

Marathon Petroleum Company - Galveston Bay Refinery	Mercury Lamps and Bulbs Management		
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1.0 Purpose

The purpose of this procedure is to define the requirements for managing discarded fluorescent lamps, High Intensity Discharge (HID) bulbs, mercury vapor and high pressure sodium lamps generated at the MPC Galveston Bay Refinery and Dock Facilities. Lamps and bulbs containing mercury must be managed in compliance with the Universal Waste regulations. The Resource Conservation and Recovery Act (RCRA) regulates the storage, transportation and disposal of universal waste. The Texas Commission on Environmental Quality (TCEQ) administers and enforces the RCRA regulations in Texas.

2.0 Scope

This procedure applies to the management of mercury containing lamps and bulbs generated in the Galveston Bay Refinery, including associated docks, maintenance and contractor facilities.

3.0 Procedure

3.1 Roles and Responsibilities

- 3.1.1 Instrument & Electrical (I&E) Department, Facilities & Services (F&S), GBR employees, and other designated employees and contractors involved in the maintenance of Refinery lighting systems are responsible for following the requirements outlined in this procedure, including the boxing and labeling of fluorescent lamps and transferring lamps and bulbs to the proper universal waste storage areas.
- 3.1.2 The Environmental Department is responsible for inspecting the universal waste storage areas, ensuring designated areas are set aside for storage of lamps and bulbs, collection drums are clearly labeled and available to be filled.
- 3.1.3 The Environmental Department is responsible for coordinating the transportation and disposal/recycling of lamps and bulbs.

3.2 General Requirements

- 3.2.1 Fluorescent lamps, HID bulbs, mercury vapor and high pressure sodium lamps are regulated by RCRA universal waste regulations. Spent lamps and bulbs can be stored for one year after they become spent and discarded.
- 3.2.2 Collection, Labeling and Box Closure-Fluorescent Lamps
 - 3.2.2.1 When replacing spent fluorescent lamps, return the spent fluorescent lamps to the original manufacturer's container(s) and deliver to the designated universal waste storage area (see section 3.2.3 Lamp Storage of this procedure). If unable to return the lamps to the original manufacturer's container(s), skip to step 3.2.2.4 of this procedure.
 - 3.2.2.2 Box Closure
 - 3.2.2.2.1 When closing a lamp box, securely close one end of the lamp box by folding the cardboard flaps one over the other.
 - 3.2.2.2.2 Seal the cardboard flaps with adhesive tape. Ensure all seams are taped closed so the box is completely sealed on the end.
 - 3.2.2.2.3 Place the used lamps in the box.
 - 3.2.2.2.4 Fold the cardboard flaps on the open end of the box.
 - 3.2.2.2.5 Seal the cardboard flaps with adhesive tape. Ensure all seams are taped closed so the box is completely sealed on both ends and cannot leak if a bulb were to break in transit. The closed lamp boxes must lack evidence of leakage, spillage or damage that could cause leakage of mercury to the environment.
 - 3.2.2.3 Place a universal waste label on the box, date the label and check the

appropriate box on the label for “mercury/light bulbs” and underline light bulbs. Complete all other information on the label. Universal Waste labels can be obtained from the main warehouse (see Attachment A).

- 3.2.2.4 Spent fluorescent lamps not already in a box shall be taken to the designated universal waste storage area (see section 3.2.3 Lamp Storage of this procedure) and placed in one of the universal waste accumulation containers labeled “Unbroken Lamp Accumulation Container” (see example at Attachment C). The four-foot container is for lamps four feet and smaller in length and the eight-foot container is for lamps longer than four feet. Handling procedures:

3.2.2.4.1 Open the lid by pulling up (or away from the container) on the lid.

3.2.2.4.2 Gently place the lamps completely inside the container.

3.2.2.4.3 Slide the lid securely back down completely onto the container.

3.2.3 Lamp Storage

- 3.2.3.1 As spent lamps are generated they shall be transferred to the designated universal waste storage areas located in the Refinery. Attachment B of this procedure contains a map identifying these areas.

- 3.2.3.2 The refinery lamp storage area is located on the west end of Warehouse 6 (Waste Management Unit 044) known as the “Quonset Hut” (Attachment B).

- 3.2.3.3 Stack the filled boxes on the designated pallets in the storage area. Care should be taken not to break the lamps. Broken lamps and bulbs must be placed in a pre-labeled and dated plastic drum marked “broken lamps & bulbs” located in the storage area.

3.2.4 HID and Mercury Vapor Bulbs Management

- 3.2.4.1 Collect HID and mercury vapor bulbs (and any other bulb type that contains mercury) and place in pre-labeled drums located in the universal waste storage areas described above. **Secure the lid on the drum before leaving the area.**

- 3.2.4.2 When the drums are full, contact the Environmental Department at (409) 771-2256 and a new pre-labeled drum will be provided within 24 hours. If the bulbs are broken place in the pre-labeled “broken lamps & bulbs” drum and secure the lid.

3.2.5 Inspections

The Environmental Department performs monthly inspections of the designated Universal Waste storage areas. These inspections are to ensure that proper containers are used, containers are closed properly, containers are labeled properly including the accumulation start date and that there are no leaking containers. Additionally this monthly inspection ensures no container is stored for greater than one year from the accumulation start date.

4.0 Definitions

None

5.0 References

None

6.0 Attachments

- 6.1 Attachment A – Container Labels Ordering Information
- 6.2 Attachment B – Map of Refinery Universal Waste Storage Area
- 6.3 Attachment C – Unbroken Lamp Accumulation Container

7.0 Revision History

Revision Number	Description of Change	Written by	Approved by	Revision Date	Effective Date
0	Original Issue.	M.K. Alberts	K.M. Casey S.W. Dio	15-Aug-08	15-Aug-08
1	Revised to address more detailed lamp collection, storage, and box closure instructions, and inspections of storage areas.	M.K. Alberts	M.J. Berlinger O.O. Niederhofer	08-Mar-11	08-Mar-11
2	Review by the Environmental Team. Removed Chemical Plant reference throughout document.	M.K. Alberts	M.J. Berlinger	11-Oct-12	11-Oct-12
3	Reformatted as MPC GBR Procedure	M.K. Alberts	B. Contractor	30-Sep-14	30-Sep-14

Attachment A
Container Labels Ordering Information

Galveston Bay Refinery Main Warehouse – (409) 945-1628

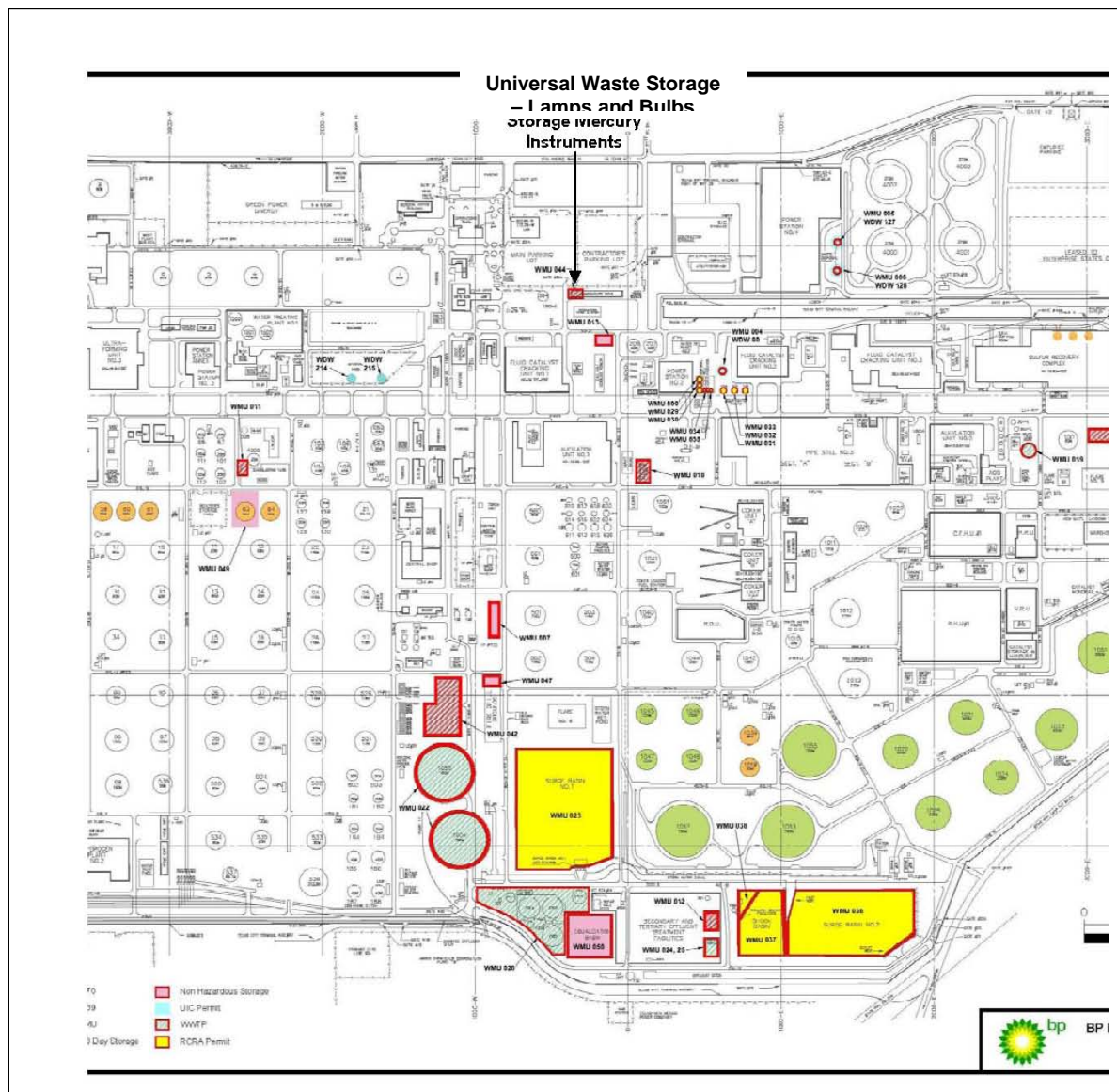
Stock item number: 90216328 - Blue universal waste

UNIVERSAL WASTE LABEL (Example)

UNIVERSAL WASTE	
BP TEXAS CITY	
<input type="checkbox"/> Batteries	<input type="checkbox"/> Mercury/Lightbulbs
<input type="checkbox"/> Paint/Paint Related Material	<input type="checkbox"/> Electronic Equipment
MO Number: _____	
Unit: _____	
Date: _____	
<small>bp/led BNA 401-0300-44</small>	

Attachment B

Map of Refinery Universal Waste Storage Area Put Lamps and Bulbs Here



Attachment C

Example

“Unbroken Lamp Accumulation Container”

