Instructions for Using the Onsite Tiered Permitting - Flowchart

(For non-RCRA or exempt hazardous waste facilities conducting onsite treatment. For example, generators treating waste onsite within 90/180 days are not required to get a permit pursuant to federal regulations.)

Using the TP Flowchart

<table>
<thead>
<tr>
<th>1st column</th>
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<tbody>
<tr>
<td><strong>Waste Type</strong></td>
<td><strong>Treatment</strong></td>
<td><strong>Volume Treated</strong></td>
<td><strong>Concentration</strong></td>
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<tr>
<td>What is the waste stream?</td>
<td>How is the waste being treated? What is the process used?</td>
<td>Tiers are often dependent upon volume treated.</td>
<td>Tiers often dependent upon concentration.</td>
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Aqueous Waste with metals

Ion Exchange
pH Adjust
Electrowinning
Metallic Replacement
Precipitation or
Crystallization

Phase Separation

1st Column

<55 gal/mo/fac

<1400 ppm

 CESQT

CA

PBR

2nd Column

3rd Column

4th Column

Tier

Tier

>55 gal/mo/fac

>1400 ppm
Onsite Tiered Permitting – Flowchart
Waste Stream #s 1 through 20 are in §67450.11 unless listed

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

Aqueous wastes with chromium VI

- Reduction to chromium III

≤ 55 gallons total/mo./facility+

CESQT

>55 gallons/mo.

<750 ppm

CA*

≥ 750 ppm

PBR

Note – Automated addition of acid and reducing agents §67450.11(a)(1)(A)

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 at that facility and NO other grant of authorization or permit is required at that facility (HSC § 25201.5(a)(2))

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, § 67450.11)

*Must be hazardous solely (single hazard) due to this characteristic, e.g. corrosivity.
Dual or multiple hazards are in PBR
During storage or accumulation in tanks or containers only if the separation is unaided by the addition of heat or chemical.** [HSC, § 25123.5 (b)(1)(A) and (b)(2)(B)]

**Containers must be closed except when adding/removing hazardous wastes (T22, § 66265.173)
Aqueous wastes with metals listed in T22 § 66261.24

- Ion Exchange
- Reverse Osmosis
- Adsorption
- pH Adjustment (≥ 2, ≤ 12.5)
- Electrowinning or electrolytic recovery (no hydrochloric acid)

During storage or accumulation in tanks or containers only if the separation is unaided by the addition of heat or chemical.**
[HSC, § 25123.5 (b)(1)(A) and (b)(2)(B)]

>55 gallons/mo. & <1,400 ppm

CA*

NO authorization required

*Must be hazardous solely (single hazard) this due to characteristic, e.g. corrosivity.
**Containers must be closed except when adding/removing hazardous wastes (T22, § 66265.173)
**Containers must be closed except when adding/removing hazardous wastes (T22, § 66265.173)**

- Adsorption
- Distillation
- Biological Processes
- Photodegradation (with or without ozone or hydrogen peroxide)
- Air Stripping

**Aqueous waste with organic compounds**

- not listed and containing <10% total organic carbon and <1% volatile organic compound

During storage or accumulation in tanks or containers only if the separation is unaided by the addition of heat or chemical.** [HSC, § 25123.5 (b)(1)(A) and (b)(2)(B)]

- 55 gallons total/mo./facility+
- >55 gallons/mo.

**3a**

**Phase Separation excluding super critical fluid extraction**

**CESQT**

**PBR**

**NO authorization required**

**Contains must be closed except when adding/removing hazardous wastes (T22, § 66265.173)**
Aqueous waste with organic compounds listed in § 66261.24(a)(1)(B) or § 66261.24(a)(2)(B)

- Adsorption

- Phase Separation excluding super critical fluid extraction

<750 ppm

CA*

During storage or accumulation in tanks or containers only if the separation is unaided by the addition of heat or chemical.**

[HSC, § 25123.5 (b)(1)(A) and (b)(2)(B)]

NO authorization required

*Must be hazardous solely (single hazard) due to this characteristic, e.g. corrosivity.

**Containers must be closed except when adding/removing hazardous wastes (T22, § 66265.173)
Sludges, dusts, solid metal objects, workings (containing or contaminated with metals listed in § 66261.24(a)(2) and or fluoride salts)

- Grinding
- Shredding
- Crushing
- Compact
- Separation (based on size, magnetism or density).

4a

- Drying (to remove water)

Chemical stabilization

In tanks or containers, such as breathing and evaporation through vents and floating roofs, without the addition of pressure, chemicals, or heat other than sunlight or ambient room lighting or heating. [HSC, § 25123.5 (b)(1)(A) and (b)(2)(D)]

- NO authorization required

< 500 lbs total/mo./facility+

CESQT

> 500 lbs/mo.

PBR
In tanks or containers, such as breathing and evaporation through vents and floating roofs, without the addition of pressure, chemicals, or heat other than sunlight or ambient room lighting or heating. [HSC, § 25123.5 (b)(1)(A) and (b)(2)(D)]

**NO authorization required**

4b

**Wastewater treatment sludges, solid metal objects, metal workings** containing or contaminated with metals and Dusts containing ≤750 ppm metal (except asbestos) (§ 66261.24(a)(1)(B) or § 66261.24(a)(2)(A))

- **Drying (to remove water)**
  - Centrifuge
  - Gravity Settling
  - Grinding
  - Shredding
  - Crushing
  - Compact
  - Separation (based on size, magnetism or density).

- **Filtration**

**Sieving or filtering liquid hazardous waste** to remove solid fractions, without added heat, chemicals, or pressure, as the waste is added to or removed from a storage or accumulation tank or container. For this activity, sieving or filtering does not include adsorption, reverse osmosis, or ultrafiltration. [HSC, § 25123.5 (b)(1)(A) and (b)(2)(B)]

- ≤45,000 lbs/mo.

**CA**

**NO authorization required**

*Must be hazardous solely (single hazard) due to this characteristic, e.g. corrosivity.*
During storage or accumulation in tanks or containers only if, the separation is unaided by the addition of heat or chemical.** [HSC, § 25123.5 (b)(1)(A) and (b)(2)(B)]

- Phase Separation
- Drying (to remove water)
- Chemical Stabilization

In tanks or containers, such as breathing and evaporation through vents and floating roofs, without the addition of pressure, chemicals, or heat other than sunlight or ambient room lighting or heating. [HSC, § 25123.5 (b)(1)(A) and (b)(2)(D)]

*Must be hazardous solely (single hazard) due to this characteristic, e.g. corrosivity.

**Containers must be closed except when adding/removing hazardous wastes (T22, § 66265.173)
**Waste**
listed in § 66261.120, which meets the criteria and requirements for classification as special wastes in T22, § 66261.122 and § 66261.124 HSC § 25200.3(a)(5)

- Phase Separation
- Screening to separate components (based on size)
- Separation (based on size, magnetism or density)
- Drying (to remove water)
- Chemical Stabilization

In tanks or containers, such as breathing and evaporation through vents and floating roofs, without the addition of pressure, chemicals, or heat other than sunlight or ambient room lighting or heating. [HSC, § 25123.5 (b)(1)(A) and (b)(2)(D)]

**NO authorization required**

**During storage or accumulation in tanks or containers only if, the separation is unaided by the addition of heat or chemical.** [HSC, § 25123.5 (b)(1)(A) and (b)(2)(D)]

- ≤ 500 lbs total/mo./facility+
- ≤ 750 ppm and
- ≤ 45,000 lbs/mo./unit
- >45,000 lbs/mo.

**CESQT**

**CA**

**PBR**

**NO authorization required**

- ≤ 500 lbs total/mo./facility+
- >500 lbs/mo.

**CESQT**

**PBR**

*Must be hazardous solely (single hazard) due to this characteristic, e.g. corrosivity.*

**Containers must be closed except when adding/removing hazardous wastes (T22, § 66265.173)**
During storage or accumulation in tanks or containers only if the separation is unaided by the addition of heat or chemical.**
[HSC, § 25123.5 (b)(1)(A) and (b)(2)(B)]

**Containers must be closed except when adding/removing hazardous wastes (T22, § 66265.173)
During storage or accumulation in tanks or containers only if the separation is unaided by the addition of heat or chemical.**
[HSC, § 25123.5 (b)(1)(A) and (b)(2)(B)]

**Containers must be closed except when adding/removing hazardous wastes (T22, § 66265.173)

7b
Special Wastes
T22 § 66261.124
HSC § 25200.3(a)(6)

- Phase Separation
  - Screening to separate components based on size
  - Magnetic Separation
- Drying (by pressing or passive evaporation)
  - <750 ppm
  - 45,000 lbs/mo./unit

NO authorization required

CA*

*Must be hazardous solely due to this characteristic
**Containers must be closed except when adding/removing hazardous wastes (T22, § 66265.173)
8 a

Inorganic acid or alkaline wastes
HSC, § 25200.3(a)(9)
- pH Adjustment
- Neutralization

≤ 55 gallons total/mo./facility+
>55 gal. or
>500 lbs/mo.

8 a

Corrosive waste
from regeneration of ion exchange residues (used to demineralize water)
HSC, § 25201.13
- Neutralization

<10% acid/base by wt.
>10% acid/base by wt.

8 a

Acid/alkaline wastes
corrosive due to presence of food products AND generated by SIC group 20
HSC, § 25201.5
- Neutralization

<10% acid/base by wt.
>10% acid/base by wt.

*Must be hazardous solely (single hazard) due to this characteristic, e.g. corrosivity.

North American Industry Classification System (NAICS) was adopted in 1997 to replace the Standard Industrial Classification (SIC) system.
Neutralization

Acid/alkaline wastes

- Laboratory conducting treatment pursuant to HSC, § 25200.3.1
  - No authorization required

- Neutralization

Acid/alkaline wastes

- from Biotechnology manufacturing or process by SIC Code subgroups 283, 2833, 2834, 2836, 8731, 8732, 8733 HSC, § 25201.15
  - Neutralization
  - <10% acid/base by wt.
    - No authorization required
  - >10% acid/base by wt.
    - Go to 8 a

Acid/alkaline wastes

- from Pharmaceutical manufacturing or process development by NAICS Code subgroups 325411 and 325412 HSC, § 25201.17
  - Neutralization
  - No authorization required if treatment complies with HSC § 25201.17 AB2155 (Stats., 2006, Ch. 741)
Soils contaminated with metals
T22, § 66261.24(a)(2)
HSC, § 25200.3(a)(7)

- Screening
- Magnetic Separation

- Chemical Stabilization

<500 lbs total/mo./facility+

<45,000 lbs/mo./unit

>45,000 lbs/mo.

<500 lbs total /mo./facility+

>500 lbs/mo.

*Must be hazardous solely (single hazard) due to this characteristic, e.g. corrosivity.
During storage or accumulation in tanks or containers only if the separation is unaided by the addition of heat or chemical.** [HSC, § 25123.5 (b)(1)(A and (b)(2)(B)]

**Containers must be closed except when adding/removing hazardous wastes (T22, § 66265.173)
Oil mixed with water OR oil-water separation sludge
HSC, § 25200.3(a)(8)
HSC, § 2501.5(a)(6)

- Separation (based on size magnetism or density)
- Reverse Osmosis

Phase Separation
If avg. amount of oil recovered /mo. <25 barrels AND aqueous waste from gravity settling is non-hazardous

During storage or accumulation in tanks or containers only if the separation is unaided by the addition of heat or chemical.** [HSC, § 25123.5 (b)(1)(A) and (b)(2)(B)]

NO authorization required

Used oil mixed with water
hazardous ONLY because of oil content, EXCLUDING contaminated groundwater, water containing gasoline, or >2% diesel
HSC, § 25201.14 (a)

- Gravity Separation (where aqueous waste is non-hazardous)
- Centrifugation
- Membrane Technology (such as reverse osmosis)
- Heating ≤20 degrees F below flashpoint of the used oil component of the mixture
- Addition of demulsifiers (to water containing used oil)

If recovered used oil is properly transported to an authorized offsite oil recycler
CEL

If recovered used oil is NOT properly transported to an authorized offsite oil recycler
10 (a) or (b)

*Must be hazardous solely (single hazard) due to this characteristic, e.g. corrosivity.
**Containers must be closed except when adding/removing hazardous wastes (T22, § 66265.173)
11 a
Containers < 110 gallon capacity (no wood, paper, cardboard, fabric or other absorptive material)
HSC, § 25201.5(a)(2)
- Rinsing
- Crushing
- Shredng
- Grinding
- Puncturing
If container is exempt per Title 22, 66261.7
- NO authorization required

11 b
Aerosol Cans
HSC, § 25201.16
- Puncturing
- Draining
- Crushing
- NO authorization required if handler complies with HSC §25201.16 (h) requirements
SB1158 (Stats. 2001, Ch. 450)

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Resins
HSC, § 25201.5(c)(1)
- Treatment of resins including multi-component and preimpregnated resins Mixed or Cured in accordance with manufacturer's instructions (Stats. 1994, AB 3577, Ch 276)
- Treatment of Multi-component resins - Mixed in accordance with manufacturer's instructions
- NO volume limit
- CESW
- <500 lbs total/mo./facility+
- CESQT
- >500 lbs/mo.
- PBR

NO authorization required

HSC, § 25201.5(a)(2)

HSC, § 25201.16

HSC, § 25201.5(c)(1)
3a

Photographic Wastes
(HSC, § 25143.13)
(Silver-only
RCRA-exempt
wastestreams or
photoimaging solution)

Silver Recovery

NO authorization required
SB 2111 (Stats. 1998, Ch. 309); Amended
SB 2035 (Stats. 2000, Ch. 343)

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Dry Cleaning wastes
(HSC, §25201.8)
(hazardous solely due to PCE
[perchloroethylene] content)

<180 gal./mo.

NO authorization required
AB1772 (Stats. 1992, Ch. 1345); Amended
SB1191 (Stats. 1995, Ch. 639)

>180 gal./mo.

Go to 3a

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Commercial laundry facility
HSC, § 25144.6

Reusable textile materials
(uniforms, gloves, linens
and towels).

CECL
16a
Laboratory Waste
HSC § 25200.3.1

NO authorization required if treatment complies with
HSC, § 25200.3.1
AB 966 (Stats. 1998, Ch. 506)

16b
Quality Control or Quality Assurance Laboratory
(HSC, § 25201.5(c)(8))

NO authorization required if treatment complies with
HSC § 25200.3.1
AB 966 (Stats. 1998, Ch. 506)
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**Wastestream/Technology Combination Certified by DTSC**

HSC § 25200.3.(a)(10), § 25201.5(c)(9))

- Healthcare Facilities treating formaldehyde

- Healthcare Facilities treating glutaraldehyde or orthophthalaldehyde with glycine per HSC § 25123.5(c)

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**Technology Certified by DTSC**

HSC § 25200.1.5, § 25201.5(c)(10))

- Healthcare Facilities treating formaldehyde

- Healthcare Facilities treating glutaraldehyde or orthophthalaldehyde with glycine per HSC § 25123.5(c)

NO authorization required if treatment complies with HSC § 25200.3.1 AB 966 (Stats. 1998, Ch. 506)

*Must be hazardous solely (single hazard) due to this characteristic, e.g. corrosivity.*
Sieving or filtering liquid hazardous waste to remove solid fractions, without added heat, chemicals, or pressure, as the waste is added to or removed from a storage or accumulation tank or container. For this activity, sieving or filtering does not include adsorptions, reverse osmosis, or ultrafiltration. [HSC, § 25123.5 (b)(1)(A) and (b)(2)(A)]

Phase separation of hazardous waste during storage or accumulation in tanks or containers, if the separation is unaided by the addition of heat or chemicals.** [HSC, § 25123.5 (b)(1)(A) and (b)(2)(B)]

Consolidation from remote sites (HSC, § 252110.10, § 25121.3)

Special authorization; Notification required.

NO authorization required

**Containers must be closed except when adding/removing hazardous wastes (T22, § 66265.173)
Cyanide Treatment (T22 § 67450.11 (d)(2))

A. Aqueous wastes from rinsing workpieces and fixtures
   T22, § 67450.11 (d)(2)(A)

B. Aqueous wastes from reverse osmosis or the regeneration of demineralizer (ion exchange) columns at facilities with zero discharge
   T22, § 67450.11 (d)(2)(B)

  - Oxidation by addition of hypochlorite (bleach)
  - Oxidation by addition of peroxide or ozone, with or without the use of ultraviolet light
  - Alkaline chlorination
  - Electrochemical oxidation
  - Ion exchange
  - Reverse osmosis

C. Aqueous wastes from rinsing containers, pumps, hoses, and other equipment used to transfer cyanide solutions onsite
   T22, § 67450.11 (d)(2)(C)

D. Aqueous wastes from the following onsite recycling activities:
   - rinsing spent anode bags prior to onsite reuse
   - rinsing empty containers prior to onsite reuse
   T22, § 67450.11 (d)(2)(D)

E. Aqueous wastes from onsite laboratories
   T22, § 67450.11 (d)(2)(E)
**Cyanide Treatment (T22, § 67450.11 (d)(2))**

**Spent Solutions managed in accordance with the requirements of § 67450.11(d)(6).** T22, § 67450.11 (d)(2)(F)
- Electrowinning (only for metal recovery)
- To the aqueous solution in waste streams A, B, C, D, or E

**Spent Solutions managed in accordance with the requirements of § 67450.11(d)(7).** T22, § 67450.11 (d)(2)(G)
- Slow Bleeding to the aqueous solution in waste streams (A) and (C)
- Resulting solution must be treated by: oxidation, alkaline chlorination, electrochemical oxidation, ion-exchange, or reverse osmosis

**Additional Requirements for Dilution of Process Solutions:**
- Total cyanide concentration limited to 5,000 mg/l after dilution
- Written approval from the agency operating the POTW
- Waste analysis plan (cyanides)
- The residual solids removed are recycled by a facility that recovers metals including documentation
- By January 30 - Prepare justification statement when residuals are not recycled for the previous calendar year
- Records maintained at the facility for 3 years

**For all Cyanide Treatments under PBR:**
- Comply with Best Management Requirements
- Employee training (Initial and annual training to employees, who handle cyanide process solutions, cyanide rinse waters, or manage cyanide waste)
- Evaluate cyanide alternatives every 4 years

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- **PBR**
Transportable Treatment Units

Note - SUBMIT TTU NOTIFICATIONS TO DTSC, NOT TO THE CUPA.

-CE- HSC, §25201.5

TTU Owner/Operator is AUTHORIZED

DTSC FORMS

1199 (unit)
1198 (site)

-PBR- Title 22, CCR § 67450.11

TTU May ONLY operate if TTU Owner / Operator is AUTHORIZED

DTSC FORMS

1199 (unit)
1197 (site)

ALL OTHERS

Standardized Permit, Variance, or RD&D

Contact DTSC Regional Staff

Contact DTSC Regional Staff

Note - SUBMIT TTU NOTIFICATIONS TO DTSC, NOT TO THE CUPA.
PBR - Household Hazardous Waste Collection Facilities (HHWCFs)
HHW PBR facilities are for the collection of household and CESQGs wastes

Note: HHWCFs are NOT to be confused with generator PBR facilities

1. Temporary or Permanent Household Hazardous Waste Collection Facilities (THHWCF and PHHWCF)
   Wastestreams accepted in:
   - THHWCF T22, § 67450.4(a) or
   - PHHWCF -T22, § 67450.25(a)

2. School Hazardous Waste Collection, Consolidation, and Accumulation Facility
   Wastestreams in T22, § 67450.42