

The Most Common Hazardous Waste Management Violations That DTSC Has Identified At Electroplating Facilities

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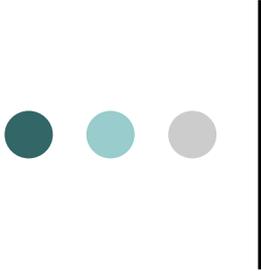
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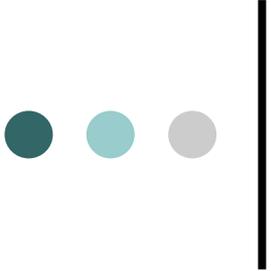
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Common Violations That DTSC Has Identified At Electroplating Facilities

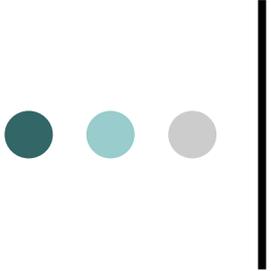
1. **Tank standards**
2. **Secondary containment**
3. **Incompatible wastes**
4. **Unauthorized treatment**
5. **Waste analysis plan**
6. **Training**
7. **Wet floor**
8. **Labeling**

http://www.dtsc.ca.gov/HazardousWaste/upload/HWM_FAQ_PLATERS-GUIDANCE.pdf



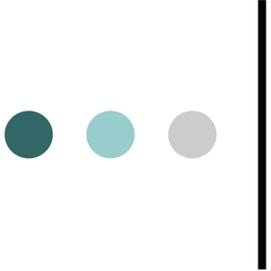
1. Tank Standards Violations

- Failure to prepare a written hazardous waste tank system assessment certified by an independent, qualified, professional engineer registered in California.
- Failure to reassess hazardous waste tank systems as required by regulations.



Tank Assessment Standards

- Generators, Conditional Authorization, and PBR are all required to comply with Article 10 of Chapter 15 in title 22, California Code of Regulations.
- Article 10 of chapter 15 in title 22 of the California Code of Regulations, § 662656.190 et seq. contains requirements, including tank assessment requirements and secondary containment requirements, for operating tanks and tank systems used to manage hazardous waste.



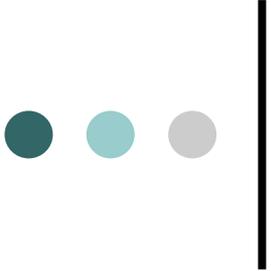
Engineering Certification of Tank Integrity

- The purpose of this engineering certification is to verify that the tanks used to store or treat hazardous wastes have been adequately designed for this service.
- A tank integrity certification shall be prepared by an independent, qualified professional engineer registered in the State of California.

2. Secondary Containment Violations

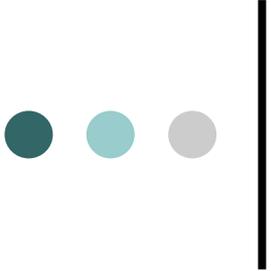
- Failure to provide adequate secondary containment for tanks and containers.





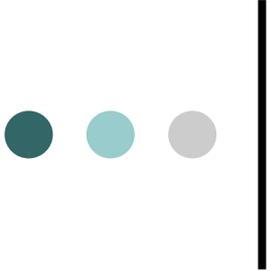
Secondary Containment Requirements

- § 66265.193 lists secondary containment requirements for tank systems used to manage hazardous waste for generators or under Permit by Rule and lower tiers of the tiered permitting system.
- § 66264.175, and § 67450.3 (c), list secondary containment requirements for containers used to treat hazardous waste under Permit by Rule.



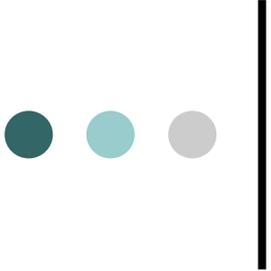
Secondary Containment Standards-cont'd

- Secondary containment for hazardous waste tank system is depending on whether the tank system is new or existed.
- A written certified tank system assessment must include:
 - A description and evaluation of the secondary containment system
 - A written statement indicating that the secondary containment is in compliance with applicable regulatory requirements.
 - A certification by an independent, *qualified*, professional engineer registered in California.



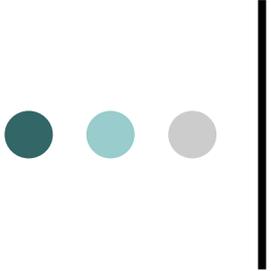
Final Regulations: Secondary Containment

- Effective Date: 10/08/06
- http://www.dtsc.ca.gov/LawsRegsPolicies/Regs/upload/OEAR_SecondaryContainment_FinalText.pdf



3. Incompatible Wastes Violations

- Failure to segregate **incompatible wastes**.



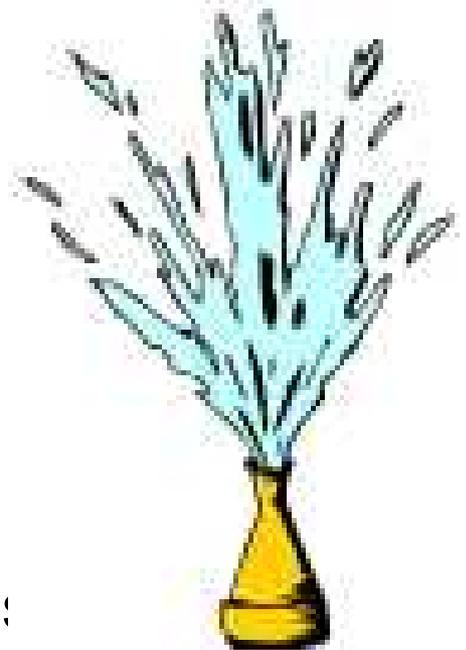
Incompatibility Standards

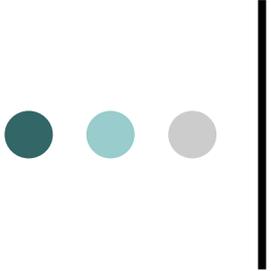
- **§66265.177. Special Requirements for Incompatible Wastes.**
- Shall not be placed in the same container
- Shall not be placed in an unwashed container that previously held an incompatible waste or material
- Shall be separated from the other materials or protected from them by means of a dike, berm, wall, or other device.

see Appendix V, Chapter 15, T22, CCR for Examples of potentially incompatible waste).

Segregation of Wastes Chemicals

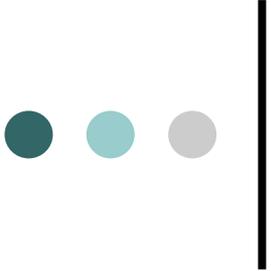
- ◆ All chemical waste is to be stored so that incompatibles are not next to each other
- ◆ Never mix incompatible chemicals
 - Flammables and oxidizers
 - Flammables and any ignition source
 - Acids and cyanides
 - Strong acids and strong alkalines
 - Concentrated acids and water
 - Organic solvents and corrosives
 - Corrosives and other reactive materials





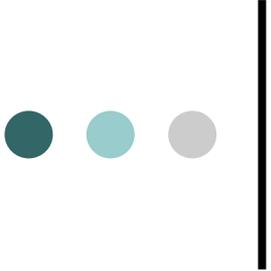
4. Unauthorized Treatment Violations

Perform certain activities that are considered “treatment” under current law, such as the rinsing of filters contaminated with plating bath residues.



Permit Requirement for Hazardous Waste Treatment

- § 25201 of the Health and Safety Code requires a permit, or other grant of authorization, for hazardous waste treatment, storage, or disposal.

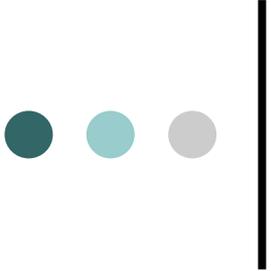


What is A Treatment?

Hazardous waste treatment is any method, technique, or process which changes or is designed to change the physical, chemical, or biological character or composition of any hazardous waste or any material contained therein, or removes or reduces its harmful properties or characteristics for any purpose including, but not limited to, energy recovery, material recovery or reduction in volume.

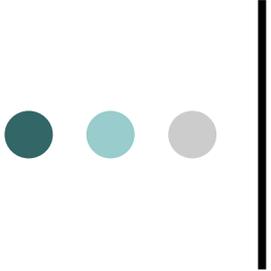
HSC, section 25123.5

- Grinding
- Crushing
- Shredding
- Mixing
- Evaporating
- Filtering
- Compacting
- Drying
- Gravity Settling
- Electro-Winning
- Adsorbing
- Ion Exchange
- Separating
- Adjusting pH
- Biological Degradation
- Reducing



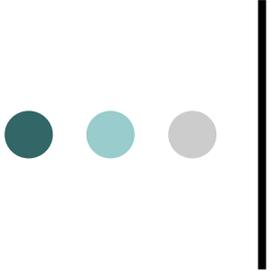
Common Treatment Technologies in Plating Shops

- Cyanide destruction
 - Chemical oxidation
 - High pressure and temperature
- Metals removal
 - Chemical/Chromium reduction
 - Alkaline/Hydroxide precipitation
 - Sulfide precipitation
- Solids removal or liquid reduction
 - Clarification
 - Filtration
 - Evaporation



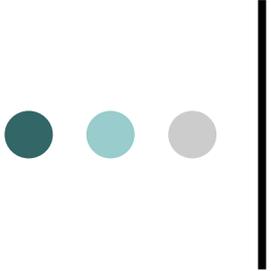
Permitting Tiers

- **Full Permit**
- **Standardized Permit**
- **Permit By Rule**
- **Conditional Authorization**
- **Conditionally Exempt**



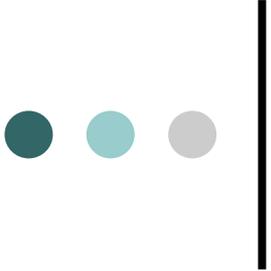
5. Waste Analysis Plan Violation

- Failure to prepare a written waste analysis plan and maintain waste analysis records for all hazardous wastes treated onsite under Permit by Rule (PBR).



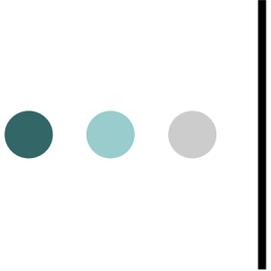
Waste Analysis Plan and Records

- §66265.13(b), and § 67450.3(c), of California Code of Regulations, title 22, require the owner or operator of a facility treating waste under Permit by Rule to prepare a written waste analysis plan and maintain waste analysis records.



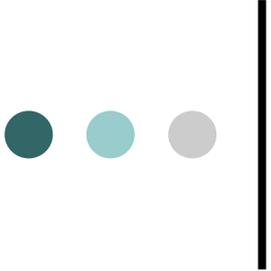
Waste Analysis Plan

- **The waste analysis plan must specify:**
 - a. The specific wastes and the specific constituents in the waste that must be tested to determine the hazardous characteristics of the waste. For example, rinse water from electroplating operations may need to be analyzed for the metal concentration of the waste;
 - b. The specific methods that will be used to analyze a hazardous waste;
 - c. The sampling and sample management methods that will be used to obtain a sample of a waste for analysis; and
 - d. How frequently the analysis needs to be repeated to ensure that the analysis is accurate and up-to-date.



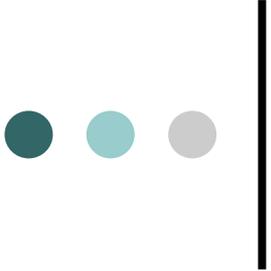
Waste Analysis Plan-cont'd

- Maintain the “waste analysis record” at the same facility where treatment of hazardous waste is occurred.
- Facilities operating under Conditional Authorization or Conditional Exemption do not require a waste analysis plan and records, but still must maintain sufficient documentation to show that they know the hazardous characteristics of their waste, and that the treatment method is suitable for reducing the hazardous characteristics of their waste.



6. Training Violations

- Failure to adequately train employees that manage hazardous wastes.
- Failure to maintain employees training records.



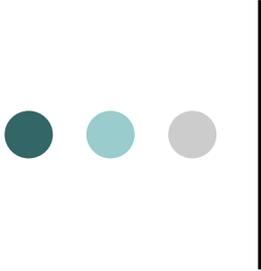
Training Personnel

- § 66265.16, *as referenced by* § [66262.34\(a\)\(4\)](#) requires that facility personnel be given specific training, and requires that the facility owner or operator maintain specific training records.

Training PLAN Requirements

- Cover hazards, waste management, emergency preparedness (also other training required by OSHA and DOT).
 - **New hire: within 6 months - No un-supervised work prior to this!!!**
- Provide annual review of their initial training.
- Maintain required training documents onsite.
- Maintain training records of employees within the last 3-years.
- Program should be directed by a person trained in hazardous waste management





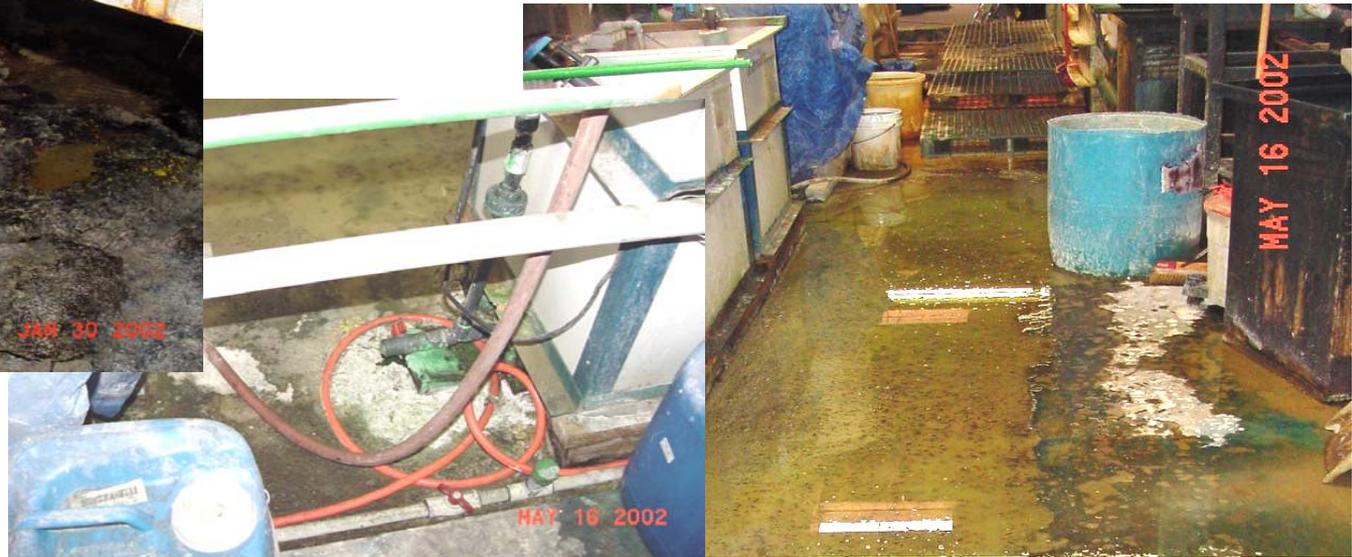
Training PLAN

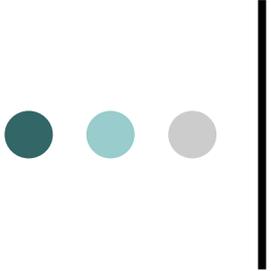
Requirements-cont'd

- Program needs to be designed to ensure that facility personnel are able to respond effectively to emergencies by familiarization to emergency procedures (including the contingency plan), emergency equipment & emergency systems.
- **The plan should have the following:**
 - Job title for each haz waste handling position
 - Employee name at that position
 - Description of the position's duties
 - Type of training to be provided to that position
- Special requirements for SQG & CESQG.

7. Wet Floor Violations

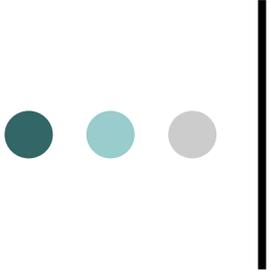
- Failure to clean up spilled hazardous plating chemicals from the floor of the facility.





Spill Prevention Standards

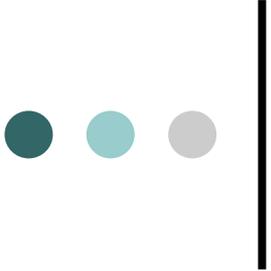
- § 66265.31 - Facilities shall be maintained and operated to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water, which could threaten human health or the environment.
- §66265.196. Response to Leaks or Spills and Disposition of Leaking or Unfit-for-Use Tank Systems.



Removal of waste from tank system or secondary containment system.

Owner or operator shall satisfy the following requirements:

- (1) If the release was from the tank system, within 24 hours after detection of the leak.
- (2) If the release was to a secondary containment system, all released materials shall be removed within 24 hours or in as timely a manner as is possible to prevent harm to human health and the environment.

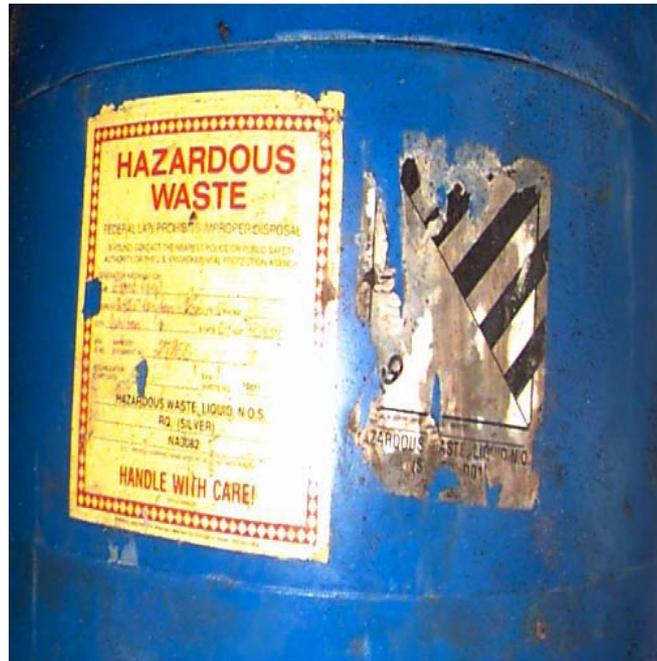


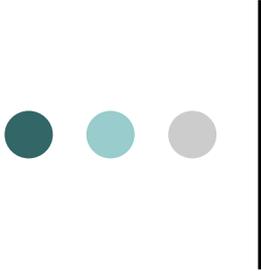
Tank Leaks or Spills

- If tank system has had a leak or spill, or is unfit for use, it must be removed from service & comply w/
§ 66265.196
 - Implement emergency procedure
 - Cease use, & prevent flow or addition of waste
 - Remove waste from the tank systems or secondary containment systems (within 24 hours of leak detection)
 - Contain visible releases to environment
 - Reports to CUPA/ DTSC
 - Provide for secondary containment, repair or closure
 - Provide certification of major repairs

8. Labeling Violations

- Failure to correctly label containers and tanks that are used to hold hazardous wastes.





Tank and Container Labeling

- § 66262.34 (f) lists all the required information that must be included in a label for a tank or container holding hazardous waste.
- § 67450.3 (c)(7), states that the owner or operator of a fixed treatment unit operating under PBR shall permanently mark the exterior of each treatment unit with the name of the person that owns or operates the unit, the facility identification number, and an individual serial number.

Labels

- The following information shall be clearly marked and visible for inspection on hazardous waste containers and portable tanks:
 - The words “HAZARDOUS WASTE”
 - Generator’s name and address
 - Physical state of the waste
 - Hazardous properties of the waste
 - Composition of the waste
 - Initial date of accumulation for the waste
- This applies to all hazardous waste containers, including those in satellite accumulation areas.

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 HEALTH SERVICES

GENERATOR INFORMATION:
NAME _____
ADDRESS _____ PHONE _____
CITY _____ STATE _____ ZIP _____

EPA ID NO. _____ MANIFEST DOCUMENT 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!

1992 Lab Safety Supply Inc., Janesville, WI 53547 Handle No. 20548

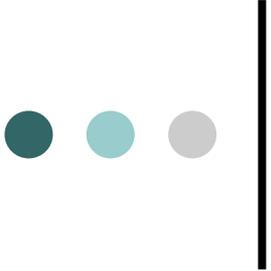
HAZARDOUS WASTE
STATE AND FEDERAL LAW PROHIBITS IMPROPER DISPOSAL
IF FOUND, CONTACT THE NEAREST POLICE OR PUBLIC SAFETY AUTHORITY OR THE U.S. ENVIRONMENTAL PROTECTION AGENCY OR THE CALIFORNIA DEPARTMENT OF TOXIC SUBSTANCES CONTROL

GENERATOR INFORMATION:
NAME _____ PHONE _____
ADDRESS _____ STATE _____ ZIP _____
CITY _____
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 _____

DOT PROPER SHIPPING NAME AND UN OR NA NO. WITH PREFIX
HANDLE WITH CARE!



Labels-cont'd

- Special labels for special wastes

Used Oil

- “Used Oil-Hazardous Waste” + accum date + Name/Address

Used Oil Filters

- “Drained Used Oil Filters” + accumulation date

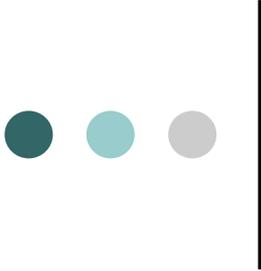
Universal Wastes

- “Universal Waste” or “Waste” or “Used” - X

Lead-Acid Batteries

- Date the battery was generated or received. Pallets should have DOT markings or labels.

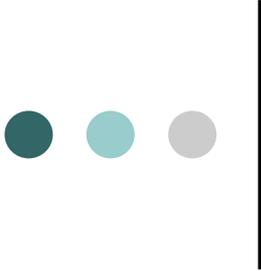
Excluded Recyclable Materials



Pre-Transport Requirements

22 CCR 66262.30, 31, 32, 33

- Before transporting or offering hazardous waste for transportation off-site, the generator must:
 - Package, Label, mark, and placard each package in accordance with DOT regulations
- On and after September 5, 2006, before transporting hazardous waste or offering hazardous waste for transportation off-site, a generator shall mark each container of 119 gallons or less used in such transportation with the following words and information displayed in accordance with the requirements of 49 Code of Federal Regulations section 172.304:
 - **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's Name and Address** _____
 - **Generator's EPA Identification Number** _____.
 - **Manifest Tracking Number** _____.



Other Frequently Found Hazardous Waste Violations

- Failure to evaluate wastes
- Failure to keep containers closed and in good condition
- Failure to maintain manifest and LDR documents
- Failure to conduct inspections of hazardous waste containers and emergency equipment, and/or failure to keep logs of these inspections
- Failure to designate an emergency coordinator
- Failure to post emergency information by the phone
- Disposing of hazardous wastes improperly (for example, throwing wastes in the trash)
- Storing hazardous wastes in containers that are leaking or in poor condition
- Keeping wastes on-site for longer than the law allows

Waste Minimization Requirements

- Generators manifest certification
- Generators > 12000 kg in reporting year SB14 documents
- Large quantity RCRA generators Biennial Report certification
- Consolidated manifest users Certification
- Onsite treatment under Conditional Exemption (CE) Certification
- Onsite treatment under Conditional Authorization (CA) Certification
- Onsite treatment under Permit by Rule (PBR) Certification
- Transportable Treatment Units (TTUs) under PBR Certification
- Standardized Permit Certification
- Onsite/Off-site Full Permit (TSDf) Certification
- Exporters Certification

