



# Connecticut Department of Energy and Environmental Protection



# Hazardous Waste Advisory Committee

## Small Quantity Generator RCRA Training

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Connecticut Department of Energy and Environmental Protection

# Topics covered

- Inspections
- Universal Wastes (Demonstration of HW Online Training course)
- Used Oil
- Generator Closure
- Recycling



# Inspection Requirements

- Generators are required to inspect their facility for any deficiencies that may cause or lead to a release of hazardous waste or may pose a threat to human health or the environment
- Inspection schedule and program should be facility specific
- Inspections must be recorded in a log or summary



# What do I Need to Inspect?

- Written Inspection Schedule/Log
  - Monitoring equipment
  - Safety equipment
  - Emergency equipment
  - Security devices
  - Operating & structural equipment
  - Containers, storage areas, & containment systems
  - Tanks & ancillary equipment
  - Loading & unloading areas

**NOTE: DEEP Recommends inspecting containers holding CT Regulated Wastes, Universal Waste and Used Oil**



# What to look for?

## List of Equipment, Structures and Areas to be considered for Inclusion in an Inspection Schedule

This list is not all-inclusive and should be used only as guidance. Your inspection schedule should be developed specific to your facility and operational requirements. Regulations require that all monitoring equipment, safety and emergency equipment, security devices, operating and structural equipment, loading and unloading areas, containers and tanks (including ancillary equipment), and containment systems be inspected.

### SAFETY EQUIPMENT

Emergency Shower  
Face Shields  
Protective Gloves  
Disposable Respirators  
First Aid Equipment/Supplies  
Protective Clothing  
Air Purifying/Chemical  
Respirators  
Signs

### SECURITY EQUIPMENT

Fences  
Warning Signs  
Gates  
Lighting  
Locks

### TANKS

Waste Feed Cut-off/Bypass  
Discharge Control Equip.  
Drainage Systems  
Monitoring Equip. Data

- temperature
- pressure

Waste Level  
Tank Material/Seams

- corrosion
- leaking

Plumbing/Sumps  
Labeled/Marked:

- w/ "Hazardous Waste"
- w/ chemical name

### EMERGENCY EQUIPMENT

Fire Blankets  
Fire Extinguishers  
Fire Alarm Systems  
Generators  
Emergency Lights  
Portable Pumps/Hoses  
Fire Fighting Wagons / Hoses  
Self-Containing Breathing Apparatus  
Absorbents  
Containment Booms  
Spill Response Carts / Wagons

### MONITORING EQUIPMENT

Liquid Level Alarms/ Meters  
Conservation Vents  
Leak Detection Systems  
Fire Detection Systems  
Ground Water Monitoring System

### CONTAINERS

Condition

- leaking
- bulging
- rusted/corroded

Closed when not in use  
Marked:

- w/ "Hazardous Waste"
- w/ chemical name

Accumulation Date  
On Site < or > 180 days  
Adequate Aisle Space

### STRUCTURES

Dikes/Berms  
Troughs/Sumps  
Ramps  
Elevators/Lifts  
Tank Supports  
Containment Vault  
Bases/Foundation  
Roofs  
Walls

### AREAS

Loading Areas  
Unloading Areas  
Storage Areas  
Main Roadway  
Gate Area  
Periphery

### MOBILE EQUIPMENT

Tires/Tracks  
Brakes  
Hydraulics  
Trailer Hitches  
Lights  
Horns/Sirens  
Engine Condition

### COMMUNICATION EQUIPMENT

Telephones  
Pagers  
Two-Way Radios  
Intercoms  
Public Address System  
TV Monitoring System



# (Example) What to look for?

- Container Storage Area

- Condition of Drums

- Leaking
- Bulging
- Rusted/corroded

- Closed when not in use?

- Marked with:

- Words Hazardous Waste
- Chemical name/Description
- Accumulation Start Date

- Verify onsite for onsite for <90 days for LQG or <180 for SQG

- Appropriate Containment System in place?



**\*NOTE:** List is not intended as an all inclusive list and is only provided as an example. Inspection logs should be facility specific.



# (Example) What to look for?

- Safety Equipment
  - Emergency Shower (Is it working?)
  - Adequate Quantity of:
    - Face Shields
    - Protective Gloves
    - Protective Clothing
  - Unexpired first aid equipment?
  - Emergency lighting working?
  - Spill Kit containing adequate quantities of supplies?

*\*NOTE: List is not intended as an all inclusive list and is only provided as an example. Inspection logs should be facility specific.*



# How Often do I Need to Inspect?

- Inspection Schedule
  - Daily: tanks & ancillary equipment
  - Weekly: container, container storage area, & containment systems
  - Monthly: safety & emergency equipment
  - When used: loading & unloading areas



# How do I Document Inspections?

- Inspection Log
  - Date & time of inspection
  - Full name of inspector
  - Notation of observations
  - Date & nature of repairs
  - Follow up and record corrective actions
  - Keep on file for 3 years from date of inspection



# Blank Weekly Inspection Form

## Example

**Instructions:** Please use ink. Results of weekly inspections of hazardous waste containers and container storage areas must be recorded in this log. If any deficiencies are found, a description of the deficiencies must be recorded in the "Observation" column. Prompt and immediate action must be taken to correct any deficiencies observed. The date and nature of all corrective actions must be recorded in the "Corrective Actions Column". Once this log is completed, it should be maintained in a binder and must be kept on file for at least three years from the date of inspection. These inspection logs must be made available for inspection by State DEP inspectors.

Date of Inspection: \_\_\_\_\_ Time of Inspection: \_\_\_\_\_ a.m./p.m.

Full Name of Inspector: \_\_\_\_\_

Item/Condition to be checked	Yes	No	Observation/Deficiency	Corrective Actions and Date
Are all containers closed?				
Are all containers in GOOD condition (NOT leaking, rusted, bulging or otherwise in poor condition)?				
Are all containers marked?				
Does the marking include the words "Hazardous Waste" and other words to describe the waste?				
Are all markings legible and visible for inspection?				
Are all containers marked with accumulation start dates?				
Are dates less than 180 days?				
Is the amount of waste on site less than 1,000 kg (2,200 lbs)?				
Is there adequate aisle spacing?				
Are the containers stored on an impermeable base that is bermed?				
Are the base and berm free of gaps, cracks, and damage?				
Is the base free of spills, leaks, or other accumulation?				
Are incompatible materials separated by a wall or a berm?				

Note: If the "NO" column is checked, corrective action must be taken and the "Observation" and "Corrective Action" columns must be completed.

Additional Comments:

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_



# Blank Monthly Inspection Log

## Monthly Safety and Emergency Equipment Inspection Log

**Instructions:** Please use ink. Results of monthly inspections of safety and emergency equipment must be recorded in this log. If any deficiencies are found, a description of the deficiencies must be recorded in the "Observation" column. Prompt and immediate action must be taken to correct any deficiencies observed. The date and the nature of all corrective actions must be recorded in the "Corrective Actions" column. Once this log is completed, it should be maintained in binder and must be kept for at least three years from the date of the inspection. These inspection logs must be made available for inspection by State DEP inspectors.

Date of Inspection: \_\_\_\_\_ Time of Inspection: \_\_\_\_\_ a.m./p.m. Name of Inspector (Full Name): \_\_\_\_\_

Example

Item/Condition to be checked	Required Quantity	Yes	No	Observation/Deficiency	Corrective Actions and Date
<b>Personal Protective Equipment</b>					
Safety Glasses?	5				
Face Shields?	2				
Rubber Gloves (Nitrile)?	50 pairs				
Leather Gloves?	4 pairs				
Cotton Gloves?	40 pairs				
Dust Masks?	24				
Rubber boots?	5 pairs				
Disposable coveralls?	5				
<b>Safety Equipment</b>					
Emergency showers in good operating condition, and marked?	Ink Room R&D Area				
All fire extinguishers fully charged, clear, expiration date marked?	38				
Emergency lights in good working order?	8				
<b>Emergency Equipment</b>					
<b>Sealed 20 Gallon Spill Kit</b> Contents: 20 pads, Heavy Wt; 4 Socks, 3"x48"; 1 Sock, 3"x8"; 2 Pillows, 18"x18"; 1 Bag Ultrasorb, Granular 5#; 3 Temporary Disposal Bags; 3 Plastic Zip Ties, 12"; 1 Pair, Nitrile Gloves; 1 Pair Safety Goggles; 1 Instruction Sheet.	3 spill kits with seals intact				
<i>Mix Room</i>					
3" X 10' sock	4				
Pillows	4				
Mats	60				
Disposable Bags/Ties	8/8				
<i>Loading Dock</i>					
3" X 10' sock	6				
Pillows	4				
Mats	30				
Disposable Bags/Ties	8/8				
Are the salvage drums empty, clear, and marked?	2				

**Note:** If the "NO" column is checked, corrective action must be taken and the "Observation" and "Corrective Action" columns must be completed.

Additional Comments: \_\_\_\_\_





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# Universal Waste\*[Demonstration of online HW training](#)

- Universal waste rule provides a set of streamlined regulations to reduce the regulatory. Allows longer time for the storage of the wastes, reduced record-keeping requirements and consolidation off-site without a permit.
- Wastes include:
  - Batteries
  - Mercury-containing thermostats
  - Mercury-containing equipment
  - Lamps
  - Certain pesticides
  - Used electronics
- Two Universal Waste Generator Categories: Small & Large Handlers



# Universal Waste [\\*Demonstration of online HW training](#)

- How do I store my universal waste?
  - Container rules:
    - Closed
    - Structurally sound
    - Compatible with contents
    - Capable of preventing leakage, spillage, or damage
  - Used Electronics must be stored in a building w/roof & 4 walls or in cargo portion of a truck
  - Date of initial storage provided
  - One year to remove from site
  - Adequate Aisle space (DEEP recommends min 36 inches)

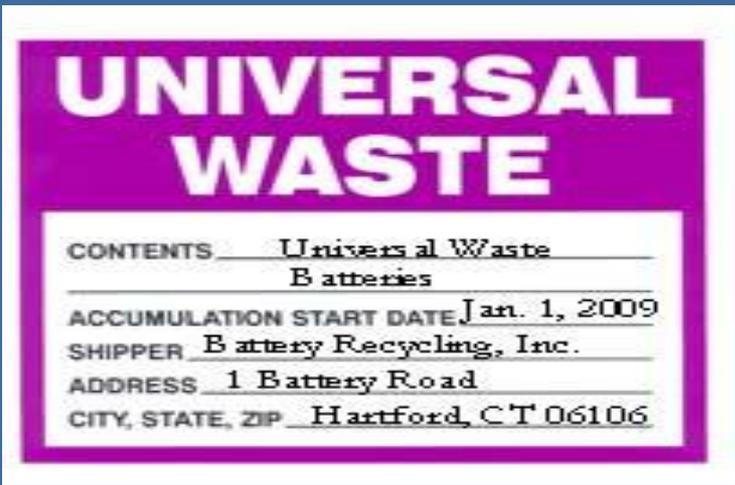


# Universal Waste [\\*Demonstration of online HW training](#)

- Universal Waste labeling
  - Accumulation start date
  - One of the following

“Universal Waste \_\_\_\_\_”  
“Waste \_\_\_\_\_”  
“Used \_\_\_\_\_”

**Example Label**



- A universal waste handler can store universal waste on site for no longer than 1 year from the date the universal waste is generated regardless of handler category.



# Universal Waste [\\*Demonstration of online HW training](#)

- Off-Site Shipments

- Can be to:

- Destination facility (including a RCRA TSDF)
    - Another universal waste handler
    - Foreign destination

- Applicable DOT Regulations for the following:

- Lead acid batteries
    - Nickel cadmium batteries
    - Mercury-containing thermostats
    - Mercury-containing equipment



# Universal Waste [\\*Demonstration of online HW training](#)

- Off-Site Shipment Record Keeping Requirements:
  - Small Quantity Handler not required to keep records of shipment
  - Large Quantity Handlers must keep a record of each universal waste shipment as follows:
    - May be in the form of a log, invoice, or shipping document
    - Must include:
      - Name & Address of Universal Waste handler or destination facility waste was sent to
      - Quantity of each type of Universal Waste
      - Date of the shipment
  - Records must be retained for at least 3 year.



# Universal Waste \*Demonstration of online HW training

## • Training Requirements

- A **small quantity handler** of universal waste must inform all employees who handle or have responsibility for managing universal waste
- A **large quantity handler** of universal waste must ensure that all employees are thoroughly familiar with the proper waste handling and emergency procedures, relative to their responsibilities during normal facility operations and emergencies

## • Emergency procedures

### – Spill/Release Procedures

- Immediately contain any releases of Universal Waste and other residues.
- Determine whether any material resulting from the release is a hazardous waste, and if it is, manage it under full hazardous waste requirements (e.g., hazardous waste container management requirements, etc.)
- Handle any materials which are still Universal Waste under Universal Waste requirements. Materials eligible for continued management as Universal Waste would include “inadvertent breakage” (i.e. small amounts of Universal Waste that were broken or released accidentally), and intact items that can be separated from spill residues and containerized, such as intact thermostats and mercury-containing equipment, intact lamps, and intact used electronics.



# Used Oil – What is it?

- Oil that is no longer fit for its original use
- Examples include:
  - Crankcase oil & motor vehicle oils
  - Gear, chain, and ball bearing lubricants
  - Hydraulic & compressor oils
  - Drawing & Stamping Oils
  - Metalworking fluids & oils
  - Heat transfer oils
  - Dielectric fluid



# How Do I Manage Used Oil Onsite?

- Used Oil Management (Tanks & Drums)
  - Marked with “Used Oil”
  - Good condition
  - Sealed unless adding or removing oil
  - Located indoors or under roof with containment
  - Suitable impervious surface
  - Outdoor storage allowed if :
    - Secondary Containment with 100% capacity. If uncovered take into account buildup of snow and rain.



# Used Oil – Options for Disposal

- How do I ship my used oil?
  - CT DEEP Licensed Transporter
  - CT DEEP Licensed Used Oil Facility
- Onsite combustion in a space heater
  - Oil must be generated onsite or from household DIYs
  - Heater < 0.5 million Btu/hr capacity
  - Exhaust is vented outside



# Generator Closure Requirements

What to do if you no longer store hazardous waste on site or relocate storage area:

- Characterize the waste
- Properly dispose of waste
- Properly dispose or decontaminate any equipment or structures
- Identify constituents of concern list, based on wastes managed
- Assess if releases occurred, consider migration pathways
  - Concrete sampling
  - Wipe sampling
  - Soil sampling
- Records/Documentation
  - Maintain closure records onsite
  - File DEEP/EPA forms to change or renew generator status



# Recycling

## Items that are required to be recycled

- glass and metal food containers
- non-residential high grade white office paper
- old newspaper
- scrap metal
- old corrugated containers
- waste oil
- lead acid storage batteries
- Ni-Cd rechargeable batteries
- Leaves
- grass clippings

**NEW**

Pursuant to [CGS Sec. 22a-241b](#) the following materials will be added to the list of designated recyclable items

- 1) HDPE and PETE plastic containers,
- 2) boxboard,
- 3) magazines,
- 4) residential high grade white paper,
- 5) colored ledger.



# Recycling: what should my company be doing?

Solid Waste Audit (What's in the trash?)

Ensure contract in place for recyclables collection

Use reusable or reduced transport packaging

Identify materials currently being disposed that have recycling markets

-Ex. Paper beverage cartons, used textiles, other types of plastics, other types of paper, yard waste, clean wood, electronic devices, etc.

Consider changing processes to reduce waste



# Recycling: What should my company be doing? (continued)

- Purchase environmentally-preferable products
  - Ex. Products with recycled content, recyclable, durable and reusable rather than disposable
- See Business Recycling Assistance page linked from DEEP's Recycling Homepage:

[www.ct.gov/deep/recycle](http://www.ct.gov/deep/recycle)



# Any Questions?



DEEP's toll-free Hazardous Waste  
Compliance Assistance (COMPASS)  
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