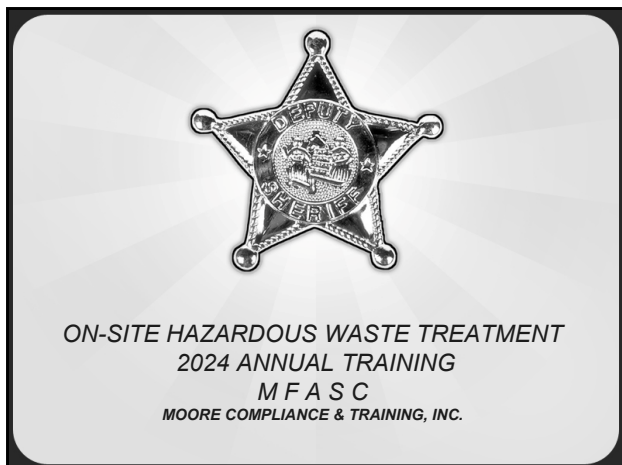
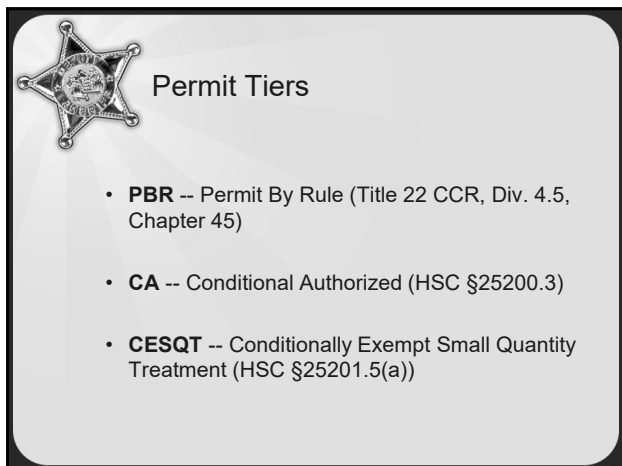


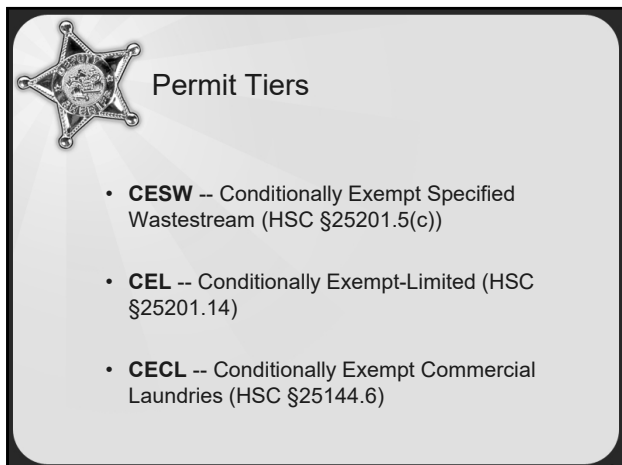
ONSITE WASTE TREATMENT -- PBR MFASC --2024 OPERATOR TRAINING



1



2



3

ONSITE WASTE TREATMENT -- PBR MFASC --2024 OPERATOR TRAINING



PBR TIER

- PBR allows onsite treatment of non-RCRA and RCRA exempt hazardous waste. This tier is for more hazardous and higher volume waste streams.

4



CONDITIONALLY AUTHORIZED TIER

- Conditionally Authorized tier allows onsite treatment of non-RCRA and RCRA exempt hazardous waste. This tier is usually single-hazard waste and treatment in the unit cannot exceed 5,000 gallons or 45,000 in a calendar month.

5



CONDITIONALLY EXEMPT TIER

- Conditionally Exempt tier allows onsite treatment of non-RCRA and RCRA exempt hazardous waste. This is for smaller quantities or less waste and treatment methods.

6

**ONSITE WASTE TREATMENT -- PBR
MFASC --2024 OPERATOR TRAINING**



**SITE SPECIFIC
INFORMATION**

- Type of Hazardous Waste generated at facility:

7



**SITE SPECIFIC
INFORMATION**

- Type of Waste Treatment done at facility:

8



**SITE SPECIFIC
INFORMATION**

- Tiered Permit level at facility:

9

ONSITE WASTE TREATMENT -- PBR MFASC --2024 OPERATOR TRAINING



Compliance Requirements

- Manage the hazardous waste in accordance with the hazardous generator regulations.
 - Contingency Plan
 - Personnel Training
 - Manifest system and record keeping.
 - Hazardous waste container management.

10



EMPLOYEE TRAINING

- 1. Generators must ensure that all employees are thoroughly familiar with proper waste handling and emergency procedures, relevant to their responsibilities during normal facilities operations and emergencies.
- 2. Training must comply with §66265.16

11



§66265.16 PERSONNEL TRAINING

- (a)(1) Facility personnel shall successfully complete a program of class room instruction or on-the-job training that teaches them to perform their duties in a way that ensures the facilities' compliance with the requirements of this chapter.

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**ONSITE WASTE TREATMENT -- PBR
MFASC --2024 OPERATOR TRAINING**



§66265.16 PERSONNEL TRAINING

- (a)(2) This program shall be directed by a person trained in hazardous waste management procedures and shall include instruction which teaches facility personnel hazardous waste management procedures (including contingency plan implementation) relevant to the positions in which they are employed.

13



§66265.16 PERSONNEL TRAINING

- (a)(3) At a minimum, the training program shall be designed to ensure that facility personnel are able to respond effectively to emergencies by familiarizing them with emergency procedures, emergency equipment and emergency systems.

14



§66265.16 PERSONNEL TRAINING

- (a)(4) Personnel must successfully complete the program within six months after employment or assignment to the facility.
- Personnel must not work in unsupervised positions until they have completed the training.
- Personnel must also take part in an annual review of the initial training.

15

**ONSITE WASTE TREATMENT -- PBR
MFASC --2024 OPERATOR TRAINING**



§66265.16 PERSONNEL TRAINING

- The following documents and records must be maintained at the facility:
 - (a) Job title for each position related to hazardous waste management, and the name of the employee filling each job.
 - (b) A written job description for each position related to hazardous waste management, including the requisite skill, education or other qualifications and duties of employees assigned to each position.

16



§66265.16 PERSONNEL TRAINING

- (c) A written description of the type and amount of both introductory and continuing training that will be given to each person filling each of these positions.
- (d) Records that document that the training or job experience required has been given to, and completed by, facility personnel.
- (e) Training records on personnel must be kept until closure of the site (or forever).

17



Compliance Requirements

- Treat only hazardous waste which are generated onsite.
- Restrict hazardous waste treatment to those wastes, volumes and processes authorized for the reported treatment tier.
- Treatment of Aqueous Cyanide Waste is now part of PBR. "Consent Decree" is now history.
- Manage residual properly.

18



Compliance Requirements

- Prepare and maintain **written** operating instructions.
- Maintain a **written** operating log of:
 - Dates
 - Amounts
 - Hazardous constituents
 - Types of waste treated
 - Residual management

19



Compliance Requirements

- Maintain a **written** inspection schedule.
 - Records shall include:
 - Date & time of inspection
 - Name of inspector
 - Notation of observations made
 - Date and nature of any repairs or other actions
 - Records shall be maintained for three years.

20



Compliance Requirements

- Maintain adequate records to demonstrate that the facility is in compliance with all pretreatment standards and applicable industrial waste discharge requirements issued by the POTW.
- Upon closure, remove or decontaminate any residue, equipment, or soil.

21



Compliance Requirements

- Notify your local CUPA of any changes in your fixed treatment unit within 30 days of changes.
 - Some CUPAs are starting to look closer at this.

22



Tier Specific Requirements

- CE and CA
 - Test integrity of the ancillary equipment for tanks or containers use for treating hazardous waste every two years, or provide secondary equipment

23



Tier Specific Requirements

- CA and PBR
 - Control all entry points to waste treatment area at the facility and post a sign at each entrance:
 - "Danger -- Hazardous Waste Area -- Unauthorized Personnel Keep Out"
 - Post a "No Smoking" sign where there is a hazard from ignitable or reactive waste.

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ONSITE WASTE TREATMENT -- PBR MFASC --2024 OPERATOR TRAINING



Tier Specific Requirements

- CA and PBRcontinued
 - Provide containment systems for hazardous waste treatment, transfer and storage areas.
 - Retain onsite the written assessment, which **must be certified by an independent, qualified professional Civil, Structural or Geotechnical Engineer, registered in California**, that the secondary containment systems has sufficient structural integrity (EARTHQUAKE).
 - List in Attachments.

25



Tier Specific Requirements

- CA and PBR.....continued
 - Maintain the containment system.
 - **Maintain an annual hazardous minimization certification.**
 - Provide financial assurance for closure.
 - Adjust the closure cost estimate for inflation by March of each year.

26



Tier Specific Requirements

- CA and PBR Continued
 - Conduct a Phase I environmental assessment.
 - Submit updated information, subsequent to the submission of the Phase I assessment.
 - Maintain documents of any environmental investigation, judgments, etc.

27



Tier Specific Requirements

- PBR
 - Permanently mark the exterior of each treatment unit with the name of the person who owns or operates the unit, facility ID number and serial number.
 - Develop and maintain onsite a written waste analysis plan for treatment of hazardous waste.

28



Tier Specific Requirements

- PBR....Waste Analysis Plan
 - The waste analysis plan shall specify:
 - Detailed chemical and physical analysis of a representative sample of the waste to be treated.
 - Parameters for each hazardous waste to be analyzed.
 - Test methods which will be used.
 - Sampling and sampling management methods to be used.
 - Frequency of analysis and reanalysis of hazardous waste.

29



Tier Specific Requirements

- PBR....Operating Records
 - Prepare and maintain an Operating Record with the following:
 - Description, quantity, methods and dates of all hazardous waste treated.
 - Results of waste analysis.
 - Summary reports and details of all incidents that require implementing the Contingency Plan.
 - See attachments

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ONSITE WASTE TREATMENT -- PBR MFASC --2024 OPERATOR TRAINING



Tier Specific Requirements

- PBR...continued
 - Prepare and submit an annual report to DTSC and/or local CUPA when requested.
 - Prepare and maintain a detailed closure plan for each unit, including steps needed to decontaminate each unit and a schedule for the process.

31



WHAT'S A TREATMENT UNIT

- WHATEVER THE INSPECTOR SAYS IT IS.
 - Cyanide treatment
 - Batch treatment (CUPA BOLO CHROME)
 - Filter press
 - Sludge dryer

UNIT PAGE AND CLOSURE COST FOR EACH ONE.

32



AND THEN--THE HARDEST PART

- EVERYTHING HAS TO BE IN-PUTTED INTO THE ON-LINE CERS REPORTING SYSTEM
 - FORMS TO BE FILLED OUT
- AND THEN HOPE THE CUPA INSPECTOR ACCEPTS IT.
 - EVERY INSPECTOR IS DIFFERENT EACH CUPA IS DIFFERENT.

33

ONSITE WASTE TREATMENT -- PBR MEASC --2024 OPERATOR TRAINING



AND THEN IT'S REJECTED

- “ Finally please document in your closure plan how you plan to obtain sub concrete samples with equipment, development cost of work plan, and the oversight from a regulatory agency either the water board or Health Haz Mat Division. Currently, ~\$2000 for and ~\$125.00/hr”.
- It depends on your location to subsurface plumes of pollution on weather the Waterboard will get involved.

34



And REJECTED ONCE AGAIN

- “please provide justification for the \$25 in personal protective equipment in 3 out 4 units in closure and clearly document what is the additional cost of \$10 in precipitation unit. Please document that the cost of salvage is reasonable. Please submit documentation that the property owner is the same as the business owner or show that owner notification has been made. Please upload the tank assessment as required in your most recent Notice of Violation issued by xxx . Also note that a sludge dryer treating about 350lb /month would fall under Conditionally authorized.”

35



AND AGAIN

- “Comments by regulator: Please provide documentation for the closure cost including acquiring the sub-surface samples and itemize salvage value of the equipment for CA and PBR. Oil and water separators are typically under CE-CL. Sludge driers under Conditional authorization. Include the cost of oversight for the clean up including regulatory agency, including the cost of developing a work plan.”

36



Record Keeping Requirements

- Waste Analysis Plan
- ☐ GOT IT
- ☐ NEED IT

37



Record Keeping Requirements

- Written Inspection Schedule
- ☐ GOT IT
- ☐ NEED IT

38



Record Keeping Requirements

- Training Documents
- ☐ GOT IT
- ☐ NEED IT

39



Record Keeping Requirements

- Contingency Plan
- ☐ GOT IT
- ☐ NEED IT

40



Record Keeping Requirements

- Copy of the most recent notification submittal and CUPA acknowledge.
- ☐ GOT IT
- ☐ NEED IT

41



Record Keeping Requirements

- Copy of any local air district permits or other permits.
- ☐ GOT IT
- ☐ NEED IT

42



Record Keeping Requirements

- Closure Plan & Closure Costs per treatment unit.
- ☐ GOT IT
- ☐ NEED IT

43



Record Keeping Requirements

- Copy of Annual Closure Plan inflation adjustment.
- ☐ GOT IT
- ☐ NEED IT

44



Record Keeping Requirements

- Copy of documents related to any environmental investigations.
- ☐ GOT IT
- ☐ NEED IT

45



Record Keeping Requirements

- Documentation of any convictions, judgments, settlements, or orders resulting from environmental violations.
- ☐ GOT IT
- ☐ NEED IT

46



Record Keeping Requirements

- Site Map/Plot Plan that meets the latest requirements by.
- ☐ GOT IT
- ☐ NEED IT

47



SITE MAP

- (2) A site map that contains north orientation, loading areas, internal roads, adjacent streets, storm and sewer drains, access and exit points, emergency shutoffs, evacuation staging areas, hazardous material handling and storage areas, and emergency response equipment. Updates to existing maps to meet these requirements shall be completed by January 1, 2015.

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ONSITE WASTE TREATMENT -- PBR MFASC --2024 OPERATOR TRAINING



Review

- Secondary containment area to be dry.
 - FLOOR MANAGEMENT PLAN
- Aqueous Cyanide Waste Treatment Consent Decree for Cyanide treatment is no more.
 - If you treat cyanide --- must be done in accordance with the PBR regulations.
 - Operator training is required.

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Reviewing.....

- Secondary Containment & System Certification must be done by a **certified independent, qualified professional Civil, Structural or Geotechnical Engineer, registered in California.**
 - CUPA now has a guidance document for this certification.
- **All piping to treatment area is covered.**

50



•ONE •MORE •TIME

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ONSITE WASTE TREATMENT -- PBR MFASC --2024 OPERATOR TRAINING



DTSC's BIG 8

- No. 5 WASTE ANALYSIS PLAN & RECORDS
 - If you treat your hazardous waste under PBR, you must have a waste analysis plan. It must specify:
 - Specific wastes and the specific constituents in the waste.
 - Specific EPA test methods that will be used.
 - Sampling and sample management methods.
 - Frequency of analysis.
 - Not required for CA or CE, BUT must maintain sufficient documentation to show you know what you are doing.
 - Bottom line -- complete a Waste Analysis Plan.

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DTSC's BIG 8

- No. 7 MANAGING SPILLS
 - When a material is spilled onto the ground or onto the floor, it becomes a waste if it cannot be used for its original purpose.
 - Spills of hazardous materials must be cleaned up immediately.
 - All spilled liquids in secondary containment areas must be cleaned up within 24 hours of when the spill occurs, or in as timely a manner as possible.
 - VIOLATION OF THIS IS CONSIDERED A SERIOUS VIOLATION!!!! (\$27,500 PER DAY)

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FLOOR MANAGEMENT PLAN

- HAVE YOU FILLED YOURS OUT?
- HAVE YOU COMPLETED THE INITIAL FLOOR EVALUATION?
- HAVE YOU DEVELOPED YOUR INITIAL RECOVERY PLAN?

54



FLOOR MANAGEMENT PLAN

- HAVE YOU DEVELOPED YOUR BEST MANAGEMENT PRACTICES?
- ARE YOU DOING YOUR DAILY INSPECTIONS?
- ARE YOU DOING YOUR QUARTERLY FLOOR INSPECTIONS .

55



FLOOR MANAGEMENT PLAN

- HAVE YOU UPDATED AND MAINTAINED YOUR MAINTENANCE SCHEDULE?
- EMPLOYEE TRAINING DOCUMENTED?

56



DTSC's BIG 8

- No. 8 CONTAINER & TANK LABELING
 - Tanks or containers that are used to hold hazardous waste must be labeled with the correct information and kept closed.
 - Any hazardous waste treatment unit must be labeled with:
 - The name of the person who owns or operates them.
 - Facility EPA ID No.
 - If PBR, serial number is needed too.

57



And the crowd went wild.....

- Permit by rule for treatment of aqueous waste containing cyanides

58



Cyanide-Containing Wastes

- Aqueous wastes generated by the rinsing of parts, racks, etc.
- Aqueous waste from RO units.
- Aqueous waste generated from rinsing of equipment.
- Aqueous wastes from on-site recycling – rinsing of anode bags – empty containers.
- Spent process solution.

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Authorized Treatment Processes

- Oxidation with Hypochlorite.
- Oxidation with Peroxide or Ozone.
- Alkaline Chlorination.
- Electrochemical Oxidation.
- Ion Exchange. OR
- Reverse Osmosis.

60



Reduction of Cyanide Wastes

- As Specified:
 - Holding time between tanks
 - Drag out tanks, dead rinses, countercurrent rinse tanks, etc.
- At lease every four years review use of cyanide and evaluate if there are any non-cyanide solutions available.
 - May be part of the SB 14 report.

61



Employee Training

- Initial & Annual Training:
 - Reduce drag-out.
 - Minimize contamination.
 - Extend bath life.
 - Minimization of chemical spills and splashes.
 - Response to chemical spills.

62



Non-aqueous Cyanide Wastes

- ***Thou shall not treat non-aqueous (SOLID) hazardous waste containing cyanide.***

63



Metal Recovery

- Process solutions may be treated to reclaim metals by electrowinning.

64



Spent Process Solutions

- May be treated by slow addition to the aqueous waste streams already mentioned.
 - Concentration shall not exceed 5000 ppm of total cyanide.

65



Residual Solids

- Filter cake or sludge shall be recycled or partially reclaimed.
- And/or
- Annual Justification Statement as to why the residuals cannot be recycled or reclaimed.

66

ONSITE WASTE TREATMENT -- PBR MFASC --2024 OPERATOR TRAINING



Justification Statement

- Due By January 30.
- Full chemical analysis.
- How much process solution, etc.
- Current year cost estimates.
- Basis for the decision not to recycle.
- HAVE YOU DONE IT????

67



Record Keeping

- POTW approval letter
- Waste Analysis Plan
- How are you ensuring that you do not exceed 5000 ppm.
- Documentation of residual management.
- Employee training documentation for Cyanide?
- AND ALL THE OTHER STANDARD PBR PAPERWORK.

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Waiting for the other shoe.....

- DTSC is the process of putting together inspection procedures for CUPA inspectors for cyanide treatment.

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**ONSITE WASTE TREATMENT -- PBR
MFASC --2024 OPERATOR TRAINING**



FOR CYANIDE TREATMENT

If you treat cyanide –
Submit to your CUPA:
Business Owner/Operator Form
Business Activities Form
PBR Unit Page
The revised Waste and Treatment
Process Combinations form.

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CYANIDE -- PBR

- If you treat cyanide ---
 - Revise your Waste Analysis Plan and resample.

71



CYANIDE & SB 14

- PBR requirement for cyanide treatment:
 - At a minimum, every four (4) years, review the use of cyanide-containing process baths to determine if a non-cyanide alternative with equivalent results is available as part of the SB 14 Plan.
 - It is maintained in the SB14 Program binder for review. It is not submitted with the Summary Progress reports due September 1, 2025

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**ONSITE WASTE TREATMENT -- PBR
MFASC --2024 OPERATOR TRAINING**



NEXT MONTH
LIVE FROM THE MFASC
SUPPLIER SHOW!!!

- **CAL/OSHA ORDER §3396**
- **IN DOOR HEAT PREVENTION PROGRAM**

PHILIP WILL SEE YOU
AT THE QUIET CANNON!!!
SEPTEMBER 24, 2024

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