

**UNIFIED PROGRAM CONSOLIDATED FORM
ONSITE TIERED PERMITTING
PERMIT BY RULE (PBR) PAGE
WASTE AND TREATMENT PROCESS COMBINATIONS**

(One page per treatment unit. Check all that apply)

UNIT ID#	606. Facility ID#	Page ____ of ____
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1. **Aqueous wastes containing hexavalent chromium may be treated by the following process:** 630.
 a. Reduction of hexavalent chromium to trivalent chromium with sodium bisulfite, sodium metabisulfite, sodium thiosulfate, ferrous sulfate, ferrous sulfide or sulfur dioxide provided both pH and addition of the reducing agent are automatically controlled.

2. **Aqueous wastes containing metals listed in Title 22, CCR, Section 66261.24 (a)(2) and/or fluoride salts may be treated by the following technologies:**

<input type="checkbox"/> a. pH adjustment or neutralization. <input type="checkbox"/> b. Precipitation or crystallization. <input type="checkbox"/> c. Phase separation by filtration, centrifugation or gravity settling. <input type="checkbox"/> d. Ion exchange. <input type="checkbox"/> e. Reverse osmosis. <input type="checkbox"/> f. Metallic replacement.	<input type="checkbox"/> g. Plating the metal onto an electrode. <input type="checkbox"/> h. Electrodialysis <input type="checkbox"/> i. Electrowinning or electrolytic recovery <input type="checkbox"/> j. Chemical stabilization using silicates and/or cementitious types of reactions. <input type="checkbox"/> k. Evaporation. <input type="checkbox"/> l. Adsorption
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3. **Aqueous wastes with total organic carbon less than 10% as measured by EPA Method 9060 and less than 1% total volatile organic compounds as measured by EPA Method 8240 may be treated by the following technologies::**
 a. Phase separation by filtration, centrifugation or gravity settling, but excluding super critical fluid extraction.
 b. Adsorption.
 c. Distillation.
 d. Biological processes conducted in tanks or containers and utilizing naturally occurring microorganisms.
 e. Photodegradation using ultraviolet light, with or without the addition of hydrogen peroxide or ozone, provided the treatment is conducted in an enclosed system.
 f. Air stripping or steam stripping.

4. **Sludges, dusts, solid metal objects and metal workings which contain or are contaminated with metals listed in Title 22, CCR, Section 66261.24 (a)(2) and/or fluoride salts may be treated by the following technologies:**
 a. Chemical stabilization using silicates and/or cementitious types of reactions.
 b. Physical processes which change only the physical properties of the waste such as grinding, shredding, crushing or compacting.
 c. Drying to remove water.
 d. Separation based on differences in physical properties such as size, magnetism or density.

5. **Alum, gypsum, lime, sulfur or phosphate sludges may be treated by the following technologies:**
 a. Chemical stabilization using silicates and/or cementitious types of reactions.
 b. Drying to remove water.
 c. Phase separation by filtration, centrifugation or gravity settling.

6. **Wastes identified in Title 22, CCR, Section 66261.120, that meet the criteria and requirements for special waste classification in Section 66261.122 may be treated by the following technologies:**
 a. Chemical stabilization using silicates and/or cementitious types of reactions.
 b. Drying to remove water.
 c. Phase separation by filtration, centrifugation or gravity settling.
 d. Screening to separate components based on size.
 e. Separation based on differences in physical properties such as size, magnetism or density.

7. **Wastes, except asbestos, which have been classified by the Department as special wastes pursuant to Title 22, CCR, Section 66261.124, may be treated by the following technologies:**
 a. Chemical stabilization using silicates and/or cementitious types of reactions.
 b. Drying to remove water.
 c. Phase separation by filtration, centrifugation or gravity settling.
 d. Magnetic separation.

8. **Inorganic acid or alkaline wastes may be treated by the following technology:**
 a. pH adjustment or neutralization.

9. **Soils contaminated with metals listed in Title 22, CCR, Section 66261.24(a)(2), (Persistent and Bioaccumulative Toxic Substances) may be treated by the following technologies:**
 a. Chemical stabilization using silicates and/or cementitious types of reactions.
 b. Screening to separate components based on size.
 c. Magnetic separation.

10. **Used oil, unrefined oil waste, mixed oil, oil mixed with water and oil/water separation sludges may be treated by the following technologies:**
 a. Phase separation by filtration, centrifugation or gravity settling, but excluding super critical fluid extraction.
 b. Distillation.
 c. Neutralization.
 d. Separation based on differences in physical properties such as size, magnetism or density.
 e. Reverse osmosis.
 f. Biological processes conducted in tanks or containers and utilizing naturally occurring microorganisms.

11. **Containers of 110 gallons or less capacity which are not constructed of wood, paper, cardboard, fabric, or any other similar absorptive material, which have been emptied as specified in Title 40 of the Code of Federal Regulations, section 261.7 or inner liners removed from empty containers that once held hazardous waste or hazardous material and which are not excluded from regulation may be treated by the following technologies provided the treated containers and rinseate are managed in compliance with applicable requirements.**
 a. Rinsing with a suitable liquid capable of dissolving or removing the hazardous constituents which the container held.
 b. Physical processes such as crushing, shredding, grinding or puncturing, that change only the physical properties of the container or inner liner, provided the container or inner liner is first rinsed and the rinseate is removed from the container or inner liner.

12. **Multi-component resins may be treated by the following process:**
 a. Mixing the resin components in accordance with the manufacturer's instructions.

13. **A waste stream technology combination certified by the Department pursuant to Section 25200.1.5 of the Health and Safety Code as appropriate for authorization under Permit by Rule.**
 Certified Technology Number: _____

**Waste and Treatment Process Combinations Form PBR Instructions
(Formerly DTSC Form 1772D)**

This Waste and Treatment Process Combinations page lists those waste and treatment combinations certified by the Department of Toxic Substances Control (DTSC) pursuant to Health and Safety Code (H&SC) §25200.1.5 for authorization under the Permit by Rule (PBR) tier. (Note: Reactive and extremely hazardous wastes are not allowed to be treated under this tier.)

Complete a separate Waste and Treatment Process Combinations page for each unit. Please number all pages of your submittal. (Note: Numbering of these instructions follows the UPCF data element numbers on the form.)

606. UNIT ID NUMBER - Enter the unit ID number (same as item 606 from the Onsite Hazardous Waste Treatment Notification - Unit form).

1. FACILITY ID NUMBER - This space is for agency use only.

630. WASTE AND TREATMENT PROCESS COMBINATIONS (PBR) - Use this page only for a PBR unit. Check the appropriate boxes to indicate the waste and treatment process(es) that pertain to the unit. If the process is a technology certified by DTSC, enter the Certified Technology Number (Cert. #). Certified technologies appropriate for authorization, and the eligible tiers, are listed below.

CERTIFIED TECHNOLOGIES

DTSC is authorized to certify hazardous waste technologies. Appropriate certified technologies may be eligible for the CE, CA or PBR onsite treatment tiers. As of April 1, 1999, there is one certified technology for these tiers. The certification is for aldehyde treatment processes and is eligible for the CESW tier. The approved technology is:

Technology	Vendor	Cert. #	Effective Date	Tier	Description
Neutralex	Scigen 333 East Gardena Blvd. Gardena, CA 90248	97-01-0024	6/29/97 (expires 6/29/00)	CESW	Batch treatment for 10 percent Formalin generated by medical, educational, and laboratory facilities. Chemically treats in a provided 8 liter vessel. After testing, allows for disposal to sanitary sewer.

A copy of published Certification Statements and additional updates may be obtained by contacting DTSC at (916) 322-3670 or from the Cal/EPA on-line Bulletin Board via modem at (916) 322-5041.