

# Hazardous Waste Management Training

**For Small and Large Quantity  
Generators**

Provided by Accent Communications, LLC

In Cooperation With

Solano County Department of Resource Management,  
Environmental Health Services

December 12, 2018

# Acknowledgements

- Additional information provided by:
  - Sonoma County Fire & Emergency Services Dept.
  - Santa Clara County, DEH, Hazardous Materials Compliance Division
  - CA Dept. of Toxic Substances Control
  - CalEPA
  - CalRecycle

# Purpose

- Basic training: Hazardous waste management
- To help you become compliant with California hazardous waste regulations
- Discuss the top 6 violations in Solano County

# Topics

- What federal, state, local rules and regulations apply?
- What are your responsibilities as a hazardous waste generator?
- Hazardous waste and hazardous waste streams
- How to characterize & reduce hazardous waste
- Small Quantity Generator (SQG) and Large Quantity Generator (LQG) rules
- Recyclable and universal hazardous wastes

# Topics (cont.)

- Hazardous waste tanks
- Shipping and manifests
- e-Manifesting
- Training
- Overview of tiered permitting
- Overview of reporting hazardous wastes in the CA Environmental Reporting System (CERS)

# Where Do We Find the Rules?

- Federal law –Resource Conservation and Recovery Act (RCRA)
  - Federal law takes precedent over state law. State can be more restrictive, but not less.
- Federal regulations – 40 CFR (Ch 260-282)
  - California's regulations have more detail and fewer exemptions.

# State Rules

- State Law - California Health and Safety Code (HSC), Div 20, Chapter 6.5, Sec 25100...et seq
- Regulations – California Code of Regulations, Title 22, Div 4.5, Chapters 10-55 (22CCR)
- Laws take precedent over regulations and both rule over ordinances

# Local Rules

- State air and water boards write statewide regulations, and local districts (Regional Water Boards and Air Districts) write specific rules for the districts.
- Local codes and ordinances - Cities and counties can adopt their own codes, known as ordinances, which can be more strict than state and federal laws and regulations.



# Rules (continued)

- Additional local codes and ordinances
  - Communities also adopt model codes such as the California Fire and Building Codes
  - The Fire Code also has requirements for the storage of hazardous materials, including hazardous wastes
  - Zoning ordinances limit the location of hazardous buildings and activities.

# Consequences of Violating the Requirements

- Administrative actions – fines
  - Administrative Enforcement Order
- Civil Actions – fines and legal restrictions
  - Civil Order
- Criminal Actions – fines, imprisonment
  - Can affect many facets of your business

# Possible Penalties

- A person who intentionally or negligently violates the Hazardous Waste Control Law or the conditions of a permit, rule, regulation, standard, or requirement can be liable for a \$25,000 fine for each violation of a separate provision or, for continuing violations, for each day that violation continues.

# Crimes and Misdemeanors...

- HSC sec 25189.6(a): Any person who knowingly, or with reckless disregard for the risk, treats, handles, transports, disposes, or stores any hazardous waste in a manner which causes any unreasonable risk of fire, explosion, serious injury, or death....”

Can get a fine of \$250,000 a year in county jail

Or 3-9 years in state prison

# Illegal Disposal of Hazardous Wastes

- “Disposal” means either of the following:
  - Discharge, deposit, injection, dumping, spilling, leaking, or placing of any waste so that the waste or any constituent of the waste is or may be emitted into the air or discharged into or on any land or waters, including groundwaters, or may otherwise enter the environment.
  - The abandonment of any waste

# Illegal Disposal of Hazardous or Non-Hazardous Waste

- Fish and Game code 5650a:
  - ‘...it is unlawful to deposit in, permit to pass into, or place where it can pass into the waters of this state any of the following:
    - .... (6) Any substance or material deleterious to fish, plant life, mammals, or bird life
- Penalty: Up to \$25,000 for each violation

# Top 6 Hazardous Waste Violations

- #1- Incomplete hazardous waste labeling
- #2- Poor container management
- #3- Separation of incompatible wastes
- #4- Minimize possibility of a release –  
The lack of “Good Housekeeping”
- #5- Unauthorized disposal
- #6- Inactive EPA ID number

# What is a Generator?

- A generator is any person, or site, whose processes and actions create hazardous waste or cause something to become hazardous waste.
- You may become a generator by having waste abandoned on your property.



# Hazardous Waste Generator Classifications

- In California, generators are divided into two categories:
  - Generators of less than 1,000 kg of hazardous waste per month, excluding universal wastes, and/or 1kg or less of acutely or extremely hazardous waste per month (defined as Small Quantity Generators (SQGs)).
  - Generators of 1,000 kg or more of hazardous waste per month, excluding universal wastes, and/or more than 1 kg of acutely or extremely hazardous per month (commonly referred to as Large Quantity Generators (LQGs)).

# Management of Containers

- Hazardous Waste Containers **must be**:
  - In good condition
    - (no leaks, structural defects, or severe rusting)
  - Compatible with the waste they contain
  - Closed, except when adding or removing waste
  - Opened, handled, transferred and stored in a manner that will not cause them to rupture or leak
  - Inspected at least weekly for potential leaks or deterioration
  - Separated from other incompatible wastes or materials

# Adequate Aisle Space

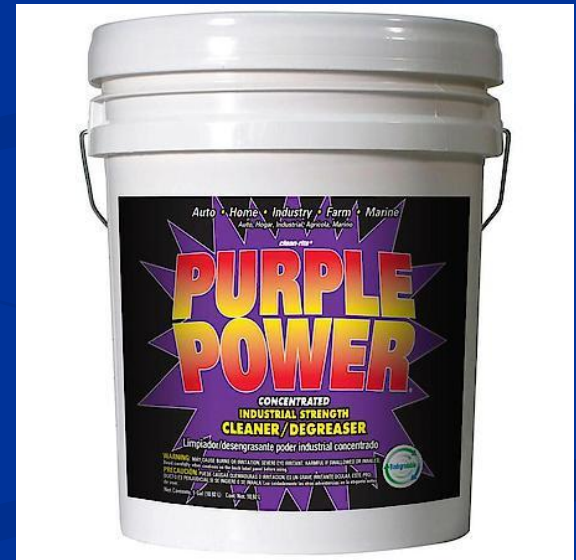
- To allow unobstructed movement of:
  - Personnel
  - Fire protection equipment
  - Spill control equipment
  - Decontamination equipment
  - To any area of the facility for emergencies

# Good Housekeeping

- Reduces spills
- Reduces accidents
- Reduces excessive chemical use
  - **Keep chemicals tightly capped**
  - **Store in secondary containment**
  - **Separate incompatible materials**
  - **Maintain equipment in good working order**

# Good Housekeeping: *A word about degreasers...*

- “Purple Thunder” pH: 13.0
- “Hot Shot” pH: 13.0
- “Purple Power” pH: 13.0 - 14.0



# Generator Responsibility

- Among other things, generators must:
  - Identify and characterize their wastes as hazardous or non-hazardous.
  - Manage the wastes accordingly.
  - Dispose of wastes properly.
  - Maintain hazardous waste records.

# First Principles

- Is it a waste?
- What is a hazardous waste?
- How do I find out what is in the waste?
- How do I count it?
  - What category of waste am I dealing with?
- How must I manage it?

# Identification and Characterization

- This is the most important step and the sequence you follow is important
- Over-characterization spends money needlessly
- Under-characterization exposes owners to illegal disposal fines and/or can harm workers and the environment.



# First Question – Is it a Waste?

Is it:

**Disposed?** Placed in the trash, ground or abandoned?

**Burned (incinerated)?**

**Recycled?** Either sent somewhere to be recycled or recycled by you to use again?

# Is it a Waste?

- Is it in damaged, incorrectly labeled or unlabeled containers?
  - Repackage within 96 hours, relabel within 10 days
- Is it contaminated and unusable?
- Is it Retrograde (out of date) or material that you are prohibited to use? (Air Board HAPs, mercury switches, prohibited pesticides)

# But...Can You Still Use It?

- Use expired high-grade chemicals for less demanding use.
- Used oil for chain saw bar oil
- Distill used solvents for reuse
- Use of slightly dirty solvent for pre-cleaning
- Reuse partially used absorbents

You can stretch more use out of materials as long as they are actually useful!

# Treated Wood Waste (TWW)

- Chemically treated wood
  - Pentachloropenol
  - Copper Azole
  - Copper Boron Azole
  - Chromated Copper Arsenate
  - Ammoniacal Copper Zinc Arsenate
  - Copper Napthenate
  - Alkaline Copper Quaternary
- Paint, varnish, oil stain wood is not TWW

# Treated Wood Waste (TWW)

- Personnel training
  - Regulatory requirements (Cal-OSHA, DTSC)
  - Procedures for identifying & segregating TWW
  - Safe handling procedures
  - Proper disposal methods
- Shipping document
  - Straight bill of lading
    - Not Uniform Hazardous Waste Manifest

# Treated Wood Waste (TWW)



# What is a Hazardous Waste?

- In General: A waste with properties that make it potentially dangerous or harmful to human health or the environment.
  - Acute hazards – chemicals that cause immediate illness, injury or death
  - Chronic hazards – chemicals that harm or kill after long-term exposure

# Is it a Hazardous Waste? Determination

- Facilities must determine whether the waste they generate is hazardous by:
  - Seeing if it is on the “List” of hazardous wastes;
  - Applying generator knowledge of the contents and/or process, or
  - Having the waste tested by a certified environmental laboratory



# The Four Characteristics

- Its really not that **TRIC**ky
- **T**oxic—
  - Metals
  - Poison (kills fish, rats or humans)
  - Short- or long-term human harm
- **R**eactive-- water reactive, explosive, deadly gas generator (cyanide, hydrogen sulfide)
- **I**gnitable-- can flash to fire
- **C**orrosive--  $\text{pH} \leq 2$  or  $\geq 12.5$



# Hazardous Waste Record Keeping

- Documentation must be kept for at least 3 years from the date that waste was last sent for disposal
- Waste determination records- these may include:
  - Laboratory analytical reports
  - Process diagrams –determines where the waste originates and what goes into it before that point
  - Material toxicity data (SDS sheets or published data)
  - Calculations – known concentrations
  - Records of conversations with regulatory agencies

Additional slides are included at the end of this presentation that provide more details about the determination of hazardous waste

# Identifying Waste Streams

- The critical first step - examine your processes
  - Look at how materials come in and how products leave
  - What stuff leaves in the trash?
  - What stuff goes down the drain?
  - What is recycled?

# Identifying Waste Streams

- Waste materials that are generated during business
  - Maintenance wastes – used oil, coolant, paint wastes, cleaning compounds
  - Byproducts of manufacturing – machining coolants, spent chemical baths, buffing residues, tank bottoms.
  - Contaminated water
  - Spill cleanup
  - Contaminated cutting oil



# Identifying Waste Streams

Other wastes that sneak up on you ....

- Outdated stock & old project materials
- Contaminated stock & product
- Unknown materials
- Non-compliant paints & solvents
- Wastes abandoned on your property







# Managing Hazardous Wastes

- DTSC regulates hazardous waste from “Cradle to Grave”
- You must meet certain standards in the storage, treatment and disposal of your wastes.

# Managing Hazardous Wastes

- Generator standards

What we think of as “storage” of hazardous waste is called “accumulation” in the law.

When you accumulate hazardous waste, you must meet hazardous waste standards as well as California Fire Code and local building and zoning ordinances.

# Oil Water Separators (OWS)

- OWSs treat vehicle and floor wash water by allowing substances lighter than water to float and substances heavier than water to sink

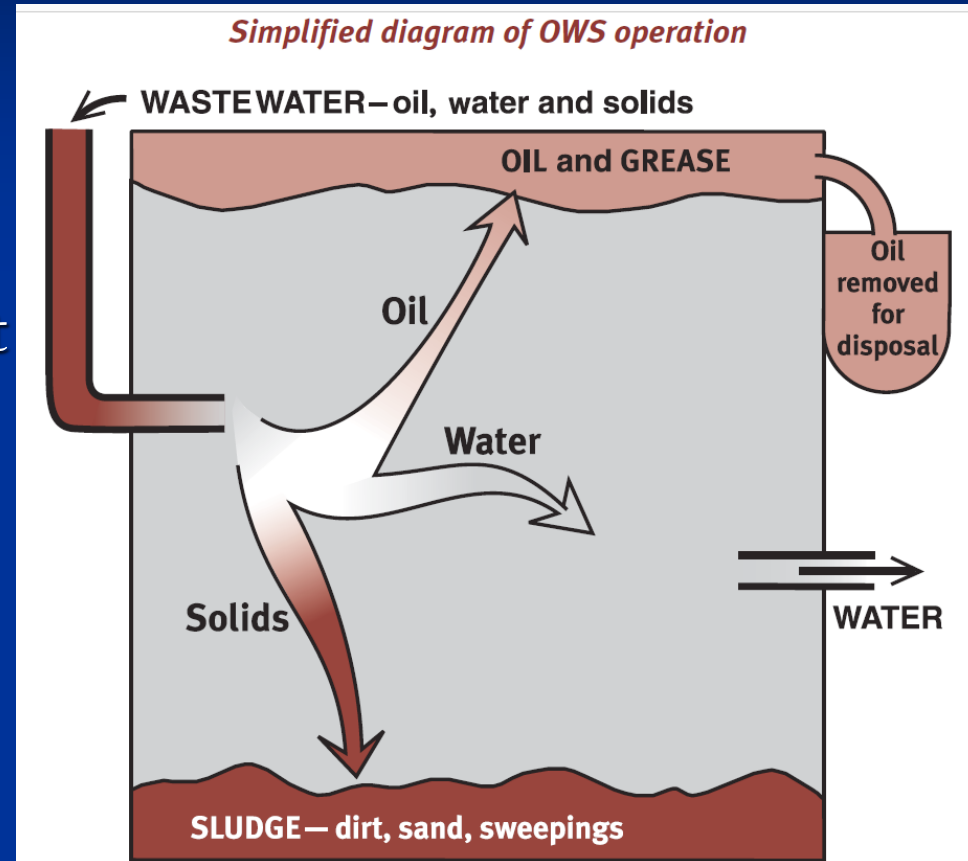


Image provided by  
California Department of Toxic Substances Control

# Oil Water Separators (OWS)

## TROUBLE SITUATIONS

## POTENTIAL IMPACT

## REMEDY

**Chemicals and spills reach OWS**

- Sewer discharge violation
- Sludge requires disposal as hazardous waste

- Eliminate floor drains from shop
- Clean up spills when and where they occur
- Use dry cleanup techniques in shop

**Sludge builds up in OWS**

- OWS is less effective because solids have less time to settle

- Eliminate storm water flow into the OWS using berms or curbs
- Install additional grates and screens on drains
- Use sloping pavement and sediment traps around drains

**Excessive floating oil accumulates in OWS**

- Oil discharged to sewer during high flow periods

- Pump out accumulated oil on a regular schedule
- Use oil-only absorbent pads to remove and recycle oil
- Use high-pressure, low-volume sprays for vehicle washing

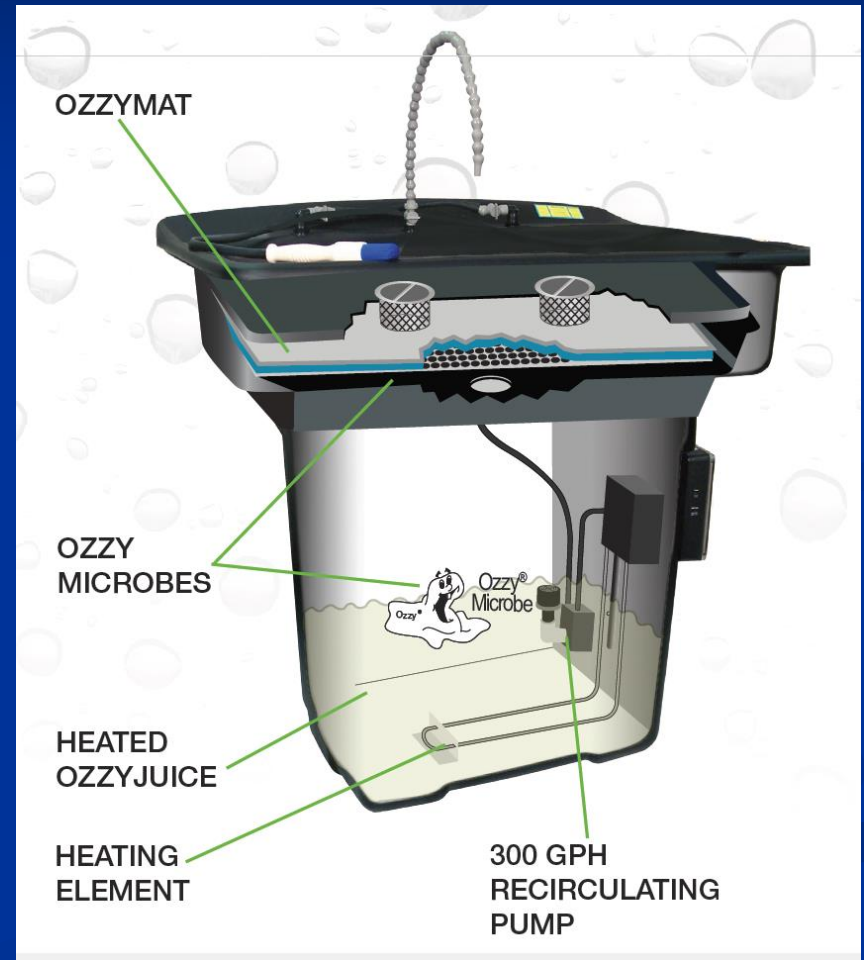
**Detergents reach OWS**

- Oil is emulsified and flows out of OWS to sewer

- Do not use oil-emulsifying cleaning solutions (detergents)
- Wash vehicles and engines less often

Image provided by  
California Department of Toxic Substances Control

# Aqueous Parts Washer



# Aqueous Parts Washer

- Minimizes hazardous waste
- Low maintenance
- Bioremediation
  - Feed the bugs
- Hazardous waste determination
  - Filter media
  - Totals test procedure by EPA Method 6010/7000
  - Acute aquatic toxicity



Image provided by CRC Industries

# Drained Used Oil Filters

- Properly **drained** used oil filters must be sent to recycling facilities on a bill of lading.
- If not properly drained it must be managed as hazardous waste.
- Gravity draining **alone** is no longer an acceptable method of properly draining used oil filters.
- The State of California (DTSC) now advises generators of these used oil filters to be punctured, crushed or opened before draining.

# UPDATE: August 2016

## Management Requirements for Draining Used Oil Filters



**WORLD OIL™**  
ENVIRONMENTAL SERVICES



**ASBURY ENVIRONMENTAL SERVICES**  
Recycling for a Cleaner Environment

### “CUSTOMER ALERT”

During an inspection on August 10, 2016, the Department of Toxic Substance Control (“DTSC”) informed Asbury Environmental Services / World Oil Environmental Services (WOES) that used oil filters which

### ADVISORY: DRAINING OF USED OIL FILTERS

***Improperly drained used oil filters must be managed as hazardous waste under California’s Hazardous Waste Control Law***

In recent inspections, the Department of Toxic Substances Control (DTSC) has discovered a significant number of undrained or improperly drained used oil filters that were sent to metal recycling facilities by generators of those filters.

This advisory explains DTSC’s regulations governing the management of used oil filters, and highlights the draining techniques that DTSC has found to be most effective at removing residual oil from the filters.



Department of  
Toxic Substances Control

***For more information, contact the  
DTSC Regulatory Assistance Office***

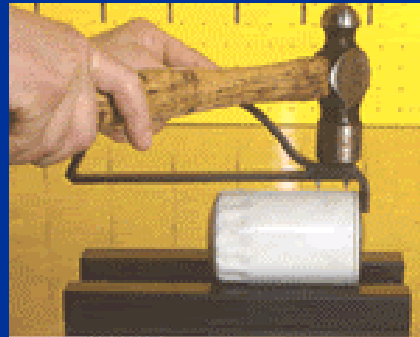
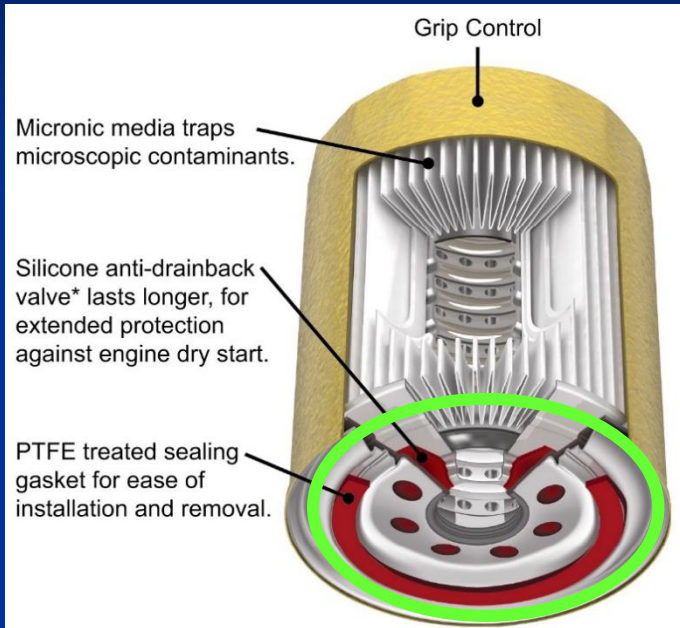
### Special Note for Filters without Metal Housings:

Used oil filters and fuel filters without metal housings (also known as filter media cartridges or inserts) are not considered recyclable and cannot be managed in the same way as those with metal housings. These must be collected and managed as hazardous waste, transported by a registered hazardous

waste transporter with hazardous waste manifests, and sent to an authorized hazardous waste facility unless they can be demonstrated to not exhibit a hazardous waste characteristic. These oil and fuel filter cartridges should not be mixed with used oil filters that have metal housings and are being recycled. This commingling would be a violation of the Hazardous Waste Control Law.



# Management of Drained Used Oil Filters



# Management of Drained Used Oil Filters

- Used paper/plastic drained used oil filters cannot be comingled with the metal drained used oil filters
- The paper/plastic drained used oil filters must be managed as **Hazardous Waste**.
- Cartridge filters do not qualify for metal reclamation.



# Cal-Recycle: CA Landfills

- Administers and provides oversight for all of California's state-managed waste handling and recycling programs, including Class II & Class III landfills.

# Locations of Class II and III Landfills With Composite-Lined Units

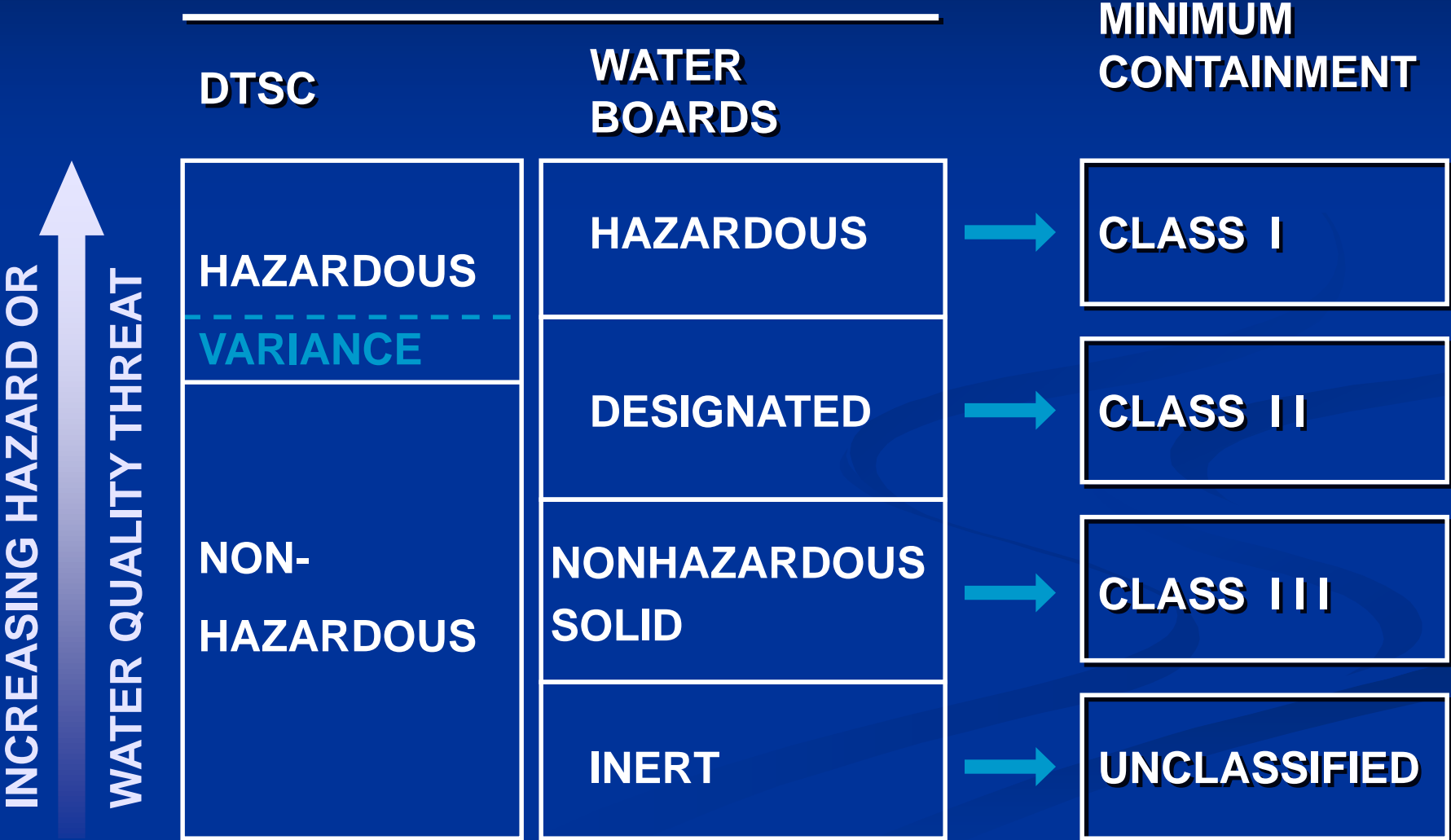


# Waste Classes & Site Classes

- Hazardous Waste → Class I Unit
- Designated Waste → Class II Unit
- Nonhazardous  
Solid Waste → Class III Landfill
- Inert Waste → Unclassified Unit

# California Waste and Unit Classifications

## WASTE CLASSIFICATIONS



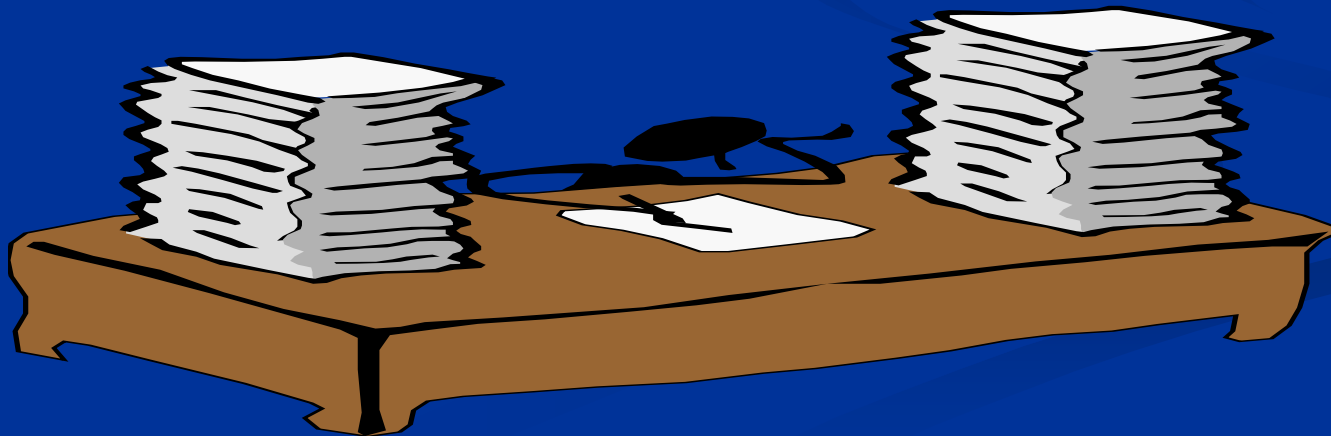
# BREAK TIME!!

**ON THE  
AIR**



# General Rules for Small Quantity Generators

- Accumulation times
- Labeling
- Shipping papers
- Plans: Contingency, Business, Training





# Accumulation Time

- Accumulation time frames depend on:
  - Amount of waste generated (monthly and total)
  - Where the waste is headed for disposal (how far away from you) and
  - How it's accumulated (e.g. 90-day or satellite accumulation)
- **Be sure to mark initial accumulation date on all drums!**

# Satellite Accumulation

- One 55 gallon or smaller container per waste stream (no tanks)
  - At or near the point of generation
  - Under the control of the operator
  - Marked with 2 dates:
    - Date of first drop when started & date filled

# Satellite Accumulation

- Any sized generator can manage satellite wastes
- Other than two dates, the same labeling requirements apply as non-satellite areas.
- Move to 90-day storage area within 3 days of reaching 55 gallon limit
- Total storage time (satellite + 90/180/270 day) cannot exceed one year

# General Rules for LQG Generators

- Accumulation time:  $\leq 90$ -days
  - Does not apply to Satellite Accumulation
- Develop/maintain a contingency plan
  - Response procedures necessary to minimize the hazards posed by fires, explosions, or unplanned releases of hazardous waste from the facility.
- Personnel training
  - Classroom or on-the-job training to become familiar with proper hazardous waste management and emergency procedures for the wastes handled at the facility.

# LQG Requirements

- Reporting requirements: Biennial Report
  - The site generated in any **single month** 1,000 kg (2,200 lbs) or more of RCRA hazardous waste; or
  - The site generated in any **single month**, or accumulated at **any time**, 1 kg (2.2 lbs) of RCRA acute hazardous waste; or
  - The site **generated** or **accumulated** at any time more than 100 kg (220 lbs) of spill cleanup materials contaminated with **RCRA acute hazardous waste**.
- Biennial Report (EPA Form 8700-13A/B) to DTSC by March 1 of each even-numbered year

# LQG Requirements

- Hazardous Waste Tank Assessment
  - A document that describes and assesses the design of a hazardous waste tank(s) to ensure that it meets the requirements of 22CCR §66265.
  - An **independent**, qualified California-registered professional engineer (PE) must review the assessment and attest that the tank system has sufficient structural integrity and is acceptable for the transferring, storing and treating of hazardous waste.
- Before placing into service and every 5-yrs.
- Certification statement: 22CCR §66270.11(d)

# Stick To It! (Labeling)

- The words “Hazardous Waste”
- Name and address of generator (Facility)
- Accumulation start date
- Composition and physical state
- Properties
- Everything else gets added when it gets shipped out



# HAZARDOUS WASTE

STATE AND FEDERAL LAW PROHIBIT IMPROPER DISPOSAL.  
IF FOUND, CONTACT THE NEAREST POLICE OR PUBLIC SAFETY  
AUTHORITY, THE U.S. ENVIRONMENTAL PROTECTION AGENCY  
OR THE CALIFORNIA DEPARTMENT OF TOXIC SUBSTANCES CONTROL.  
GENERATOR INFORMATION:

NAME \_\_\_\_\_  
ADDRESS \_\_\_\_\_ PHONE \_\_\_\_\_  
CITY \_\_\_\_\_ STATE \_\_\_\_\_ ZIP \_\_\_\_\_

MANIFEST TRACKING NO. \_\_\_\_\_

EPA ID NO. \_\_\_\_\_  
EPA WASTE NO. \_\_\_\_\_ CA WASTE NO. \_\_\_\_\_ ACCUMULATION  
START DATE \_\_\_\_\_

CONTENTS, COMPOSITION: \_\_\_\_\_  
\_\_\_\_\_

PHYSICAL STATE:  SOLID  LIQUID  
HAZARDOUS PROPERTIES:  FLAMMABLE  TOXIC  
 CORROSIVE  REACTIVITY  OTHER \_\_\_\_\_

D.O.T. PROPER SHIPPING NAME AND UN OR NA NO. WITH PREFIX

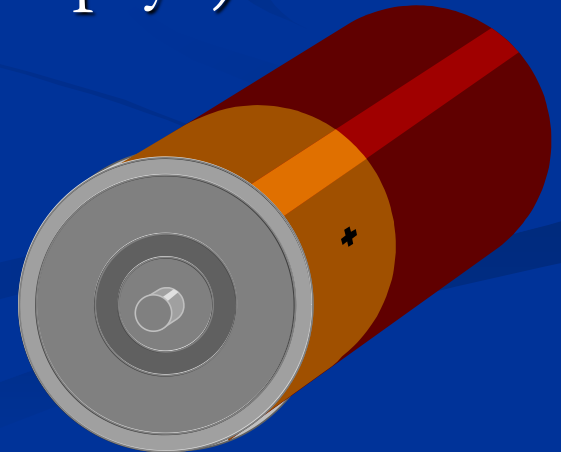
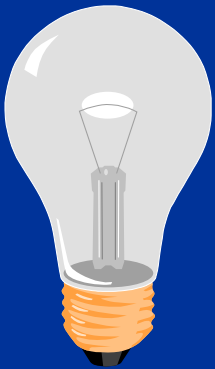
## HANDLE WITH CARE!

STYLE WMCA8



# Universal Waste

- Fluorescent light bulbs for general lighting
- UV Lamps & mercury discharge lamps – tanning booths, water purification, high intensity lighting
- Batteries (Lithium, Ni-Cd; NOT lead-acid auto)
- Partially full aerosol cans (“non-empty”)



# Mercury-Containing Devices

- DTSC has lists of covered materials on fact sheet
- The covered devices may be managed as Universal Waste if properly managed.
- Mercury switches on vehicle trunk and hood lamps, tilt switches, silent wall switches and thermostats.
- Other products such as thermometers, blood pressure cuffs and medical devices may contain mercury.

# Aerosol Cans and Universal Waste

- SB 1158-Effective January 1, 2002
- Reduced the regulatory and financial burden of managing hazardous waste aerosol cans as “Universal Waste”
- Allows generators or universal waste handlers to process aerosol cans on site by means of puncturing, draining and crushing the can without an onsite treatment of hazardous waste permit (previously, CE-Limited Tier).

# Aerosol Cans and Universal Waste

- Under SB 1158, your processing equipment must be designed, maintained, and operated so as to prevent fire, explosion and unauthorized releases to the environment.
- If the contents drained from the cans are a hazardous waste, you must manage as such.
- For further information refer to handout provided at the end of this presentation on managing aerosol cans.

# Universal Waste Management

- Label and mark with accumulation start date
- “Waste \_\_\_\_\_” or
- “Used \_\_\_\_\_” or
- “Universal Waste - \_\_\_\_\_”
- Can store up to 1 year
- Ship under bill of lading

**UNIVERSAL  
WASTE**

CONTENTS \_\_\_\_\_  
\_\_\_\_\_

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

SHIPPER \_\_\_\_\_

ADDRESS \_\_\_\_\_

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

# Containers

- Labeled when holding wastes
- Closed unless adding or removing waste
  - Lock/latch funnels screwed into bung are OK
  - Keep ring on and secured for open top drum
- In good condition
  - Look out for dents, rust
  - Compatible with waste



# Hazardous Waste Tanks

- Must have correct rating for the material stored
- Secondary containment is required
- Inspect the secondary daily
- If in a building, it must have venting and pressure relief as required by California Fire Code.
- If it has an open secondary, keep it clean and dry! Keep the drain valve closed and locked.

# Written Assessments for Tank Systems and Components

- For the following types of tank systems, a written assessment meeting the requirements of 22 CCR §66265.192(k) must be obtained prior to placing a new tank system or component in service: [22CCR §66265.192(h)(1)]
- Systems containing non-RCRA hazardous wastes generated onsite; [22CCR §66265.192(h)(2)(A)]
- Onsite treatment unit tank systems authorized under the following tiers: [22CCR §66265.192(h)(2)(A)]
- Conditional Exemption (CE) if the facility is a LQG;
  - Conditional Authorization (CA);
  - Permit-by-Rule (PBR).
- Systems containing RCRA hazardous wastes generated onsite if 40 CFR §265.1 exempts the owner/operator from the requirements of 40 CFR Part 265. [22CCR §66265.192(h)(2)(B)(2)]



# Written Assessments for Tank Systems and Components

- An independent, qualified California-registered professional engineer (PE) must review the assessment and attest that the tank system has sufficient structural integrity and is acceptable for the transferring, storing and treating of hazardous waste. [22CCR §66265.192(h)(1)]
- The assessment must include the following information: [22CCR §66265.192(k)]
  - Hazardous characteristics of the waste(s) that have been or will be handled; [22CCR §66265.192(k)(8)]
  - Tank configuration (i.e., horizontal or vertical), material of construction, and gross capacity in gallons. [22CCR §66265.192(k)(1)]

# Written Assessments for Tank Systems and Components

- All of the following information: [22CCR §66265.192(k)(2)]
  - Material of construction
  - Material thickness and the method used to determine the thickness
  - Description of tank system piping (i.e., material, diameter)
  - Description of any internal and external pumps
  - Sketch or drawing of tank including dimensions

# New Aboveground Tanks Holding RCRA Hazardous Waste and UST Systems

- Aboveground tank systems containing RCRA hazardous wastes generated onsite when the owner/operator is subject to the requirements of 40 CFR Part 265.
- Underground storage tank systems.
  - Prior to placing a new tank system of this type in service, the owner/operator must obtain a written assessment as described below. The assessment must be reviewed and certified by an independent, qualified California-registered PE attesting that the system has sufficient structural integrity, is acceptable for the transferring, storing and treating of hazardous waste, and that the tanks and containment system are suitably designed to achieve the requirements of Article 10. [22CCR §66265.192(a)]

# New Aboveground Tanks Holding RCRA Hazardous Waste and UST Systems

- The assessment must include the following information: [22CCR §66265.192(a)]
  - Hazardous characteristics of the waste(s) to be handled; [22CCR §66265.192(a)(2)]
  - Design standard(s) according to which the tank(s) and ancillary equipment are or will be constructed; [22CCR §66265.192(a)(1)]
- Design considerations:
  - Tank foundations; [22CCR §66265.192(a)(5)(A)]
  - Tank systems anchored to prevent flotation or dislodgment; [22CCR §66265.192(a)(5)(B)]
  - Tank systems will withstand the effects of frost heave. [22CCR §66265.192(a)(5)(C)]

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  - Tank systems anchored to prevent flotation or dislodgment; [22CCR §66265.192(a)(5)(B)]
  - Tank systems will withstand the effects of frost heave. [22CCR §66265.192(a)(5)(C)]

# New Aboveground Tanks Holding RCRA Hazardous Waste and UST Systems

- For tank systems or components in contact with the soil or with water, a determination by a corrosion expert of: [22CCR §66265.192(a)(3)]
  - Soil moisture content; soil pH; soil sulfides level; soil resistivity; structure to soil potential; and existing corrosion-protection measures (e.g., coating, cathodic protection).
- The type and degree of external corrosion protection that are needed to ensure the integrity of the tank system during the use of the tank system or component:
  - Corrosion-resistant materials of construction such as special alloys or fiberglass reinforced plastic; corrosion-resistant coating (e.g., epoxy or fiberglass) with cathodic protection.
- For UST system components affected by vehicular traffic, a determination of design or operational measures that will protect the tank system against potential damage.
- A certification by the PE worded exactly as indicated in Section G; [22CCR §66265.192(a)]
- The current assessment must be kept on file at the facility. [22CCR §66265.192(a)]

# Replacement Tank System Parts or Components

- A written reassessment is not required for the replacement of the following identical or functionally equivalent tank system parts or components: [22CCR §66265.192(1)]
  - Pumps (same type and capacity);
  - Plumbing or piping components such as unions, elbows, tees and gaskets;
  - Valves and check valves;
  - Piping and valve hangers and supports.
- Approval from the CUPA
  - Before installing any identical or functionally equivalent replacement tank system part or component other than the items listed above.

# Replacement Tank System Parts or Components

- Provide the CUPA with the following information in writing so that a determination can be made as to whether or not the part(s) are identical or equivalent: [22CCR §66265.192(m)]
- If the part(s) or component(s) are determined to be identical or functionally equivalent by the CUPA, a written reassessment is not required.
- If the part(s) or component(s) are not the identical or functionally equivalent items specified above, or the CUPA determines that other replacement parts or components are not identical or functionally equivalent, then a written reassessment as specified in 22 CCR §66265.192(k) is required.



# Temporary Exemption for Tank System Parts or Components

- Owners/operators of new aboveground non-RCRA or RCRA-exempt tank systems whose design and installation have been approved by a local agency or agencies may, at the discretion of the CUPA, delay preparation of the written assessment specified in §66265.192(k) beyond the date the tank system is placed in service.
  - The tank system must have secondary containment capable of containing 100 percent of the contents of the tank and ancillary piping volume; [22CCR §66265.192(j)(1)]
  - If the tank system is exposed to precipitation, the secondary containment system must have sufficient capacity to contain infiltration from a 25-year, 24-hour rainfall event.
- A request for temporary exemption from the written assessment requirement with information showing that the conditions of 22 CCR §66265.192(j)(1) through (3) have been met;
  - Documentation of local agency approval of the tank system design and installation.
  - The CUPA may grant an extension for up to three (3) years. [22CCR §66265.192(j)]

# Assessment of Existing Tank Systems

- Owners/operators of existing tank systems that did not have secondary containment meeting the requirements of 22 CCR §66265.193 at the time the tanks were installed were required to obtain a written tank system assessment in accordance with §66265.191 by 7/1/1991; [22CCR §66265.191(a)]
- If, as a result of an assessment the tank system is found to be leaking or unfit for use, the owner or operator must remove the tank from service as required by 22 CCR §66265.196. [22CCR §66265.191(d)]
- The assessment is valid for a period of one (1) year from the date of certification. It must be reviewed and recertified by a PE before the current certification expires. [22CCR §66265.191(e)(1)]
- The current assessment must be kept on file at the facility. [22CCR §66265.191(e)(1)]
- An existing tank system that had secondary containment meeting the requirements of 22 CCR §66265.193
- Per USEPA and DTSC, if such a system is modified, it is subject to the requirements for new tank systems.

# Shipping Papers

- Must be kept for three years.
- The generator is ultimately responsible for the info on the papers and is also the signer.
  - **REVIEW IT BEFORE YOU SEND IT!!**



# Shipping Papers

- Universal Waste receipts
- Consolidated manifests
- Uniform Hazardous Waste Manifests



# Consolidated Manifests

Can be used for\*:

- parts cleaners
- paint wastes
- absorbents
- brake fluid
- antifreeze
- used oil
- oil-water separator sludge
- fuel and oil filters

*This is the easiest way to go!*

\*if you generate a total of < 1000 kg waste/month and have a routine pick up agreement with the vendor

- The transporter fills out the full hazardous waste manifest, and gives you a receipt.



# AMERICAN VALLEY WASTE OIL, INC.

P. O. Box 340 • Delhi, CA 95315  
PH: 1-800-732-4645 • FAX 209-668-3880  
EPA: CAL000827878

450

Invoice Number:

9-2-

Invoice Date:

BILL TO:

JOB SITE: J lube

Phone	Customer P.O.	Payment Terms	EPA#			
		NET 30				
PRODUCT SHIPPING DESCRIPTION	WASTE CODE	MANIFEST	QUANTITY	PRICE	AMOUNT	
USED OIL NON RCRA HAZARDOUS WASTE LIQUID	221	23	4	2100	110	
USED AUTOMOTIVE ANTIFREEZE, NON RCRA HAZARDOUS WASTE LIQUID	343					
OILY WATER, NON RCRA HAZARDOUS WASTE LIQUID	221					
TRINITY HEAVY DUTY 50/50 RECYCLED ANTIFREEZE	N/A					
NON HAZARDOUS WASTE LIQUID						
TRUCK TIME	N/A					
GREASWEEP	N/A					

TERMS: INVOICES OVER 30 DAYS ARE SUBJECT TO A 1.5% SERVICE CHARGE. CUSTOMER AGREES TO PAY ALL LEGAL FEES IF COURT ACTION BECOMES NECESSARY TO COLLECT THIS INVOICE.

TOTAL 210<sup>00</sup>

DRIVER SIGNATURE \_\_\_\_\_ GENERATOR SIGNATURE \_\_\_\_\_

American Valley Waste Oil hereby advises the above Generator the Generators shipment of used oil may be transported to a facility that is required to comply with federal regulations applicable to management of used oil, but that is not required to comply with the more stringent requirements applicable to hazardous waste management facilities. California facilities that handle or process used oil are required to meet those more stringent requirements, and some out-of-state facilities that process used oil also meet those requirements, engineering certifications of tank integrity, and financial assurances for closure and accidental releases. It is lawful to send used oil to out-of-state facilities that comply only with federal used oil management standards and not these more stringent requirements.

This notification is for information purposes only.  
Driver signed \_\_\_\_\_ Date \_\_\_\_\_ Generator signed \_\_\_\_\_ Date \_\_\_\_\_  
By signing this invoice the generator certifies that the generator has established a program to reduce the volume or quantity and toxicity of the hazardous waste to the degree, as determined by the generator, to be economically practicable.  
By both parties signing this invoice it will serve as an agreement that American Valley will submit confirmations for (certain waste streams) to the generator that their waste has been transported to a license treatment or transfer facility.

### DISPOSAL / RECYCLING FACILITY

RIVERBANK OIL TRANSFER  
5300 CLAUS ROAD • RIVERBANK, CA 95367  
209-863-818 • EPA # CAL000190815

RAMOS ENVIRONMENTAL SERVICES  
1515 SOUTH RIVER ROAD • W. SACRAMENTO, CA 95691  
916-371-5747 • EPA # CAD044003556



# Manifests

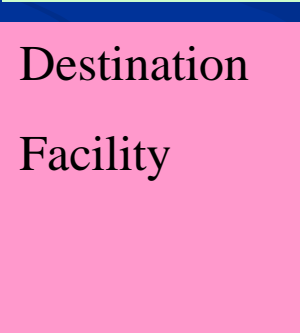
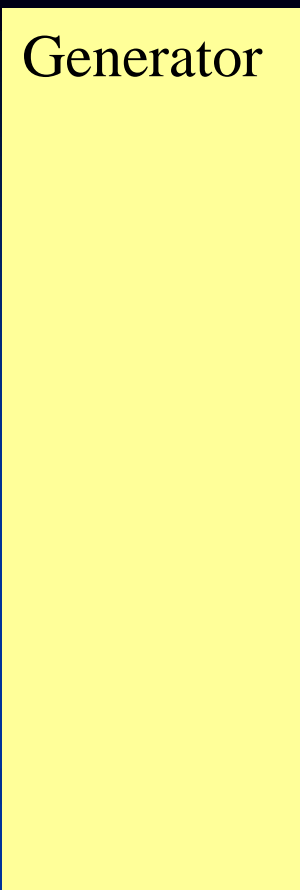
- Multi-copy shipping paper
  - Tracks waste from “Cradle to Grave”
  - Generator gets one copy and a copy gets sent to DTSC.
  - Generator should receive a final copy from the TSD within 30 days.
  - You must keep your copies for at least three years.

# Uniform Hazardous Waste Manifest

- Federal manifest
  - 6-pages
- State requires a copy
  - Generator must make a “legible” for the state
  - Recommend that the top copy be photocopied
- Copies
  - Generator copy, Transporter copy, TSDf copy, TSDf to Generator, Transporter to State, TSDf to State



<b>UNIFORM HAZARDOUS WASTE MANIFEST</b>		1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number <b>000062026GBF</b>										
5. Generator's Name and Mailing Address				Generator's Site Address (if different than mailing address)											
Generator's Phone:															
6. Transporter 1 Company Name				U.S. EPA ID Number											
7. Transporter 2 Company Name				U.S. EPA ID Number											
8. Designated Facility Name and Site Address				U.S. EPA ID Number											
Facility's Phone:															
9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))			10. Containers		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes							
				No.	Type										
				1.											
				2.											
				3.											
4.															
14. Special Handling Instructions and Additional Information															
<p><b>15. GENERATOR'S/OFFEROR'S CERTIFICATION:</b> I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.</p> <p>I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.</p>															
Generator's/Offeror's Printed/Typed Name				Signature		Month	Day	Year							
<p>16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: _____</p> <p>Transporter signature (for exports only): _____ Date leaving U.S.: _____</p>															
17. Transporter Acknowledgment of Receipt of Materials															
Transporter 1 Printed/Typed Name				Signature		Month	Day	Year							
Transporter 2 Printed/Typed Name				Signature		Month	Day	Year							
18. Discrepancy															
<p>18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection</p> <p style="text-align: right;">Manifest Reference Number: _____</p>															
18b. Alternate Facility (or Generator)				U.S. EPA ID Number											
Facility's Phone:															
18c. Signature of Alternate Facility (or Generator)						Month	Day	Year							
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)															
1.	2.	3.	4.												
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a															
Printed/Typed Name				Signature		Month	Day	Year							



# Land Disposal Restriction

- You tell the TSDF if they can land dispose
  - Certification: you are certifying that you know that the waste meets disposal standards
  - Notification: you are notifying the disposal facility that there is some part of the waste that they need to pay attention to before they dispose of it
- Suggestion: Staple the LDR to the manifest
- Either send with each shipment or one copy per year if sending similar waste to same disposal facility every shipment

# California Land Disposal Restriction Notice and Certification

Generation Date California Hazardous Waste Code(s) <b>A</b>	Manifest Number <b>9211</b> CWM4 Profile Number <b>BD</b>
--	--

This form is submitted to Chemical Waste Management, Inc. in accordance with the requirements of CCR Title 22, Chapter 18, Article 1 which restricts the land disposal of certain hazardous wastes. I have marked the appropriate box (boxes A. through D.) below to indicate how my waste must be managed to conform to the land disposal restrictions. A copy of all applicable treatment standards and waste analysis data, where available, is maintained at the Chemical Waste Management facility identified on the manifest referenced above. I have entered the appropriate California Waste Code and checked the appropriate box in the table below to indicate the applicable non-RCRA hazardous waste listing from 22 CCR § 66268.29.

	State of California Restricted Waste Description Listed In 22 CCR § 66268.29	Prohibition Effective Date	Corresponding Treatment Standard (from 22 CCR)
✓	1 Metal-containing aqueous waste identified in 22 CCR 66268.29(a).	1/26/90	66268.107(a)
	2 PCB wastes identified in section 66268.29(b).	1/27/90	66268.110
	3 Auto shredder waste identified in section 66268.29(c).	5/8/91	66268.106(a)(1)
	4 Nonwastewater solvent waste identified in section 66268.29(d).	5/8/91	66268.107(b)
	5 Hazardous waste foundry sand identified in section 66268.29(e).	1/1/91	66268.106(a)(2)
	6 [reserved] (for only petroleum wastes).		
	7 Metal-containing solid waste identified in 66268.29(g).	5/8/92	66268.106(a)(3)
	8 Fly ash, bottom ash, retort ash or baghouse waste identified in 66268.29(h).	1/1/91	66268.106(a)(4)
	9 Baghouse waste from foundries identified in 66268.29(i).	1/1/91	66268.106(a)(5)
	10 Aqueous and liquid organic waste identified in 66268.29(j).	12/31/92	66268.112
	11 Solid waste containing organics identified in 66268.29(k).	12/31/92	66268.113

**A. RESTRICTED WASTE REQUIRES TREATMENT**  
 I am the generator of the waste identified above which must be treated to meet the applicable treatment standards set forth in CCR Title 22, article 4 or article 11 of Chapter 18.

**B.1 RESTRICTED WASTE TREATED TO PERFORMANCE STANDARDS**  
*I certify under penalty of law that I have personally examined and am familiar with the treatment technology and operation of the treatment process used to support this certification and that, based upon my inquiry of those individuals immediately responsible for obtaining this information, I believe that the treatment process has been operated and maintained properly so as to comply with the performance levels specified in article 4 and article 11 of chapter 18, division 4.5, Title 22, CCR and all applicable prohibitions set forth in section 66268.32 or RCRA section 3004(d) (42 U.S.C. section 6924(d)) without impermissible dilution of the prohibited waste. I am aware that there are significant penalties for submitting a false certification, including the possibility of a fine and imprisonment.*

**C. RESTRICTED WASTE SUBJECT TO A VARIANCE**  
 The waste identified above is subject to a capacity variance which expires on \_\_\_\_\_.

**D. RESTRICTED WASTE CAN BE LAND DISPOSED WITHOUT FURTHER TREATMENT**  
*I certify under penalty of law that I personally have examined and am familiar with the waste through analysis and testing or through knowledge of the waste to support this certification, that the waste complies with the treatment standards specified in CCR Title 22, division 4.5, chapter 18, article 4 and article 11 and all applicable prohibitions set forth in CCR Title 22, section 66268.32 or RCRA section 3004(d) (42 U.S.C. section 6924(d)). I am aware that there are significant penalties for submitting a false certification, including the possibility of a fine and imprisonment.*

I hereby certify that all information submitted in this and all associated documents is complete and accurate to the best of my knowledge and information.		
Signature _____	Title _____	Date _____

# e-Manifesting

- On June 30, 2018, the U.S. Environmental Protection Agency (EPA) launched the Hazardous Waste Electronic Manifest System (e-Manifest).
- e-Manifest facilitates the electronic transmission of the uniform manifest form, which accompanies shipments of hazardous waste.
- Visit the program web site: <http://www.epa.gov/e-manifest>
- EPA YouTube Webinar: <https://youtu.be/f48yIkdsIY4>

# Training - Orientation

All employees must be thoroughly familiar with proper waste handling and emergency procedures, relevant to their responsibilities.

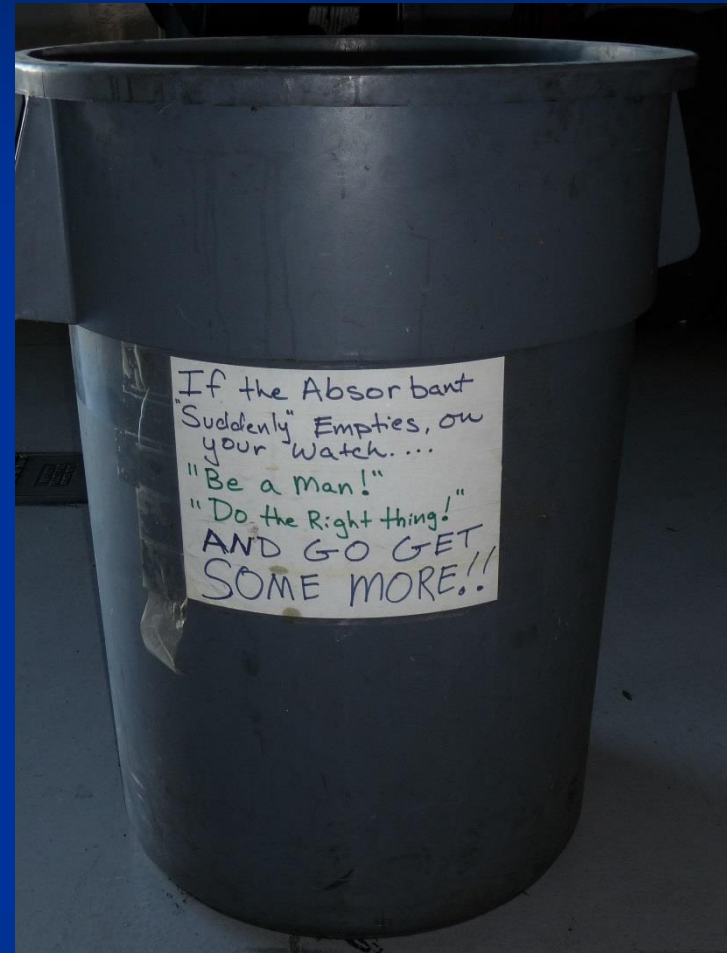
OSHA, Haz Mat codes and local ordinances may require formal training and records.

# Training - On-Going

- Review annually
- Train for the hazard they will encounter
- Be creative in training programs- look for creative solutions such as videos, tailgate meetings, walkthroughs, “working lunches”, include Haz Mat refresher as part of other training.
- On-line training is easy, but it doesn't stick.

# Example: Shop Clean-Up

- Absorbent costs money to buy, and more money to dispose.
- Assess how spills are happening, brainstorm on how to reduce them.
- Use dry shop cleanup method to keep floors clean.
- Check your progress.



# Achieving Successful Compliance

- Managers accept hazardous waste compliance as a cost of business. Maintain positive attitude.
- Regular staff training, good communications, delegation of responsibility, accountability
- Integrating good compliance practices into everyday operations – “This is our norm!”



# Hazardous Waste Management for Small & Large Quantity Generators

Questions?

Solano County Department of Resource Management, Environmental Health  
Services Division

[https://www.solanocounty.com/depts/rm/environmental\\_health/hazmat/default.asp](https://www.solanocounty.com/depts/rm/environmental_health/hazmat/default.asp)

Contact the Hazardous Materials Staff at **707-784-6765**

# **Additional Training Modules Included in this PowerPoint**

**Tiered Permitting  
Electronic Reporting (CERS)  
Waste Characterization  
Hazardous Waste Disposal  
Hazardous Determination  
Hazardous Waste Identification Numbers  
CUPA Inspections**

# Tiered Permitting Module

# Tiered Permitting

## ■ Authority

- California Code of Regulations (CCR), Title 22, Division 4.5, Chapter 14 et seq.
- Permit by Rule (PBR): CCR, Title 22, Div. 4.5, §67450 et seq.
- Conditional Authorization (CA): Health and Safety Code, Div. 20, Ch. 6.5, §25200.3 et seq.
- Conditionally Exempt (CE): Health and Safety Code, Div. 20, Ch. 6.5, §25201.5 et seq.

# Tiered Permitting

- What is Treatment of Hazardous Waste?
  - “Treatment” means any **method, technique, or process** which is not otherwise excluded from the definition of treatment by this chapter **and** which is **designed to change** the **physical, chemical, or biological character** or **composition** of any hazardous waste or any material contained therein, or which **removes** or **reduces** its harmful properties or characteristics **for any purpose**. H&SC §25123.5(a)

# Tiered Permitting

- Full Permit
  - The full permit allows treatment and storage of RCRA and Non-RCRA (California only) hazardous waste. Examples would include incinerators and hazardous waste landfills.
- Standardized Permit
  - The Standardized Permit allows offsite treatment and storage of Non-RCRA and RCRA exempt hazardous wastes. Examples would include recyclers, oil transfer stations, and precious metals recyclers.

# Tiered Permitting

- The State of California Department of Toxic Substances Control (DTSC) has regulatory oversight for **Full Permit** and **Standardized Permit** facilities.
- Lower Tiers – Are regulated by the local CUPA
  - Permit by Rule (PBR)
  - Conditional Authorization (CA)
  - Conditionally Exempt (CE)

# Tiered Permitting

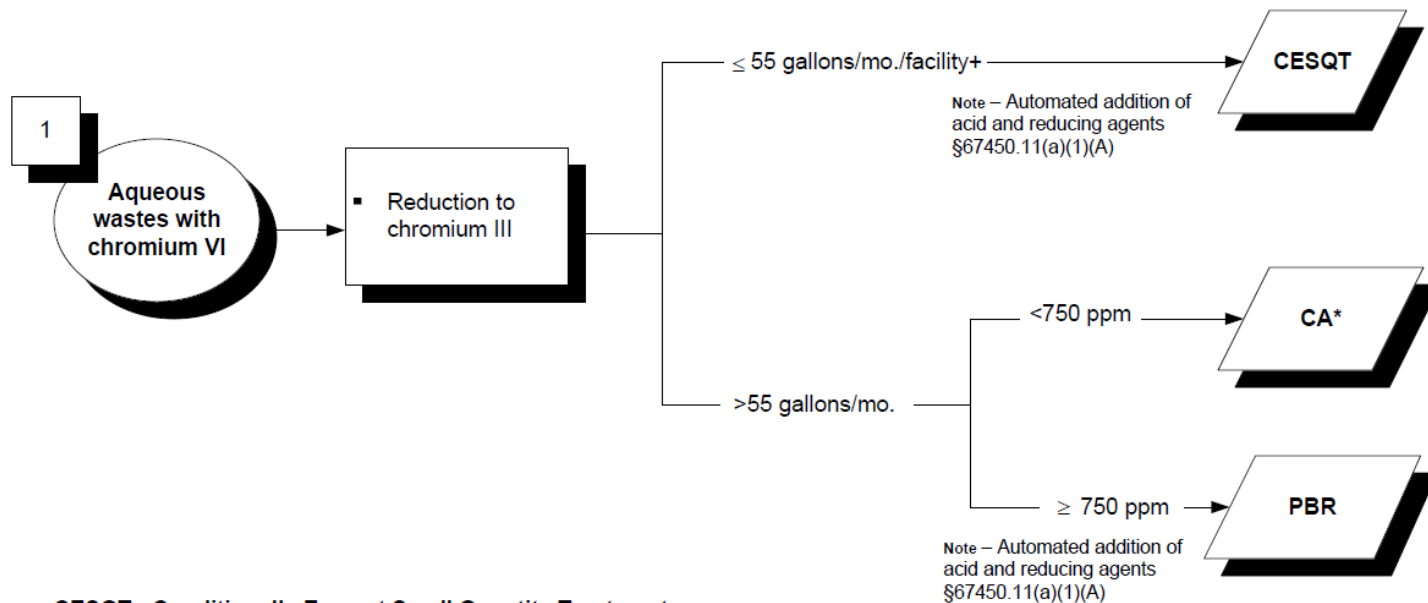
- Permit By Rule (PBR)
  - The PBR tier allows onsite treatment of Non-RCRA and RCRA exempt hazardous wastes. This tier is for treating waste streams that exhibit **more** than one hazardous characteristic and **higher volume** waste streams.
- Conditionally Authorized (CA)
  - The CA tier allows onsite treatment of Non-RCRA and RCRA exempt hazardous wastes. This tier is generally for **single hazard** waste streams and has some treatment volume limits.
- Conditionally Exempt (CE)
  - The CE tier allows onsite treatment of Non-RCRA and RCRA exempt hazardous wastes. This tier is for **less risky** hazardous waste treatment or treatment in **smaller volumes**.



# Tiered Permitting

## Onsite Tiered Permitting - Flowchart

(For non-RCRA or exempt hazardous waste facilities conducting onsite treatment.)



**CESQT - Conditionally Exempt Small Quantity Treatment**  
(Health and Safety Code (HSC § 25201.5(a)))

+A CESQT facility can only treat a total volume of not more than 55 gallons/month

**CESW - Conditionally Exempt Specified Wastestream** (HSC § 25201.5(c))

**CEL - Conditionally Exempt-Limited** (HSC § 25201.14)

**CECL - Conditionally Exempt Commercial Laundries** (HSC § 25144.6(c))

**CA - Conditional Authorization** (HSC § 25200.3)

**PBR - Permit by Rule** (Title 22, CCR, Div. 4.5, Chapter 45)

\*Must be hazardous solely due to this characteristic

# Tiered Permitting

## ■ General Requirements

- Submit the following information electronically via the California Environmental Reporting System (CERS):
  - Facility Information Page
  - Tiered Permitting Submittal
- Adhere to the regulatory requirements applicable to your facility based on the type of treatment system you operate
- Maintain written operating instructions
- Maintain written inspection instructions & logs
- Obtain applicable tank and container assessments
- Complete “Tiered Permitting Phase I Environmental Assessment”
- Complete "Closure Cost Estimate and Financial Mechanism" documentation (CA, PBR)

# Common Violations for CA & PBR Sites

- Failure to prepare and maintain a written schedule for inspecting the treatment unit.
- Failure to inspect the treatment unit per the schedule.
- Failure to record all inspection activities in a log.
- Written operating instructions:
  - How to operate the treatment unit
  - Recognize and respond to potential process upsets
  - When to implement the facility's contingency plan
  - How to determine if the treatment has been effective
  - How to manage waste treatment residuals.
- Maintain a record of the dates, concentrations, amounts, and types of hazardous waste treated.
- Keep the treatment records on-site for at least 5 years from the date of treatment.
- Prepare a written estimate of all costs to close the hazardous waste treatment unit(s).
- Annually submit to CERS closure costs adjustment for inflation by March 1.



### Training

Build: 2.25.0002

Save

Cancel

#### Treatment Unit Identification and Details

Unit Type/Tier

Unit ID#

Unit Name

### Training

Build: 2.25.0002

DRAFT Apr. 15, 2013

Submit



## Tiered Permitting

Tiered Permitting: Facility

Ready to Submit

Edit

Discard

Units **Add Unit** Not required for Conditionally Exempt Commercial Laundry Facilities (CE-CL)

Tiered Permitting: Unit PBR - wewew (ID: 11)

Review Needed

Edit

Discard

Tiered Permitting: Plot Plan/Map



New

Tiered Permitting Unit: Prior Enforcement History



New

Tiered Permitting Unit: Tank and Container Certification



New

Tiered Permitting Unit: Local Agency Notification



New

Tiered Permitting Unit: Property Owner Notification



New

Financial Assurance **Add Certification** Required for Facilities with PBR and CA Units Only

Discard Draft Submittal **Miscellaneous State-Required Documents** **Add Comment To Regulator**

c. Treatment in Elementary Neutralization Units

n. Empty Container Rinsing and/or Treatment

d. Treatment in a Totally Enclosed Treatment Facility

i. Other Basis (specify below)

e. Federal Conditionally Exempt Small Quantity Generator (generated 100kg, approximately 27 gallons, or less of hazardous waste in a calendar month)

#### Residuals Management Description (Check all that apply)

a. Discharge non-hazardous aqueous waste to POTW or sewer

e. Thermal Treatment

h. Other Method of Disposal (specify below)

b. Discharge non-hazardous aqueous waste under a NPDES permit

f. Disposal to Land

c. Dispose of Non-hazardous Solid Waste Residues at an Offsite Location

g. Further Treatment

Secondary Containment Installation Date (If Required)

d. Offsite Recycling



At least one Waste and Treatment Combination must be provided.

Save

Cancel

**California Environmental  
Reporting Systems (CERS)  
Module**

# California Environmental Reporting Systems (CERS) Module

- All regulated business in California must report electronically
- Includes information related to:
  - Hazardous Waste
  - Hazardous Materials Business Plan/Inventory
  - Underground Tanks
  - Aboveground Tanks

# California Environmental Reporting Systems (CERS)

- CERS website: [cers.calepa.ca.gov](http://cers.calepa.ca.gov)
- Solano County CUPA:  
[http://www.solanocounty.com/depts/rm/environmental\\_health/hazmat/default.asp](http://www.solanocounty.com/depts/rm/environmental_health/hazmat/default.asp)

# End of Class Training

- Additional modules continue in the handouts for your reference but won't be covered in this class due to time constraints.



# Waste Characterization Module

# Waste Characterization: Using Generator Knowledge

- Can be published data from the manufacturer or other reliable source
- MSDS may be useful, or maybe not....

## NuKoat 55

NuGeneration Technologies, LLC

### COMPONENT LISTING:

		C.A.S. #
■ NONIONIC SURFACTANT BLEND	< 5.0 %	68603-25-8
■ Confidential Ingredient A	< 3.0 %	<u>Trade Secret</u>
■ BALANCE NON-HAZARDOUS INGR.	> 92.0 %	N/A

# Waste Characterization:

## MSDS info

Product Name:	AP120 Metal Prep
Manufacturer Name:	POR-15, Inc.
General Use:	Cleaner Degreaser
Physical State/Appearance:	Liquid
Color:	Colorless
pH:	13-14

**Is this a hazardous material?**

**Would it be a hazardous waste?**

# Waste Characterization: MSDS info cont'd

- **Don't always trust manufacturer's claims** – out-of state manufacturers may not be familiar with California requirements
- Some companies try to sell materials billed non-hazardous or equipment that requires a special permit to use.

# Waste Characterization: Check Guidance Resources

- US EPA Pollution Prevention Guidance
- California Pollution Prevention Guidance
- Trade Journal/Industry Association Guidance
- Local Associations
- DTSC Regulatory Assistance Officers
- Local Hazmat Department
- “Google” it!

# Waste Characterization: By the Book....

- Listed
  - Title 22, Cal. Code Regs., Section 66261.30-33
- Characteristics
  - Determined by lab testing or knowledge
  - Find characteristics from SDS sheets, Publications, labels, contact manufacturer
  - Spent materials are often different from the products, so testing may be required.



# Waste Characterization: By the Book....



## Listed Wastes

**Federal listed:** specific solvents, specific industrial wastes, poisonous residues

**State listed:** electronic wastes, used oil,  
Appendix X –state list of suspected wastes.

# Characteristic Wastes: Ignitability 22 CCR §66261.21

- Flash point below 140°F, or generates enough heat to ignite upon absorption of water or chemical change.
- Common ignitable wastes:
  - Acetone, alcohols, mineral spirits
  - Tung or linseed oil saturated rags (from that furniture refinishing project from home!)



# Characteristic Wastes: Corrosivity 22 CCR §66261.22

- Corrosive liquid wastes are acids & bases:
  - Acids—pH is equal to or less than 2
  - Bases—pH is equal to or greater than 12.5
- California includes solids that are corrosive when mixed with water.

You might find:

- Caustic cleaning products
- Acid metal surface preparation (naval jelly, Metal-Prep, phosphoric acid washes)
- Electrolyte from a broken battery

# Characteristic Wastes:

## Reactivity 22 CCR §66261.23

- Reacts violently with water
- Spontaneously reacts violently
- Gives off cyanide or hydrogen sulfide gas when mixed with acid
- Explodes when given an initiating force
- Uncommon, but still around:
  - Undeployed airbag inflators
  - Other examples: explosives, ammunition

# Characteristic Wastes: Toxicity 22 CCR §66261.24

- Most complicated characteristic
- Captures the widest range of wastes
- Federal and state standards are very different

# Federal Toxicity

- Federal toxicity characteristic –  
42 substances
  - 8 metals, 12 Solvents, 11 pesticides and the rest toxic products or intermediates.
  - Analyzed by a specific extraction test – the “TCLP”
  - Analytical method is expensive to run.

# State Toxicity

- California extraction tests

- 20 inorganics (metal compounds, asbestos and Fluoride salts)
- 18 pesticides and solvents

## Two analyses

- Total extraction – “Totals” or “CAM 17”, completely digests sample, compare results to the “TTLC” list
- Waste Extraction Test, or “WET”, measures solubility of components, compare results to “STLC” list.

# Inorganic Constituents

22 CCR §66261.24(a)(2)(A)

- Antimony
- Arsenic
- Asbestos
- Barium
- Beryllium
- Cadmium
- Chromium III
- Chromium VI
- Cobalt
- Copper
- Fluoride Salts
- Lead
- Mercury
- Molybdenum
- Nickel
- Selenium
- Silver
- Thallium
- Vanadium
- Zinc

# State Toxicity

- 96-Hour Acute Aquatic Bioassay  
aka “Fish Bioassay”

Used for liquid or water soluble materials

- This is what captures aqueous cleaners
- It may capture water-based paints & inks
- Investigators have been using it to capture many materials through “dumpster diving”

# State Toxicity

Other criteria in the state characteristic:

- Acute toxicity – material must have known toxicity values (LD 50, LC 50) (for rats)
- List of 16 especially nasty carcinogens

Or .....

- Waste has been shown through experience or testing to pose a hazard to human health or environment because of its carcinogenicity, acute toxicity, chronic toxicity, bioaccumulative properties or persistence in the environment. (silica, selenium, freons)



# Acutely and Extremely Hazardous Wastes

The acute characteristic should be noted on MSDS

- Acutely (federal)
  - “P” listed
- Extremely (state)
  - Title 22, Chapter 11, Appendix X - asterisks
  - Criteria-based
    - 5 criteria, very poisonous substances

# Other Hazardous Wastes

“Special “ types of wastes have relaxed requirements

- Universal wastes
  - Lamps, batteries, aerosols, electronic, mercury devices,
- Hazardous waste with special management
  - Used oil and fuel filters
  - Lead acid batteries

But if you don't follow the requirements...

# Hazardous Waste Disposal Module

# Hazardous Waste Determination



## Department of Toxic Substances Control

### California Hazardous Waste Classification

#### Introduction

#### Waste Classification

#### Q1: Is the material a waste?

#### Q2: Excluded/exempted?

#### Q3: Listed as hazardous?

#### Q4: Listed in Appendix X?

#### Q5: Characteristic of haz?

#### Hazardous Categories

#### Generator Options

#### Sampling Plan

#### Resources

#### Glossary

#### Final Exam

#### Course Introduction

Welcome to the California Hazardous Waste Classification online course. This course will familiarize you with the hazardous waste classification requirements in California's laws and regulations. Once completed, you will have the information and resources to tell whether a waste is hazardous to ensure its proper management (e.g., storage, transport, treatment, disposal).

This course covers:

- Hazardous waste identification through different characteristics and listings
- Exclusions from the waste classification requirements
- Test methods we use to measure the characteristics of wastes
- Resources and information available to assist us in classifying wastes and determining whether a waste is a federally regulated ([RCRA](#)) or a California regulated (non-RCRA) hazardous waste.

We will also explore the relationship between the guidance document "[Test Methods for Evaluating Solid Waste, Physical/Chemical Methods \(SW-846\)](#)" and the waste classification requirement, including the document's relevance to sampling and statistical methods. This course is specifically designed for Department of Toxic Substance Control (DTSC) and Certified Unified Program Agency (CUPA) staff involved in waste classification activities. If you are a business and have completed California Compliance School, this course may be helpful in answering your hazardous waste classification questions.

It is important to note that although this course follows the current laws and regulations governing hazardous waste, the information provided is not intended as a substitute for such laws and regulations. As laws change the course material will be updated, but it is always recommended that you refer to the relevant federal Resource Conservation and Recovery Act (RCRA) and California Hazardous Waste Control Law (HWCL) laws and regulations when making any determinations about a waste.

A certificate of completion of this online training course is available upon passing the final quiz. DTSC is unable to provide backdated training certificates.



# Hazardous Waste Disposal Requirements Overview

- All waste disposal is regulated by RCRA
- RCRA designates three types of landfills
  - Municipal Class 3
  - Industrial Class 2
  - Hazardous Class 1

Each landfill has a permit that sets the particular kinds of wastes it may accept, and the threshold levels for hazardous constituents it can accept.

# Haz/Waste Disposal ....

- These thresholds are “Acceptance Limits”
- Class 1 and 2 landfills require analysis of the waste from the generator of the waste to create a “profile”, then verify that the waste fits the “profile” by making spot checks.
- When a Class 2 landfill accepts hazardous waste, it always creates problems.

# Hazardous Waste Disposal Requirements Overview

- The hazardous waste regulations help wastes to be properly identified, transported, and finally disposed of.
- They also encourage the minimization of hazardous waste by large generators by requiring that they analyze their raw materials, handling methods and procedures.

# Hazardous Waste Identification Numbers Module



# Hazardous Waste Identification Numbers

- **State ID: DTSC Form 1358**
  - Facilities that do not generate or manage more than 100 kg of RCRA hazardous waste (or 1 kg of acute RCRA hazardous waste) per calendar month.
- **Federal ID: MyRCRAid**
  - The electronic version of the federal form to obtain or update a permanent EPA ID number or submit Form 8700-12 (131-pages)

# Identification Numbers

- ID numbers are a site specific identifier for your business, and are used as part of the hazardous waste tracking system
- If your business changes location, or the ownership changes, you or the new owner must inactivate the old number and apply for a new one.

# How to Apply for a State ID Number

Obtain a [DTSC Form 1358](#) (see HANDOUTS tab)

Fill it out

Mail, fax or email it to the address in the instructions

Your ID number will be issued within 15-days.

If you need a federal number, log onto MyRCRAid

See DTSC ID Number guidance document

# Keeping Your ID Number Active

- Be sure to respond to DTSC's annual ID Verification Questionnaire or your number will be inactivated
- If it becomes inactivated, you can use a 1358 form to reactivate it.

# Keeping Your EPA ID Number Active

The screenshot shows the DTSC website interface. At the top, there is a navigation bar with links for "About DTSC", "Jobs & Exams", "Calendar", "E-Lists", and "Contact". Below this is the DTSC logo and a search bar. A secondary navigation bar contains links for "LOG IN", "HWTS MENU", "REPORTS", "GET AN ID NUMBER", "FAQ", "USER GUIDE", and "DTSC HOME". The main content area features a green arrow icon next to the heading "Hazardous Waste Tracking System". Below the heading is a paragraph explaining the HWTS as a data repository for hazardous waste identification (ID) numbers and manifest information, generated by the Department of Toxic Substances Control. It mentions that reports from 1993 to the present are available via the "Reports" tab and are subject to limitations detailed in a disclaimer. A red-bordered box highlights the URL <https://hwts.dtsc.ca.gov/index.cfm>. Underneath, there are links to "Check the Status of your ID Number" by ID Number or Company, with a note to disable pop-up blockers. A "Related Links" section includes "Hazardous Waste Manifest Information" and "e-Manifest System". The footer contains a list of links: "DTSC Home", "Cal/EPA", "ARB", "DPR", "OEHHA", "SWRCB", "Governor", "DTSC Director Barbara A. Lee", and "DTSC Site Map".

CA.GOV California Department of Toxic Substances Control

About DTSC | Jobs & Exams | Calendar | E-Lists | Contact

Search

LOG IN | HWTS MENU | REPORTS | GET AN ID NUMBER | FAQ | USER GUIDE | DTSC HOME

## ➔ Hazardous Waste Tracking System

The Hazardous Waste Tracking System (HWTS) is the Department of Toxic Substances Control's data repository for hazardous waste Identification (ID) numbers and manifest information. HWTS generates reports on hazardous waste shipments for generators, transporters, and TSDFs. Reports from 1993 to the present are available by clicking on the [Reports](#) tab located at the top of this page. You can retrieve information from 10 public reports. These reports are subject to the limitations contained in the official [Disclaimer and Data Limitations Statement](#).

### Check the Status of your ID Number

By ID Number | [View](#)

By Company | [View](#)

*Please make sure your internet browser pop-up blocker is disabled.*

<https://hwts.dtsc.ca.gov/index.cfm>

### Related Links

[Hazardous Waste Manifest Information](#) | [View](#)

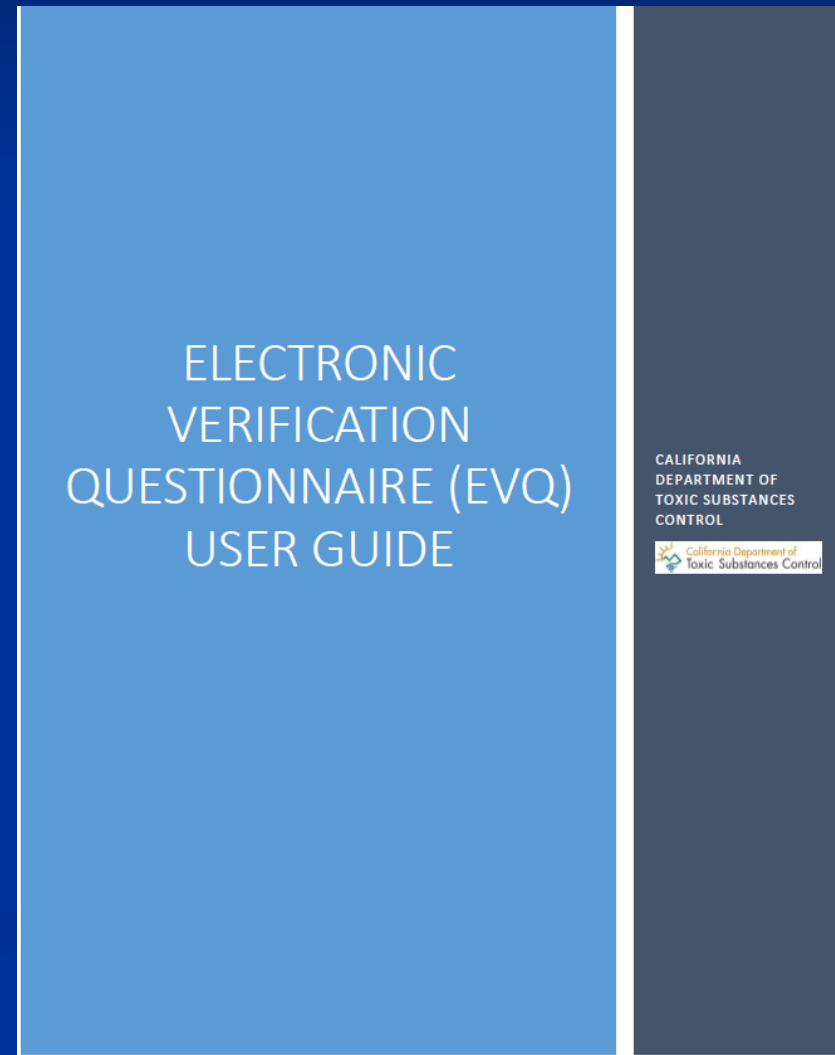
[e-Manifest System](#) | [View](#)

DTSC Home | Cal/EPA | ARB | DPR | OEHHA | SWRCB | Governor | DTSC Director Barbara A. Lee  
DTSC Site Map

# electronic Verification Questionnaire (eVQ)

- Create an Account

<https://evq.dtsc.ca.gov/Register.aspx>



# CUPA INSPECTIONS

## Module

# CUPA INSPECTIONS

May Be Unannounced or Scheduled

## Areas Inspected:

- Work areas & storage areas
- Container- marking, condition, compatibility, management

## Documents/Questions:

- Inspections/monitoring
- Training
- Posted emergency procedures (Doc)
- Manifests/shipping documents (Doc)
- Waste determinations/profiles (Doc)
- Current permit





# CUPA INSPECTIONS

Be cordial. If it's a really bad time for an inspection, let them know - Don't "start a fight"

Instead of "You're Wrong!" try, "I always understood that it was..."

Stay away from politics, religion, etc.

Ask for guidance material that explains the proper management.

Opportunity to get new waste labels!

# Handouts

- Acronym Definitions
- Hazardous Waste Labeling
- Solano County Emergency Procedures to Post
- Hazardous Waste Generator Inspection Report – A (Example)
- Cal EPA Managing Universal Waste in CA
- DTSC Defining Hazardous Waste
- DTSC Universal Waste Fact Sheet
- DTSC-SB1158 Designates Aerosol Cans as “Universal Waste”
- DTSC Floor Clean-Up
- DTSC Form 1358 Instructions & Form for Obtaining or Updating CA ID #

# Handouts

- DTSC Managing Empty Containers
- Cal ECal EPA Consolidated Manifesting
- DTSC Haz Waste Generator Requirements
- DTSC Hazardous Waste Counting
- Oil-Water Separators
- DTSC Tiered Permit Guidance Webpage
- DTSC Tiered Permitting Flowchart
- PaintCare Brochure
- EPA e-Manifesting Fact Sheet for Generators
- EPA e-Manifesting Fact Sheet for Receiving Facilities
- EPA e-Manifesting Fact Sheet for Transporters
- EPA e-Manifesting Fact Sheet for TSDFs

# Helpful Links

- Solano County CUPA

[https://www.solanocounty.com/depts/rm/environmental\\_health/hazmat/default.asp](https://www.solanocounty.com/depts/rm/environmental_health/hazmat/default.asp)

- Hazardous Waste Programs
- Tiered Treatment
- Auto Maintenance
- Hazardous Waste Labeling

- California Environmental Reporting Systems (CERS)

<http://cers.calepa.ca.gov/>

- Department of Toxic Substances Control (DTSC)

<http://www.dtsc.ca.gov/>

- Unidocs

<http://www.unidocs.org/>

- Cal CUPA Annual Training Conference

<https://calcupa.org/conference/index.html>

Thank you for your time and  
commitment