

# UNIVERSAL WASTE MANAGEMENT TRAINING



# Background

- In 1995, the Georgia Department of Natural Resources Environmental Protection Division (EPD) and the United States Environmental Protection Agency (EPA) developed and streamlined hazardous waste management requirements for collecting and managing certain widely generated hazardous waste by creating a “Universal Waste” category.

# This rule was designed to

- Reduce the amount of hazardous waste items in the municipal solid waste stream
- Reduce regulatory burdens on entities that generate these wastes
- Encourage recycling and proper disposal

# Types of Universal Waste

- Fluorescent lamps (white fluorescent tubes)
  
- High intensity discharge (HID) lamps with mercury
  - High pressure sodium lamps
  - Metal halide lamps
  - Neon lamps
  - Ultra-violet lamps

# Types of Universal Waste-Continued

- Spent lead-acid, nickel/cadmium, mercury batteries (not alkaline)
- Certain and unused pesticides (suspended and/or recalled under Section 6 of the Federal Insecticide, fungicide and Rodenticide Act (FIFRA))
- Ballasts (with PCBs)
- Mercury-containing Thermostats

# General Definitions

- **Generator-** any person, site, or entity, whose act or processes produce hazardous waste as indentified or listed in 40 CFR part 261 that will cause a hazardous waste to become subject to regulation(s).
- **Handler-** anyone who is responsible for managing universal waste (i.e. removing/  
replacing lamps).

# Regulatory Requirement



- All employees who handle or have responsibility for managing universal waste must be informed and trained as to the proper handling and emergency procedures appropriate to the type(s) of universal waste.

# Handling and Safety Procedures

All universal waste handlers must wear appropriate glove and eye protection.





# Lamps



# Lamps

- ❑ Handle lamps in a manner that will prevent releases (breakage)
- ❑ Properly store lamps in an appropriate container to prevent breakage, preferably with a secured lid.
- ❑ Do not leave individual lamps leaning in a corner of rooms or hallways, lying unprotected on top of equipment or on the floor
- ❑ Label all lamp containers
- ❑ Do not allow container to get wet
- ❑ Do not tape bulbs together
- ❑ Do not mix different lengths or types of bulbs in the containers at the accumulation area
- ❑ Package bulbs tightly without separators or other packing
- ❑ Immediately contain any releases and manage released material as a universal hazardous waste

# Not acceptable storage practice



# If a lamp breaks

- ❑ You must wear leather gloves and eye protection
- ❑ Avoid breathing vapors and “white dust”
- ❑ Do not dispose in the normal trash
- ❑ Package broken bulbs in puncture resistance closable container
- ❑ Contact Facilities Management or Public Safety if you do not have the appropriate protective equipment or do not feel comfortable handling the broken waste material.

# Ballasts containing PCBs



# Ballasts containing PCBs

- Handle ballasts in a manner that will prevent any leakage
- Clip/remove wires from ballast
- Store all PCB containing ballasts in an appropriate metal container with secured lid
- Wear disposable gloves when packing ballasts and place the unused gloves in a separate container
- Label container as ballast containing PCB

# Used Batteries



# Used Batteries

- Handle spent batteries in a manner that will prevent a spill
- Discharge batteries to remove the electric charge
- Cover the terminals with duct tape or wrapped in a manner capable of preventing a discharge prior to storing in the accumulation area
- Caps must be tightly placed on all batteries and/or containers in which the batteries are stored
- Sort batteries by type
- Properly store batteries in a structurally sound container with a secured lid
- Label all battery containers
- Immediately contain any spills by using appropriate protective equipment



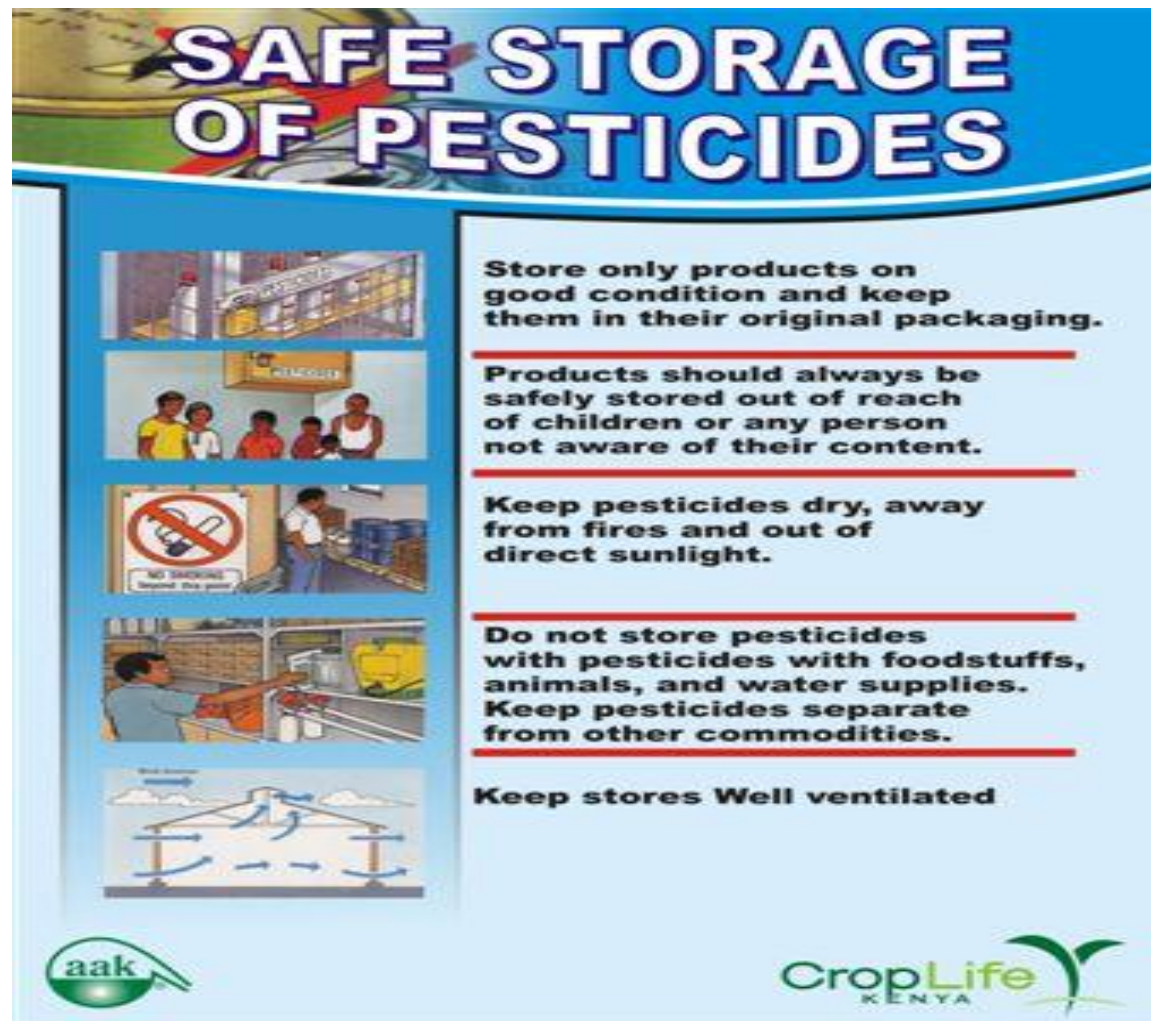
# Pesticides



# Pesticides

- Handle pesticides in a manner that will prevent spillage
- Properly store pesticides in a structurally sound container with a lid and with compatible pesticides.
- Label all pesticide containers
- Immediately contain any spills by using the appropriate protective equipment

# Additional safe storage procedures



## SAFE STORAGE OF PESTICIDES



**Store only products in good condition and keep them in their original packaging.**

**Products should always be safely stored out of reach of children or any person not aware of their content.**

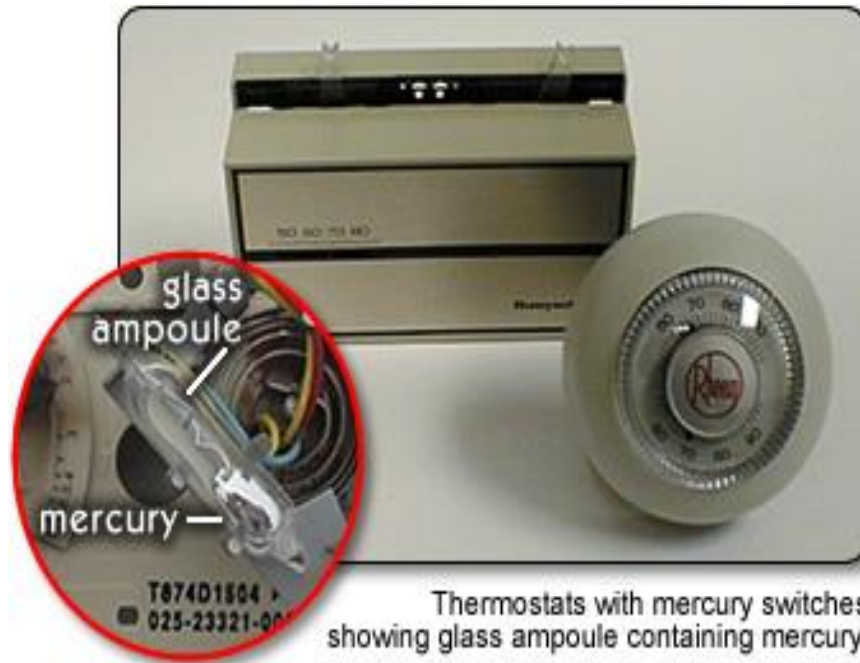
**Keep pesticides dry, away from fires and out of direct sunlight.**

**Do not store pesticides with pesticides with foodstuffs, animals, and water supplies. Keep pesticides separate from other commodities.**

**Keep stores Well ventilated**



# Mercury containing Thermostats



Thermostats with mercury switches showing glass ampoule containing mercury.

# Mercury containing Thermostats

- ❑ Remove the ampules in a manner designed to prevent breakage and remove only over or in a contained device
- ❑ The removal of the ampule must be well ventilated and monitored to ensure compliance and safety
- ❑ Ampules must be stored in a structurally sound container with a secured lid
- ❑ Label all thermostat containers
- ❑ Immediately contain any mercury spills by using appropriate protective equipment

# Labeling Procedures

- All labels must clearly show the type of universal waste
- All labels must have the start date of accumulation
- All labels must have the full container and pick up date

# Universal Waste Label

**UNIVERSAL WASTE**

CONTENTS CRT - WASTE  
(MONITOR)

ACCUMULATION START DATE 10/18/04

SHIPPER B46-134

ADDRESS \_\_\_\_\_

CITY, STATE, ZIP \_\_\_\_\_

HAZARDOUS PICK-UP DATE: 10/18/04

**UNIVERSAL WASTE**

FEDERAL LAW PROHIBITS IMPROPER DISPOSAL  
THE FOLLOWING MATERIALS ARE REGULATED AS A  
UNIVERSAL WASTE IN ACCORDANCE WITH 40 CFR PART 273.

UNIVERSAL WASTE - BATTERY(IES)

UNIVERSAL WASTE - MERCURY THERMOSTAT(S)

UNIVERSAL WASTE - MERCURY CONTAINING EQUIPMENT

UNIVERSAL WASTE - PESTICIDE(S)

UNIVERSAL WASTE - LAMP(S)

ACCUMULATION START DATE: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

D.O.T. PROPER SHIPPING NAME AND UN OR NA NO. WITH PREFIX  
(REQUIRED DURING TRANSPORT, WHEN MATERIAL IS ALSO  
REGULATED BY 49CFR PARTS 172-180)

**HANDLE WITH CARE!**

# Delivery

- Deliver full containers or transfer partial boxes to the appropriate on-site containers at Facilities Management in the accumulation area
- Place any containers on secondary containment pallets
- Containers must remain closed at all times except when adding waste



# Universal Waste Storage Areas

- All storage containers must be sheltered
- The area must be clearly marked with a sign reading “Universal Hazardous Waste Storage”
- Area must be kept secured/locked
- The storage area must be inspected weekly and documented accordingly
- Waste may not be stored for more than one year

# Facilities Management Responsibilities

- Responsible for all record keeping, shipping procedures, and verification of reclamation facilities
- Responsible for inspecting the accumulation area on a weekly bases and ensuring all containers are properly labeled, packaged and sealed according to regulations.



Questions?