


<b><i>HEALTH AND SAFETY MANUAL</i></b>	
Title: General Waste Management Plan	
Approved by: Greg Savoy	Rev. 1/1/08

1 Purpose/Scope:

Universal waste is a category of widely generated hazardous waste that poses a relatively low risk to human health and/or the environment during accumulation, storage, and transport. Universal wastes are generated by nearly every type of business, as well as in private residences. Because of the low risks and widespread use associated with universal waste, the regulations pertaining to universal waste management are much less stringent than those for non-universal hazardous wastes. Universal waste is regulated by the Environmental Protection Agency under 40 CFR 273 (Standards for Universal Waste Management).

This program is applicable at every work location where universal wastes are generated.

2 Definitions/Responsibilities:

Hazardous wastes that can be handled as universal waste include batteries, pesticides, mercury containing devices, lamps, cathode ray tubes, and antifreeze.

2.1 Definitions:

2.1.1 **Batteries** – There are many types of batteries with various chemical compositions. They can be of varying shapes, sizes, and styles: cylindrical, rectangular, flat cells, button cells, lantern, nine volt, and battery packs are all common. The battery chemistry is what determines its regulatory status. Batteries regulated as universal waste have one of the following chemistries: lead acid, nickel cadmium, silver, mercury, or lithium.

**Alkaline, zinc carbon, zinc chloride, and lithium-ion batteries are not universal waste and can be disposed through recycling.** However, automotive lead acid batteries must be handled as universal waste.

2.1.2 **Mercury Containing Devices** - Thermostats, thermometers, manometers, barometers, relays, and switches are all devices that can contain mercury. These devices can be managed under the universal waste rule provided they are intact.

2.1.3 **Lamps** – A lamp, or the bulb or tube portion in an electrical lighting device, contains a small amount of mercury. Small amounts of cadmium can also

be present in some types of lamps. For these reasons, they must be managed as universal waste. Lamps regulated as universal waste can be fluorescent, high intensity discharge, neon, mercury vapor, high pressure sodium, and metal halide lamps.

2.1.4 Cathode Ray Tubes (CRTs) – are the video display portion of a computer monitor or television set. CRTs contain a significant amount of lead. For example, a 27-inch CRT-type television contains about 8 pounds of lead. The presence of lead requires that CRTs be managed as universal waste.

2.1.5 Waste Antifreeze – ethylene glycol and propylene glycol are the common constituents of antifreeze. Neither of these is regulated as a hazardous waste if not used in an engine application. During engine use, antifreeze chemically breaks down and becomes acidic, corroding the engine’s cooling system. This corrosion causes the antifreeze to become contaminated with lead particles. Additionally, the antifreeze may become contaminated with gasoline, which contains benzene.

## 2.2 Responsibilities:

2.2.1 Managers/Supervisors are responsible for ensuring that inspections are performed at all locations where universal waste is stored to ensure it is being managed properly.

2.2.2 Managers/Supervisors are responsible for ensuring that all employees who generate or handle universal wastes have been trained in waste management.

2.2.3 Managers/Supervisors are responsible to adhere to the requirements of this plan.

2.2.4 Employees are responsible for following the requirements of this program.

## 3 Requirements:

3.1 The first step in management of universal waste is to determine the handler classification. Handler classification is based on the total amount of all of the universal waste that is accumulated. The three classifications for handling universal waste are:

3.1.1 small quantity handler (accumulates on site at any time less than 11,000 pounds),

3.1.2 large quantity handler (accumulates on site at any time more than 11,000 lbs. but less than 44,000 lbs.),

3.1.3 very large quantity handler (accumulates on site at any time 44,000 lbs. or more).

The Company is classified as a Small Quantity Handler.

As with other hazardous waste, proper storage and handling of universal waste is critical to ensuring personnel safety and compliance with appropriate regulations. General Wastes Management requirements for all types of universal wastes are as follows:

- 3.1.4 Project wastes, trash, and/or scrap materials will be taken into consideration before work begins.
- 3.1.5 Handlers will ensure proper handling, organization, and storage of wastes and scrap materials to minimize potential impact to the environment.
- 3.1.6 Handlers will not dilute or treat universal waste;

#### 4 Management of Universal Wastes

Universal waste will be managed in a way that prevents a release of any component of the universal waste;

- 4.1 Employees will be made aware of the proper method to dispose of wastes.
- 4.2 If containment of a universal waste is required, the container will be (a) closed at all times except when adding or removing waste (b) compatible with the universal waste and its contents, and (c) free of defects, design characteristics or damage that would lead to leakage, spillage or other environmental releases;
- 4.3 Universal waste stored outside must be covered, to prevent precipitation from coming into contact with the waste;
- 4.4 Handlers will segregate wastes and look for opportunities for recycling..

Universal waste can be accumulated for up to one year from the date the universal waste became a waste. The amount of time that a universal waste has been accumulated must be demonstrated, in one of the following ways:

- 1] Direct marking of the universal waste with the date that the universal waste became a waste;
- 2] Marking the container the waste is in with the earliest date that waste began accumulating in that container;
- 3] Marking a designated accumulation area with the earliest date that waste began accumulating in the area.

5      References:

Environmental Protection Agency 40 CFR 273 (Standards for Universal Waste Management)

6      Exhibits :

None.