

Section 4: Hazardous Waste



CENVO132



CENVO120



CENVO223



CENVO496

Outline

Section 1: Purpose

Section 2: Definition of a Hazardous Waste

Section 3: Characteristics of a Hazardous Waste

Section 4: Common Hazardous Waste Violations

Section 5: Hazardous Waste Recordkeeping Requirements

Section 6: Labeling

PURPOSE OF HAZARDOUS WASTE REGULATIONS

To ensure safe storage, proper waste disposal, and prevent releases of hazardous waste to the environment



DEFINITION OF A HAZARDOUS WASTE

“A solid waste, or combination of solid wastes, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may (1) cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible, or incapacitating reversible serious, illness or (2) pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed of, or otherwise managed.”

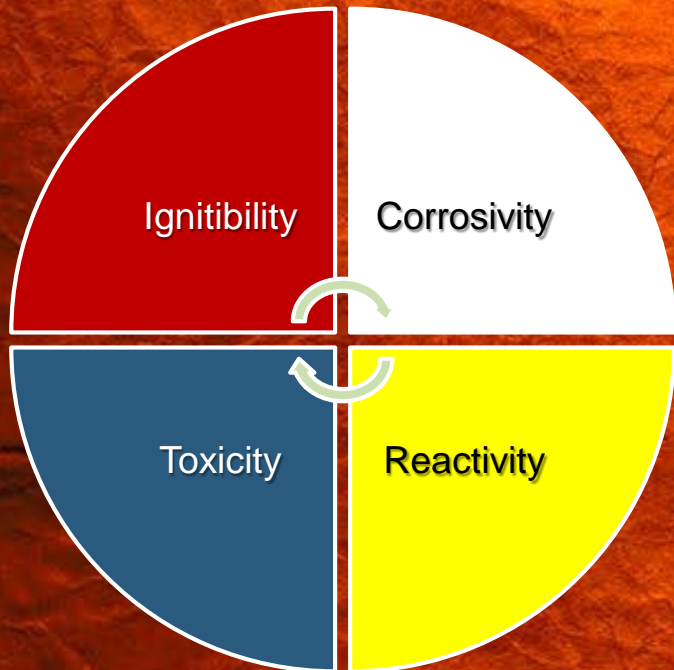
(40 CFR Part 261, Subpart B)

CALIFORNIA DEFINITION OF HAZARDOUS WASTE

22 CCR 66260.10 “Hazardous waste” means a hazardous waste as defined in section 66261.3 of this division. “Hazardous waste” includes acutely hazardous waste, extremely hazardous waste, non-RCRA hazardous waste, RCRA hazardous waste, special waste and universal waste.

What is a Hazardous Waste?

Any waste that has any of the following characteristics:



Or any waste listed in Title 22, California Code of Regulations or is under 40 CFR (e.g. F, K, U, P, are the U.S. EPA lists)

IGNITABILITY

Flash point < 140°F

Oxidizer,
Flammable Solid,
or Ignitable
Compressed Gas

EXAMPLES:

Acetonitrile, alcohols, acetone,
toluene, xylene, ether, organic
peroxide, acetylene, other
flammable solvents



CORROSIVITY

- $\text{pH} \leq 2.0$ or $\text{pH} \geq 12.5$
- Corrodes steel at a rate greater than 6.35 mm/year at a test temperature of 130°F
- Non-aqueous solution mixed with an equal weight of water has $\text{pH} \leq 2.0$ or $\text{pH} \geq 12.5$

Examples:

Acids, glass cleaner, hydroxides, bases, drain cleaners

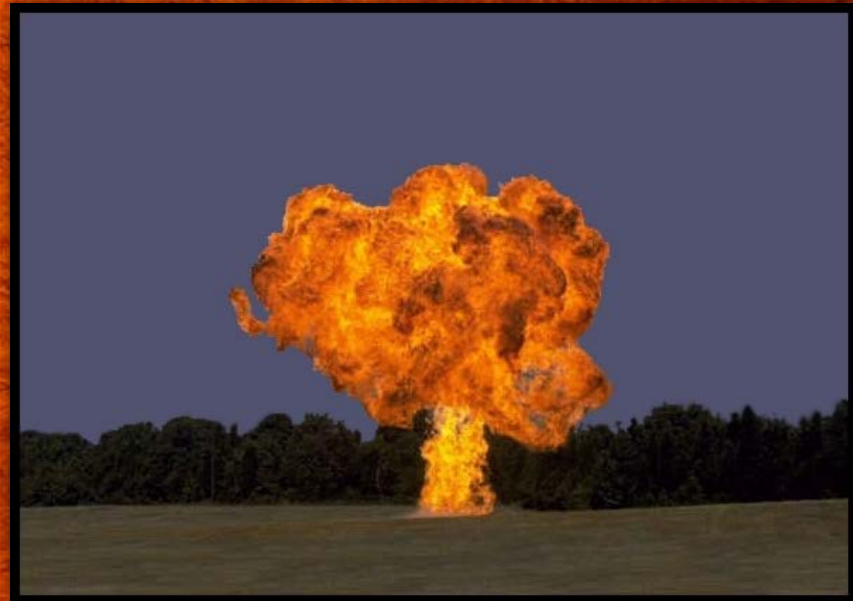


REACTIVITY

- Unstable and may explode under certain conditions such as heat, friction, or pressure
- Reacts with water
- It is a cyanide or sulfide bearing waste

Examples:

Picric acid, peroxide forming chemicals, ethyl ethers, dinitro compounds, azides



TOXICITY

- Toxicity encompasses both federal (RCRA) and California (non-RCRA) hazardous waste criteria

Examples:

Arsenic, mercury, lead (RCRA)

Zinc, nickel, cobalt (California)



CALIFORNIA TOXICITY

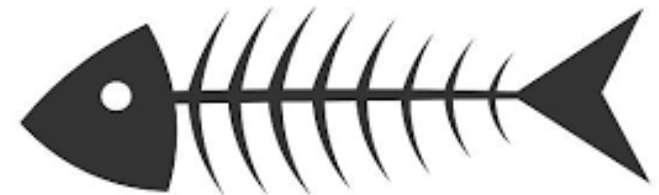
Fails WET- Waste Extraction Test

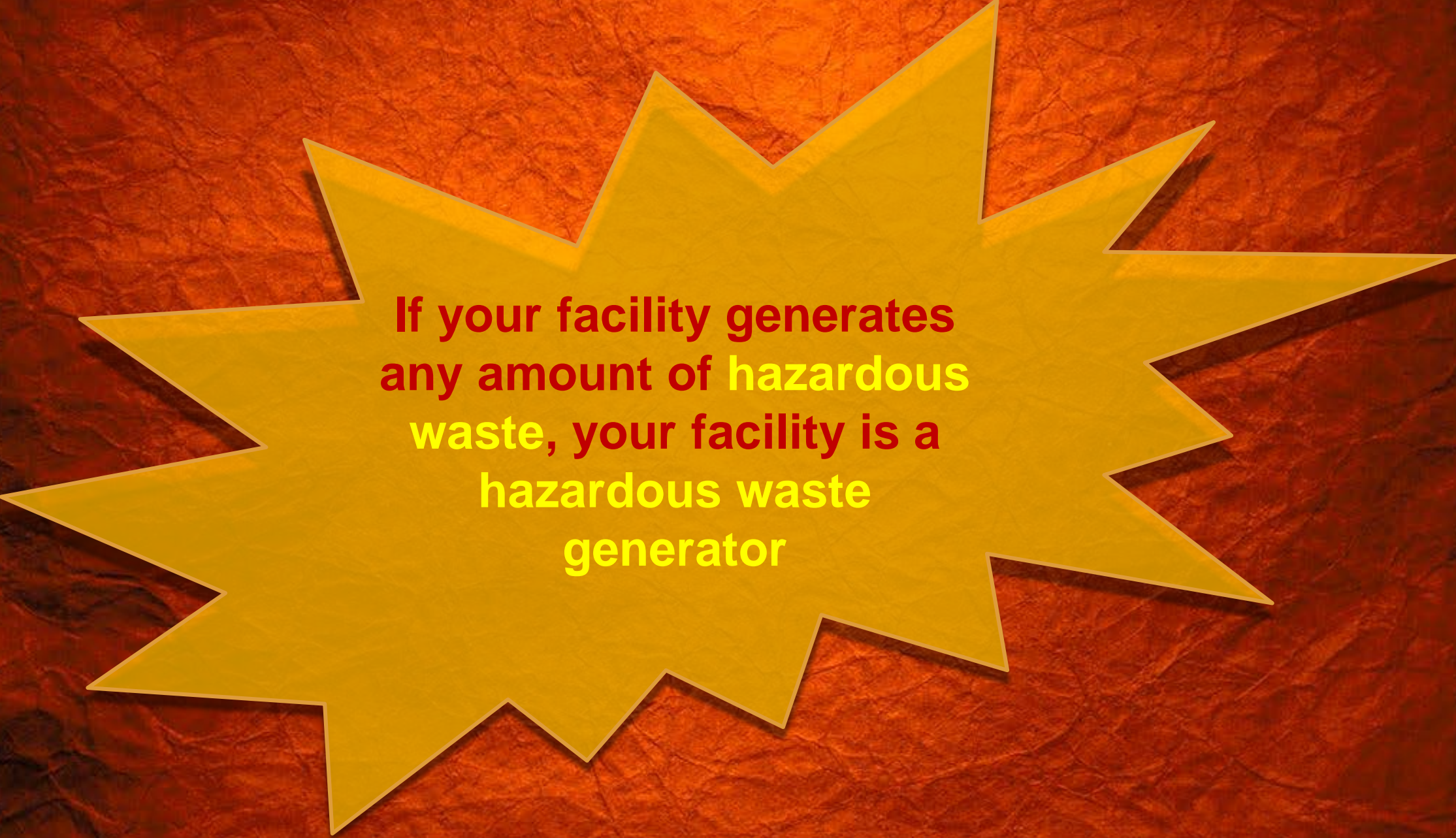
- **TTLIC and STLC**
(Total Threshold Limit Concentration and Soluble Threshold Limit Concentration)
- **Fails Acute Aquatic 96-hour Fish Bioassay**
- **Fails Toxic Characteristic Leaching Procedure (TCLP) Test**
- **LD 50/LC 50 (oral, dermal, or inhalation toxicity)**
- **Carcinogenic Substances- California reg. 22 CCR 66261.24(a)(7)**

Examples:

Heavy metals: mercury, lead, silver, chromic acid

<http://www.dtsc.ca.gov/LawsRegsPolicies/Title22/index.cfm>





**If your facility generates
any amount of hazardous
waste, your facility is a
hazardous waste
generator**

HAZARDOUS WASTE GENERATOR CATEGORIES

LARGE QUANTITY GENERATOR (LQG)

- $\geq 2,200$ lbs/month of hazardous waste (1,000 kgs.)
- ≥ 2.2 lbs/month of acutely or extremely hazardous waste (1 kg.)

SMALL QUANTITY GENERATOR (SQG)

- Between 220-2,200 lbs/month of hazardous waste
- < 2.2 lbs/month of acutely or extremely hazardous waste

CONDITIONALLY EXEMPT SMALL QUANTITY GENERATOR (CESQG)*

- < 220 lbs/month of hazardous waste
- < 2.2 lbs/month of acutely or extremely hazardous waste

*Federal regulations also refer to this as Very Small Quantity Generator (VSQG)

Waste Reporting in San Diego County

Per San Diego County Code **SDCC 68.904(a)(2)**, hazardous AND medical wastes must be reported through CERS if generated in **ANY AMOUNT.**



CERS

California Environmental
Reporting System



Hazardous Waste Generator Requirements Checklist

<input checked="" type="checkbox"/> Waste determination	<input checked="" type="checkbox"/> Training
<input checked="" type="checkbox"/> Accumulation time limits	<input checked="" type="checkbox"/> Shipping Requirements/Recordkeeping
<input checked="" type="checkbox"/> Labeling/marking	<input checked="" type="checkbox"/> Biennial Report (if applicable)
<input checked="" type="checkbox"/> Satellite Accumulation	<input checked="" type="checkbox"/> Empty container management
<input checked="" type="checkbox"/> EPA Identification Number	<input checked="" type="checkbox"/> ERM/Tiered Permitting (if applicable)
<input checked="" type="checkbox"/> Emergency response/contingency plan	<input checked="" type="checkbox"/> Waste reporting (CERS)

WASTE DETERMINATION IS THE GENERATOR'S RESPONSIBILITY

Conduct a proper waste determination on all waste streams at the **point of generation**.

Point of generation:
The point at which the generator determines that the material is no longer usable/is a waste

The waste determination must be conducted at **each** point of generation **prior** to being combined.

HOW TO DO A WASTE DETERMINATION?

This is accomplished by either:

- **Sending a representative sample of the waste to a State certified laboratory to conduct quantitative testing using EPA qualified testing methods**
- **Claiming and documenting “Generator Knowledge” of the waste stream**

Maintain documentation of waste determination for inspector review

See guidance document at:

https://www.dtsc.ca.gov/HazardousWaste/upload/HWMP_DefiningHW111.pdf

ILLEGAL DISPOSAL

HAZARDOUS WASTES MUST NOT BE DISPOSED OF TO SEWER, STORMWATER, AIR, OR MUNICIPAL TRASH.

GENERATORS MUST USE A CALIFORNIA REGISTERED TRANSPORTER

Please refer to DTSC's list of registered hazardous waste transporters: <http://hwts.dtsc.ca.gov/transporters>

LABELING REQUIREMENTS

22 CCR 66262.34(f)

- The words “Hazardous Waste”
- Accumulation start date
- Physical state
- Composition
- Hazardous properties
- Name and address of generator

HAZARDOUS WASTE

STATE AND FEDERAL LAWS 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 SUBSTANCE CONTROL

GENERATOR'S INFORMATION

NAME _____
ADDRESS _____ PHONE _____
CITY _____ STATE _____ ZIP _____
EPA ID NO. _____ MANIFEST TRACKING NO. _____
EPA WASTE NO. _____ CA WASTE NO. _____ ACCUMULATION START DATE _____
CONTENTS, COMPOSITION: _____

PHYSICAL STATE: SOLID LIQUID | **HAZARDOUS PROPERTIES:** FLAMMABLE TOXIC
 CORROSIVE REACTIVE OTHER _____

[_____]
[_____]
[_____]

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

HANDLE WITH CARE!

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EMPTY CONTAINER DISPOSAL

Containers or bottles previously containing hazardous chemicals must be empty of pourable contents prior to disposal ("California Empty").

E

Empty containers greater than 5 gallons in capacity must be marked with the date on which they were emptied, and managed within 1 year of that date.

Exception: Containers previously storing P-listed chemicals or an extremely hazardous waste must be triple rinsed. The rinsate must be managed as a hazardous waste.

F



EPA ID NUMBERS

EPA ID numbers are required for all hazardous waste generators

The type and quantity of hazardous waste generated determines whether the facility requires a Federal or California EPA ID number

If a business generates more than 1 kilogram of RCRA acutely hazardous waste per month or more than 100 kilograms of other RCRA waste per month, then the facility must obtain a **US EPA ID number** (CAR, CA, CAD, etc.)

If a business generates RCRA hazardous waste in amounts below federal EPA ID number requirements or generates non-RCRA hazardous waste (California only), then the facility is required to obtain a **California EPA ID number** (CAL, etc.)



EPA ID NUMBERS

Generators with RCRA EPA or California ID numbers must complete an annual information verification submittal online to keep their number active with the State DTSC.

<https://dtsc-web01.dtsc.ca.gov/eVQ/Home.aspx>



Annual ID number Verification Questionnaire – Generators, transporters, and facilities that are authorized to generate, store, transport, treat, and dispose of hazardous waste are required to annual verify their ID number information per **Health and Safety Code section 25205.16(b)**

DTSC FAQ page at:

http://www.dtsc.ca.gov/IDManifest/upload/eVQ_FAQs.pdf

CONTINGENCY PLAN

- All hazardous waste generators are required to have a contingency plan
- Please refer to **22 CCR 66265.52** for a list of required elements

CALIFORNIA ENVIRONMENTAL REPORTING SYSTEM (CERS) CONSOLIDATED EMERGENCY RESPONSE / CONTINGENCY PLAN <i>Prior to completing this Plan, please refer to the INSTRUCTIONS FOR COMPLETING A CONSOLIDATED CONTINGENCY PLAN</i>				
A. FACILITY IDENTIFICATION AND OPERATIONS OVERVIEW				
FACILITY ID #	1. CERS ID	A1. DATE OF PLAN PREPARATION/REVISION	A2.	
BUSINESS NAME <i>(Same as Facility Name or DBA - Doing Business As)</i> 3.				
CUPA AUTO SHOP				
BUSINESS SITE ADDRESS 103.				
8888 EHS WAY				
BUSINESS SITE CITY 104.		CA	ZIP CODE 105.	
San Diego			92121	
TYPE OF BUSINESS (e.g., Painting Contractor) A3.	INCIDENTAL OPERATIONS (e.g., Fleet Maintenance) A4.			
AUTO REPAIR				
THIS PLAN COVERS CHEMICAL SPILLS, FIRES, AND EARTHQUAKES INVOLVING: (Check all that apply) A5.				
<input checked="" type="checkbox"/> 1. HAZARDOUS MATERIALS; <input checked="" type="checkbox"/> 2. HAZARDOUS WASTES				

WASTE ACCUMULATION TIME LIMITS DEPEND ON:

Amount of hazardous waste generated

LQG vs SQG vs CESQG

Where the hazardous waste is headed for disposal

Can be stored longer if a SQG and transported more than 200 miles away

Type of hazardous waste accumulation

Satellite vs 90/180 day storage area

SATELLITE ACCUMULATION

- A hazardous waste container (not a tank) may be stored at or near the point of generation and under the control of the generator.
- Full hazardous waste labeling requirements apply, though “Emptied Weekly” or “Emptied Daily” may be marked for Accumulation Start Date if the container is emptied as described.
 - Emptied Monthly is not acceptable!

HAZARDOUS WASTE
STATE AND FEDERAL LAWS 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 SUBSTANCE CONTROL

GENERATOR'S INFORMATION
NAME _____
ADDRESS _____ PHONE _____
CITY _____ STATE _____ ZIP _____
EPA ID NO. _____ MANIFEST TRACKING NO. _____
EPA WASTE NO. _____ CA WASTE NO. _____ ACCUMULATION START DATE _____ **Emptied Weekly**

CONTENTS, COMPOSITION: _____

PHYSICAL STATE: SOLID LIQUID | **HAZARDOUS PROPERTIES:** FLAMMABLE TOXIC
 CORROSIVE REACTIVE OTHER _____

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

HANDLE WITH CARE!

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SATELLITE ACCUMULATION TIME LIMITS:

No more than 55 gallons (1 quart for acutely or extremely hazardous waste) of satellite accumulation per process

Must be moved to the 90/180 day storage area within 1 year of initial accumulation, or within 3 days of accumulating 55 gallons

The TOTAL time limit (whether or not the 55 gallon or 1 quart limit has been reached) is one year from initial accumulation.

IS IT ACCUMULATION OR IS IT STORAGE?

Improper treatment, storage, or disposal may qualify your facility as a treatment, storage and disposal facility (TSDF) which requires an additional permit by the Department of Toxic Substances Control (DTSC)

****Reminder: Weekly inspections of hazardous waste storage areas are required for all hazardous waste generators [22 CCR 66262.34(d)(2); 40 CFR 262.34(d)(2), 265.174]**

ACCUMULATION TIME LIMITS

Accumulation time limits for hazardous wastes vary according to how much hazardous waste a facility generates each month:

If your facility generates...

Less than 100 kg/month hazardous waste or less than 1 kg/month acutely hazardous waste

More than 100 kg/month hazardous waste but less than 1,000 kg/month, or more than 1 kg/month acutely hazardous waste

More than 1,000 kg/month hazardous waste

...then wastes must be disposed of within...

180 days of accumulating an aggregate 100 kg hazardous waste on site

180 days of initial accumulation

90 days of initial accumulation

...and your facility's generator status is...

Conditionally Exempt Small Quantity Generator (CESQG)

Small Quantity Generator (SQG)

Large Quantity Generator (LQG)

WHAT IF MY GENERATOR STATUS CHANGES THROUGHOUT THE YEAR?

MEDICAL WASTE: If your facility generates more than 200 pounds of medical waste in a month, your facility is a large quantity generator of medical waste for that 12 month period.

HAZARDOUS WASTE: Your facility must abide by LQG requirements during the months that your facility generates wastes above LQG thresholds. Ensure that additional documents (i.e. training plans) are updated accordingly.

TRAINING

Training is required for all hazardous waste generators

However, documentation of training is only required if the facility is:

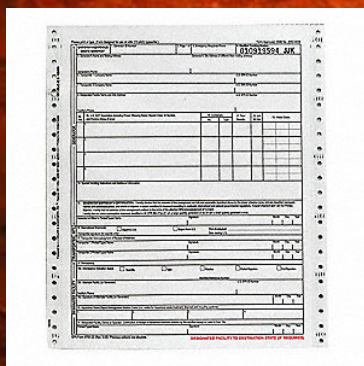
- Subject to HMBP
- Large quantity generator of hazardous waste
- Conducting medical waste treatment (medical waste training)

(Note: OSHA more stringent and requires documentation of employee training by employers)



SHIPPING REQUIREMENTS

It is the generator's responsibility to:



Use a currently registered hazardous waste hauler
[HSC 25163(a); 22 CCR 66263.41]

Use a hazardous waste manifest for shipping all hazardous wastes [22 CCR 66262.23(a)]



A list of currently registered transporters is on DTSC's website: <http://hwts.dtsc.ca.gov/transporters/>

MANIFESTS

Send copy of generator manifest to DTSC within 30 days [22 CCR 66262.23(a)(4)]



Maintain TSDf signature copies on site for inspector review for 3 years
[22 CCR 66262.40(a)]

BIENNIAL REPORT

If your facility is a RCRA large quantity generator, you are required to **complete the Biennial Report by March 1st on every even numbered year.** [22 CCR 66262.41(b)]

- Maintain copies onsite for 3 years [22 CCR 66262.40(b)]

RCRA Info webpage:

RCRA Info is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984.

<https://rcrainfopreprod.epa.gov/rcrainfo-help/application/industryHelp/index.htm#t=Introduction.htm>

TREATMENT 'CONDITIONAL' EXEMPTIONS FOR BIOTECHS/LABORATORIES



Benchtop
neutralization



Clean in Place
(CIP)



Disinfection by
bleaching &
sewering
(medical waste)



EXCLUDED RECYCLABLE MATERIALS & ONSITE HAZARDOUS WASTE TREATMENT HAVE ADDITIONAL REQUIREMENTS



Additional regulatory requirements may apply if your facility claims exemption under Excluded Recyclable Materials, or is engaged in onsite hazardous waste treatment.

Please contact your area inspector or the Hazardous Materials Division if this applies to your facility and you have questions about the requirements.

HAZARDOUS WASTE RECORDKEEPING REQUIREMENTS



Generator copies of manifests sent to DTSC within 30 days of generation [22 CCR 66262.23(a)(4)]



TSDf-signed copies of manifests maintained on site for 3 years [22 CCR 66262.40(a)]



Documentation of waste determination results maintained on site [22 CCR 66262.40(c)]

Additional recordkeeping and notification requirements will apply if your facility treats hazardous waste or claims exemptions under Excluded Recyclable Material

E - MANIFEST

Hazardous Waste Electronic Manifest System (e-Manifest)

- **On June 30, 2018, the U.S. Environmental Protection Agency (EPA) launched the Hazardous Waste Electronic Manifest System (e-Manifest). The system will improve access to higher quality and more timely hazardous waste shipment data and save industry and states valuable time and resources.**

Go to: <https://www.epa.gov/e-manifest> for detailed information. To use e-Manifest, generators will need an EPA Identification (ID) Number and register with e-Manifest.

GENERATOR IMPROVEMENT RULE ADOPTED BY U.S. EPA IN 2017

- On May 30, 2017, the United States Environmental Protection Agency's (US EPA's) Hazardous Waste Generator Improvement Rule (GIR) went into effect. However, because California is an authorized state the GIR does not take effect in California until DTSC adopts the rule, or parts thereof, via their rulemaking process.
 - Anticipate the State DTSC adopting parts of the revised federal regulations in late 2018 or 2019.
-
- See: https://www.dtsc.ca.gov/HazardousWaste/Generator_Improvement_Rule.cfm for more information.
 - Sign up for E mail subscriber list: <https://www.dtsc.ca.gov/ContactDTSC/ELists.cfm>

COMMON VIOLATIONS FOR HAZARDOUS WASTE

VIOLATION: Failed to properly label/update hazardous waste container and/or tank
22 CCR 66262.34(f)



VIOLATION: Hazardous waste accumulated beyond allowed accumulation time limits
HSC 25201(a); 22 CCR 66262.34(d); 40 CFR 262.34(e) and (f)



COMMON VIOLATIONS FOR HAZARDOUS WASTE

VIOLATION: Failed to comply with hazardous waste satellite container regulations **22 CCR 66262.34(e)**

VIOLATION: Failed to mark date on empty container larger than 5 gallons and/or manage it within one year **22 CCR 66261.7(b-e) &/or (r); 22 CCR 66261.7(f)**



COMMON VIOLATIONS FOR HAZARDOUS WASTE



VIOLATION: Impermissible dilution of hazardous waste. 22 CCR 66268.3(a)

VIOLATION: Failed to make a proper waste determination. 22 CCR 66262.11, 66262.40(c)

VIOLATION: Failed to properly close hazardous waste container 22 CCR 66262.34(d)(2); 40 CFR 262.34 (d)(2), 265.173

VIOLATION: Failed to properly label/update hazardous waste container and/or tank
22 CCR 66262.34(f)

END OF SECTION