Connecticut Department of Energy and Environmental Protection

Connecticut Department of
ENERGY &
ENVIRONMENTAL
PROTECTION

Hazardous Waste Advisory Committee

Small Quantity Generator RCRA Training

Brent Madho, Environmental Analyst
Phone : 860-424-3092
E-mail: Brent.Madho@ct.gov

Topics covered

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

Inspection Requirements

- SQGs are required to inspect 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

What do I Need to Inspect?

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

What to look for?

Here are some things to look for while performing inspections:

1. Monitoring Equipment
   a. Liquid level alarms/meters
   b. Leak detection systems
   c. Fire detection systems
   d. Ground water monitoring system

2. Safety Equipment
   a. Emergency shower
   b. Face shields
   c. Protective gloves
   d. Disposable respirators
   e. First aid equipment/supplies
   f. Protective clothing
   g. Air purifying respirators
   h. Signs/placards

3. Emergency Equipment
   a. Fire blankets
   b. Fire extinguishers
   c. Fire alarm systems
   d. Generators
   e. Emergency lights
   f. Portable pumps/hoses
   g. Self-contained breathing apparatus
   h. Absorbents
   i. Containment boom
   j. Spill response carts/kits

4. Security Devices
   a. Fences
   b. Warning signs
   c. Gates
   d. Lighting
   e. Locks
   f. Telephones
   g. Pagers
   h. Two-way radios
   i. Intercoms
   j. Public address system
   k. TV monitoring system

5. Operating and Structural Equipment
   a. Dikes/berms
   b. Troughs/sumps
   c. Ramps
   d. Elevators/lifts
   e. Tank supports
   f. Containment vault
   g. Bases/foundation
   h. Roofs
   i. Walls

6. Containers
   a. LT-180 container storage areas
      i. labels
      ii. dates
      iii. condition
      iv. closed

   b. Containment systems
      i. spill pallets
      ii. berms
      iii. overpacks
      iv. liners

7. Tanks and ancillary equipment
   a. Waste feed cut-off/bypass
   b. Discharge control equipment
   c. Drainage systems
   d. Monitoring equipment data
   e. Waste level
   f. Tank material/seams
   g. Plumbing/sumps
   h. Labeled/Marked

8. Areas
   a. Loading areas
   b. Unloading areas
   c. Storage areas
   d. Main roadway
   e. Gate area
   f. Periphery

How Often do I Need to Inspect?

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

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

Example

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): _____

Item/Condition to be checked	Required Quantity	Yes	No	Observation/Deficiency	Corrective Actions and Date
Personal Protective Equipment					
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**				
Safety Equipment					
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**				
Emergency Equipment					
Sealed 20 Gallon Spill Kit 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**				
Mix Room					
3" X 10' sock	**4**				
Pillows	**4**				
Mats	**60**				
Disposable Bags/Ties	**8/8**				
Loading Dock					
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: _____

_____

Universal Waste*Demonstration of online HW training

- Wastes include:
  - Batteries
  - Mercury-containing thermostats
  - Mercury-containing equipment
  - Lamps
  - Certain pesticides
  - Used electronics

- Two Universal Waste Generator Categories: Small & Large Handlers

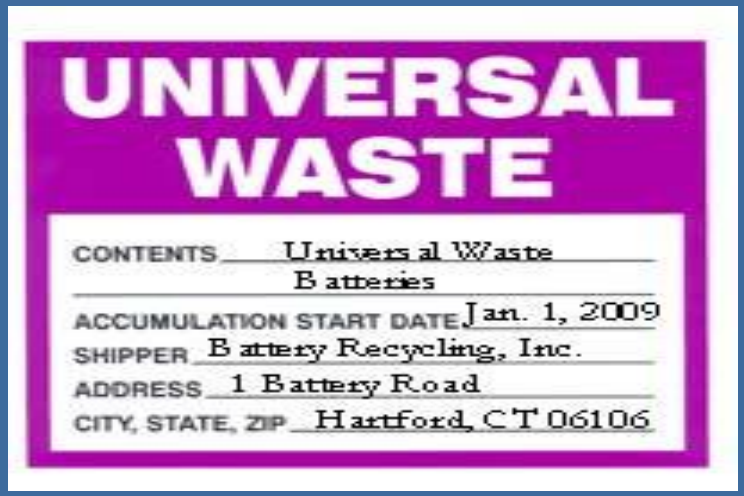
Universal Waste *Demonstration of online HW training

- How do I store my universal waste?
  - Container rules:
    - Closed
    - Structurally sound
    - Compatible with contents
    - Capable of preventing leakage, spillage, or damage
  - Date of initial storage provided
  - One year to remove from site

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

Universal Waste *Demonstration of online HW training

- Off-Site Shipments
  - Licensed Universal Waste Disposal Facility
  - 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

- 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
  - Metalworking fluids & oils
  - Heat transfer oils
  - Dielectric fluid

Used Oil – Steps to ensure Used Oil is not hazardous waste

- Do not mix with hazardous waste
- Test waste for characteristic waste codes
- Common contaminants include:
  - Halogenated Solvents
  - TCLP Metals
  - PCBs
  - Flammable Solvents

How Do I Manage Used Oil?

- 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

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
  - Heater < 0.5 million Btu/hr capacity
  - Exhaust is vented outside
  - Oil heating value is >5,000 Btu/lb

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? (con'd)

- 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

Any Questions?

DEEP's toll-free Compliance Assistance (COMPASS) hotline at 1-888-424-4193