or recycle a particular category of universal waste.

**Destruction and Removal Efficiency** Standard which verifies that a combustion unit is destroying the organic components found in hazardous waste.

**Detection Monitoring** For purposes of RCRA TSDF ground water monitoring, the first step of monitoring at land disposal units, where the owner and operator monitors for indication of a leak from the unit, looking for potential changes in the ground water quality from normal (background) levels.

**Dilution Prohibition** The LDR requirement that prohibits the addition of soil or water to waste in order to reduce the concentrations of hazardous constituents instead of treatment by the appropriate LDR treatment standards.

**Direct Discharges** Discharges from point sources into surface water pursuant to a CWA NPDES permit.

**Disposal** The discharge, deposit, injection, dumping, spilling, leaking, or placing of any solid or hazardous waste on or in the land or water.

**Disposal Prohibition** The LDR requirement that prohibits the land disposal of hazardous waste that has not been adequately treated to reduce the threat posed by such waste.

**Distillation Bottoms** Residues that form at the bottom of a distillation unit.

**Do-it-Yourselfers** Individuals who generate used oil through the maintenance of their own personal vehicles and equipment, and are not considered used oil generators.

**Drip Pads** Engineering structures consisting of a curbed, free-draining base, constructed of nonearthen materials, and designed to convey wood preservative chemical drippage from treated wood, precipitation, and surface water run-on to an associated collection system at wood preserving plants.

**Elementary Neutralization Units** Containers, tanks, tank systems, transportation vehicles, or vessels which neutralize wastes that are hazardous only for exhibiting the characteristic of corrosivity.

**Emergency Planning and Community Right-to-Know Act** The Act designed to help communities prepare to respond in the event of a chemical emergency, and to increase the public's knowledge of the presence and threat of hazardous chemicals.

**Environmental Justice** The fair distribution of environmental risks across socioeconomic and racial groups.

**Environmental Media** Materials such as soil, groundwater, and sediment.

**EPA Identification Number** A unique number assigned by EPA to each hazardous waste generator, transporter, or treatment, storage, and disposal facility.

**Episodic Generation** The situation in which a generator's status changes from one month to the next, as determined by the amount of waste generated in a particular month. If a generator's status does in fact change, the generator is required to comply with the respective regulatory requirements for that class of generators for the waste generated in that particular month.

**Exception Report** A report, submitted by LQGs and SQGs, detailing efforts to locate wastes when a signed copy of the manifest has not been received.

**Existing USTs** USTs that were in service, or for which installation had commenced on or before December 22, 1988.

**Federal Insecticide, Fungicide, and Rodenticide Act** The Act that provides procedures for the registration of pesticide products to control their introduction into the marketplace.

**Federal Procurement Program** A program that sets minimum recycled content standards for certain designated items and requires procuring agencies to purchase those items composed of the highest percentage of recovered materials practicable.

**Final Authorization** Authorization by EPA that indicates that a state's program is equivalent to, or no less stringent than, as well as consistent with, federal hazardous waste regulations.

**Financial Assurance** Under RCRA Subtitle C, the requirements designed to ensure that TSDF owners and operators will have the financial resources to pay for closure, post-closure, and liability costs. Under RCRA Subtitle D, the requirements designed to ensure that MSWLF owners and operators will have the financial resources to pay for closure, post-closure, and corrective action costs.

**Financial Test** A test of self-insurance which demonstrates that an owner and operator has sufficient financial strength to satisfy TSDF financial assurance or UST financial responsibility requirements.

**Float** The lighter materials present in petroleum refinery wastewater. As components of oily waste, float rises to the surface in the first step of wastewater treatment.

**Fly Ash** Particles of ash, such as particulate matter which may also have metals attached them, that are carried up the stack of a combustion unit with gases during combustion.

**Formal Action** An enforcement action, frequently in the form of an administrative order, that is taken when a serious violation is detected, or when the owner and operator does not respond to an informal action.

**Freedom of Information Act** The Act that grants private parties the right to obtain information in the government's possession. FOIA requires each federal agency to establish procedures for handling requests regarding government statutes, regulations, standards, permit conditions, requirements, orders, and policies.

**Full Cost Accounting** An accounting approach that helps local governments identify all direct and indirect costs, as well as the past and future costs, of a municipal solid waste management program.

**Generator** Any person whose act first creates or produces a hazardous waste, used oil, or medical waste, or first brings such materials into RCRA regulation.

**Ground Water Monitoring** Sampling and analysis of ground water for the purpose of detecting the release of contamination from a solid or hazardous waste land-based unit. Ground water monitoring is also a method of UST release detection which senses the presence of liquid product floating in ground water.

**Hammer Provisions** Requirements written directly into RCRA by Congress, as in the case of the Hazardous and Solid Waste Amendments of 1984, that would automatically become regulations if EPA failed to issue its own regulations by certain dates.

**Hazard Communication Standard** The OSHA standard that provides workers with access to information about the hazards and identities of the chemicals they are exposed to while working, as well as the measures they can take to protect themselves.

**Hazard Ranking System** A model devised under CERCLA that determines the relative risk to public health and the environment posed by hazardous substances in ground water, surface water, air, and soil. Only those sites with a score of 28.5 (on a scale of 0 to 100) are eligible for placement on the NPL.

**Hazardous Constituents** For purposes of RCRA TSDf ground water monitoring, those constituents that have been detected in the uppermost aquifer and are reasonably expected to be in or derived from the waste contained in the unit.

**Hazardous Substance** A comprehensive designation under CERCLA for RCRA hazardous wastes as well as other toxic pollutants regulated by CAA, CWA, and TSCA. EPA has the authority under CERCLA to designate any additional element, compound, mixture, or solution as a hazardous substance. The definition of hazardous substance specifically excludes petroleum and natural gas.

**Hazardous Waste** A waste with properties that make it dangerous, or capable of having a harmful effect on human health and the environment. Under the RCRA program, hazardous wastes are specifically defined as wastes that meet a particular listing description or that exhibit a characteristic of hazardous waste.



**Hazardous Waste Identification Rule for Contaminated Media (HWIR-media)** Rule that proposes provisions for streamlined permits for managing remediation wastes, increased flexibility for staging wastes prior to off-site treatment or shipment, an exclusion for dredged material, and streamlined RCRA state authorization procedures.

**Hazardous Waste Identification Rule for Waste (HWIR-waste)** Rule that proposes exit levels for hazardous constituents in listed wastes.

**Hazardous Waste Operations and Emergency Response Worker Protection Standard** The OSHA standard that protects the health and safety of workers engaged in operations at hazardous waste sites, hazardous waste treatment facilities, and emergency response locations.

**Ignitability characteristic** The characteristic which identifies wastes that can readily catch fire and sustain combustion.

**Incinerator** An enclosed device that uses controlled flame combustion and does not meet the criteria for classification as a boiler, industrial furnace, sludge dryer (a unit that dehydrates hazardous sludge), or carbon regeneration unit (a unit that regenerates spent activated carbon). Incinerators also include infrared incinerators (units that use electric heat followed by a controlled flame afterburner) and plasma arc incinerators (units that use electrical discharge followed by a controlled flame afterburner).

**Incorporation by Reference** This occurs when the regulatory language in a state's regulation actually cite, or refer to, the federal regulations.

**Indirect Discharges** Wastewater that is first sent to a POTW, and then after treatment by the POTW, discharged pursuant to an NPDES permit that is sent to a POTW before being discharged as allowed by a NPDES permit.

**Industrial Furnace** An enclosed unit that is an integral part of a manufacturing process and uses thermal treatment to recover materials or energy from hazardous waste.

**Informal Administrative Action** Any communication from EPA or a state agency that notifies the handler of a problem.

**Inherently Waste-Like** For purposes of defining a material as a solid waste under RCRA Subtitle C, a material, such as dioxin-containing wastes, that is always considered a solid waste because of its intrinsic threat to human health and the environment.

**Insurance** A policy to cover the TSDF financial assurance or UST financial responsibility requirements.

**Interim Authorization** A temporary mechanism that is intended to promote continued state participation in hazardous waste management while encouraging states to develop programs that are fully equivalent to the federal program and will qualify for final authorization.

**Interim Measures** Under RCRA Subtitle C corrective action, short-term actions to control ongoing risks while site characterization is underway or before a final remedy is selected.

**Interim Status Facilities** TSDFs that were already in operation when the RCRA standards were established, and that are operating under less stringent standards until they receive a permit.

**Interstitial Monitoring** UST release detection method that involves the use of secondary containment, such as a barrier, outer wall, vault, or liner around the UST or piping to prevent leaking product from escaping into the environment. If product escapes from the inner tank or piping, it will then be directed towards an interstitial monitor located between the walls.

**Inventory Control** An UST release detection method that involves taking measurements of tank contents, recording the amount of product pumped each operating day, and reconciling this data at least once a month to determine if a tank is leaking.

**Jobs through Recycling** A program EPA launched in 1994 to support recycling markets. The goal of the program is to foster markets for recycled goods by promoting and assisting the development of businesses using recovered materials, creating new recycling jobs, and spurring innovative technologies.

**Lab Packs** Drums filled with many small containers packed in nonbiodegradable absorbent materials.

**Land Disposal** For purposes of RCRA Subtitle C regulation, placement in or on the land, except in a corrective action unit, and includes, but is not limited to, placement in a landfill, surface impoundment, waste pile, injection well, land treatment facility, salt dome formation, salt bed formation, underground mine or cave, or placement in a concrete vault, or bunker intended for disposal purposes.

**Land Treatment Units** Also known as land farms, land treatment units involve the application of hazardous waste on the soil surface, or the incorporation of waste into the upper layers of the soil in order to degrade, transform, or immobilize hazardous constituents present in hazardous waste.

**Landfill** For purposes of RCRA Subtitle C, a disposal unit where nonliquid hazardous waste is placed in or on the land.

**Large Quantity Generators** Facilities that generate more than 1,000 kg of hazardous waste per calendar month, or more than 1 kg of acutely hazardous waste per calendar month.

**Large Quantity Handlers of Universal Waste** Handlers that accumulate a total of 5000 kg or more of universal waste at any one time.

**Leachate** Any liquid, including any suspended components in the liquid, that has percolated through or drained from waste.

**Leaking Underground Storage Tank Trust Fund** A fund created by SARA that provides money for overseeing corrective action taken by a responsible party, and provides money for cleanups at UST sites where the owner and operator is unknown, unwilling, or unable to respond.

**Letter of Credit** A credit document issued to an owner and operator to cover TSD financial assurance or UST financial responsibility requirements.

**Liabilities** Damages that may result from an unexpected release of contaminants into the environment.

**Listed Wastes** Wastes that are considered hazardous under RCRA because they meet specific listing descriptions.

**Manifest** Paperwork that accompanies hazardous waste from the point of generation to the point of ultimate treatment, storage, or disposal. Each party involved in the waste's management retains a copy of the RCRA manifest, which contains specific information about the waste.

**Manual Tank Gauging** A method of UST leak detection that requires keeping the tank undisturbed for at least 36 hours per week, during which time the contents of the tank are measured to determine if the tank is leaking.

**Marine Protection, Research, and Sanctuaries Act**

This Act requires a permit for any material that is transported from a U.S. port or by a U.S. vessel for deposition at sea.

**Marketers** Used oil handlers who either 1) direct shipments of used oil to be burned as fuel in regulated devices, or 2) claim that used oil to be burned for energy recovery is on-specification.

**Maximum Achievable Control Technology**

**Process** Technology-based concentration limits developed under CAA to limit emissions of individual constituents from hazardous waste combustion units.

**Maximum Contaminant Levels** For purposes of RCRA ground water monitoring, contaminant-specific levels borrowed from SDWA that are the maximum levels of hazardous waste or hazardous constituents allowed to be present in the groundwater.

**Medical Waste** Culture and stocks of infectious agents, human pathological wastes, human blood and blood products, used sharps, certain animal wastes, certain isolation wastes, and unused sharps.

**Memorandum of Agreement** An agreement between a state's director and its EPA Regional Administrator outlining the nature of the responsibilities to enforce a regulatory program and defining the level of coordination and oversight between EPA and the state agency.

**Military Munitions** For purposes of defining a material as a solid waste under RCRA Subtitle C, ammunition products and components produced for or used by the military for national defense and security.

**Miscellaneous Units** Hazardous waste treatment, storage, or disposal units regulated under RCRA that do not meet any of the other definitions of regulated units.

**Mixed Waste** Radioactive waste that is also a hazardous waste under RCRA. Such wastes are jointly regulated by RCRA and Atomic Energy Act.

**Mixture Rule** A rule that is intended to ensure the regulation of mixtures of listed wastes with nonhazardous solid wastes.

**Municipal Solid Waste** Durable goods (e.g., appliances, tires, batteries), nondurable goods (e.g., newspapers, books, magazines), containers and packaging, food wastes, yard trimmings, and miscellaneous organic wastes from residential, commercial, and industrial nonprocess sources.

**Municipal Solid Waste Landfill** A discrete area of land or excavation that receives municipal solid waste.

**National Ambient Air Quality Standards**

Regulations promulgated by EPA under the Clean Air Act for six criteria pollutants — sulfur dioxide, particulate matter, nitrogen dioxide, carbon monoxide, ozone, and lead — in order to protect the public from toxic emissions to the atmosphere.

**National Corrective Action Prioritization System**

A resource management tool by which EPA sets priorities for the Subtitle C corrective action program.

**National Emission Standards for Hazardous Air Pollutants** Controls set by EPA under the Clean Air Act to control emissions from specific industrial sources.

**National Oil and Hazardous Substances Pollution Contingency Plan** The NCP contains the regulations that implement the CERCLA response process. The NCP also provides information about the roles and responsibilities of EPA, other federal agencies, states, and private parties regarding releases of hazardous substances.

**National Priorities List** EPA's priority hazardous substance sites for cleanup. EPA only funds remedial actions at hazardous waste sites on the NPL.

**New USTs** USTs that are installed, or for which installation has commenced, after December 22, 1988. New USTs must be installed in compliance with all of the applicable technical standards.

**Nonsudden Accidental Occurrences** For purposes of TSDF financial assurance, events that take place over time and involve continuous or repeated exposure to hazardous waste.

**Notice of Deficiency** A notice requiring that a TSDF permit applicant supply more information for a complete permit application.

**Notice of Intent to Deny** A notice issued by a permitting agency which tells a TSDF permit applicant that the application does not demonstrate compliance with the RCRA standards.

**Notice of Noncompliance** An informal letter to a handler written as part of an informal administrative action.

**Notice of Violation** An informal letter to a handler written as part of an informal administrative action.

**Occupational Safety and Health Act** The Act that is designed to save lives, prevent injuries, and protect the health of employees in the workplace. OSHA accomplishes these goals through several regulatory requirements including the HCS and HAZWOPER standards.

**OECD Council Decision** A multilateral agreement by the Organization for Economic Cooperation and Development that establishes procedural and substantive controls for the import and export of recyclables between member nations. Because the United States is a member of the OECD, U.S. businesses can trade recyclables with other member nations.

**Off-Specification Used Oil** Used oil that is tested and does not meet given parameters for arsenic, cadmium, chromium, flash point, lead, and total halogens.

**Omnibus Provision** The authority which allows EPA to add conditions to a TSDF permit that are not specifically addressed by the RCRA regulations.

**On-Specification Used Oil** Used oil that meets all the given parameters for arsenic, cadmium, chromium, flash point, lead, and total halogens.

**Open Dumps** Solid waste disposal facilities that fail to comply with the Subtitle D criteria.

**Operating Requirements** Parameters established by a facility and written into a permit that will ensure a combustion unit meets numerical performance standards.

**Operation and Maintenance** The operation and maintenance phase of the CERCLA response process. Operation and maintenance may include activities such as ground water pump and treat, and cap maintenance. EPA conducts review of operation and maintenance activities to ensure that the remedy selected is still protective of human health and the environment.

**Overfiling** When a state fails to enforce its hazardous waste program properly, EPA can overfile, or enforce a provision for which a particular state has authorization.

**Particulate Matter** Small dust-like particles emitted from hazardous waste combustion units.

**Payment Bond** For purposes of TSDF financial assurance, a type of surety bond that will fund a standby trust fund in the amount equal to the value of the bond.

**Per Occurrence** For purposes of UST financial responsibility, the amount of money that must be available to pay for the costs from one leak.

**Performance Bond** For purposes of TSDF financial assurance, a type of surety bond that guarantees that an owner and operator will comply with their closure, post-closure, and liability requirements.

**Performance Standards** The numerical pollutant emission limits for hazardous waste combustion units developed by EPA.

**Permanent Closure** Closure of an UST that involves a number of steps designed to ensure that the tank will pose no threat to human health or the environment after it is closed.

**Permit-as-a-Shield** The provision which ensures that TSDF permittees will not be enforced against for violating new requirements that were not established in the original permit.

**Permit-by-Rule** A special form of a RCRA permit that is sometimes granted to facilities with permits for activities under other environmental laws.

**Permitted Facilities** Facilities that have obtained a TSDF permit from EPA or the state agency to engage in the treatment, storage, or disposal of hazardous waste.

**Phase I RCRA Facility Investigations** Also known as release assessments, these are used to confirm or reduce uncertainty about areas of concern or potential releases identified during a RCRA Subtitle C corrective action RCRA facility assessment.

**Point of Compliance** For purposes of RCRA TSDF ground water monitoring, the vertical point where a TSDF owner and operator must monitor the uppermost aquifer to determine if the leak exceeds the ground water protection standard.

**Point Source Discharges** Discharges of treated wastewater directly into a lake, river, stream, or other water body. Point source discharges are regulated under CWA.

**Pollutants or Contaminants** Any element, substance, compound, or mixture that, after release into the environment and upon exposure, ingestion, inhalation, or assimilation into any organism, will or may reasonably be anticipated to cause illness, death, or deformation in any organism. The definition of pollutant or contaminant specifically excludes petroleum and natural gas.

**Post-Closure** Period after closure during which owners and operators of solid or hazardous waste disposal units conduct monitoring and maintenance activities in order to preserve the integrity of the disposal system.

**Potentially Responsible Party** The person or persons who may be held liable for hazardous substance contamination under CERCLA. PRPs may include the owners and operators, generators, transporters, and disposers of the hazardous substances.

**Precious Metals Reclamation** The recycling and recovery of precious metals (i.e., gold, silver, platinum, palladium, iridium, osmium, rhodium, and ruthenium) from hazardous waste.

**Preliminary Assessment** A review of all readily available site information such as maps, deeds, and other records to determine if further CERCLA response action is necessary. During the PA, EPA tries to determine what type of substances may have been released and the potential impacts to human health and the environment.

**Principal Organic Hazardous Constituents** Selected organic constituents, which are high in concentration and difficult to burn, that are monitored to ensure a hazardous waste combustion unit's destruction and removal efficiency.

**Processors and Rerefiners** Facilities that process used oil so that it can be burned for energy recovery or reused.

**Procuring Agency** Agencies that purchase \$10,000 or more worth of an item designated under the federal procurement program during the course of a fiscal year. Procuring agencies include: federal government departments or agencies; state government agencies that use appropriated federal funds for procurement of a designated item; local government agencies that use appropriated federal funds for procurement of a designated item, and government contractors that work on a project funded by appropriated federal funds with respect to work performed under the contract.

**Publicly Owned Treatment Works** A municipal wastewater treatment plant that receives domestic sewage from households, office buildings, factories, and other places where people live and work. Treatment at a POTW is regulated by CWA.

**RCRA Facility Assessment** Step in the RCRA Subtitle C corrective action process where owners and operators compile existing information on environmental conditions at a given facility, including information on actual and potential releases.

**RCRA Facility Investigation** Site characterization used to ascertain the nature and extent of contamination of releases identified during a Subtitle C RCRA facility assessment or the Phase I RCRA facility investigation.

**Reactivity Characteristic** The characteristic which identifies wastes that readily explode or undergo violent reactions.

**Rebuttable Presumption** An objective test that focuses on the halogen level in used oil to determine whether the used oil has been mixed with a listed hazardous waste.

**Reclaimed** For purposes of defining a material as a solid waste under RCRA Subtitle C, a material is reclaimed if it is processed to recover a usable product, or regenerated by processing it in a way that restores it to usable condition.

**Record of Decision** A remedial action plan document that describes the remedy selected for a Superfund site.

**Recovered Materials Advisory Notice** A notice that provides a suggested recycled content levels and other purchasing information for each item designated in the CPG. Procuring agencies can use these levels as guidelines, but are encouraged to exceed EPA's recommendations.

**Recovered Materials Content Standards** The minimum amount of recovered material that designated items under the federal procurement program should contain.

**Recycled** For purposes of defining a material as a solid waste under RCRA Subtitle C, a material is recycled if it is used or reused, or reclaimed.

**Recycling** The separation and collection of wastes, their subsequent transformation or remanufacture into usable or marketable products or materials, and the purchase of products made from recyclable materials.

**Recycling Presumption** The assumption that all used oil that is generated will be recycled.

**Regulated Community** The group of organizations, people, industries, businesses, and agencies that, because they perform certain activities, fall under the purview of RCRA.

**Regulated Substance** For purposes of UST regulation, any hazardous substance defined under CERCLA §101(14), and petroleum.

**Regulations** Rules issued by an agency, such as EPA, that translate the general mandate of a statute into a set of requirements that the regulated community and the agency must work within.

**Remedial Action** Longer-term CERCLA response actions that ultimately represent the final remedy for a site and generally are more expensive and of a longer duration than removals.

**Remedial Design/Remedial Action** Remedial design is a phase in the CERCLA response process in which technical drawings are developed for the chosen remedy, costs for implementing the remedy are estimated, and roles and responsibilities of EPA, states and contractors are determined. During the remedial action phase, the remedy is implemented generally by a contractor, with oversight and inspection conducted by EPA or the state (or both).

**Remedial Investigation/Feasibility Study** A remedial investigation is a phase in the CERCLA response process that entails an in-depth examination of the nature and extent of contamination at a site and the associated risks to human health and the environment. The feasibility study entails an analysis of remedial action alternatives comparing the advantages and disadvantages of each.

**Removal Action** Short-term cleanup action taken under CERCLA that usually addresses problems only at the surface of a site. A removal is conducted in response to an emergency, and generally is limited to 12 months duration or \$2 million in expenditures.

**Resource Conservation and Recovery Information System** A database that tracks RCRA Subtitle C facility-specific data and contains events and activities related to hazardous waste generators, transporters, and TSDFs.

**Risk Retention Groups** For purposes of UST financial responsibility, entities formed by businesses or individuals with similar risks to provide insurance coverage for those risks.

**Risk-Based Decision-Making** A process that uses risk and exposure assessment concepts to help UST implementing agencies establish enforcement priorities.

**Rulemakings** Rules issued by an agency, such as EPA, that translate the general mandate of a statute into a set of requirements that the regulated community and the agency must work within.

**Safe Drinking Water Act** The Act designed to protect the nation's drinking water supply by establishing national drinking water standards (MCLs or specific treatment techniques), and by regulating UIC wells.

**Scrap Metal** Worn or extra bits and pieces of metal parts, such as scrap piping and wire, or worn metal items, such as scrap automobiles and radiators.

**Secondary Materials** The five categories of solid wastes regulated under Subtitle C, which include: spent materials, by-products, sludges, commercial chemical products, and scrap metal.

**Sham Recycling** Illegitimate activities executed under the guise of recycling in order to be exempt from or subject to lesser regulation.

**Site Inspection** An in-depth assessment of on-site conditions, conducted as part of the CERCLA response process, to rank the site's hazard potential by determining the site's hazard ranking system score. Activities to assess the site may include sampling, field reconnaissance, and examination of site records (e.g., topographical maps, logs).

**Sludges** Any solid, semisolid, or liquid wastes generated from a wastewater treatment plant, water supply treatment plant, or air pollution control device.

**Small Quantity Generators** Facilities that generate between 100 kg and 1,000 kg of hazardous waste per calendar month.

**Small Quantity Handlers of Universal Waste** Handlers that do not accumulate 5000 kg of all universal waste categories combined at their location at any one time.

**Sole Active Ingredient** For purposes of determining if a waste is P or U listed, the only chemical ingredient serving the function of a commercial product formulation.

**Solid Waste** Any garbage, refuse, sludge from a wastewater treatment plant, water supply treatment plant, or air pollution control facility, and other discarded material, including solid, liquid, semisolid, or contained gaseous material, resulting from industrial, commercial, mining, and agricultural operations and from community activities. For the purposes of hazardous waste regulation, a solid waste is a material that is discarded by being either abandoned, inherently waste-like, a certain waste military munition, or recycled.

**Solid Waste Management Units** For purposes of Subtitle C corrective action, discernible units where solid or hazardous wastes have been placed at any times, or any area where solid wastes have been routinely and systematically released.

**Source Reduction** Maximizing or reducing the use of natural resources at the beginning of an industrial process, thereby eliminating the amount of waste produced by the process. Source reduction is EPA's preferred method of waste management.

**Spent Materials** Materials that have been used and can no longer serve the purpose for which they were produced without processing.



**Spill Prevention Control and Countermeasures** Regulations establishing spill prevention procedures and equipment requirements for nontransportation-related facilities with certain aboveground or underground storage capacities that could reasonably be expected to discharge oil into or upon the navigable waters of the United States or adjoining shorelines.

**State Assurance Funds** For purposes of UST financial responsibility, state funds that are used to help pay for cleanup and third-party liability costs resulting from leaking USTs.

**State Authorization Tracking System** A tool used by EPA to chart those states that have been authorized to implement the RCRA hazardous waste program.

**Statement of Basis** Document that summarizes a proposed remedial action plan and the findings supporting that selected remedy during the Subtitle C corrective action process.

**Statistical Inventory Reconciliation** An UST release detection method that involves using sophisticated computer software to conduct a statistical analysis of inventory, delivery, and dispensing data in order to determine if a tank is leaking.

**Storage** Holding hazardous waste for a temporary period, after which the hazardous waste is treated, disposed of, or stored elsewhere.

**Storage Prohibition** LDR provision that prevents the indefinite storage of untreated hazardous waste for reasons other than the accumulation of quantities necessary for effective treatment or disposal.

**Sudden Accidental Occurrences** For purposes of TSDf financial assurance, events that are not continuous or repeated.

**Superfund** The common name for CERCLA. Superfund refers to the entire CERCLA program as well as the trust fund established to fund cleanup of contaminated sites where potentially responsible parties cannot be identified, or are unwilling or unable to pay.

**Superfund Amendments and Reauthorization Act** SARA, enacted in 1986, reauthorized and amended CERCLA to include additional enforcement authorities, technical requirements, community involvement requirements, and various clarifications. SARA Title III authorized EPCRA.

**Supplemental Environmental Projects** Environmentally beneficial projects which a defendant or respondent agrees to undertake in the settlement of a civil or administrative enforcement action, but which the defendant is not otherwise legally required to perform.

**Surety Bond** A guarantee which certifies that a surety company will cover TSDf financial assurance or UST financial responsibility requirements on behalf of the owner and operator.

**Surface Impoundment** A natural topographic depression, man-made excavation, or diked area formed primarily of earthen materials that is used to treat, store, or dispose of hazardous waste.

**Tank Tightness Testing** A variety of UST release detection methods used to determine if a tank is leaking; most of these methods involve monitoring changes in product level or volume in a tank over a period of several hours.

**Tanks** Stationary devices used to store or treat hazardous waste.

**Technical Grade** For purposes of determining if a waste is P or U listed, a commercial chemical product that is not 100 percent pure, but is of a grade of purity that is either marketed or recognized in general usage by the chemical industry.

**Temporary Closure** A method by which an UST owner and operator can close a tank temporarily and bring it back into service at a later date. The owner and operator must continue to operate and maintain the corrosion protection system and the leak detection system if any product remains in the tank.

**Temporary Units** Containers or tanks that are designed to manage remediation wastes during corrective action at permitted or interim status facilities.

**Thermal Treatment** The treatment of hazardous waste in a device that uses elevated temperatures as the primary means to change the chemical, physical, or biological character or composition of the waste.

**Totally Enclosed Treatment Units** Units that are designed and constructed to practically eliminate the potential for hazardous wastes to escape into the environment during treatment.

**Toxic Substances Control Act** The Act that controls the manufacture and sale of certain chemical substances.

**Toxicity Characteristic** The characteristic which identifies wastes that are likely to leach dangerous concentrations of toxic chemicals into ground water.

**Toxicity Characteristic Leaching Procedure** A lab procedure designed to predict whether a particular waste is likely to leach chemicals into ground water at dangerous levels.

**Transfer Facilities** Any transportation-related facility such as loading docks, parking areas, storage areas, or other similar areas where shipments of hazardous waste, used oil, or universal waste are held temporarily during the normal course of transportation.

**Transporter** Any person engaged in the off-site transportation of hazardous waste, used oil, universal waste, or medical waste.

**Treatment** Any method, technique, or process designed to physically, chemically, or biologically change the nature of a hazardous waste.

**Treatment Standards** LDR criteria that hazardous waste must meet before it is disposed.

**Treatment, Storage, and Disposal Facilities** Facilities engaged in the treatment, storage, or disposal of hazardous waste. These facilities are the last link in the cradle-to-grave hazardous waste management system.

**Trial Burn** Burn conducted to test the performance of a hazardous waste combustion unit over a range of conditions.

**Trust Fund** A financial mechanism by which a facility can set aside money in order to cover the TSD financial assurance or UST financial responsibility requirements.

**Underground Injection Control Well** Units into which hazardous waste is permanently disposed of by injection 1/4 mile below an aquifer with an underground source of drinking water (as defined under SDWA).

**Underground Storage Tanks** A tank and any underground piping connected to the tank that is used to contain an accumulation of regulated substances and that has at least 10 percent of its combined volume underground.

**Underlying Hazardous Constituents**

Constituents that must be treated in order to meet contaminant-specific levels for purposes of the LDR program.

**Unit Pricing** An economic incentive program used to achieve source reduction and recycling, also called variable rate refuse collection, where customers who dispose of more waste pay more for the collection and disposal services.

**Universal Treatment Standards** Contaminant-specific hazardous waste LDR treatment levels.

**Universal Wastes** Commonly recycled wastes with special management provisions intended to facilitate recycling. There are three categories of universal wastes: hazardous waste batteries, hazardous waste pesticides that have been recalled or collected in waste pesticide collection programs, and hazardous waste thermostats.

**Upgrading** Retrofitting existing USTs to come into compliance with the UST regulations. The upgrading period expires on December 22, 1998.

**Use Constituting Disposal** The direct placement of wastes or waste-derived products (e.g., asphalt with petroleum refining wastes as an ingredient) on the land.

**Used Oil** Any oil that has been refined from crude or synthetic oil that has been used and, as a result of such use, is contaminated by physical or chemical impurities.

**Vapor Monitoring** An UST release detection method in which the equipment measures product fumes in the soil around the UST to check for leaks.

**Waste Analysis Plan** A plan that outlines the procedures necessary to ensure proper treatment, storage, or disposal of hazardous waste.

**Waste Minimization** The reduction, to the extent feasible, in the amount of hazardous waste generated prior to any treatment, storage, or disposal of the waste. Because waste minimization efforts eliminate waste before it is generated, disposal costs may be reduced, and the impact on the environment may be lessened.

**Waste Pile** An open pile used for treating or storing nonliquid hazardous waste.

**Wastewater Treatment Units** Tanks or tank systems that treat hazardous wastewaters and discharge them pursuant to CWA.

**Wastewise** A program designed to assist companies, states, local governments, Native American tribes, and other institutions in developing cost-effective practices to reduce solid waste.

**Zero Discharges** Wastewater that is not directly or indirectly discharged to a navigable water (e.g., wastewater that is land disposed through spray irrigation) under CWA. Zero discharge facilities are subject to federal or state regulatory limitations that are as strict as those that apply to direct and indirect dischargers under CWA..

ATTACHMENT 6



State of Illinois

ENVIRONMENTAL PROTECTION AGENCY

Mary A. Gade, Director

217/782-2113

P. O. Box 19506, Springfield, IL 62794-9506

April 9, 1997

S.L.R. Technologies, Inc.  
Attn: Laurence C. Kelly, President  
6655 North Avondale Street  
Chicago, Illinois 60631

Dear Mr. Kelly:

This is in response to your letter dated March 28, 1997 concerning the use of a truck mounted crusher to crush fluorescent light bulbs equipped with carbon absorbers to control mercury. It is our understanding that the equipment is truck mounted and the truck will go from one place to another to crush the light bulbs and you may be at one location for about half a day to one day before going to the next location.

Such an operation is considered as a mobile operation and pursuant to 35 Ill. Admin. Code 201.102 definition of construction is not considered as a construction of the source and hence does not require a permit. However, if the truck is going to be stationary at one location for an extended period of time then you should obtain a construction permit prior to construction and an operating permit prior to operation.

If you have any questions on this subject please contact Harish Desai at 217/782-2113.

Very Truly Yours,

A handwritten signature in cursive script that reads "Donald E. Sutton".

Donald E. Sutton, P.E.  
Manager, Permit Section  
Division of Air Pollution Control

DES:HBD:lc

cc: Harish Desai  
Region I, II, III