

Fact Sheet
July 2003

Fixed Treatment Unit Operating Under Permit By Rule



HAZARDOUS WASTE MANAGEMENT

DTSC is one of six Boards and Departments within the California Environmental Protection Agency. DTSC's mission is to restore, protect and enhance the environment, to ensure public health, environmental quality and economic vitality, by regulating hazardous waste, conducting and overseeing cleanups, and developing and promoting pollution prevention.

State of California



California
Environmental
Protection Agency



Introduction

The Department of Toxic Substances Control (DTSC) developed this fact sheet to assist owners or operators of fixed treatment units (FTUs) in complying with Permit by Rule (PBR) regulations. PBR regulations are part of a tiered permitting system for hazardous waste handling in California. This fact sheet describes the requirements for owners or operators who would like to treat hazardous waste under PBR. It supersedes the 1996 PBR fact sheet and includes the revised definition of the term “treatment.” Definitions of the terms used in this fact sheet are listed on pages seven through eight.

This fact sheet explains the various administrative and technical operating requirements for conducting onsite treatment of hazardous waste. This fact sheet only contains general information and is not a substitute for the Health and Safety Code (Health & Saf. Code), chapter 6.5 and California Code of Regulations, title 22, chapter 45, section 67450 et seq. (Cal. Code Regs., tit. 22, ch. 45, §67450).

Contact the Certified Unified Program Agency (CUPA) for additional information and instructions since the CUPA is responsible for reviewing notification forms for businesses located within its jurisdiction. A list of CUPA addresses and phone numbers is available on the California CUPA Web site at www.calcupa.net/localagencylisting.pdf, and on the California Environmental Protection Agency (Cal/EPA) Web site at www.calepa.ca.gov.

Background

The Wright-Polanco-Lempert Hazardous Waste Treatment Permit Reform Act of 1992 established a five-tiered program for authorizing hazardous waste treatment or storage at many businesses that are required to have State authorization but not federal authorization (i.e., authorization under the Resource Conservation and Recovery Act (RCRA)) to treat or store hazardous waste. This five-tiered program matches the regulatory requirements to the degree of risk posed by the facility's activities.

The tiers include Full Permit, Standardized Permit, Permit by Rule (PBR), Conditionally Authorized, and Conditionally Exempt. They are arranged in descending order of regulatory oversight.

The energy challenge facing California is real. Every Californian needs to take immediate action to reduce energy consumption. For a list of simple ways you can reduce demand and cut your energy costs, see our web site at www.dtsc.ca.gov.

- **The Full Permit tier** allows treatment and storage of RCRA and California only (non-RCRA) hazardous waste pursuant to title 40, Code of Federal Regulations (C.F.R.), Parts 264 and 270. It includes all facilities requiring a RCRA permit (i.e. incinerators and land disposal facilities, plus selected non-RCRA activities (Cal. Code Regs., tit. 22)).
- **The Standardized Permit tier** allows offsite treatment and storage of non-RCRA and RCRA exempt hazardous waste (Health & Saf. Code, §25201.6). It includes, but is not limited to, recyclers, oil transfer stations, and precious metals recyclers.
- **The PBR tier** allows onsite treatment of non-RCRA and RCRA exempt hazardous waste (Cal. Code Regs., tit. 22, §67450.11). This tier is for more hazardous and higher volume wastestreams and processes than the other two lower tiers.
- **The Conditionally Authorized tier** allows onsite treatment of non-RCRA and RCRA exempt hazardous waste (Health & Saf. Code, §25200.3). This tier is usually single-hazard waste and treatment in the unit cannot exceed 5,000 gallons or 45,000 pounds in a calendar month.
- **The Conditionally Exempt tier** allows onsite treatment of non-RCRA and RCRA exempt hazardous waste (Health & Saf. Code, §§25144.6, 25201.5(a) & (c), and 25201.14). This is for smaller quantities or less risky waste and treatment methods. It includes Conditionally Exempt Small Quantity Treatment, Conditionally Exempt Specified Waste Streams, Conditionally Exempt Commercial Laundries, and Conditionally Exempt – Limited.

Am I eligible to treat waste under Permit By Rule?

You are eligible to treat waste under PBR if both your waste streams and treatment processes are listed in Cal. Code Regs., tit. 22, §67450.11. A list of these waste streams and treatment processes is included in this fact sheet on pages five through seven. In general, to be eligible:

- You may only treat waste that is generated onsite and treatment must occur in tanks or containers.
- You may **not** treat waste that is reactive or extremely hazardous.
- You may **not** treat waste that requires a federal hazardous waste treatment permit under RCRA.
- You may **not** treat waste in landfills, surface impoundments, injection wells, waste piles, land treatment units, or thermal destruction units.

Permit By Rule Requirements

If you intend to operate under the PBR tier, you must comply with the following requirements:

Notification: You must submit a completed Business Activities Page, Business Owner/Operator/Identification Page, Onsite Hazardous Waste Treatment Notification - Facility Page, and Onsite Hazardous Waste Treatment Notification – Unit Page of the Unified Program Consolidated Form (January 1999) to your CUPA. You must submit the forms a minimum of 60 days before beginning the first waste treatment.

Forms are available from your local CUPA, DTSC, or on the Internet at www.calepa.ca.gov/Publications/Title27/. Complete each notification according to the requirements of Cal. Code Regs., tit. 22, ch. 45, §67450.2(b). Also, sign and date each notification according to the requirements of Cal. Code of Regs., tit. 22, §66270.11. (*Note: Each unit requires a unit specific notification form.*)

If mailed, the forms must be sent by certified mail, with return receipt requested, to your CUPA. You may also submit the form in person. If you wish to submit the forms, you should first contact your CUPA to determine if electronic submissions are possible. Always keep a copy of the completed forms you submit.

Submit an amended notification page whenever there is any change to the information contained in the most recent notification submitted to your CUPA. You must also submit an annual PBR notification by March 1st each year following the first treatment of waste unless otherwise notified by your CUPA, and pay the annual fee when billed. More detailed information on the billing process is on page three.

Generator Operating Standards: Generators conducting PBR treatment must comply with hazardous waste generator standards in Cal. Code Regs., tit. 22, ch.12. These standards are listed in DTSC’s “Hazardous Waste Generator Requirements Fact Sheet” (January 2002) and “Accumulating Hazardous Wastes at Generator Sites Fact Sheet” (January 2002). Copies of these fact sheets are available on DTSC’s Internet Web site at www.dtsc.ca.gov/data-base/Publications/prog_forms.cfm?prog=mhw.

Record Keeping: In addition to the record keeping requirements in the generator standards (Cal. Code Regs., tit. 22, ch.12), you must maintain the following records onsite (Cal. Code Regs., tit. 22, §67450.3(c)):

- A waste analysis plan as specified in Cal. Code Regs., tit. 22, §66265.13(b).
- A written inspection schedule as specified in Cal. Code Regs., tit. 22, §66265.15(b).
- Training documents as specified in Cal. Code Regs., tit. 22, §66265.16(d).
- A contingency plan as specified in Cal. Code Regs., tit. 22, §66265.52.
- A copy of the most recent notification submitted as required by Cal. Code Regs., tit. 22, §67450.2(b)(2) plus CUPA acknowledgment.
- A copy of any local air district permit and other permits required by Cal. Code Regs., tit. 22, §67450.3(c)(8)(F).
- A copy of the closure plan required by Cal. Code Regs., tit. 22, §67450.3(c)(11)(B).
- A copy of documents related to the environmental investigation pursuant to Cal. Code Regs., tit. 22, §67450.7.
- Documentation of any convictions, judgements, settlements, or orders resulting from environmental violations concerning the operation of the facility within the previous three years as part of the notification required by Cal. Code Regs., tit. 22, §67450.2(b)(3)(F).

Financial Assurance: You must prepare a written estimate of the cost to close each treatment unit even if you are claiming to be self-certified. The estimate must represent the actual cost of closing a treatment

unit. The closure cost estimate may take into account using your own staff or personal equipment, any salvage value from the sale of wastes, the sale of the facility structure or equipment, and the sale of the land or other facility assets.

Submit this estimate as an attachment to the Certification of Financial Assurance for Permit by Rule and Conditionally Authorized Operations page(s) of the Unified Program Consolidated Form (x/99). This estimate must be adjusted for inflation by March 1st each year.

If your closure cost is more than \$10,000, you must obtain a financial assurance mechanism for closure of authorized units. Submit the financial assurance mechanism and your initial notification(s) to your CUPA at least **60 days before** commencing the first treatment of waste unless the financial assurance mechanism is not required.

If your closure cost estimate is less than \$10,000.00, you do not need to submit a financial assurance mechanism. However, you must submit to your CUPA or DTSC (in the non-CUPA jurisdiction) a signed statement according to Cal. Code Regs., tit. 22, §66270.11 certifying that the PBR facility has sufficient financial resources to meet the closure cost requirements. *Note: PBR facilities are not required to have third party liability coverage for environmental accidents.*

Fees: If you conduct treatment authorized under PBR, you will be billed a PBR fee. You will be billed annually, until the unit has been certified closed according to Cal. Code Regs., tit. 22, §67450.3(c)(11)(G) and you submit the closure certification to your CUPA. Also, if you operate during any part of a calendar year, you may be billed a PBR fee for the entire year. *Note: Each CUPA may institute a single fee system that allows for a single billing to cover the costs of oversight and inspection of your hazardous waste management (treatment, storage, and disposal) activities.*

Plot Plan: You are required to prepare a plot plan or a map that details where the hazardous waste treatment(s) will occur (see Cal. Code of Regs., tit. 22, §67450.2(b)(3)(B)).

Containers: If you are treating hazardous waste in containers, you must comply with Cal. Code Regs., tit. 22, Chapter 14, §66264.174 and Chapter 15, Article 9, §§66265.170 - 66265.177. This includes secondary containment for all container transfer and storage areas, proper management of the containers to prevent leaks, and weekly inspections of the storage areas.

Tanks: If you are treating hazardous waste in tanks, you must comply with the interim status standards for storage or treatment of hazardous wastes in tanks and tank systems per Cal. Code Regs., tit. 22, chapter 15, Article 10. An integrity assessment is required if your tank system does not have secondary containment meeting the requirements of Cal. Code of Regs., tit. 22, §66265.193. For non-RCRA regulated tanks (onground, aboveground, new or existing), an integrity assessment and secondary containment must be provided before placing the tank into service per Cal. Code Regs., tit. 22, §66265.193(a)(1).

Corrective Action: Corrective Action includes assessing the property for any previous release of hazardous wastes using a Tiered Permitting Phase I Environmental Assessment Checklist (DTSC Form 1151), and cleaning up any contamination that poses a risk to public health and the environment. Health & Saf. Code, §25200.14(a) requires that you submit a Checklist within one year of initial authorization. You should submit the checklist to DTSC and a copy to your CUPA by the applicable deadline. Note: if further investigation is needed, submit a cleanup schedule within 90 days of submission of the checklist. (Cal. Code Regs., tit. 22, §67450.7(c)). A copy of the checklist is available on DTSC's Internet Web site at www.dtsc.ca.gov/HazardousWaste/index.html.

Closure: You are required to prepare and maintain a written closure plan per Cal. Code Regs., tit. 22, §67450.3(c)(11). When you cease operating any treatment unit or process that was authorized under PBR, you must remove or decontaminate all hazardous waste, waste residues, containment system components, soils, and other structures or equipment contaminated with hazardous waste from the unit.

If you permanently cease operation of the unit, you must notify the CUPA in writing that you have properly closed the unit pursuant to Cal. Code Regs., tit. 22, §67450.3(c)(11). This notification should include the following information: company name and address, EPA ID number, tier of authorized unit(s), and date of closure.

In addition, the facility owner or operator and an independent Professional Engineer registered in California must certify that the PBR treatment unit has been closed according to your closure plan and the regulations (see Cal. Code Regs., tit. 22, §67450.3(c)(11)(G)). You will be assessed a PBR fee for operating under PBR each year until you notify your local CUPA that you have closed the treatment unit and until the CUPA has approved your closure.

Security: You must prevent the unknowing entry, and minimize unauthorized entry, of persons or livestock onto the active portion of the facility, unless

- (1) physical contact with the waste, structures, or equipment will not injure unknowing or unauthorized persons or livestock, and
- (2) disturbance of the waste or equipment, by the unknowing or unauthorized entry of persons or livestock onto the active portion of a facility, will not cause a violation of the requirements of Cal. Code Regs., tit. 22, ch. 15.

Otherwise to ensure security, you must provide:

- (1) a 24 - hour surveillance system (e.g., television monitoring or surveillance by guards or facility personnel) which continuously monitors and controls entry onto the active portion of the facility; or
- (2) an artificial or natural barrier (e.g., a fence in good repair or a fence combined with a cliff) which completely surrounds the active portion of the facility; and
- (3) a means to control entry, at all times, through the gates or other entrances to the active portion of the facility (e.g., an attendant, television monitors, locked entrance, or controlled roadway access to the facility) (see Cal. Code Regs., tit. 22, §§66265.14, 67450.3(a)(11)(A) and 67450.3(c)(9)(A)).

Local Land Use/Public Notice Local Land Use/Public Notice

For the purposes of local land use decisions, your facility is not considered a hazardous waste treatment facility if your facility is authorized under PBR. You are also not required to publish a public notice regarding your treatment operation.

Inspection Programs

Your CUPA may inspect your facility at any time. At a minimum, your facility will be inspected within two years of your initial notification, and then every three years thereafter (Health & Saf. Code §25201.4(b)(2)).

Disclosure Requirement

You are not required to provide a full disclosure statement according to Health & Saf. Code, §25112.5. However, you must provide and maintain documentation regarding any convictions, judgments, settlements or orders resulting from environmental violations concerning the operation of the facility within the previous three years as part of your notification. (Cal. Code Regs., tit. 22, §67450.2(b)(3)(F)).

Upcoming Changes

For information regarding upcoming changes, you may consult DTSC's Web site at www.dtsc.ca.gov or your CUPA.

Training Classes

California Compliance School offers a module on Tiered Permitting. The class emphasizes how to comply with hazardous waste management requirements. Call Bakersfield College at 1-800-337-1422, or access the California Compliance School Internet web site at www.compliance.org for information regarding class times, locations, cost, and enrollment instructions. California Compliance School also offers four generator modules, with classes available at central locations Statewide or at your worksite.

PBR Waste Streams

The following are the eligible waste streams and treatment processes for FTUs operating under PBR (Cal Code Regs., §67450.11):

1. Aqueous wastes containing hexavalent chromium

may be treated by the following process: 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 Cal. Code Regs., tit. 22, §66261.24(a)(2), and/or fluoride salts may be treated by the following technologies:
- pH adjustment or neutralization.
 - Precipitation or crystallization.
 - Phase separation by filtration, centrifugation, or gravity settling.*
 - Ion exchange.
 - Reverse osmosis.
 - Metallic replacement.
 - Plating the metal onto an electrode.
 - Electrodialysis.
 - Electrowinning or electrolytic recovery.
 - Chemical stabilization using silicates and/or cementitious types of reactions.
 - Evaporation.*
 - Adsorption.
3. Aqueous wastes with total organic carbon less than ten percent (10%) as measured by EPA Method 9060 described in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods," SW-846, 3rd Edition, U.S. Environmental Protection Agency, 1986, and less than one percent (%) total volatile organic compounds as measured by EPA Method 8260 described in "Test Methods for Evaluating Solid Waste, Physical/Chemical methods," SW-846, 3rd Edition, U.S. Environmental Protection Agency, 1986, may be treated by the following technologies:
- Phase separation by filtration, centrifugation or gravity settling, but excluding super critical fluid extraction.*
 - Adsorption.
 - Distillation.
 - Biological processes conducted in tanks or containers and utilizing naturally occurring microorganisms.

- Photodegradation using ultraviolet light, with or without the addition of hydrogen peroxide or ozone, provided the treatment is conducted in an enclosed system.
 - Air stripping or steam stripping.
4. Sludges, dusts, solid metal objects, and metal workings which contain or are contaminated with metals listed in Cal. Code Regs., tit 22, §66261.24(a)(2) and/or fluoride salts, may be treated by the following technologies:
 - Chemical stabilization using silicates and/or cementitious types of reactions.
 - Physical processes, which change only the physical properties of the waste such as grinding, shredding, crushing, or compacting.
 - Drying to remove water.*
 - 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:
 - Chemical stabilization using silicates and/or cementitious types of reactions.
 - Drying to remove water.*
 - Phase separation by filtration, centrifugation, or gravity settling.*
 6. Wastes listed in Cal. Code Regs., tit. 22, §66261.120, that meet the criteria and requirements for special waste classification in §66261.122 may be treated by the following technologies:
 - Chemical stabilization using silicates and/or cementitious types of reactions.
 - Drying to remove water.*
 - Phase separation by filtration, centrifugation or gravity settling.*
 - Screening to separate components based on size.
 - Separation based on differences in physical properties such as size, magnetism, or density.
 7. Wastes, except asbestos, which have been classified by DTSC as special wastes pursuant to Cal. Code Regs., tit. 22, §66261.124, may be treated by the following technologies:
 - Chemical stabilization using silicates and/or cementitious types of reactions.
 - Drying to remove water.*
 - Phase separation by filtration, centrifugation, or gravity settling.*
 - Magnetic separation.
 8. Inorganic acid or alkaline wastes may be treated by the following:
 - pH adjustment or neutralization.
 9. Soils contaminated with metals listed in Cal. Code Regs., tit. 22, §66261.24(a)(2), may be treated by the following technologies:
 - Chemical stabilization using silicates and/or cementitious types of reactions.
 - Screening to separate components by size.
 - Magnetic separation.
 10. Used oil, as defined in Health & Saf. Code, §25250.1, unrefined oil waste, mixed oil, oil mixed with water and oil/water separation sludges may be treated by the following technologies:
 - Phase separation by filtration, centrifugation, or gravity settling, but excluding super critical fluid extraction.*
 - Distillation.
 - Neutralization.
 - Separation based on differences in physical properties such as size, magnetism, or density.
 - Reverse osmosis.
 - 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 Cal. Code Regs., tit. 22, §66261.7 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:
 - Chemical stabilization using silicates and/or cementitious types of reactions.
 - Drying to remove water.*
 - Phase separation by filtration, centrifugation, or gravity settling.*
 - Magnetic separation.

- Rinsing with a suitable liquid capable of dissolving or removing the hazardous constituents which the container held.
- 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 as provided by Cal. Code Regs., tit. 22, §67450.11(a)(11)(A) and the rinseate is removed from the container or inner liner.

12. Multi-component resins may be treated by the following process:

- Mixing the resin components together in accordance with the manufacturer's instructions.

13. A waste stream and treatment technology combination certified by DTSC pursuant to Health & Saf. Code §25200.1.5 as appropriate for authorization under Permit by Rule.

** Note: Authorizations or permits are not required if the owners or operators of the FTU conduct activities exempted under the definition of treatment (see page seven for the definition of treatment).*

Definitions

Certified Unified Program Agency (CUPA): A CUPA is a local agency, such as a county, city, or Joint Powers Agency, that is certified by the Secretary (Secretary for Environmental Protection) to implement the Unified Program within a jurisdiction as specified in ch. 6.11 of the Health & Saf. Code. The CUPAs are responsible for consolidating, coordinating, and making consistent many environmental programs.

Fixed Treatment Unit (FTU): An FTU is any equipment that performs hazardous waste treatment that is permanently stationed at a single facility regardless of the period or frequency of treatment.

Onground tank: A device meeting the definition of "tank" that is situated in such a way that the bottom of the tank is on the same level as the adjacent surrounding surface so that the external tank bottom cannot be visually inspected (see Cal. Code Regs., tit. 22, §66260.10).

Transportable Treatment Unit (TTU): A TTU is any mobile equipment which performs treatment, is transported to a facility to perform a treatment, and is not permanently stationed at a single facility.

Treatment: Any method, technique, or process which is not otherwise excluded or which is designed to change the physical, chemical, or biological character or composition of the hazardous waste or material contained therein, or which removes or reduces its harmful properties or characteristics for any purpose. If the activity that you are conducting is consistent with this definition, you are required to obtain a permit or a grant of authorization through your CUPA. However, if your activity is not considered regulated treatment, you do not need a permit or grant of authorization. The following activities do not require a permit or a grant of authorization (see Health & Saf. Code, §25123.5):

- 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 (sieving or filtering does not include adsorption, reverse osmosis, or ultra-filtration).
- 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. If the phase separation occurs at a commercial offsite permitted storage facility, all phases of the hazardous waste must be managed as hazardous waste after separation.
- Combining two or more waste streams that are compatible into a single tank or container if both of the following conditions apply:
 - (1) The waste streams are being combined solely for the purpose of consolidated accumulation or storage or consolidated offsite shipment, and they are not being combined to meet a fuel specification or to otherwise be chemically or physically prepared to be treated, burned for energy value, or incinerated.
 - (2) The combined waste stream is managed in compliance with the most stringent of the regu-

latory requirements applicable to each individual waste stream.

- Evaporating water from hazardous wastes in tanks or containers, such as breathing and evaporation through vents and floating roofs, without adding pressure, chemicals, or heat other than sunlight or ambient room lighting or heating.
- Combining glutaraldehyde or orthophthalaldehyde, used by medical facilities to disinfect medical devices, with formulations containing glycine as the sole active chemical, if the process is carried out onsite. (This activity is only allowed by medical facilities.)

Unified Program: The Unified Hazardous Waste and Hazardous Materials Management Regulatory Program is commonly referred to as the Unified Program. Under ch. 6.11 of the Health & Saf. Code, the Unified Program consolidated several major environmental management and emergency management programs at the local government level to help businesses comply if subject to waste management requirements.

Unit: A unit is a tank, a container, or a combination of tanks or tank systems or containers located together that are used in sequence to treat one or more compatible hazardous waste streams. The devices are either plumbed together or otherwise linked so as to form one treatment system (see Cal. Code Regs., tit. 22, §66260.10).

Disclaimer

This fact sheet does not replace or supersede relevant statutes and regulations. The information contained in this fact sheet is based upon the statutes and regulations in effect as of the date of the fact sheet. Interested parties should monitor changes to relevant statutes and regulations.

For more information, please contact the DTSC office nearest you, or call the regional Public and Business Liaisons at (800) 72TOXIC (1-800-728-6942).

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