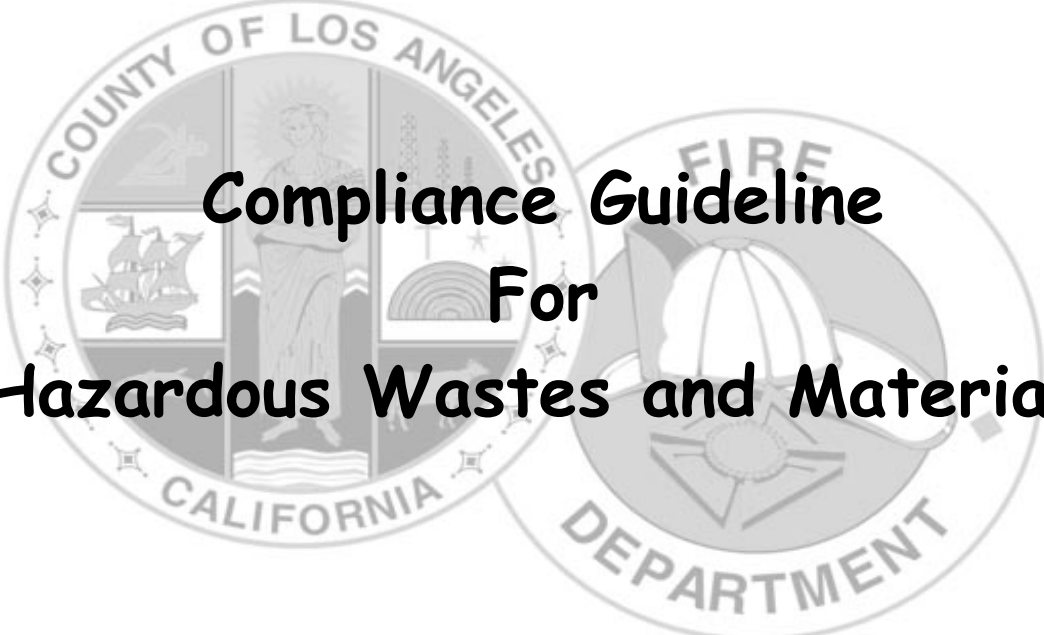


County of Los Angeles
Fire Department
Health Hazardous Materials Division



**Compliance Guideline
For
Hazardous Wastes and Materials**



County of Los Angeles Fire Department
Prevention Bureau
Health Hazardous Materials Division
5825 Rickenbacker Road
Commerce, CA 90040
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Revised 12/3/09

ACKNOWLEDGEMENTS

Compliance Guideline for Hazardous Wastes and Materials is a publication created by the Health Hazardous Materials Division (HHMD) of the Los Angeles County Fire Department. Its purpose is to assist the Industry and the general public in understanding hazardous wastes and hazardous materials, and to assist the reader in complying with the law.

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HHMD and DPW staff hopes that you find this booklet a useful tool in navigating the world of Hazardous Materials and Hazardous Wastes.

This document is intended to provide regulatory guidance only. This does not replace or supersede relevant statutes and regulations. The information contained in this guidance document is based upon the statutes and regulations in effect as of the revision date. Interested parties are advised to keep apprised of subsequent changes to relevant statutes and regulations.

If you have any questions or require any additional information, please contact one of our Hazardous Materials Specialists at (323) 890-4045.

This booklet provides guidelines for compliance with regulations for the following programs:

- Hazardous Waste Generator Program (including onsite treatment under tiered permitting)
- Aboveground Petroleum Storage Tank Program
- Underground Storage Tank (UST) Program
- Hazardous Material Release Response Plans and Inventory Program
- California Accidental Release Prevention (CalARP) Program
- Uniform Fire Code Hazardous Material Management Plans and Inventories Program

The agency responsible for administering the majority of the content of this booklet within Los Angeles County is the Los Angeles County Fire Department as the Los Angeles County Certified Unified Program Agency (CUPA).

The Los Angeles County CUPA has jurisdiction in all unincorporated and incorporated areas of Los Angeles County, with the exception of the following cities, where the City's Fire Department is the CUPA:

- El Segundo
- Glendale
- Los Angeles
- Long Beach
- Santa Fe Springs
- Santa Monica and
- Vernon.

These cities administer all of the above programs with the exception of Los Angeles and Santa Monica, where the Los Angeles County CUPA administers only the Hazardous Waste Generator Program for them. See Appendix A for contact information for these cities.

Within the Los Angeles County CUPA's jurisdiction, one or more of the above programs are administered by Participating Agencies (PAs): the County of Los Angeles Department of Public Works, Environmental Programs Division; the County of Los Angeles Agricultural Commissioner/Weights & Measures; and the City Fire Departments of Alhambra, Burbank, Compton, Culver City, Downey, Monrovia, Pasadena, Redondo Beach, South Pasadena, and Torrance. See Appendix B for programs administered and contact information for these agencies.

The City of Signal Hills that used to be under the Long Beach CUPA has contracted with the Los Angeles County CUPA for the administration of their Hazardous Waste and Hazardous Materials programs.

The Los Angeles County CUPA is a PA for the Orange County CUPA for the administration of the Hazardous Materials programs in the City of La Habra.

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CHAPTER 1

HAZARDOUS WASTE GENERATOR PROGRAM TIERED PERMITTING

HAZARDOUS WASTE GENERATOR PROGRAM

What is a Hazardous Waste?

Hazardous waste is broadly defined as a waste or combination of wastes, which because of its quantity, concentration, or physical or chemical characteristics may either:

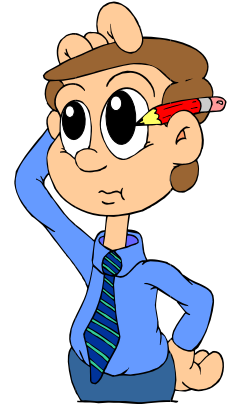
- 1) Cause or significantly contribute to an increase in mortality or an increase in serious irreversible illness; or
- 2) Pose a substantial present or potential hazard to human health or environment when improperly treated, stored, transported, or disposed of, or otherwise managed.

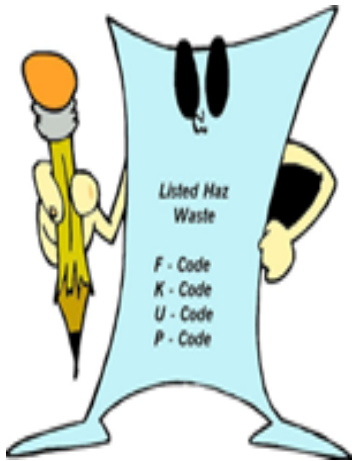
Hazardous waste can be a solid, semi-solid, liquid or a contained gaseous substance that may have one or more of the following properties:

- Ignitability
- Toxicity
- Reactivity
- Corrosivity
- Persistence or Bioaccumulation
- Carcinogenicity

In California, hazardous waste is classified as either RCRA or non-RCRA. "RCRA" is the acronym for the Resource Conservation and Recovery Act, which was enacted in 1976 to address the huge volumes of municipal and industrial solid wastes generated nationwide. It is important to differentiate between RCRA and non-RCRA waste because the appropriate code numbers must be assigned and used for various legal purposes such as filling out transportation papers (manifests), disposal fees, and treatment determinations.

RCRA wastes are federally regulated and non-RCRA wastes are those determined by the State to be hazardous—even though the federal government has not. California has adopted RCRA hazardous wastes from the United States Environmental Protection Agency (USEPA)'s RCRA program [Title 22 of the California Code of Regulations (22 CCR), §66261.100]. Thus, California's hazardous waste universe is larger than the federal's. This is an example of state regulations being more stringent than the federal regulations.





The RCRA hazardous waste category is divided into two groups:

- Listed hazardous wastes (F, K, P, and U waste codes); and
- Characteristics hazardous waste (D waste codes).

Listed Hazardous Wastes

Listed hazardous wastes include wastes from generic industrial processes, wastes from certain sectors of industry, and unused pure chemical products and formulations. Any waste fitting this description may be considered a listed hazardous waste. These listed wastes are specified in 22 CCR §§66261.31-66261.33. These hazardous waste listings consist of four lists:

F Code Wastes: Multiple-use or non-specific source wastes (e.g., spent solvents).

K Code wastes: Industry-specific source wastes (e.g., wastewater sludge from the production of creosote).

U Code wastes: Discarded commercial chemical products (e.g., acetone).

P Code wastes: Acutely hazardous commercial chemical products and off-specification commercial products (e.g., pesticides).

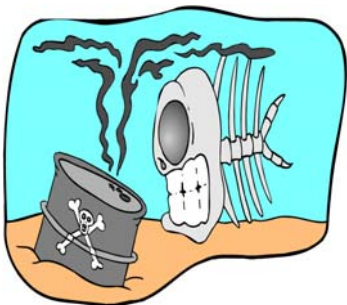
A listed waste or any waste mixed with a listed waste is a RCRA hazardous waste.

Characteristic Hazardous Wastes

Characteristic hazardous wastes are wastes that exhibit certain measurable and/or observable properties and are designated as D code wastes. Four characteristics are used to determine whether a waste is hazardous (22 CCR §§66261.21-66.261.24):

Ignitability
Corrosivity
Reactivity
Toxicity

These four hazardous waste characteristics are defined below:



Ignitability (22 CCR §66261.21): Ignitable wastes can readily catch fire and sustain combustion. Many paints, cleaners, and other liquid industrial wastes pose such a hazard. A waste is ignitable if the following apply:

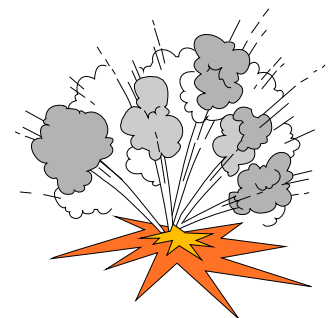
- Has a flash point less than 140 degrees F,
- Is readily ignitable, or
- Is an oxidizer (as defined in the Title 49 of the Code of Federal Regulations (49 CFR))

A non-liquid waste is considered ignitable if it can spontaneously catch fire or catch fire through friction or absorption of moisture under normal handling conditions and can burn so vigorously that it creates a hazard. Examples of non-liquid wastes that might be ignitable are metal or mineral dusts (e.g., aluminum, magnesium, or phosphorus). Ignitable wastes have the waste code D001 and are among the most common hazardous wastes.

Corrosivity (22 CCR §66261.22): Corrosive wastes are acidic (low pH) or basic (high pH). Such wastes can readily corrode or dissolve flesh, metal, or other materials. Liquid wastes or non-liquid wastes (when mixed with water) exhibit the characteristic for corrosivity, if they have a pH less than or equal to 2 ($\text{pH} \leq 2$) or greater than or equal to 12.5 ($\text{pH} \geq 12.5$). If a liquid waste corrodes steel at a rate greater than 0.25 inches per year, the waste is corrosive and is thus hazardous. Examples of corrosive wastes are caustic hot tank liquid wastes and metal finishing process tank wastes. Corrosive wastes have the waste code D002.

Reactivity (22 CCR §66261.23): Reactive wastes readily explode or undergo violent reactions. Reactive waste can exhibit one or more of the following properties:

- Are normally unstable and readily undergo violent change without detonating,
- React violently with water,
- Generate toxic gases when mixed with water,
- Are cyanide or sulfur bearing wastes which, when exposed to pH conditions between 2 and 12.5, can generate toxic gas,
- Are capable of detonation or explosion if heated or placed under confinement,
- Are readily capable of detonation, explosive decomposition, or reaction at standard temperature and pressure,
- Are forbidden explosives (49 CFR §173.51), Class A explosives (49 CFR §173.51), or Class B explosives (49 CFR §173.88).





Examples of reactive wastes are picric acid, sodium metal, and cyanide. Wastes exhibiting the characteristics of reactivity have the waste code D003.

Toxicity: A waste which exhibits the characteristic of toxicity has a potential to harm humans when eaten, inhaled or touched. Toxic waste can also negatively affect the environment. Most people associate toxic waste with poisons. However, the criterion for toxic waste determination and classification is complex and confusing to most people.

To determine if a waste is toxic, toxicologists conduct test to evaluate:

- Whether the waste can build up in an organism's body until it reaches a concentration that causes a disease or a disorder.
- Whether the waste can leach through a municipal solid waste landfill and potentially contaminate groundwater.
- Whether a specific concentration of the waste will kill one-half of the laboratory animals exposed to it. Laboratory animals obviously are used in lieu of testing the substance directly on humans. These results are then extrapolated to human exposures.



Toxicity Criterion

There are various aspects to the toxic waste criterion.

There is also a difference in how the federal and state regulations address the toxicity characteristic of wastes. The federal regulations are concerned with known toxic constituents that may potentially leach from landfill wastes and impact groundwater, thus potentially affecting human health and the environment. State regulations have the same emphasis, but the state also sets forth criteria for testing of toxic waste that are not solely dependent on discrete toxic constituents. Rather, the toxic effect of the waste as a "whole" is evaluated.

Federal Toxicity Characteristic: When waste is disposed of in a municipal solid waste landfill, toxic constituents can potentially

leach from the waste and affect groundwater, thus potentially exposing users of the water to the toxic constituents. In order to predict whether any particular waste is likely to leach toxic chemicals into the groundwater at “harmful” concentrations, the USEPA designed a lab procedure to replicate the leaching process and other conditions that occur when wastes are buried in a typical municipal landfill. This lab procedure is known as the Toxicity Characteristic Leaching Procedure (TCLP). By applying the TCLP to a hazardous waste sample, a leachate is created that is similar to the leachate generated by a landfill containing a mixture of household and industrial wastes.

When a leachate is created from a generator’s hazardous waste sample by the TCLP, it is then tested for concentrations of certain hazardous chemicals.

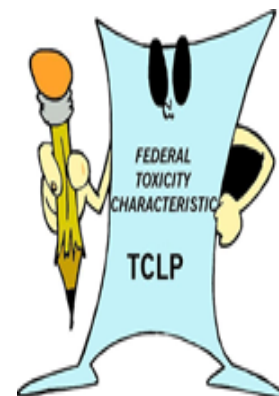
The USEPA has specified regulatory levels (concentrations) for 40 toxic chemicals. These regulatory levels are based on groundwater modeling studies and toxicity data that calculate the limit above which these common toxic compounds and elements will threaten human health and the environment.

If a leachate sample from a generator’s hazardous waste contains a concentration that is equal to or above, the federal regulatory limit for one of the specified chemicals, the waste exhibits the federal toxicity characteristic and therefore is a RCRA hazardous waste.

The federal regulations describing the toxicity characteristic and listing the 40 chemicals and their associated regulatory levels (concentrations) are in Title 40 of the Code of Federal Regulations (40 CFR) §261.24. These same regulations have also been adopted by California in 22 CCR §66261.24(a)(1).

Persistent and Bioaccumulative Toxic Substances: Similar to the federal toxicity characteristic, the state has identified an additional 20 inorganic constituents and 18 organic constituents as persistent and bioaccumulative toxic substances [22 CCR §66261.24(a)(2)]. The state leachate extraction procedure is different than the federal method, and the state toxic constituents are evaluated on their total concentrations and/or soluble concentrations.

Every persistent and bioaccumulative toxic substance is assigned a *Total Threshold Limit Concentration (TTLC)* value and a *Soluble Threshold Limit Concentration (STLC)* value. *If a sample from a generator’s hazardous waste has a total concentration that equals or exceeds the assigned TTLC or STLC value for one of the specified chemicals, the waste is a persistent and bioaccumulative*



toxic substance and is, at a minimum, a non-RCRA hazardous waste.

Depending on the type and concentration of the toxic constituent(s), a waste can be characterized as both a RCRA and non-RCRA hazardous waste for the characteristic of toxicity.

Acute Toxicity: Acute toxicity is the dose or concentration of a substance or mixture of substances (e.g., waste) that, when administered (exposure testing) to a test population (e.g., laboratory rats) for a pre-determined duration of time, produces a percentage of population death.

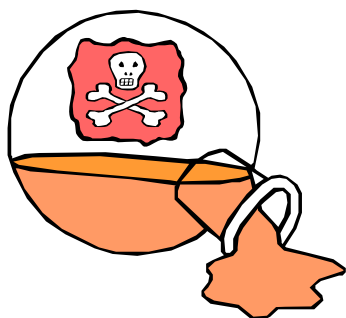


The state regulations specify four acute toxicity criteria:

- Oral Toxicity [22 CCR §66261.24(a)(3)]
- Dermal Toxicity [22 CCR §66261.24(a)(4)]
- Inhalation Toxicity [22 CCR §66261.24(a)(5)]
- Acute Aquatic Toxicity [22 CCR §66261.24(a)(6)]

These four acute toxicity criteria are defined as follows:

- *Acute Oral Lethal Dose (LD₅₀)* is the dose of a substance or mixture of substances, in milligrams per kilogram of test animal body weight, which, when administered orally as a single dose, produces death within 14 days in half of a group of 10 or more laboratory white rats. According to state law, *waste is hazardous* if the oral LD₅₀ < 2,500 mg/kg [Health and Safety Code (HSC) §25141.5].
- *Acute Dermal LD₅₀* is the dose of a substance or mixture of substances, in milligrams per kilogram of test animal body weight, which, when applied continuously to the bare skin for 24 hours, produces death within 14 days in half of a group of 10 or more rabbits. *Waste is hazardous* if the dermal LD₅₀ < 4,300 mg/kg.
- *Acute Inhalation LC₅₀* is the concentration of a substance or waste that produces death in half the group of test animals within 14 days. *Waste is hazardous* if the inhalation LC₅₀ < 10,000 parts per million (ppm).



- *Aquatic Toxicity LC₅₀* (a.k.a. Fish Bioassay) is the concentration of a substance or mixture of substances in water, which produces death within 96 hours in half of a group of flathead minnows, rainbow trout or golden shiners. *Waste is hazardous* if the aquatic exposure LC₅₀ < 500 mg/liter.

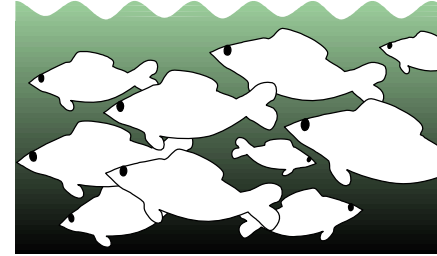
Carcinogenicity [22 CCR 66261.24(a)(7)]: Waste is defined as toxic if it contains constituents that are known carcinogens (i.e., cause cancer). The state regulations list 16 carcinogenic substances. Waste is defined as hazardous if any of the listed carcinogens are present at a single or combined concentration equal to or exceeding 0.001 percent by weight (10 ppm).

Acutely and Extremely Hazardous Waste: Acutely and extremely hazardous wastes are more hazardous than ordinary hazardous wastes by orders of magnitude.

Acutely Hazardous Wastes are defined federal listed waste (i.e., P listed waste [in Article 4 of Chapter 11 of 22 CCR]).

Extremely Hazardous Wastes are wastes that met the one of the following criteria [22 CCR §§66261.110 and 66261.113]:

- *Acute Oral Toxicity:* LD₅₀ < 50 mg/kg.
- *Acute Dermal Toxicity:* LD₅₀ < 43 mg/kg.
- *Acute Inhalation Toxicity:* LC₅₀ ≤ 100 ppm.
- *Carcinogenicity:* Same list of 16 carcinogenic substances as described above at a single or combined concentration equal to or exceeding 0.1 percent by weight.
- *Water Reactive* [22 CCR §66261.110]: When contacted by water, reacts violently, generating extreme heat, burning, exploding, or rapid reaction.
- *Persistent and Bioaccumulative Toxic Substances* [22 CCR §66261.113]: Wastes that have total concentrations of persistent and bioaccumulative toxic substances that exceed the extremely hazardous waste TTLC values. The list of chemicals and their associated TTLCs differ from the hazardous waste list and TTLCs described above.



Who qualifies as a Hazardous Waste Generator?

Generator Defined



A hazardous waste generator is a person, including a business, that produces or generates a hazardous waste or whose act first causes a hazardous waste to become subject to regulations (22 CCR §66260.10).

Hazardous waste generators are subject to specific requirements of the hazardous waste law and regulations, which are found in HSC, Div. 20, Chp. 6.5 and 22 CCR, Div. 4.5, Chp. 12, respectively. All generators within the jurisdiction of the HHMD are also subject to the requirements in Title 12 of the Los Angeles County Code. These requirements specify that it is the responsibility of the generator to:

- Make a hazardous waste determination.
- Obtain an EPA (Environmental Protection Agency) ID number.
- Manage hazardous wastes in compliance with laws and regulations.
- Maintain thorough and accurate records and report hazardous waste activities.
- Prevent and prepare for emergencies involving hazardous wastes.
- Prepare hazardous wastes for transportation.
- Select legal and appropriate treatment and disposal options.
- Have a waste reduction program in effect.
- Obtain any required permits and pay the fees associated with hazardous waste activities.



Hazardous waste generators are responsible for the safe and legal handling of all their hazardous wastes from generation through accumulation, recycling, transportation, storage, treatment, and disposal. [Note: Also see Household Hazardous Waste.]

Categories of Hazardous Waste Generators

- **Conditionally Exempt Small Quantity Generators (CESQG):** A business which generates 100 kg (220 pounds or approximately 27 gallons) or less of hazardous waste per month.
- **Small Quantity Generators (SQG):** A business which generates between 100 kg and 1,000 kg (between 220 and 2,200 pounds, or between approximately 27 and 275 gallons) of hazardous waste per month.

- **Large Quantity Generators (LQG):** A business, which generates 1,000 kg (2,200 pounds or approximately 275 gallons) or more of hazardous waste per month.

Hazardous Waste Determination

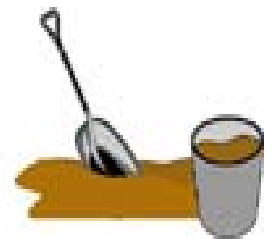
It is the hazardous waste generator's responsibility to determine if a waste is hazardous or not [22 CCR §66262.11]. The information a generator may use to classify a waste includes: (1) knowledge of materials and processes used (e.g., material safety data sheets and process flow diagrams) and (2) analytical testing data (i.e., hazardous waste analysis). If a generator is unfamiliar with their chemical processes and/or they cannot adequately explain whether an associated waste stream is hazardous or not, then a hazardous waste analysis should be conducted. This entails collecting representative samples of the waste and having it chemically analyzed at a state-certified environmental laboratory. A generator is subject to enforcement action if hazardous waste is misclassified as non-hazardous waste [22 CCR §66260.20].



Sample Collection

Sampling and sample management of wastes for analysis should be in general accordance with USEPA Publication SW-846, which specifies sampling and analytical methods mandated by hazardous waste regulation. Before sampling a waste, the generator should “plan” for sampling. Meaning, the generator needs to know why a sample is being taken, exactly what sample to take, and how to take it.

Representative Samples: When collecting waste samples, the generator must be sure to collect representative samples that can be expected to exhibit the average properties of the whole waste. The number of samples to be collected is dependent on the type and quantity of the waste, and the type and purpose of the sampling. If it is known that the waste is not variable (i.e., the waste chemical types and concentrations are consistent throughout the media to be sampled), then one sample point may be considered.



If a waste is variable, and waste chemical type and/or concentration differs within the media to be sampled, then more planning is required and more sampling points should be incorporated. For instance, a drum or tank may contain distinct “phases”, with solids resting on the bottom and organic floating on the surface (sampling technique and equipment would be critical in this case) or wastes flowing from a process may vary in chemical

concentration as it leaves the process (it would be important to take several samples over time to obtain a representative sample). These separate samples could be mixed into one sample container to submit to the laboratory, or the laboratory can mix the samples together upon receipt. Provisions must be made to ensure that the sample(s) submitted to the laboratory contains a proportional part of the “whole.” SW-846, Chapter 9 gives good guidance on sampling protocols.



Sampling Containers and Equipment: When collecting waste samples, the generator must place the waste in appropriate laboratory-grade sampling containers using clean and appropriate sampling utensils (e.g., disposal plastic scoops). After the samples are collected, the samples should be placed in a refrigerated ice chest for transportation to the laboratory. The laboratory contracted to analyze the waste samples usually supplies the appropriate sample containers and equipment. Sometimes, for an additional fee, the laboratory can also provide a sampler to collect the waste samples as directed by the generator. In any sampling activity, the protocol for chain of custody should always be observed.

Waste Analysis

The reason the generator tests waste is to determine whether it is hazardous or not. A waste is hazardous if it exhibits any of the four characteristics of hazardous waste, which include ignitability, corrosivity, reactivity and toxicity (there are other criteria that defines a waste as hazardous, however, this information exceeds the scope of this guidance document). Therefore, the generator needs to know what to analyze the waste for prior to collecting the samples. Descriptions of the characteristic hazardous wastes and the associated analytical tests are presented below, except for reactive waste. Reactive waste [22 CCR §66261.23] is usually associated with pure or relatively pure compounds that have obvious reactivity characteristics (e.g., explode or create toxic fumes under common handling conditions). Also, in some cases, there are no reliable test methods for reactive waste. Generation of cyanide or sulfides is a major reactivity criterion



Ignitable Waste: Waste that may readily catch fire and sustain combustion is potentially ignitable waste [22 CCR §66261.21]. This waste should be analyzed for flash point (for liquid waste) or rate of combustion (for non-liquids). Examples of ignitable waste include spent fuel (e.g., gasoline) and waste solvent (e.g., petroleum naphtha).

Corrosive Waste: Waste that is acidic or alkaline that may readily corrode or dissolve materials they come in contact with, is

potentially corrosive waste [22 CCR §66261.22]. This waste should be analyzed for pH and/or rate of steel corrosion. Examples of corrosive waste include spent acid (e.g., sulfuric acid) and waste caustic rinse water (e.g., contains sodium hydroxide).

Toxic Waste: Waste that may cause deleterious health or environmental effects (e.g., carcinogen) is potentially toxic waste [22 CCR §66261.24]. There are numerous constituents that can make a waste toxic; therefore, toxic waste streams are abundant and diverse. Such wastes can contain heavy metals (e.g., lead), volatile organic compounds (VOCs), semi-volatile organic compounds, and various other organic constituents (e.g., herbicides and pesticides). There are several analytical methods that can be used to identify toxic constituents. This should be discussed with regulators, if a correction notice has been issued. The certified laboratory can be a valuable resource, as well.

If the constituents of the waste are unknown or potentially exhibit an adverse synergistic effect, an aquatic toxicity fish bioassay test could be run to determine the acute toxicity of the waste. Examples of toxic waste include metal polishing dust (e.g., copper, zinc and chrome), spent plating solution (e.g., chromium and cyanide), waste dry cleaning solvent (e.g., perchloroethylene), used oil, waste anti-freeze (e.g., ethylene glycol), and waste paint (e.g., contains potential VOCs and metals).

Once the laboratory has reported the analytical results, they must be interpreted to determine if the waste is hazardous. Most laboratories will cross-index the analytical results with regulatory limits.

Certified Environmental Laboratories

The waste samples should be taken to a state-certified environmental laboratory accompanied with chain-of-custody documentation, which identifies the waste samples, analytical tests, laboratory, and which is signed by the sample collector(s), transporter, and laboratory representative. There are numerous certified laboratories in Los Angeles County, which are summarized on the HHMD's "List of State-Certified Environmental Laboratories for Hazardous Waste Analysis Services." Contact your area inspector for a copy of the list. A listing of all state-certified environmental laboratories can be obtained from the California Department of Public Health, Environmental Laboratory Accreditation Program website:

<http://www.cdph.ca.gov/certlic/labs/Pages/default.aspx>.



General Hazardous Waste Management Requirements

The EPA ID Number

It is a violation to treat, store, dispose, transport, or offer for transportation hazardous waste without having an EPA ID Number. This number is site specific and identifies the generator to the California EPA, Department of Toxic Substances Control (DTSC) and the USEPA. "Site specific" means that every address that generates hazardous waste needs its own number. A contiguous property is considered the same site, whereas a secondary location not directly accessible to the first is a separate site. Each facility where hazardous waste is generated requires its own EPA ID number. A company with more than one site where hazardous waste is generated requires a separate ID number for each site. These numbers cannot be transferred from one facility to another.

To determine whether a federal or state EPA ID number is required, a generator must first determine the type and quantity of waste generated.

- If more than 1 kg of RCRA acutely hazardous wastes or more than 100 kg of other RCRA hazardous waste is generated per month, a *federal* EPA ID number must be obtained.
- If 1 kg or less of RCRA acutely hazardous wastes or 100 kg or less of other RCRA hazardous wastes is generated per month, a *state* EPA ID number should be obtained.

All generators, other than CESQGs who generate silver-only wastes from photo developing, must have an EPA ID number before a licensed transporter arrives at the generating facility for hazardous waste pickup and offsite transport.

To obtain a permanent state EPA ID Number, a generator must complete and submit an application form, which can be obtained by calling the DTSC at (800) 618-6942 or from the [DTSC website](#).

To obtain a federal EPA ID Number, a generator must complete and submit an application form, which can be obtained by calling the USEPA at (415) 495-8895 or from the [USEPA website](#).

Note: Some of the following requirements and/or cited section numbers apply to LQGs. The corresponding requirements and/or section numbers for CESQGs and SQGs can be found at 40CFR, Part 265.



Container Management

To comply with the container management requirements [22 CCR, Chapter 14 & 15, Article 9], containers need to be:

- In good condition, i.e., structurally sound, with tight fitting lids (§66265.171). Leaking container contents must be transferred to containers that are in good condition.
- Either made of a material that is compatible with waste contained or lined with a compatible material (§66265.172).
- Kept “closed” unless adding or removing hazardous waste (§66265.173(a)).
- Maintained in a manner to allow for adequate aisle space (22 CCR, Chapter 14, Article 3, §66265.35).
- Safely handled to avoid punctures (§66265.173[b]).
- Inspected weekly (§66264.174).
- Properly labeled (22 CCR, Chapter 12, Article 3), §66262.34 (f) (1-3).
- Ignitable or reactive wastes must be kept at least 15 meters (50 feet) from the property line (§66265.176).
- Incompatible wastes and materials must not be stored in close proximity to each other [§66265.177 (a) & (c)].

Hazardous Waste Accumulation Areas: The area(s) your facility use to accumulate hazardous wastes (e.g. wherever hazardous waste containers are located or stored) must also meet certain requirements and be managed in a safe and environmentally sound manner. This Title 22, CCR requirements include:

- Maintaining enough aisle space between containers or rows of containers to allow for easy inspections and access by emergency personnel in the event of a leak;
- For wastes that react with each other, the containers should be physically separated (by curbs, or in separate containment pallets) during storage;
- Accumulating/storing the waste containers on a surface that is free of cracks and gaps, and which is resistant to leaks or spills. Using fiberglass, steel or other type of secondary containment pallets are an excellent way to meet this requirement;
- Maintaining certain emergency equipment in the area. This includes fire extinguishers, spill control supplies, safety shower/eyewash, and emergency communication devices (such as a telephone or an alarm);



- Posting appropriate warning signs (such as “Caution – Hazardous Waste Storage Area,” “NO Smoking,” etc.);
- Maintaining reasonable area security so that only properly trained personnel have access to hazardous waste containers.

Incompatible Waste: Hazardous waste regulation requires that hazardous waste must be separated from incompatible materials. Additionally, the fire code requires that incompatible materials must be stored separately (See Chapter on Hazardous Materials Management Program for management and separation of incompatible materials).

Empty Container Management: If a container that previously held hazardous waste meets the regulatory definition of “empty” and established management practices are met, then the “empty” container is exempt from further hazardous waste regulations.



In order for a container to be considered legally empty all the following apply:

- All material must be removed, to the best extent possible, from the container.
- For containers that held a material that can be readily poured, all material must be removed by any practicable means (including pumping, aspirating and draining) before the container can be considered empty.
- For containers that previously held materials that are non-pourable, no hazardous material shall remain in the container that can feasibly be removed by physical methods including scraping and chipping. This applies to materials that pour slowly or don't pour at all from the container, including, but not limited to, viscous materials, solids that have “caked up” inside the container, and nonpourable sludge.
- Containers that held acute or extremely hazardous waste are considered empty if the container has been triple rinsed using a solvent capable of removing the material or cleaned by another method that is proven to achieve equivalent removal to triple rinsing.

In order to retain the exemption from regulation, “empty” containers shall be managed pursuant to the following management practices:

- Empty containers larger than five gallons in capacity shall be marked with the date they were emptied and shall be managed

within one year of being emptied by one of the following methods:

- By reclaiming the container's scrap value onsite by sending the container to a person who reclaims the container's scrap value;
- By reconditioning or remanufacturing the container onsite, or by shipping the container to a person who reconditions or remanufacture the container;
- If the container has been shipped offsite, the name, street address, mailing address, and telephone number of the facility where the empty container has been shipped, shall be maintained for three years.

Empty containers of five gallons or less in capacity can be discarded in the municipal solid waste stream (i.e., trash).

Tank Management

Generators who accumulate hazardous waste in tanks must meet the following requirements:

Inspection of Tank Systems: Generators must perform and document inspections of the following items at least once each operating day:

- Overfill/spill control equipment to ensure good working order;
- Aboveground portions of the tank system, if any, to detect corrosion or leaks;
- Data gathered from monitoring equipment and leak detection equipment (e.g. pressure and temperature gauges, monitoring wells, etc.) to ensure that the tank system is being operated according to its design;
- Construction materials and the area immediately surrounding the externally accessible portions of the tank system including secondary containment structures to detect erosion or signs of leaks;
- For uncovered tanks, the level of waste in the tank to ensure compliance with freeboard requirements.

Tank operating Requirements: Tanks holding hazardous waste must be provided with the following:

- Spill prevention controls (e.g. check valves, etc.);
- Overfill prevention controls (e.g. level-sensing devices, high level alarms, automatic feed cutoff, bypass to a standby tank, etc.);



- In the case of uncovered tanks, at least 2 feet of freeboard to prevent overtopping by wave or wind action or by precipitation.

[Exception: This freeboard requirement does not apply if the tank is equipped with a containment structure (e.g. dike, trench, etc.), drainage control system, or diversion structure (e.g. standby tank) with a capacity equal to or greater than the volume of the top 2 feet of the tank.]

Additional Hazardous Waste Tank System Requirements:



Integrity assessment/existing tank systems— An existing tank system that lacks secondary containment must have an integrity assessment to ensure it is not leaking or unfit for use. The written assessment must be reviewed and certified by a professional engineer.

New tank system assessment – Prior to placing into service, a new tank system must undergo an integrity assessment. The written assessment must be reviewed by a professional engineer.

Containment and detection of releases – Secondary containment systems must be designed and operated to prevent the movement of wastes out of the tank system to the soil, groundwater or surface water. They must be capable of detecting and collecting releases.

Response to leaks or spills – A tank system or secondary containment system from which there has been a leak or spill, or which is unfit for use, shall be removed from service immediately, and the following requirements shall be satisfied:

- Implementation of general emergency procedures;
- Cessation of use; prevention of flow or addition of wastes;
- Removal of waste from tank or secondary containment system;
- Contain visible releases to the environment;
- Appropriate notifications/reports
- Provide secondary containment, repair, or close.

Closure – A hazardous waste tank system must be closed by:

- Removing and decontaminating all waste residues, contaminated tank systems, and soil;
- Identifying , managing and disposing of any hazardous wastes;
- Submission of a completed “Hazardous Waste Tank Closure Certification” form to the CUPA.

(Note: Post-closure requirements apply if not all contaminated soils can be practicably removed or decontaminated).

Secondary Containment: The generator must provide secondary containment for hazardous waste tanks unless a variance is obtained or the tank system is inside a building with impermeable floor and the waste has no free liquids.

Secondary containment systems are designed and operated to prevent the movement of wastes out of the tank system to the soil, ground water, or surface water. They must be capable of detecting and collecting releases. Some examples of devices that provide secondary containment include:

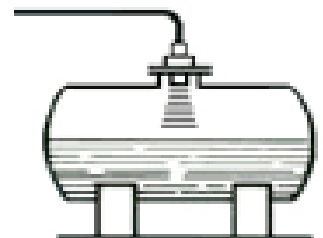
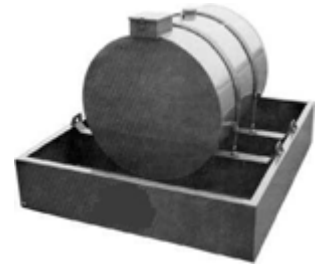
- Liners (external to the tank)
- Vaults
- Doubled-Walled Tanks
- Devices equivalent to those listed above and approved by the Department

The benefits of secondary containment include:

- *Cost efficiency* – spill cleanup without secondary containment is more costly.
- *Simplified cleanup* – entire volume is contained.
- *Decreased liability* – less potential for environmental damage or injury to health and safety of personnel, which may reduce insurance costs.
- *Reduced closure expense* – tanks with secondary containment are exempt from post-closure monitoring requirements if no leakage ever breaches the secondary containment system.
- *Increased environmental protection through leak detection and collection* -- hazardous waste has no outlet for contamination to the environment.

Tank Management Documentation: The following records must be kept to demonstrate proper management of tanks:

- Inspection logs (e.g., cathode protection system, valves, overflow protection).
- Annual integrity assessments, if tank system has no secondary containment.
- Testing and maintenance of equipment.
- Secondary containment certification.



Other records and documents that are required at the facility include:

- Record of completed training of employees on tank management.
- A Contingency Plan that explains how to deal with emergencies involving tanks and their contents.

Labeling Hazardous Waste Containers

Every hazardous waste container is required to be properly labeled. The type of label is dependent upon the container size and/or the contents of the container. The marking on the labels must be permanent and legible, and the completed label must be clearly visible on the container.



Labeling Portable Containers: Each hazardous waste container that is *portable or less than 110 gallons* and used for storage on the premises (not for transportation) must be properly labeled with:

- The words “Hazardous Waste”
- Contents of the container (e.g., waste oil, perchloroethylene, radiator coolant)
- Name and address of the generator
- Hazardous properties of the waste (e.g., flammable, toxic, reactive, corrosive)
- Physical state (e.g., liquid, solid, gas)
- Initial starting date for waste accumulation

Labeling Stationary Containers: For hazardous waste stored in *stationary containers greater than 110 gallons*, the words “Hazardous Waste” and the accumulation date are to be clearly marked on the container.

Labeling Containers for Transport: Containers *used to transport hazardous waste* must include labels with the words “Hazardous Waste”, plus the following statement and additional information below:

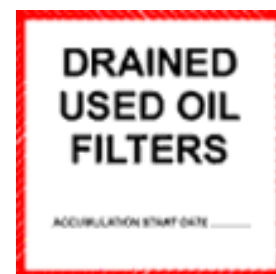
“State and Federal law prohibits improper disposal. If found, contact the nearest police or public safety authority, the U.S. Environmental Protection Agency, or the California Department of Toxic Substance Control.”

- Name and address of the generator
- Proper shipping name
- Hazard class and UN number
- Manifest number

Labeling Recyclable Materials (H&SC §25143.9): Excluded *recyclable material* (as defined by the Health and Safety Code, §25143.2) must be handled, stored and labeled on the premises in the same manner as hazardous waste with the exception that the words “Hazardous Waste” on the label is replaced with the words “Excluded Recyclable Material”. This material is subject to the ninety-(90) day storage requirements.



Labeling Drained Used Oil Filters (22 CCR, §66266.130): Containers of drained used oil filters which are recycled offsite at a scrap metal recycler must be labeled with the words “Drained Used Oil Filters” and the initial date of accumulation.



Labeling Universal Waste: Universal waste is hazardous waste. The containers or the areas of the container storage must be neatly labeled or marked as “Universal Waste” along with the accumulation start date. The type of universal waste must also be included on the label (e.g., “Universal Waste Batteries” or lamps, etc.). *Refer to the Section of Universal Waste Management in this Guidance Document.*

Types of Labels: The use of commercially printed labels is a convenience many generators take advantage of. Hazardous waste adhesive labels are available from many sources such as safety supply or industrial label supply companies.

Hazardous waste labels can be purchased from the following suppliers:

Label Master; 5724 North Pulasaki Road, Chicago, IL 60646 (800) 621-5808

Lab Safety Inc., P.O. Box 1368, Janesville, WI 53547 (800) 356-0783

HCL Labels, Inc., 510 East Maude Ave., Sunnyvale, CA 94086 (800) 421-6710



Hazardous Waste Accumulation

(22 CCR §66262.34)

The storage time length for the accumulation of hazardous waste at generator sites is based upon the quantity of hazardous waste stored and the rate that the waste is generated. Satellite storage accumulation may also be used in conjunction with the other options.

Accumulation Time for Conditionally Exempt Small Quantity Generators (CESQG): For businesses that generate less than or equal to 100 kg (220 pounds or approximately 27 gallons) of hazardous waste per month, *hazardous waste must be transported offsite within (90) calendar days once 100 kg of hazardous waste has accumulated.*

Accumulation Time for Small Quantity Generators (SQG): For businesses that generate more than 100 kg but less than 1,000 kg (between 220 and 2,200 pounds, or 27 and 275 gallons) of hazardous wastes per month, the following applies:

- *Hazardous waste may be stored onsite for up to 180 days, or*
- *If the waste must be transported over a distance of 200 miles or more, the generator may store the waste for up to 270 days.*

The preceding storage times apply only if the following conditions are met:

- The quantity of hazardous waste accumulated onsite never exceeds 6,000 kg.
- The generator has complied with all of the contingency plan requirements.
- The generator does not store extremely hazardous or acutely hazardous waste in an amount greater than 1-kg (2.2. pounds) for more than 90 days.

Accumulation Time for Large Quantity Generators (LQG): For businesses that generate more than 1,000 kg (2,200 pounds or approximately 275 gallons) of hazardous wastes per month, *hazardous waste cannot be stored for more than ninety (90) days.* The 90-day period for accumulation STARTS THE FIRST DAY the generator begins accumulating any hazardous waste.

Hazardous Waste Satellite Accumulation (22 CCR §66262.34.34(e)(1)(A)): Satellite accumulation is the collection of hazardous waste in a container, not in a tank, located at or near

WASTE ACCUMULATION & PICK-UP RECORD				
DATE	QUANTITY	TYPE	LOCATION	REMARKS

the point (i.e., process or piece of equipment) where the waste is generated. The container must be under the control of the operator of the waste generation process.

The general requirements for Satellite Accumulation consist of the following:

- *Quantity Limits* - No more than 55 gallons of a hazardous waste or one quart of an acutely hazardous or extremely hazardous waste may be accumulated at each satellite accumulation point. These limits apply to each waste stream. The generator can accumulate more than one waste in each satellite accumulation area (22 CCR §66262.34(e)(1)).
- *Accumulation Time Limits* – The generator can keep a satellite accumulation container on-site for a maximum of one year from the date waste is first placed in the container, or 90 or 180 days from the date the generator accumulates 55 gallons of hazardous waste or one quart acutely hazardous waste, which ever occurs first. (22 CCR §66262.34(e)(1)(B)).

There are many advantages of satellite accumulation, which includes less frequent hazardous waste pickups. Also, if the generator operates only under satellite accumulation requirements and ships each container off-site for proper disposal within three (3) days of reaching the 55 gallon (or one quart) accumulation quantity limit, the generator is exempt from Title 22 requirements for hazardous waste management training, weekly container inspections, and posting of emergency information. However, keep in mind that other regulations (e.g. Hazardous Materials Storage Ordinance, Fire Code) may still require some of these things.

Speculative Accumulation: A hazardous material becomes a hazardous waste if it is accumulated speculatively.

Speculative Accumulation means that a material is accumulated before being recycled. A material is not accumulated speculatively, however, if the person accumulating it can show that the material is potentially recyclable and has a feasible means of being recycled; and that, during the calendar year (commencing on January 1), the amount of material that is recycled, or transferred to a different site for recycling, equals at least 75% by weight or volume of the amount of that accumulated at the beginning of the period.

Also, a generator may be considered as a speculative accumulator if retrograde materials are stored onsite for extended periods of time.



Retrograde materials are any hazardous materials, which are not used or sold for use in an originally intended purpose and which meets one or more of the following criteria:

- It has undergone chemical, biochemical, physical or other changes due to the passage of time or the environmental conditions under which it was stored.
- It has exceeded a specified or recommended shelf life.
- It is banned by *law, regulation, ordinance or decree*.
- It cannot be used for reasons of economics, health/safety or environmental hazard.

Any retrograde material becomes a recyclable material if it has not been used, distributed or reclaimed through treatment one year after the date the material becomes a retrograde material (or one year after the material is returned to the original manufacturer).

Manifesting Hazardous Waste

The Uniform Hazardous Waste Manifest

A Uniform Hazardous Waste (UHW) Manifest must accompany all shipments of hazardous waste transported off site for treatment, storage or disposal (unless it is transported under the consolidated manifest or it is a hazardous waste).

It is extremely important for the generator to be familiar with the manifesting procedure and requirements, since the generator is responsible for properly manifesting the hazardous waste.

The UHW manifest is a document that identifies the following information

- Type of waste being shipped,
- Facility the waste came from,
- Transporter of the hazardous waste,
- Destination of the waste,
- Method of disposal for the waste,
- Certification and/or notification for the Land Disposal Restrictions.

Purpose of the UHW Manifest: The purpose of the UHW manifest is to properly identify and track the hazardous waste shipment, its

The image shows a blank Uniform Hazardous Waste Manifest form. It is a complex document with multiple sections and a large grid for recording waste shipment details. The form includes fields for generator information, transporter information, waste description, and destination. The grid is designed to track the waste from the point of generation through transportation to the final treatment, storage, or disposal site.

generator, and its destination from “cradle to grave.” The manifest procedure ensures that both the generator and the DTSC are notified that the hazardous waste was disposed of properly.

Completing the UHW Manifest: The generator must properly complete the generator portion of the manifest according to the instructions printed at the back of the manifest. The generator must obtain the handwritten signature of the transporter and date of acceptance on the transporter portion of the manifest.

Distributing UHW Manifests: The manifest has six copies so that each person handling the waste can track its journey to disposal. The generator, transporter and designated facility each retain one or more copies of the manifest (according to the bottom right hand corner of the manifest) prior to passing the remaining copies on to the next handler of the waste.

Therefore, the manifest copies are in varying states of completion until the final copy reaches the disposal facility where the manifest is finally completed. The disposal facility sends one of the completed manifest copies to both the generator and the Department of Toxic Substances Control.

The generator should follow this procedure to properly distribute manifests:

- Complete the generator’s portion of the manifest.
- Retain the Generator Copy of the manifest until you receive the Signed Copy Returned from the designated receiving facility.
Note: This copy must be retained by the generator for three years.
- Mail a copy of the manifest signed by the generator and first transporter to DTSC within 30 days. If you do not receive the Signed Copy Returned by the facility within 35 days, you have to contact the transporter and the facility to attempt to locate the shipment.
- Send copy of the Generator Copy to DTSC Generator Manifest at P.O. Box 400, Sacramento, CA95812-0400.

Manifest Exception Reporting: A generator who does not receive a TSDf-signed manifest copy within 35 days of the waste shipment must contact the transporter and/or TSDf to determine the status of the waste.

If a TSDf-signed manifest copy is still not received within 45 days of the waste shipment, the generator must submit an exception report to the DTSC that includes the following:



Consolidated Manifests

- A legible signed copy of the UHW manifest left by the transporter at the time of shipment.
- A cover letter signed by the generator or the generator's authorized representative explaining efforts taken to locate the waste and the results of those efforts;
- A copy of the exception report must be kept by the generator for at least three years.

UHW Manifest Retention: A copy of each UHW manifest must be kept until the generator receives a signed copy from the TSDf designated to receive the waste. Each TSDf-signed manifest copy must be kept for at least 3 years from the date of waste shipment.

Obtaining UHW Manifests: Generators must purchase their manifests only from a vendor approved by U.S. EPA. The State no longer sells manifests. For list of approved vendors, go to: <http://www.epa.gov/epawaste/hazard/transportation/manifest/registry/printers.htm>

Consolidated Manifests

Consolidated manifesting allows certain registered transporters to combine, on a single manifest, specified wastes from multiple generators. Generators using this procedure are exempt from filling out a uniform hazardous waste manifest.

Qualifying Hazardous Wastes: Consolidated Manifesting is currently restricted to the following hazardous wastes:

- Used oil
- Dry cleaning waste
- Automotive parts cleaning solvents
- Ethylene glycol (coolant/antifreeze) from vehicle radiators
- Spent photographic solutions
- Sludge containing sodium hydroxide and heavy metals
- Asbestos
- Inks from the printing industry
- Chemicals and laboratory-packs collected from school districts

Qualifying Generators: Generators are responsible for their wastes "from cradle to grave." The consolidated manifesting procedure does not exempt generator from the requirements to properly characterize, handle, label, manage, and accumulate hazardous wastes. Generators using the consolidated manifest option must have an EPA ID number. Generators of up to 1,000 kg per month of non-RCRA waste (or RCRA hazardous waste that is

not required to be manifested pursuant to the federal act) are allowed under the consolidated manifesting procedure. Generators must keep all copies of each of the consolidated manifest receipts for at least three years from the date of shipment of hazardous waste.

Receipts associated with consolidated manifest hazardous waste transports must contain the following information:

- Generator name, address, telephone number, EPA ID number, contact person, generator representative signature;
- Shipment date;
- Manifest number;
- Waste volume;
- Waste codes;
- Waste type
- TSDF name, address and EPA ID number;
- A statement (signed by the generator) certifying that the generator has established a program to reduce the volume or quantity and toxicity of the hazardous waste to the degree (as determined by the generator) to be economically practicable.

[Exceptions: The only group excluded from the EPA ID number requirement is generators of less than 100 kilograms per month of "silver only" hazardous waste]

Land Disposal Restrictions

The Land Disposal Restrictions (LDRs) are a set of laws that regulate and restrict hazardous waste sent to land disposal. These laws require treatment of hazardous wastes to *reduce their hazard prior to land disposal*. They also give generators another incentive to reduce their waste. Under these regulations, hazardous waste is prohibited from land disposal unless:

- The waste already meets specific treatment standards,
- The waste is otherwise considered treated, or
- The waste is exempted from the LDR regulations

The LDR requirements apply to all persons who generate hazardous wastes, as well as owners and operators of hazardous waste treatment, storage, and disposal (TSD) facilities. The LDR's cover both RCRA wastes and non-RCRA wastes. This implies that hazardous waste is required to meet certain standards prior to land disposal. These standards are called treatment standards and



some wastes will require treatment to meet these standards and some will meet them without treatment. LDR regulations are found in 22 CCR Chapter 18 and 40 CFR, Part 268.



Restricted Waste and Notification Requirements: A *Restricted Waste* is a hazardous waste with a treatment standard that has an effective date beyond the current date. If a restricted waste is to be sent to a landfill for disposal, a *Notification* must either accompany the shipment or be sent ahead to the disposal facility. Since manifest documents are required for shipping hazardous waste, the notification may be attached or included with the manifest. The *Notification Statement* provides information about a restricted waste and its treatment standard(s).

All hazardous waste in California is restricted in some way; therefore, all shipments of hazardous waste in California must include a *Notification Statement*. However, state legislation has eliminated the regulation requiring *Notification* for non-RCRA hazardous waste destined for treatment, recycling, or out-of-state management; only direct land disposal of non-RCRA waste requires notification. State legislation has also repealed all *Notification* requirements from non-RCRA aqueous and solid waste containing organics. However, in California, all RCRA hazardous waste requires notification even if it is destined for treatment, recycling, or out-of-state management.



Prohibited Waste and Notification and Certification

Requirements: A *Prohibited Waste* is a hazardous waste with a treatment standard in effect; this waste cannot be disposed of to land without meeting its associated treatment standard(s). Before a *Prohibited Waste* is sent to a landfill for disposal it must be treated (or verified that it already meets specific treatment standards). Once treated, a *Notification* and a *Certification* must either accompany the shipment or be sent ahead to the disposal facility. A *Certification Statement* affirms that the hazardous waste has met its associated treatment standard(s).

Unless a variance or extension is granted, a restricted waste becomes a prohibited waste on the effective date of the appropriate treatment standard(s) for that waste. Federal regulations required that (most) hazardous waste, which has been treated to non-hazardous status, is still subject to LDR requirements; if hazardous waste is sent to a RCRA Subtitle D facility, notification and certification statements must be sent to U.S. EPA. State regulations, however, specify that non-RCRA wastes that have been rendered non-hazardous are not subject to the State's LDR program.

LDRs and the Associated Generator Requirements [Section 66268.7(a)]: When shipping hazardous waste for treatment or land disposal, generators are required to do the following:

- Classify the hazardous waste;
- Determine appropriate treatment standard(s) and associated date(s);
- Provide notification to the receiving facility;
- Provide certification that the waste meets treatment standard(s) if the associated standards are in effect, the waste is going directly to land disposal, and the waste has already been treated to meet the standard(s) or meets the standard(s) without treatment.
- Retain all waste analyses, notifications, certifications, and other documents required to comply with LDRs for 5 years.

Biennial Report

Submitting a biennial report is required for a generator who ships any hazardous waste to a transfer, treatment, storage or disposal (TSD) facility within the United States. The report is due by March 1 of each even-numbered year and covers the previous year of hazardous waste activity (22 CCR Section 66262.41). Copies of biennial reports must be retained for three years (22 CCR Section 66262.40). For more information regarding biennial reports, call the Biennial Report Hotline at (916) 322-2880.



HAZARDOUS WASTE CONTINGENCY PLAN

All LQGs are required under state and federal hazardous waste regulations to prepare a written hazardous waste contingency plan and implement this plan in an emergency situation involving hazardous wastes. Because the contingency plan is similar in information and purpose to the Business Plan, the Los Angeles City and Los Angeles County Fire Departments previously accepted the Business Emergency Plan as the facilities emergency-planning document for both hazardous material and hazardous waste emergencies. However, DTSC (and U.S. EPA) hazardous waste regulations require certain components in the hazardous waste contingency plan, which were not always included in the previous versions of the Hazardous Materials Business Emergency Plan format.

Contingency Plan Elements

Regardless of what format your specific plan is in (and



whether or not you are using the newest version of the Consolidated Contingency Plan from the Unified Program Forms package), the required hazardous waste-specific elements for a hazardous waste contingency plan for **LQGs** include:

- Procedures for evaluating the hazard(s) of the hazardous waste incidents and the need for evacuation of surrounding areas;
- Procedures for inspections or monitoring of critical processes or operations when the facility operation has been stopped during the incident;
- Procedures for cleaning and repairing emergency equipment after the emergency is over;
- Procedures for noting/documenting the incident in the facilities operating record and reporting to DTSC if necessary;
- The home phone numbers of the Emergency Coordinator and the alternates listed in the order in which they shall assume responsibility (the Business Plan only requires work and 24-hour phone numbers);
- Description of arrangements made (1) to familiarize fire and police, emergency response teams, and hospitals with the facility and its wastes; and (2) with state and local emergency response teams and contractors to provide emergency services;
- A list of all emergency equipment (e.g., fire extinguishers and spill control equipment) and decontamination equipment located at the facility with a physical description of the equipment, a description of its location, and an outline of its capabilities;
- Emergency and alarm communication and procedures;
- An evacuation plan for facility personnel. The plan must describe primary and alternate evacuation routes and the current phone number for the California Emergency Management Agency (Cal-EMA)[i.e., (800) 852-7550]. Copies of the plan must be maintained at the facility

For **CESQGs** and **SQGs**, the requirements for Contingency Plan are reduced. The generator must post the following information next to the telephone:

1. The name and telephone number of the emergency coordinator;
2. Location of fire extinguishers and spill control material, and, if present, fire alarm; and
3. The telephone number of the fire department, unless the facility has a direct alarm.

Contingency Plan Amendments

The Contingency Plan must be reviewed and, if necessary, immediately amended whenever any one of the following occurs:

- Applicable regulations are revised;
- The plan fails in an emergency;
- The facility changes in its design, construction, operation maintenance, or other circumstances in a way that materially increases the potential for fires, explosions, or releases of hazardous waste, or changes the response necessary in an emergency;
- The list of Emergency Coordinators changes;
- The list of emergency equipment changes.

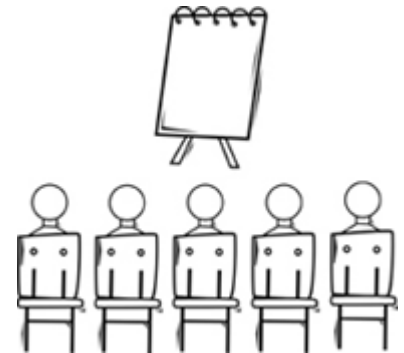
Generator Employee Training Requirements

Generators are required to provide training in hazardous waste management for all workers who handle hazardous waste on the job. Training will reduce the potential for mistakes that might threaten human health or the environment. It will ensure that personnel are thoroughly familiar with proper and safe hazardous waste handling procedures. It will also stress their roles and responsibilities in an emergency.

Large Quantity Generator Employee Training Requirements

All personnel at a large quantity generating facility involved in the management (i.e. generation, transfer, shipment, etc.) of hazardous waste must receive classroom instruction or on-the-job training in the proper management of hazardous waste. This training must:

- Be directed by a person trained in hazardous waste management procedures;
- Include instruction that teaches personnel hazardous waste management procedures (including contingency plan implementation) relevant to the positions in which they are employed (e.g. personnel who prepare or sign hazardous waste manifests must be trained in manifest requirements, those who label containers must be trained in labeling requirements, etc.);
- Be designed to ensure that personnel are able to respond effectively to emergencies by familiarizing them with emergency procedures, equipment, and systems;
- Be provided to personnel within six months after the date of their employment or assignment to a new facility or to a new position at a facility. *(Note: Personnel who have not yet completed this training must work under the supervision of a properly trained person);*
- Be reviewed annually through refresher training;
- Be documented by records that include:





- The job title for each position related to hazardous waste management, and the name of each employee filling the job;
- A written job description for each of the above job positions that describes job duties and the skills, education, or other qualifications required of personnel assigned to each position;
- A written description of the type and amount of both introductory and continuing training that will be given to each person filling the above job positions;
- Documentation that this training has been given to, and completed by, facility personnel.

Small Quantity Generator Employee Training Requirements

All employees employed by small quantity generators of hazardous waste must be thoroughly familiar with proper waste handling and emergency procedures relevant to their responsibilities during normal facility operations and emergencies.

Training Record Retention Requirements

Hazardous waste management training records on current personnel must be kept until closure of the facility. Records on former employees must be kept for at least three years from the date the employee last worked at the facility.

Emergency Preparedness and Prevention

Planning and preparing for different types of emergencies that can occur at a business site, such as fire, an earthquake or a hazardous waste incident, is mandated by law. According to State hazardous waste laws and regulations, businesses must be maintained and operated to minimize the possibility of a release of hazardous waste to the air, soil, or surface water to prevent a threat to human health or the environment.



Required Emergency Equipment

The site shall be equipped, as applicable, with the following emergency equipment:

- An internal communication alarm system.
- A device (i.e. telephone or two-way radio) for calling outside emergency help.
- Fire control equipment, spill control equipment, and/or decontamination equipment.

- Have water at an adequate volume and pressure to supply water hose streams and foam producing equipment, or an automatic sprinkler system.

Access to communications or alarm system: Whenever hazardous waste is being poured, mixed, spread, or otherwise handled, all personnel involved in the operation must have immediate access to an internal alarm or emergency communication device, either directly or through visual or voice contact with another employee. If there is ever just one person on the premises, the employee must have access to a device, such as a telephone (immediately available at the scene of operation) or a handheld two-way radio capable of summoning external emergency assistance.

Testing and Maintenance of Equipment: All facility communications or alarm systems, fire protection equipment, spill control equipment, and contamination equipment, where required, must be tested and maintained as necessary to assure its proper operation.

Arrangements with Local Authorities

The facility owner or operator must attempt to make the following arrangements, as appropriate for the type of wastes handled at the facility and the potential need for the services of the response organizations:

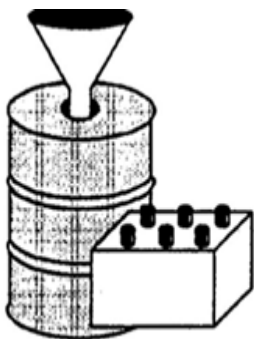
- Arrangements to familiarize police, fire departments, emergency response teams, and the local Office of Emergency Services with the layout of the facility, properties of hazardous wastes handled at the facility and associated hazards, places where facility personnel would normally be working, entrances to roads inside the facility, and possible evacuation routes;
- Agreements with emergency response contractors and equipment suppliers;
- Arrangements to familiarize local hospitals with the properties of hazardous wastes handled at the facility and the types of illness that could result from fires, explosions, or releases at the facility.

Testing and Maintenance of Equipment: All facility communications or alarm systems, fire protection equipment, spill control equipment, and contamination equipment, where required, must be tested and maintained as necessary to assure its proper operation.



Emergency Coordinator

At all times there must be at least one employee either on the premises or on call (i.e. available to respond to an emergency by reaching the facility within a short period of time) with the responsibility for coordinating all emergency response and reporting activities. This Emergency Coordinator must 1) be thoroughly familiar with the facility, 2) have the authority to commit the resources needed to carry out the Contingency Plan, 3) be familiar with all aspects of the Contingency Plan and, 4) know the locations of all records within the facility.



Examples of Common Hazardous Waste Management

Management of Used Oil

In California, used oil must be managed as hazardous waste. Used oil is any oil that has been refined from crude oil, or any synthetic oil, that has been used, and, as a result of use or as a consequence of extended storage, or spillage, has been contaminated with physical or chemical impurities (HSC §25250.1).

Used oil includes, but is not limited to, the following petroleum oils:

- Used Motor Oil
 - Vehicle crankcase oil
 - Engine lubricating oil
 - Transmission fluid
 - Gearbox and differential oil

- Used Industrial Oil
 - Hydraulic oil
 - Compressor oil
 - Turbine oil
 - Bearing oil
 - Gear oil
 - Transformer (dielectric) oil
 - Refrigeration oil
 - Metalworking oil



EPA ID Number: A state EPA Identification Number is required for each site where used oil is accumulated or stored, with the exception of households and some conditionally exempt small quantity generators (CESQGs).

Labeling Used Oil: In most circumstances, above-ground storage tanks (ASTs) and containers accumulating used oil, and fill pipes

used to transfer used oil into underground storage tanks must be labeled with the words “USED OIL,” “HAZARDOUS WASTE,” and the initial date of accumulation. In addition, containers must be labeled with the name and address of the generator.

Accumulating and Transporting Used Oil: Used oil is hazardous waste, and in most instances, this means that the generator will contract with a registered hazardous waste transporter to have the used oil picked up within the appropriate accumulation period. Used oil is a waste that qualifies for the consolidated manifest, rather than the full uniform hazardous waste manifest. Most generators are only allowed 90 days to accumulate used oil at their facility before it must be transported by a licensed hauler to a permitted used oil storage and treatment facility.

Hazardous waste accumulation times for generators are discussed in detail in *General Hazardous Waste Management Requirements* of this guidance document.

In general, California law requires that a registered hazardous waste transporter transport used oil. However, households and some CESQGs (i.e., < 100kg, 220 pounds or 27 gallons of total hazardous waste) may transport up to 20 gallons of used oil per trip to an authorized used oil collection center *if* the oil is carried in containers that hold 5 gallons or less and specified conditions are met.

However, generators of used oil may transport up to 55 gallons of oil in containers of not greater than 55-gallon capacity only *if they get prior permission from the used oil collection center*. Again, this option is **ONLY** for households and CESQGs. Permission must be obtained from the used oil collection center prior to container or drum delivery. If these conditions are not met, the generator is not complying with the law and associated regulations.

Used Oil Shipment Record Keeping: Generators must keep the receipts associated with used oil shipments for at least 3 years from the date of shipment.

Used Oil Mixing Rule: Mixing used oil with any other hazardous waste is prohibited. Examples of hazardous wastes that are prohibited to be mixed with used oil include solvents, antifreeze and fuels. The law does allow for the inadvertent mixture of “minimal amounts of vehicle fuel” with used oil, but beware, such mixing could contaminate used oil, classifying it as a RCRA rather than a non-RCRA hazardous waste.



Management of Used Oil Filters

Drained used oil filters are generated from automobiles usually during oil changes. Used oil filters may exhibit hazardous characteristics for lead, other toxic heavy metals, and oil-based compounds. Used oil filters must either be managed as hazardous waste, or in accordance with the requirements for drained used oil filters. DTSC adopted special regulations (22 CCR 66266.130) in 1991 to encourage recycling of used oil filters and to protect public human health and the environment from the potential hazards posed by disposal of used oil filters. Fuel filters, including fuel dispenser and diesel fuel filters, are not used oil filters and may not be managed in the same manner as used oil filters. Disposal of used oil filters in trashcans and at sanitary landfills is prohibited.

Used oil filters must be managed as hazardous wastes unless all of the following requirements are met:



- *Drained of all free-flowing oil* – The filters must be drained of free-flowing used oil. If the filter is equipped with a device (such as a rubber flap located just inside the filter opening) that impedes the drainage of oil from the filter, that device must be manipulated to allow the oil to exit the filter freely, or the filter punctured, crushed, opened, drained, or otherwise handled in a manner that will allow the oil to exit the filter.
- *Properly contained, labeled and stored* – The drained filters must be contained in rainproof, non-leaking containers with tightly sealed lids. The container must be labeled “Drained Used Oil Filters” and the initial date of accumulation or receipt marked on each container. The initial date of accumulation is the date when the first filter is placed in the container or the date when a full or partially full container of filters is received at a second location.
- *Store without exceeding allowed time limits* – Filters in amounts less than one ton may be stored for a period of up to one year. Storage of one ton or more oil filters is limited to 180 days.
- *Transported to an allowed destination for purpose of metal reclamation* – Filters must be transported to a smelter or scrap metal processor for recycling or to a municipal solid waste incinerator for energy recovery if the residual casings are subsequently transferred to a smelter or scrap metal processors for recycling. A storage or consolidation facility that subsequently transfers filters to a smelter scrap metal

processor or municipal solid waste incinerator is also acceptable. Filters may also be transported to an authorized hazardous waste facility.

- *Transported under a bill of lading with a copy kept by the generator for three years* – A bill of lading must accompany each shipment. Bills of lading must include:
 - The generator’s name, address, and telephone number;
 - The transporter’s name, address, and telephone number;
 - The receiving facility’s name, address, and telephone number;
 - The quantity and size of each used oil container shipped;
 - The date of transfer.

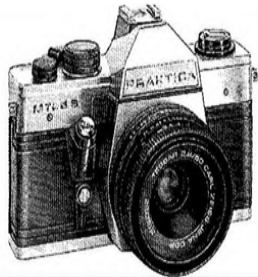
Silver Only Waste

There are reduced regulatory requirements for “silver-only” hazardous wastes that were mandated by Senate Bill 2111 (HSC 25143.13). Senate Bill 2111 mandates those “silver-only” hazardous wastes are to be regulated only to the extent they are regulated under the federal Resource Conservation and Regulatory Act (RCRA). This change only applies to “silver-only” hazardous wastes. On site treatment of photo-imaging solutions and wastewater will no longer be subject to Tiered Permitting authorization requirements. Generators of “silver-only” wastes continue to be considered hazardous waste generators, but are eligible for reduced management and transportation requirements.

- Silver-only generators are still considered hazardous waste generators because they remain subject to RCRA regulatory requirements and meet the definition of “generator” [40 CFR 261 and 261.19].
- Businesses that generate no more than 100 kilograms (approximately 27 gallons or 220 pounds) per month exclusively of “silver-only” hazardous wastes are exempt from most RCRA generator requirements as Conditionally Exempt Small Quantity Generators (CESQGs) [40 CFR 261.5].
- Although subject to reduced waste management requirements, CESQGs must:
 - Determine whether their waste is “silver-only [40 CFR 261.5(g)(1)].
 - Not accumulate on site more that 1000 kilograms of waste at any time [40 CFR 261.5(g)(2)].



Developing Photos Produces



SILVER WASTE

- Ensure that their “silver-only” hazardous waste is either recycled (reclaimed) or disposed at a facility that is permitted or otherwise authorized to manage the waste [40 CFR 261.5(g)(3)].
- CESQGs that treat photo-imaging solutions and wastewater to remove silver will be regulated only to the extent it is regulated under RCRA, and not require California Tiered Permitting authorization.
- Sludge generated by the treatment of “silver-only” containing solutions and wastewater, which are hazardous only for their silver content, are not considered solid waste, and therefore not hazardous waste, when reclaimed [40 CFR 261.2(c)(3)].
- CESQGs that ship sludge offsite for reclamation are not required to manifest the shipment or obtain an EPA ID number. However, they must be able to provide documentation that the sludge are being reclaimed [40 CFR 261.2(f)]. Examples of acceptable documentation include contracts with refiners and/or receipts from the sludge transporter for shipments of sludge to a refiner.
- Senate Bill 2111 provisions do not affect or apply to sewer waste discharge requirements established under the federal Clean Water Act or California” Porter-Cologne Water Quality Control Act.
- Examples of businesses which generate “silver-only” hazardous wastes from photograph, printing, and X-ray development wastes include:
 - One hour photo shops
 - Printer, graphic arts
 - Dental offices/clinics
 - Medical offices/clinics
 - Veterinary hospitals/clinics
 - Police stations
 - Professional photofinishers
 - Motion picture labs
 - Hospitals
 - Chiropractic offices
 - Schools with industrial labs
 - Government agencies
- Examples of wastes that are hazardous for constituents

other than silver and are not affected by provisions of Senate Bill 2111 include:

- RCRA listed wastes from electroplating.
- Dental amalgams that contain hazardous characteristic metals.
- Corrosive cleaning solution wastes.

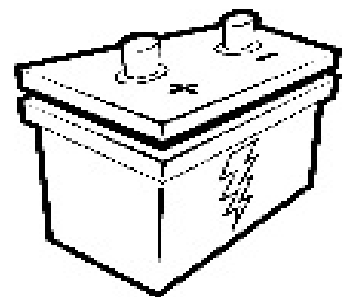
Contaminated Textiles

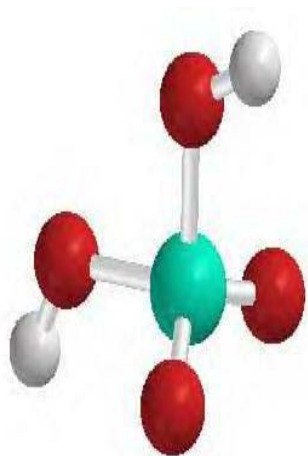
Textile materials (e.g. shop towels, uniforms, gloves, linens, etc.) that have become soiled with hazardous waste during commercial or industrial use are exempt from using hazardous waste manifest requirements and paying state hazardous waste fees if ALL the following requirements are met:

- The materials are made reusable by laundering or comparable methods of cleaning at a facility (i.e. commercial laundry) with a contingency plan for handling both on-site and off-site emergencies involving the materials and which maintains records of the date, type and quantities by piecework or weight of the materials laundered.
- The materials are not subject to federal regulation as hazardous wastes.
- They are not used to clean up or control a spill that is required to be reported to any state or federal agency.
- No hazardous waste has been added after the materials original use.
- No free liquids are released during transportation or storage of the materials.

Management of Spent Lead Acid (Automotive) Batteries

Because spent lead acid batteries contain lead, sulfuric acid, and other heavy metals, lead-acid battery disposal is fully regulated as a hazardous waste management activity, but when intact lead-acid batteries are managed for recycling, the handling requirements are relaxed (22 CCR §662266.80 & 66266.81). However, processing lead-acid batteries for recycling by draining the electrolyte, crushing, smelting or other physical methods is a fully regulated hazardous waste activity that requires a hazardous waste treatment permit.





H₂SO₄ **Sulfuric Acid** **is in Batteries**

If a business generates no more than 10 batteries per year, or stores or transports no more than 10 batteries at one time, the handler is not subject to the reporting and record keeping requirements given in the battery regulations as long as the batteries will go to someone who stores, recycles, uses, reuses or reclaims them. In order for businesses to be exempt from hazardous waste regulations for spent lead-acid battery generation, storage, and transportation, the generator must manage intact lead-acid batteries as follows:

- Undamaged batteries should be stored upright on a covered pallet over a non-reactive, curbed and sealed surface such as coated concrete or asphalt, and care should be taken to prevent the terminals of the batteries from short-circuiting.
- The batteries must be sent to a permitted hazardous waste recycling facility.
- No electrolytes or acids can be removed from the batteries.
- Less than one ton of batteries cannot be stored (accumulated) more than 180 days at one location.
- If more than 10 batteries at a time are shipped for recycling, a legible hazardous waste manifest or legible bill of lading must accompany the shipment. The generator, transporter and storage, recycling or disposal facility each must retain their copies of either of those documents for three years.

Damaged spent lead-acid batteries are batteries that are cracked, broken or missing one or more of their caps. The generator must manage damaged lead-acid batteries as follows:

- Damaged batteries must be stored and transported in non-reactive, structurally secure, closed containers such as polyethylene buckets or drums.
- The container holding damaged batteries must be labeled in ink or paint with the date the batteries were first placed there. This is considered the accumulation start date.
- “Damaged batteries” considered damaged solely on the basis of missing caps (i.e., no other leaks or damage) CAN be managed along with intact batteries once the caps are replaced.

Household Hazardous Waste

Household hazardous waste (HHW) is any hazardous waste generated incidental to owning and/or maintaining a place of residence. HHW does not include any waste generated in the course of operating a business at a residence.

A typical home can contain a vast array of household hazardous products used for cleaning, painting, beautifying, lubricating and disinfecting the house, yard, workshop and garage, which may be labeled as toxic, poison, corrosive, flammable, combustible or irritant.

The chemical-based household products from a single home may seem insignificant; but when millions of homes across Los Angeles County use similar products – handling, storing and disposing of them improperly – the combined effect becomes a major problem. The health and safety of people and animals, as well as the health of our communities and the environment is in danger when these types of products are discarded in household garbage, sinks or storm drains.

A homeowner who generates HHW does not have to meet all of the requirements that a business that generates hazardous waste must meet and can dispose of his/her HHW at a HHW collection event.

HHW Collection Events: A HHW collection event, operated by the County of Los Angeles Department of Public Works and the Los Angeles County Sanitation Districts, is a one-day, drive-through collection event where residents are invited to drive to a specified location to drop off their HHW.

Collection events are scheduled in different areas throughout the County. They are free, open to the public and are usually held on a Saturday from 9 a.m. to 3 p.m. An appointment is not needed to participate in a HHW collection event.

The City of Los Angeles also operates HHW collection events, which services over 20 different areas each year within the City of Los Angeles. All residents in the County are invited to dispose of their HHW at these events. The events are free and usually operated Friday through Saturday (occasionally Thursday through Saturday) from 9 a.m. to 3 p.m.

Additionally, certain cities have set up their own HHW collection programs for city residents. You can call the city for more information or call (800) 238-0173 or (888) CLEAN LA.



Examples of HHW: Typical HHW items that residents can bring to a HHW collection event include the following wastes:

- *motor oil, oil filters, brake fluid*
- *paint, paint thinner, and turpentine*
- *cleaners with acid or lye*
- *pesticides or herbicides*
- *household batteries or car batteries*
- *pool chemicals*
- *CRT's, old TV's, old computers and miscellaneous electronics*

There are some wastes that residents CANNOT bring to a HHW collection event. These prohibited wastes include:

- Explosives
- Ammunition
- Radioactive materials
- Trash
- Tires
- Business and commercial-related waste
- White goods (stoves, refrigerators, etc.)

HHW Transportation Requirements: Residents can load their personal cars with their HHW and transport their waste to the nearest HHW collection event. When delivering your waste to an event, you should:

- Bring the items you wish to dispose of in a sturdy box preferably in their original, labeled containers.
- Do not EVER mix products together.
- It is ILLEGAL to transport more than 15 gallons or 125 pounds of hazardous waste in your personal vehicle. There are some exceptions for used oil (e.g., 55-gallon limit if you have permission from the household hazardous waste collection facility) Refer to *Management of Used Oil* in this guidance document.

Universal Waste

Universal waste is hazardous waste. Meaning, it is toxic, ignitable, corrosive, and/or reactive. Some universal wastes are even listed hazardous wastes. However, universal waste is more common and poses a lower risk to people and the environment than other hazardous waste. Universal waste is generated by a wide variety of people rather than by the industrial businesses that primarily



generate other hazardous waste. New laws adopted since 2000 created California's *Universal Waste Rule* to simplify how we manage common hazardous wastes. State laws and regulations identify universal wastes and provide simpler rules for handling, recycling and disposing of them. Universal waste regulations are in the California Code of Regulations, Title 22, Division 4.5, Chapter 23. Without the new *Universal Waste Rule*, all universal waste would have to be managed under the same stringent standards as other hazardous waste.

Types of Universal Wastes

Universal wastes are common types of hazardous waste generated by almost everybody. The types of universal wastes specified in the state laws and regulations include, but are not limited to, the following:

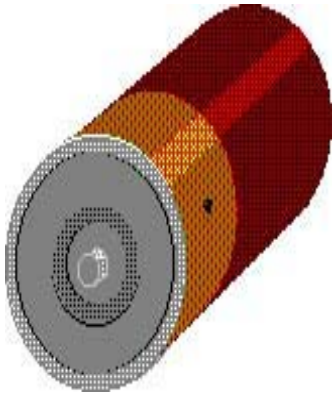
Batteries (e.g., flashlight batteries)	Mercury Thermostats and Thermometers
Lamps (e.g., fluorescent lights)	Mercury Switches
Non-Empty Aerosol Cans	Mercury Gauges
Consumer Electronic Devices (e.g., cell phones)	Mercury Novelties (e.g., singing greeting cards)
Cathode Ray Tubes (e.g., computer monitors)	Dental Amalgam

Wastes that do not contain hazardous substances are not universal wastes even if they are similar to the universal wastes listed above. For example, a fluorescent light that contains no added mercury or any other hazardous substances would not be hazardous; therefore, it would not be a universal waste.

On February 8, 2006, household universal wastes were no longer exempted from the Universal Waste Rule. Households must recycle their universal waste and are prohibited from disposing them in the trash. A *household* is a private residence; it is not a hotel, motel, bunkhouse, ranger station, fire station, crew quarters, campground, picnic ground, or a day use recreation area. Households are prohibited from disposing non-empty aerosol cans, cathode ray tubes, and most mercury containing materials in the trash. Nobody may dispose any type of universal waste in the trash in California.

The types of universal waste listed above are described in the following sections:





Batteries: Universal waste batteries include rechargeable nickel-cadmium batteries, silver button batteries, mercury batteries, small sealed lead acid batteries (burglar alarm and emergency light batteries), most alkaline batteries, carbon-zinc batteries, and any other batteries that exhibit a characteristic of a hazardous waste. Automobile batteries and other similar lead-acid batteries do not qualify as universal waste.

Lamps: Universal waste lamps include fluorescent tubes, high intensity discharge lamps, sodium vapor lamps, and any other lamps that exhibit a characteristic of hazardous waste. Effective February 9, 2004, all lamps that contain any quantity of intentionally added mercury (no matter how small) will be considered a state listed universal waste (i.e., M003 listed waste) and must be managed as such.



Non-Empty Aerosol Cans: The state legislature added non-empty aerosol cans to the list of universal waste in 2001 as Health and Safety Code, Section 25201.16. *Empty* means that all the contents are used up when the delivery mechanism functions properly. *Non-empty* means that there are still contents in the can that cannot be dispensed through normal use of the can (e.g., usually as a result of a damaged delivery mechanism). Universal waste non-empty aerosol cans contain materials and propellants that are ignitable, toxic, corrosive, and/or reactive. Households **CANNOT** dispose non-empty aerosol cans in the trash.



Consumer Electronic Devices: Consumer electronic devices (CEDs) or any of their components (that exhibit a hazardous characteristic) must be managed as universal waste. CEDs include, but are not limited to, cell phones, telephones, fax machines, game consoles, computer processing units, radios, VCRs, CD players, calculators, stereo equipment, and many other electronic products. Cathode ray tubes are not considered as CEDs in the universal waste regulations and are managed under separate universal waste regulations.

Cathode Ray Tubes: Cathode ray tubes (CRTs) containing lead must be managed as universal waste. CRTs are picture tubes contained in computer monitors, televisions, some camcorders and many other electronic devices. A typical CRT contains between two and five pounds of lead. Many television CRTs contain as much as eight pounds of lead. CRTs and CRT

glasses have specific regulations in the California Code of Regulations, Title 22, Division 4.5, Chapter 23, Article 7. Households *CANNOT* dispose CRTs in the trash.

Mercury Thermostats: Universal waste mercury thermostats contain small glass capsules of mercury to make electrical contacts to *turn on* associated heating ventilation and cooling (HVAC) systems. Most modern electrical thermostats do not contain mercury and need not be managed as universal waste.

Mercury Thermometers: All mercury containing thermometers, including fever thermometers, must be managed as universal waste. Households *CANNOT* dispose mercury thermometers in the trash.

Mercury Switches: Universal waste mercury switches are comprised of two types of switches, which include motor vehicle light switches and non-automotive mercury switches.

Motor vehicle light switches (automatic hood and trunk light switches), once removed from vehicles, were designated as universal waste by Health and Safety Code section 25214.6. As of January 2005, vehicles that contain the mercury switches will also be considered listed universal waste (i.e., M001 listed waste) and must be managed as such until the mercury light switches are removed. Households *CANNOT* dispose mercury motor vehicle light switches in the trash.

Non-automotive mercury switches (thermostats and tip switches in portable heaters, washing machines out-of-balance switches, silent wall switches, and other mercury containing switches), once removed from products, are universal waste. As of February 9, 2006, the non-automotive mercury switches and the products that contain them will also be considered listed universal waste (i.e., M002 listed waste) and must be managed as such until the mercury switches are removed. Households *CANNOT* dispose non-automotive mercury switches in the trash.

Mercury Gauges: Mercury containing pressure and vacuum gauges are now managed as universal wastes. These gauges include, but are not limited to, U-tube manometers, barometers, and blood pressure meters. Households *CANNOT* dispose of mercury gauges in the trash.



Dental Amalgam: Dental amalgam tooth filling materials including waste amalgam – bits and pieces from chair side traps and spent wastewater filters – must be managed as universal waste. Households and Dental offices *CANNOT* dispose dental amalgam in the trash or discharge it to the sewers.

Mercury Novelties: Universal waste mercury novelties contain mercury or mercury batteries such as some singing greeting cards, flashing athletic shoes, jewelry, and other items.

Other Mercury Containing Materials: Other mercury containing universal wastes include:

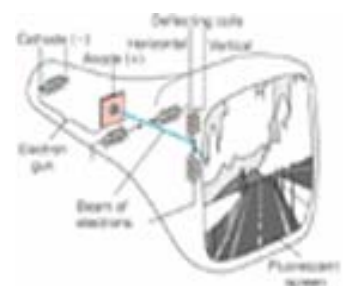
- *Medical Dilators and Weighted Tubing*
- *Rubber Flooring:* Older gymnasium floors that were poured in place to form indoor tracks and gymnastic areas frequently contain mercury.
- *Counterweights and Dampers:* Devices that use pouches of high density mercury to dampen shaking on hunting bows and snow skis or to absorb recoil on shotguns are examples of counterweights and Dampers that must be managed as universal waste.
- *Mercury Gas Flow Regulators:* These are older gas flow regulators that are managed exclusively by natural gas utilities.

All the “other” mercury containing materials referenced above must be managed as universal waste. Households *CANNOT* dispose these “other” mercury containing materials in the trash.

Notification Requirements

Notification Requirements for Large Quantity Handlers of Universal Waste: Large quantity handlers of universal waste (LQHUW) must obtain an EPA Identification number before meeting or exceeding 5,000 kilograms (5.5 tons) of universal waste at one place at one time [22 CCR 66273.32(a)(1)]. They must also follow more stringent standards for handling their universal waste. Generally, only a universal waste collection center that accepts universal waste from other (offsite) businesses will accumulate large quantities of universal waste exceeding 5.5 tons at one time.

Notification Requirements for Cathode Ray Tube Generators: Businesses that generate more than 5,000 kilograms (5.5 tons) per year of their own CRT universal waste must notify the Department of Toxic Substances Control (DTSC) on an annual basis (22 CCR 66273.82 Notification can consist of written notification to the DTSC using certified mail, return receipt requested OR electronic submission to the DTSC website at their electronic forms submittal



page. Notification information covers activities of the previous calendar year.

Notification Requirements for Handlers of Offsite Cathode Ray Tube Wastes: CRT universal waste handlers accepting more than five CRTs or greater than 100 kilograms (220 pounds) of CRT glass from other (offsite) businesses must notify the DTSC by either the written or electronic submission methods described above (22 CCR 66273.82).

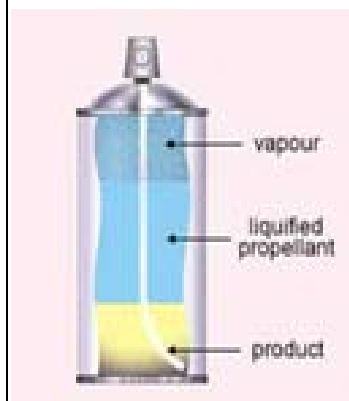
Notification Requirements for Processors of Cathode Ray Tube Wastes: Businesses that process (e.g., crush and shred) CRT universal wastes must notify the DTSC at least 30 days before commencing CRT processing activities [22 CCR 66273.83(c)]. The DTSC notification is written and very extensive and must include, but not limited to, the following:

- Description of the operation
- Financial responsibility demonstration
- Copies of air permits
- Records of CRT glass production and disposition
- Annual report
- Process closure and notification

If you want to process CRT universal waste at your business, you must first notify the DTSC of your proposed activities.

Notification Requirements for Processors of Non-Empty Aerosol Cans: Businesses that generate universal waste non-empty aerosol cans have the option to process (puncture and drain) their own cans but they must first notify our Department or the responsible local agency (i.e., the responsible CUPA) [HSC 25201.16]. It is illegal for businesses to process other (offsite) businesses' non-empty aerosol cans, unless they are permitted to do so (e.g., TSDf or household hazardous waste collection centers). The CUPA notification is written and very extensive and must include, but not limited to, the following:

- Facility identification and location information
- Type and number of cans to be processed
- Process equipment specifications



Therefore, if you want to puncture and drain your own non-empty universal waste aerosol cans at your business, you must notify our Department or your local CUPA of your proposed activities. Liquids drained from the cans can no longer be managed as universal waste; such liquids must be managed as “other” hazardous waste.

Management Requirements

Management Requirements for Small Quantity Handlers of Universal Waste:

Most handlers of universal waste are categorized as small quantity handlers of universal waste (SQHUW). Meaning, the individual or business does not accumulate 5,000 kilograms (5.5 tons) or more total universal waste at any time. There are separate regulations for handlers of CRT universal waste, which will be addressed in the next section below. For now, we will address the requirements for SQHUW as specified in the regulations, which include, but are not, limited to, the following:



- Do not dispose of universal waste to the trash.
- Do not accumulate more than 5,000 kilograms (5.5 tons) of universal waste at any one time. Otherwise, you will need to acquire an EPA identification number.
- Do not store universal waste for longer than one year after generating or receiving the waste (22 CCR 66273.15).
- Document the length of time onsite universal waste has accumulated from the date of its generation or its acceptance from someone else [22 CCR 66273.15(c)].
- Label or mark universal wastes, or containers or packages of universal waste, to identify their types (22 CCR 66273.14). The purpose of labeling is to ensure that emergency response personnel or an inspector can identify the universal waste.
- Generally, universal waste cannot be treated onsite except when cleaning up releases or managing specific wastes as specified in 22 CCR 66273.13. Treatment includes any activity that changes the characteristics of the waste. Releases must be cleaned up (e.g., leaking batteries or broken fluorescent tubes). Damaged universal waste must be repackaged and managed as universal waste. Manage any other materials generated, such as cleanup supplies and contaminated soil, as hazardous wastes if they are identified as hazardous waste (22 CCR 66273.13 and 17).
- Train employees in proper universal waste management

including handling, packaging, storing and labeling the universal waste, as well as how to respond to releases (22 CCR 66273.16). This training may be accomplished by simply giving employees written instructions or posting these instructions in the universal waste management areas of the building.

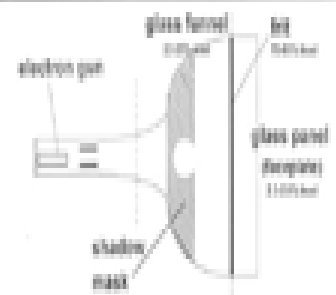
- For transportation purposes, determine whether the universal waste is hazardous material under the United State Department of Transportation (U.S. DOT) rules. For U.S. DOT hazardous materials, properly mark the packaging and placard the transportation vehicle. The applicable U.S. DOT regulations are in Title 49 Code of Federal Regulations, Parts 171 through 180.
- For transportation documentation purposes, proper shipping papers must be prepared, such as a bill of lading. However, a state uniform hazardous waste manifest is not necessary for universal waste shipments (22 CCR 66273.18).
- Universal waste can be transported in personal vehicles or by any common carrier allowed by U.S. DOT and California law to transport non-hazardous waste. Universal waste handlers are not required to use a registered hazardous waste hauler to transport universal waste (22 CCR 66273.18).
- Send all universal waste to a facility authorized to collect, recycle or dispose of universal waste. All universal waste must eventually be treated, recycled or disposed at a final destination facility, which must be a permitted treatment, storage, and/or disposal facility (TSDF).
- When exporting universal waste outside the country, comply with regulations addressing universal waste export (22 CCR 66273.20).
- Keep records of all shipments and receipts of universal waste at least three years (22 CCR 66273.19).

Management Requirements for Cathode Ray Tube Handlers:

In order to manage CRTs properly, as universal waste, all applicable requirements must be followed. Standards for CRT material handlers are set forth in Title 22, Chapter 23, Article 7 of the California Code of Regulations. These regulation requirements include, but are not limited to, the following:

- Do not dispose of CRT materials to the trash.
- Computer and television monitors must be handled and stored in a manner that prevents breakage. A CRT material handler shall contain any CRT materials in containers or packages that are structurally sound, adequate to prevent breakage, and compatible with the contents of the container (22 CCR

CRT Components



66273.83) A handler shall immediately cleanup and place in a container any CRT material that are broken or shows evidence of breakage, leakage or damage that could cause the release of lead or other hazardous constituents to the environment (22 CCR 66273.87). Broken CRTs may be managed as universal waste as long as they are shipped to an appropriate recycler.

- Each CRT, CRT device, container or pallet containing CRT devices or glass shall be labeled or marked clearly as “CRTs”, “CRT Devices”, “CRT Glass” or “Contains Leaded Glass” (22 CCR 66273.84).
- CRT wastes can be accumulated and stored on site for up to one year from the date generated or received from another handler. A CRT materials handler who accumulates CRT material must be able to demonstrate the length of time that the universal waste has been accumulated from the date it became a waste or was received. This may be demonstrated by keeping an on-site log or by labeling or marking all pallets, containers or individual CRTs to indicate when the material became a waste or was received on site (22 CCR 66273.85)
- When shipping CRT materials, the handler shall keep a record of each shipment of CRT material sent from the handler to other facilities (22 CCR 66273.88). The record may take the form of a log, invoice, manifest, bill of lading or other shipping document. The record for each shipment of CRT material sent shall include the following information:
 - The name and address of the CRT material handler, destination facility or foreign destination to whom the CRT material was sent;
 - The quantity (count or weight) of each type of CRT material sent; and
 - The date the shipment of CRT material left the facility.
- When receiving CRT materials, the handler shall keep a record of each shipment of CRT materials received at the facility (22 CCR 66273.89). The record may take the form of a log, invoice, manifest, bill of lading or other shipping document. The record for each shipment of CRT material received shall include the following information:
 - The name and address of the originating handler or foreign shipper;
 - The quantity (count or weight) of each type of CRT material received; and
 - The date of receipt of the shipment

- A CRT material handler shall inform all employees who handle or have responsibility for managing CRT material of the proper handling and emergency procedures appropriate for the waste handled at the facility (22 CCR 66273.86). A log of employee training regarding CRT management should be kept on site.
- The CRT material handler shall retain the records related to CRT management for at least three years. Such records include: inventory of waste generated, shipping and receiving logs/papers, employee training logs and so on.

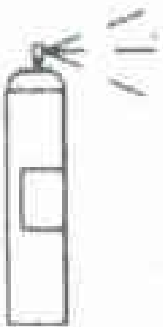
Management Requirements for Cathode Ray Tube Processors:

Facilities that process (e.g., treat or recycle) CRT materials must notify the DTSC prior to beginning processing activities as described in the previous section. Notification and management requirements for CRT material processing are addressed in the state regulations [22 CCR 66273.83(c)]. The DTSC currently implements the CRT material-processing program. If you want to process CRT universal waste at your business, you must first notify the DTSC of your proposed activities.

Management Requirements for Processors of Non-Empty

Aerosol Cans: Businesses that generate universal waste non-empty aerosol cans have the option to process (puncture and drain) their own cans but they must first notify our Department or the responsible local agency (i.e., the responsible CUPA) [HSC 25201.16] as described above in the previous section. It is illegal for businesses to process other (offsite) businesses' non-empty aerosol cans, unless they are permitted to do so (e.g., TSDf or household hazardous waste collection center). The rules for onsite processing of non-empty aerosol cans are specified in state Health and Safety Code [HSC 25201.16(h)-(j)]. The local CUPAs are responsible for overseeing the non-empty aerosol can processors. Therefore, if you want to puncture and drain your own non-empty universal waste aerosol cans at your business, you must notify our Department or your local CUPA of your proposed activities. Liquids drained from the cans can no longer be managed as universal; Such liquids must be managed as "other" hazardous waste. Specific draining requirements for non-empty aerosol cans include, but are not limited to, the following:

- Design specifications and operation guidelines for processing equipment



- Written procedures for management of drained contents
- Specifications for proposed area where cans are to be drained (i.e., processed)
- Written operation procedures and employee training documentation requirements

Management Requirements for Conditionally Exempt Small Quantity Universal Waste Generators: A conditionally exempt small quantity universal waste generator (CESQUWG) is a generator of universal wastes who:

- Generates no more than 100 kilograms (220 pounds) of RCRA hazardous wastes and no more than one kilogram (2.2 pounds) of acutely hazardous waste in any calendar month (when making this quantity determination, the generator must include all universal waste except CRT materials); and
- Generates a total of five or less CRT devices in a calendar year; and
- Remains in compliance with the federal EPA's special requirements for hazardous waste generated by conditionally exempt small quantity generators (40 CFR 261.5).

A business that qualifies as a CESQUWG is exempt from most universal waste management requirements (e.g., labeling and training). However, CESQUWGs are prohibited from disposing any universal waste in the trash.

Recycling Exclusions and Exemptions

The hazardous waste recycling laws and regulations are confusing. Basically, most people are confused by the hazardous waste recycling laws and regulations to some degree, and some people use this confusion to their advantage. So, what does this all mean? What are recyclable materials, exclusions and exemptions? What are the requirements for recyclers?

Definitions of Key Recycling Terms

Before summarizing laws and regulations, one should know the definitions of the following key terms:

Recyclable Materials are hazardous wastes that can be recycled.

Recycled means that a recyclable material has been used, reused, or reclaimed.

Used or Reused: A material is used or reused if it is either employed as an ingredient in a process to make a product or as a substitute for a commercial product.

Reclaimed: A material is reclaimed if it is processed to recover a usable product or if it is regenerated. Reclamation is basically using a waste stream after applying treatment to it.

Exclusion: The term “exclusion” is used to designate a provision in the state statute (HSC 25143.2) that “excludes” a recyclable material from classification as a waste. If a recyclable material is no longer regulated as a waste, it is not regulated under the hazardous waste laws (unless otherwise specified). So, if you meet the exclusion criteria, what you are handling is no longer a waste it is an “Excluded Recyclable Material.” That’s why they have special rules in state statute (HSC 25143.9).

Exemption: The term “exemption” is used to designate a provision in state statute (HSC 25143.2) that relieves a person from certain requirements, specifically in hazardous waste facility permit requirements. So, if you meet the exemption criteria, what you are doing does not need a permit, but what you are handling still is a waste and has to be handled like one in all other ways.



State statute (HSC 25143.2) contains exclusions that exclude qualifying recyclable materials from being classified as waste and exemptions that exempt qualifying activities from having to obtain a hazardous waste facility permits *if certain conditions are met*. Exclusions are addressed in HSC 25143.2 subdivision (b) and (d). Exemptions are addressed in HSC 25143.2 subdivision (c).

Exclusions

Subdivision (b) of HSC 25143.2 contains three exclusions. *Both RCRA and non-RCRA* recyclable materials may qualify. It states that recyclable material that is or will be recycled by any of the following methods shall be excluded from classification as a waste:

- Used or reused as an ingredient in an industrial process to make a product if the material is *not being reclaimed*, OR
- Used or reused as a safe and effective substitute for commercial products if the material is *not being reclaimed*, OR
- Returned to the original process from which the material was generated, *without first being reclaimed*, if the material is returned as a substitute for raw material feedstock, and the process uses raw materials as principal feedstock.

Subdivision (d) HSC 25143.2 contains six exclusions. *Only non-RCRA* recyclable materials may qualify. These exclusions are complex and some of them pertain solely to refinery-type businesses or other businesses engaged in uncommon recycling activities. The exclusions, or portions thereof, relating to uncommon recycling activities will not be addressed in this guidance document.

Recyclable material that meets or will meet any of the following requirements is excluded from classification as a waste: The material can be shown to be recycled and *used at the site where the material was generated* (i.e., it can be reclaimed, but it has to be used onsite).

OR

- The material qualifies as one or more of the following:
- The material is a *product* that has been processed from a hazardous waste and it meets both of the following conditions:

- The product does not contain constituents, other than those for which the material is being recycled that render the material hazardous, and
- The product is used, or distributed or sold for use, in a manner for which the product is commonly used.

OR

- The material is *used or reused as an ingredient in an industrial process* to make a product if the material is not being treated before introduction to that process except by one or more of the following procedures, and if any discharges to air from the following procedures do not contain constituents that are hazardous wastes and are in compliance with applicable air pollution control laws:
 - (A) Screening (B) Filtering (C) Sorting
 - (D) Sieving (E) Grinding
 - (F) Physical or gravity separation without the addition of heat or chemicals
 - (G) pH adjustment
 - (H) Viscosity adjustment

OR

- The material is *used or reused as a safe and effective substitute for commercial products*, if the material is not being treated except by one or more of the procedures listed above [(A) through (H)], and if any discharges to the air from the procedures listed above do not contain constituents that are hazardous waste and are in compliance with applicable air pollution control laws.

Exclusion Requirements: According to HSC 25143.9, a recyclable material shall not be excluded from classification as a waste, unless *all of the following requirements are met*.

- If the material is held in a container or tank, it must be labeled, marked, and placarded in accordance with requirements applicable to generators, except the container or tank shall be labeled or marked clearly with the words “Excluded Recyclable Material” instead of the words “Hazardous Waste,” and manifest document numbers are not applicable, AND
- The owner or operator of the business location where the material is located has a business plan that meets the requirements of HSC 25504, including but not limited to, emergency response plans and procedures, as described in subdivision (b) of section 25504, AND

- The material shall be stored and handled in accordance with all the local ordinances and codes, including, but not limited to, fire codes, governing the storage and handling of the hazardous material, AND
- If the material is being exported to a foreign country, the person exporting the material shall meet the requirements of Section 25162.1.

Recyclable Excluded Materials are Still Hazardous

Substances: Recyclable materials excluded from classification as a waste is not excluded from the definition of hazardous substances. Therefore, if a generator has quantities of excluded recyclable materials that exceed reportable quantities for hazardous materials as specified by the Hazardous Materials Management Program, the generator will have to acquire the associated permit and disclose his recyclable materials as hazardous substances.

Exemptions

Subdivision (c) of HSC 25143.9 contains two exemptions. *Both RCRA and non-RCRA wastes* qualify. The first exemption is specific to petroleum refinery waste and will not be addressed in this guidance document. The second exemption specifies conditions that have to be met.

In order to acquire the exemption, the material must *meet all* of the following conditions:

- The material is recycled (e.g., it can be reclaimed) and *used at the same facility at which the material was generated*, and
- The material is recycled within the applicable generator accumulation time limits, and
- The material is managed in accordance with all applicable requirements for generators of hazardous waste.

Exceptions to Exclusions and Exemptions

HSC 25143.2 subdivision (e), contains seven exceptions to the exclusions and exemptions. If a recyclable material is captured by one of these exceptions it will not qualify for the exclusion or exemption.

- Materials that are a RCRA hazardous waste used in a manner constituting disposal, or used to produce products that are applied to the land (e.g., fertilizer), or

- Materials that are a non-RCRA hazardous waste used in a manner constituting disposal, or used to produce products that are applied to the land (e.g., fertilizer). The DTSC may adopt regulations to exclude materials from regulation pursuant to “this paragraph,” or
- Materials burned for energy recovery, used to produce a fuel, or contained in fuels (there are exemptions and exclusions), or
- Materials accumulated speculatively (>1 year, use < 75%), or
- Materials determined to be inherently waste-like pursuant to regulations adopted by DTSC, or
- Used or spent etchants, stripping solutions, and plating solutions that are transported to an offsite facility operated by a person other than the generator and either of the following applies:
 - The etchants or solutions are no longer fit for their originally purchased or manufactured purpose, or
 - If the etchants or solutions are reused, the generator and the user cannot document that they are used for their originally purchased or manufactured purpose without prior treatment, or
- Used Oil

Record Keeping Requirements for Exclusions and Exemptions

HSC 25143.2 subdivision (f) contains the record keeping requirements that must be met as a condition to the exclusions and exemptions.

Any person who manages a recyclable material under a claim that the material qualifies for exclusion or exemption shall provide, upon request, provides all of the following information:

- The name, street and mailing address, and telephone number of the owner or operator of any facility that manages the material.
- Any other information related to the management by that person of the material requested by the authorized agency.

Any person claiming an exclusion or an exemption shall maintain adequate records to demonstrate to the satisfaction of the requesting agency or official that there is a known market or disposition for the material, and that the requirements of any exemption or exclusion pursuant to section HSC 25143.2 are met.

For purposes of determining that the conditions for exclusion from classification as a waste are met, any person, facility, site, or vehicle engaged in the management of a material under a claim



that our Department or the DTSC excludes the material from classification, as a waste shall be subject to inspection.

Recyclable Materials Biennial Report

Recyclable Materials Biennial Reports are completed by businesses and public agencies that recycle more than 100 kilograms per month of recyclable material under a claim that the material qualifies for an exclusion or exemption pursuant to HSC 25143.2. The directions for the Recyclable Materials Biennial Report instruct facilities that recycle at the same location at which the material was generated (onsite recyclers) and facilities that recycle materials generated at an offsite location (offsite recyclers) must complete a report. Persons who send materials to another location to be recycled, and who do not recycle materials onsite under a claim to an exclusion or exemption, need not complete a report. Offsite recyclers must complete one report for *each* generator from whom they receive recyclable materials. The Biennial Report has to be submitted to our Department every two calendar years and is due on July 1 of every even-numbered year. This form can be acquired from the *Long Version* of the UP Form, which can be obtained at our Department website at www.lacofd.org/hazmat.htm.

Sham Recycling

Generators engaged in “sham recycling” activities do not qualify for recycling exclusions or exemptions. To determine whether legitimate recycling, rather than sham recycling, is taking place, consider the following guidelines:

- If the material is only marginally effective for the claimed use, it's less likely recycling.
- If the material is similar to an analogous raw material or product, it's more likely recycling.
- If the material adds significant value to the final product, it's more likely recycling.
- If the secondary material has economic value comparable to the raw materials normally used, it is more likely recycling
- If there is a market for the end product, it is more than likely recycling.
- If the economics of using the material in the process make sense, it's more likely recycling.

Hazardous Waste Source Reduction and Management Review Act (SB 14)

The State of California considers source reduction of wastes as the preferred method of managing hazardous wastes. In order to reduce wastes at the source, a business must look at the processes that create the wastes and implement actions that will either cause a net reduction in the amount of hazardous waste generated or result in the generation of a waste that is less hazardous. The term hazardous waste minimization includes source reduction and recycling.

Source Reduction

Hazardous waste source reduction includes any action that reduces the generation of hazardous waste. Source reduction takes place before the hazardous waste is generated and results in lower quantities of hazardous waste or the lessening of the properties, which cause in to be classified as a hazardous waste [HSC section 25244.14(e)(1)].

Examples of source reduction include:

- Good Operating Practices – Good housekeeping, waste minimization training, purchasing, waste segregation, preventive maintenance
- Changes in Technology – Equipment layout, automation, process efficiencies, closed loop recycling
- Input Material Substitution- - Utilize less toxic alternatives
- Product Material Substitution – Changes in design, composition, or specifications of end product, including product substitution.

Source reduction does not include:

- Treatment
- Storage
- Off-site disposal
- Off-site recycling



There are incentives for businesses to reduce their waste. The incentives for source reduction include:

- Reduction in the liability associated with the handling, storage, and disposal of hazardous waste.
- Reduction hazardous waste disposal costs and hazardous materials cost.
- Reduction in employee exposures to hazardous materials and wastes.
- Reduction in regulatory requirements.

Senate Bill 14 Source Reduction Requirements

Passed in 1989, Senate Bill (SB) 14 is the first piece of legislation in the State of California to require that hazardous waste generators take a serious look at source reduction as the preferred method of managing waste.

Generators covered under SB 14 are those who routinely generate more than 12,000 kilograms (26,400 pounds or 13 tons) of hazardous waste or more than 12 kilograms (26 pounds) of extremely hazardous waste during a reporting year at a single site. Generators generating over 3,100 gallons of aqueous hazardous waste entering a pretreatment unit prior to sewer discharge are also included.

The Plan: Every four years, generators are required to prepare three documents. The first is a Source Reduction Evaluation Review and Plan (the Plan). The Plan must identify all major hazardous waste streams at the generator site. For each identified stream greater than 5% of the total waste generated, the generator must evaluate any and all potentially viable source reduction approaches, and implement those the generator has determined are feasible. A timetable for implementation must be included, and a technical and management representative of the facility must certify the Plan. The Plan is intended to cover activities to be taken during the following four-year period.

At a glance, The Plan should include:

- Name and address of site
- Description of site and business activities
- Quantity of hazardous waste generated
- Evaluation of source reduction options
- Implementation schedule
- Certifications

The Report: The second document the generator has to prepare is a Hazardous Waste Management Performance Report (the Report). The Report assesses the effectiveness of the hazardous waste management procedures previously implemented by the generator, including recycling and treatment activities.

At a glance, The Report should include:

- Name and address of site
- Description of current waste management practices
- Quantity of hazardous waste managed both on-site and off-site
- Assessment of implemented measures

Both the Plan and Report must be certified by a registered professional engineer, a registered environmental assessor, or a person familiar with the processes that generated the waste as well as, the owner (or an authorized representative) responsible for the processes/operations of the site. Plans and Reports are not required to be submitted to any agency, but must be made available to agencies and the public upon request. In addition, our Department will also usually request to review generators' Plans and Reports during hazardous waste inspections.

Summary Progress Report: The third document the generator has to prepare is the "Summary Progress Report." Unlike the Plan and the Report, which must be maintained onsite, the Summary Progress Report must be submitted to DTSC every four years. The Summary Progress Report is done on DTSC Form 1262.

At a glance, The Summary Progress Report should include:

- Data on source reduction accomplishments
- Information on projected source reduction projects

Source Reduction Compliance Checklist Option for Small Businesses: If a business qualifies as a "small business" (but not necessarily a small quantity generator), the small business has the option of completing a Source Reduction Compliance Checklist instead of a full Plan. The checklist is a simple, understandable way for small businesses to comply with the requirements of the source reduction law in an inexpensive, convenient manner. There are several types of Checklists – a generic one and many industry-specific ones. The Checklists must still contain an implementation schedule and certifications

Exempted Hazardous Waste: Not all hazardous waste is subject to the source reduction requirements. Some hazardous wastes are exempt, which include, but are not limited to the following:

- Automotive fluids
- Household hazardous wastes
- Site cleanup waste
- Lighting waste
- Lab-scale research waste
- Emergency response
- Lead acid batteries
- Pesticides containers
- Asbestos
- PCBs
- Medical waste

Compliance Deadlines

SB 14 requires generators to prepare SB 14 documents on or before September 1, 1991 and every four years thereafter, when generation of hazardous waste exceeds applicable threshold during a reporting year. For the most recent four-year period, the required SB 14 documents are the Plan, Performance Report, and Summary Progress Report. The three documents are to be prepared for the 2002-reporting year. All three reports should have been completed by September 1, 2003.

The requirement to prepare and submit the Summary Progress Report to DTSC's Office of Pollution Prevention and Technology Development applies to all generators subject to SB 14. For the 2002-reporting year, the Summary Progress Report was due September 1, 2003. The next reporting year is 2006.

If you have any questions regarding the SB 14 Source Reduction Program or you need additional information, guidance manuals or forms (e.g., DTSC Form 1262, Summary Progress Report), please contact the state program administrator:

Department of Toxic Substances Control
Office of Pollution Prevention and
Technology Development
P.O. Box 806
Sacramento, CA 95812-0806
(916) 322-3670

TIERED PERMITTING: ONSITE HAZARDOUS WASTE TREATMENT PROGRAM

Generators who want to treat their hazardous waste on site (i.e., at their facility), are required to retain the necessary permits before they begin treatment activities. The type of treatment permit required is dependent on the source, composition, concentration and volume of the hazardous waste to be treated, and it is also dependent on the treatment process to be used. Currently, the state has a five-tiered program for permitting the treatment of hazardous waste. This program is often referred to simply as *Tiered Permitting* (TP). Our Department issues the lower tier permits, known as Permit by Rule, Conditional Authorization, and Conditional Exemption, for treatment of onsite hazardous waste. The Department of Toxic Substances Control (DTSC) issues the upper tiers permits known as the Full Permit and Standardized Permit, for treatment of off-site hazardous waste.

Hazardous Waste 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. Examples of treatment include the following processes:



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

The legal definition of “treatment” was revised in 1998 that resulted in the exclusion of many activities provided that neither chemicals, heat nor pressure are added during the process [HSC 25123.5(b)]. Also, “treatment” does not include the removal of residues from manufacturing process equipment for the purposes of cleaning that equipment [HSC 25143.14].

Full Permit and Standardized Permit

The first two tiers of the TP program are the most highly regulated, and the associated permits are issued by the state DTSC.

The first tier is the *Full Permit*, which is required for facilities that treat RCRA hazardous waste accepted from other locations.

The second tier is the *Standardized Permit*, which is required for most facilities that treat non-RCRA hazardous waste accepted from other locations.

These two upper-most tiers are specifically for hazardous waste treatment facilities that accept hazardous waste from other generators. Our Department *Does Not* issue *Full Permits* or *Standardized Permits*. These permits must be acquired from the DTSC prior to storing or treating any hazardous waste accepted from other locations. The permit application process for these two upper tiers is extremely involved, and the associated permit fee range from thousands of dollars to hundreds of thousands of dollars. The rule of thumb is, if your business *does Not* have a *Full Permit* or a *Standardized Permit*, NEVER accept hazardous waste from other locations or businesses.

Tiered Permits Authorized by the Los Angeles County Fire Department

Our Department provides permits and authorization for the three lower tiers of the TP program. These tiers cover the treatment of RCRA and non-RCRA hazardous waste that are generated onsite at the facility within the businesses' normal operations. These lower tiers are designated for businesses that are engaged in certain low risk treatment activities; therefore, the permitting process and associated authorizations are simplified and the fees are lower. Compliance associated with the requirements of the lower tiers is determined by our Department through regulatory inspections after notification. These lower tiers are described below:

- **Permit By Rule (PBR):** This tier allows a facility to treat certain waste streams with designated methods [CCR, Div. 4.5, Chap. 45]. The PBR tier is for more hazardous waste streams and processes than Conditional Authorization and Conditional Exemption tiers described below.
- **Conditional Authorization (CA):** This tier applies to specific waste streams where most cannot exceed 5,000 gallons or

45,000 pounds in any calendar month. However, there are no quantity limits for treatment of specified aqueous waste with metals, aqueous waste with organic, elementary neutralization, or treatment of oily waste [HSC 25200.3]. Hazardous waste eligible for treatment within the CA tier is usually hazardous due to only a single hazard (i.e., flammability). If the waste is hazardous due to multiple hazards, it may need to be treated within the more regimented PBR tier.

- **Conditional Exemption (CE):** This tier applies to specified categories of lowest risk waste streams and treatment of limited volumes of waste of less than 55 gallons or 500 pounds in calendar month. The CE tier is further divided into the four following categories:
 - **Conditionally Exempt Small Quantity Treatment (CESQT)** [HSC 25201.5(a)]
To be eligible for CESQT, the facility may not have any other hazardous waste treatment permit.
 - **Conditionally Exempt Specified Waste Stream (CESW)** [HSC 25201.5(c)]
 - **Conditionally Exempt – Limited (CEL)** [HSC 25201.14]
 - **Conditionally Exempt Commercial Laundries (CECL)** [HSC 25144.6(c)]

The eligibility for the above lower tiers is based on a combination of the following five factors:

- Type of waste
- Chemical concentration
- Metals concentration
- Monthly volume treated
- Treatment technology

The DTSC has developed an *Onsite Tiered Permitting – Flowchart* to help businesses determine their eligibility for the three lower tiers described above. This flowchart can be obtained from the DTSC website at www.dtsc.ca.gov. The waste streams and treatment processes not found on the DTSC flowchart are not currently eligible for the three lower onsite tiers. Meaning, the *Full Permit* or the *Standardized Permit* would likely be required.

Exemptions and Exclusions

If a generator treats their hazardous waste onsite and also recycles their waste by methods pertaining to the recycling exemptions or exclusions (Refer to the Section on Recycling Exclusions and

Exemptions in this Guidance Document), their hazardous waste treatment activities may be *exempt* from tiered permitting requirements. In fact, a business that only recycles a portion of its non-hazardous waste stream (i.e., water) from the hazardous waste treatment process may still be eligible for the exemption.

Current DTSC policy allows a generator to recycle the hazardous, non-hazardous, or both portions of the waste onsite in order to meet the terms of the exemption. The DTSC has determined that it is sufficient to recycle only the water portion of the hazardous waste to qualify for the exemption. However, the DTSC may be reviewing this issue in the future and may establish standards for minimum amounts or percentages of recovered water actually reused onsite in order to qualify for a recycling exemption. Clearly, the larger the percentage of material recycled onsite, the more certain the recycling activity will be viewed as legitimate.

Even though operators that recycle their hazardous waste may be exempt from tiered permitting requirements, they have to abide by the recycling exclusion/exemption requirements and conditions as specified in the law. A generator should contact our Department before assuming that their recycling activities exempt them from the tiered permitting program. A wrong assumption by the generator could result in the illegal treatment of hazardous waste, which is a Class I violation punishable by fines, civil prosecution, and/or criminal prosecution.

Any business that claims an onsite recycling exemption allowing hazardous waste treatment without a tiered permit *must* file a *Recyclable Materials Biennial Report* with our Department every two years, with the next report being due on or before July 1, of an even year (e.g., 2004). This form is included in the CUPAs of Los Angeles County, *Long Version – Unified Program Long Version – Unified Program (UP) Form*, which can be downloaded from our Department web page at www.lacofd.org/hazmat.htm.

Onsite Hazardous Waste Treatment Management Requirements

Generators that want to treat their hazardous waste onsite must characterize their waste stream(s) to determine whether it is eligible for the lower tiers of our Department's hazardous waste treatment program. Meaning, the generator will have to conduct hazardous waste determination and waste analysis activities in order to sufficiently characterize their hazardous waste. In addition, the

generator needs to determine how many hazardous waste treatment units need to be employed and at what tier the units are going to operate under. Once the generators 1) adequately characterize their hazardous waste streams, 2) determine the amounts and types of treatment units required to sufficiently treat their waste, and 3) verify that one or more of the lower tiers are appropriate for their treatment activities, the generators can begin the notification process.

Onsite Hazardous Waste Treatment Notification

The generator must complete and submit a notification to our Department at least 60 days before starting any onsite hazardous waste treatment activities. Depending on the number of treatment units and associated treatment tiers, the notification process can be very extensive and time consuming.

The required notification forms generators must submit to our Department include the following CUPA Unified Program (UP) Forms:

- *Onsite Hazardous Waste Treatment Notification – Facility Page:* Only one facility page per facility has to be submitted regardless of the number of treatment units located at the site.
- *Onsite Hazardous Waste Treatment Notification – Unit Page:* One unit page has to be completed for each specific treatment unit located at the facility. These unit specific pages should be attached to the facility page for submittal. Commercial laundries are not required to complete unit specific pages, provided that laundering is the only hazardous waste treatment activity conducted by the facility.
- *Onsite Hazardous Waste Treatment – Waste and Treatment Process Combinations Page:* The process combination page is *Tier Specific*. Meaning, if a generator were pursuing the Permit by Rule treatment tier, the associated process combinations page would be referred to as the *Onsite Hazardous Waste Treatment – Permit by Rule (PBR) Page*. One process combinations page has to be completed for each specific treatment unit at the facility. These process combination pages should be attached to the facility page for submittal.
- *Certification of Financial Assurance:* The submittal of the certification of financial assurance is only required for Permit by

Rule and Conditionally Authorized onsite treater. PBR and CA operations are required to provide financial assurance for future estimated closure costs. Generators are eligible for exemptions from financial assurance requirements if closure cost estimates are not more than \$10,000. However, an adjustment to the closure cost estimate for inflation is required to be completed by March 1 of each year. This updated closure cost estimate must be maintained at the facility. Also, PBR operations that operate less than 30 days in any calendar year are also eligible for an exemption from the financial assurance requirement. However the Certification of Financial Assurance must be completed and submitted even if the generator qualifies for an exemption.

These notification forms can be downloaded from our Department web page at www.lacofd.org/hazmat.htm.

General Requirements for All Onsite Treatment Units (PBR, CA and CE)

All onsite treaters of hazardous waste must manage their waste in accordance to applicable requirements for a generator of hazardous waste. Such requirements include, but are not limited to, the following:

- *Contingency Plan*: The plan should address management practices that adequately minimize the potential for releases; address alarm/communication systems; and, list emergency equipment and phone numbers for emergency coordinators.
- *Written Training Records*: These records should document the type and amounts of training that hazardous waste handling employees have received.
- *Written Operating Instructions*: These written instructions must provide a record of the dates, volumes, residual management, and types of wastes treated in specific units. The written operating instructions must also address how to operate the treatment units(s) and carry out waste treatment; how to recognize potential and actual processes upset and respond to them; when to implement the contingency plan; and, how to determine if the treatment has been effective.
- *Written Inspection Schedule and Log*: The inspection schedule must document observations from the daily inspections of tanks and the weekly inspections of containers. A log of all inspections associated with the treatment systems must be kept onsite.

- *Adequate Compliance Records:* Adequate records must be maintained to demonstrate that the facility is in compliance with all applicable pretreatment standards and applicable industrial waste discharge requirements issued by the agency operating the publicly owned treatment works into which the secondary wastes are discharged.
- *Hazardous Waste Source Reduction Documents:* The generator has to prepare and maintain source reduction documents in compliance with the Hazardous Waste Source Reduction and Management Review Act (SB 14) requirements.
- *Tank Management:* Tanks of hazardous waste must be in good condition, labeled, and inspected daily. Storage time limits must be followed. Also, tanks must either have secondary containment or subjected to integrity assessments.
- *Container Management:* Containers of hazardous waste must be in good condition, closed, labeled, and inspected weekly. Storage time limits must be followed.
- *Proper Closure Activities:* Upon closure, the generator must remove or decontaminate any residue, equipment or soil.

Specific Requirements for CA and PBR Treatment Units

The Conditional Authorization and Permit by Rule tiers allow for the treatment of larger quantities of hazardous waste with usually higher concentrations of contaminants when compared to the lower Conditional Exemption tier options. Because of the higher associated risks of treatment, these tiers have additional management requirements, which include, but are not limited to, the following:

- *Containment Systems:* The generator must have secondary containment for treatment in containers and for transfer and storage areas. In addition, containment systems must be adequately maintained by repairing cracks and gaps and removing spills and leaks.
- *Phase I Environmental Assessment:* An environmental assessment has to be submitted to the DTSC within one year from initial notification. The assessment checklist and instructions are available from the DTSC.

- *Certification of Financial Assurance:* As previously discussed in the notification section, this certification must be completed and submitted to our Department prior to the treatment of any onsite hazardous waste.

Specific Requirements for PBR Treatment Units

The Permit by Rule tier allows for the treatment of larger quantities of hazardous waste with usually higher concentrations of contaminants when compared to the lower Conditional Authorization and Conditional Exemption tier options. Because of the higher associated risks of treatment, PBR tier options have additional management requirements, which include, but are not limited to, the following:

- *Written Waste Analysis Plan:* The objective of a waste analysis plan (WAP) is to describe the procedures that will be followed by the facility operator to obtain sufficient waste information to operate the hazardous waste treatment unit(s) safely and in compliance with regulatory standards. The WAP must describe the specific hazardous waste sampling and analysis procedures that will be conducted as part of the routine hazardous waste treatment activities.
- *Waste Analysis Records:* These records are a major portion of the operating records for the hazardous waste treatment units. The operating records describe the 1) quantities, methods and dates of all hazardous waste treated, 2) results of waste analyses, and 3) details of all the incidents that require implementing the contingency plan (i.e., summary reports).
- *Written Closure Plan:* The closure plan must describe how and when each treatment unit will be closed, including the steps needed to decontaminate each unit, and a schedule for the closure process.

Cyanide Regulation: On August 6, 2008, DTSC stopped issuing consent orders for treating aqueous cyanide containing waste and instead created new permit by rule authorization for destroying cyanides prior to sewer disposal (Title 22, Article 1, Chapter 45, Section 67450.11 (d)). This grant of authorization would apply only to businesses treating their own cyanide-containing wastes on the site where they were generated. DTSC gave CUPA the authority to be notified of any PBR cyanide treatment through the annual UP form reporting packet that facility submits to the CUPA. Refer to [http://www.dtsc.ca.gov/Hazardous Waste/cyanide/index.cfm](http://www.dtsc.ca.gov/Hazardous%20Waste/cyanide/index.cfm) for more information.

CHAPTER 2

HAZARDOUS MATERIALS MANAGEMENT PROGRAMS

HAZARDOUS MATERIALS MANAGEMENT PROGRAM

The Hazardous Materials Management Program ensures compliance with statutory provisions and regulations relating to hazardous materials inventories and emergency plans, which address emergency responses to hazardous materials releases or threatened releases and to avoidance of accidents involving certain hazardous materials. The California Health and Safety Code, Section 25502; the California Code of Regulations, Title 19, Section 2620-2734; and, the Los Angeles County Code, Title 32, Section 103.2.2.3 grant authority to our Department to administer the Hazardous Materials Inventories and Emergency Plans in incorporated cities and the unincorporated areas of Los Angeles County.

Businesses that handle significant quantities of hazardous materials that are subject to the requirements of the Hazardous Materials Management Program must notify our Department by submitting the necessary forms, inventories, and plans as described below.

Hazardous Materials

What is a hazardous material? According to the California Health and Safety Code, Section 25501, "hazardous material" means any material that, because of its quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment if released into the workplace or the environment. "Hazardous materials" include, but are not limited to, hazardous substances, hazardous waste, and any material which a handler or the administering agency has a reasonable basis for believing that it would be injurious to the health and safety of persons or harmful to the environment if released into the workplace or the environment.

Common types of hazardous materials include the following materials and wastes:

Petroleum Lubricating Oil	Hydraulic Oil	Cutting Oil
Used Oil	Gasoline	Diesel Fuel
Propane	Paint	Antifreeze (ethylene glycol)
Acetylene	Compressed Oxygen	Compressed Argon
Compressed Helium	Compressed Nitrogen	Compressed Carbon Dioxide
Freon	Chlorine	Ammonia



Perchloroethylene	Hydrochloric Acid	Mineral Spirits
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Basically, hazardous materials are those chemicals or substances which exhibit physical or health hazards, whether the materials are in a usable or waste state.

Physical Hazards

Materials that exhibit physical hazardous are within the following categories of hazardous materials.

Blasting Agent is any material or mixture consisting of a fuel and oxidizer intended for blasting, not otherwise classified as an explosive, in which none of the ingredients are classified as explosives, provided that the finished product as mixed and packaged for use or shipment cannot be detonated by means of a Number 8 test blasting cap when unconfined. Materials or mixtures classified as nitrocarbonitrates by the Department of Transportation (DOT) regulations shall be included in this definition.



Explosive is (1) a chemical that causes a sudden, almost instantaneous release of pressure, gas and heat when subjected to sudden shock, pressure, or high temperatures; or (2) any chemical other than a blasting agent, commonly used or intended to be used for the purpose of producing an explosive effect.

Flammable Gas is a gas that is flammable in a mixture of 13% or less (by volume) with air, or the flammable range with air is greater than 12%, regardless of the lower limit.

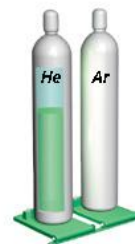
Flammable Liquid is any liquid having a flash point below 100 degrees F and having a vapor pressure not exceeding 40 psi at 100 degrees F. If the liquid is a waste and it has a flash point of 140



Combustible Liquid is a liquid having a flash point at or above 100 degrees F.

Flammable Solid is a solid substance, other than one which is defined as a blasting agent or explosive, that is (1) liable to cause fire through friction, or as a result of retained heat from manufacture or which (2) has an ignition temperature below 212 degrees F or which (3) burns so vigorously or persistently when ignited so as to create a serious hazard. This includes finely divided solid materials which, when dispersed in air as a cloud, may be ignited and cause an explosion.

Compressed Gas is (1) a gas or mixture of gases in a container having an absolute pressure exceeding 40 psi at 70 degrees F; or (2) a gas or mixture of gases in a container having an absolute pressure exceeding 104 psi at 130 degrees F regardless of the pressure at 70 degrees F. The term “inert gas” has been applied to some compressed gases such as nitrogen, helium, argon, and carbon dioxide. Compressed gases are to be identified by their common chemical names and/or proper chemical name. Furthermore, any compressed gas above the disclosure threshold quantity of 200 cubic feet is subject to disclosure reporting requirements (discussed below).



Cryogenic Fluids are those fluids that have a normal boiling point below -150 degrees F.

Oxidizer is a chemical other than a blasting agent or explosive that initiates or promotes combustion in other materials, thereby causing fire either of itself or through the release of oxygen or other gases



Pyrophoric is a chemical that will spontaneously ignite in air at a temperature of 130 degrees F or below.

Unstable (reactive) is a chemical which in the pure state, or as produced or transported, will vigorously polymerize, decompose, condense, or will become self-reactive under conditions of shock, pressure, or temperature.

Water-Reactive Material is a material that explodes, violently reacts, produces flammable, toxic or other hazardous gases; or evolves enough heat to cause self-ignition or ignition of nearby combustibles upon exposure to water or moisture.

Health Hazards

Materials are considered to be health hazards when there is statistically significant evidence based on at least one study conducted in accordance with established scientific principles that acute or chronic health effects may occur in exposed persons. Materials that exhibit health hazardous are within the following categories hazardous materials.

Carcinogen is a material known to cause cancer. A material is considered to be a carcinogen if (1) it has been evaluated by the International Agency for Research on Cancer (IARC) and found to be a carcinogen or potential carcinogen; or (2) it is listed as a carcinogen or potential carcinogen in the latest edition of the Annual Report of Carcinogens published by the national Toxicology Program (NTP); or (3) it is regulated by OSHA as a carcinogen.





Corrosive is a chemical that causes visible destruction of, or irreversible lacerations in, living tissue.



Etiological Agent is a microorganism, or its toxin, which causes or may cause human disease, and is limited to those agents listed in Code of Federal Regulations (CFR) 42, part 72.3.

Highly Toxic Materials are chemicals or substances classified as "Poison A or B" under CFR 49, or which have been assigned a health hazard rating of 3 or 4 when rated in accordance with Uniform Fire Code (UFC) Standard Number 79.3.

Irritant is a substance other than a corrosive that causes a reversible inflammatory effect on living tissue by chemical action at the site of contact.



Radioactive Material is any material or combination of materials that spontaneously emits ionizing radiation.

Target Organ Toxin is a substance that causes damage (target organ effects) to particular organs or systems.

Listed Hazardous Materials

There are numerous listings of hazardous materials in the laws and regulations. Two such listings include regulated substances and extremely hazardous substances. These lists are addressed in detail in the Risk Management Program (RMP) portion of this manual.

A list of chemical names and common names for hazardous wastes and hazardous materials is presented in the California Code of Regulations, Title 22, Section 66261.126. California regulations can be accessed at DTSC's web site at <http://www.dtsc.ca.gov/>.

Management of Hazardous Materials

Separation of Incompatible Chemicals

Title 32 of the Los Angeles County Code, Section 8001.9.8 requires that incompatible materials be stored separately. Chemical reactions occur when certain chemicals are mixed together. In uncontrolled circumstances (i.e., spills), chemical that are not



compatible with each other may react with one another and produce any of the following hazards:

- Heat or pressure
- Fire or explosion
- Violent reaction
- Toxic dust, mists, fumes or gases, or
- Flammable fume or gases

Chemicals which, when mixed with each other, can react to produce the above hazards are termed “incompatible.” They must be stored separately in order to prevent uncontrolled chemical reactivity hazards. For hazardous materials storage, this requirement only applies *if* containers have a capacity of greater than five pounds or one-half gallon.

Incompatible chemicals are typically separated from one another by the following methods:

- Distance – separate by a distance of not less than 20 feet
- Partition – isolate using partitions, berms or spill pallets
- Cabinets – enclose in prefabricated structures specifically for chemical storage

Chemicals can usually be grouped into generic hazard groups, with the more common groups being flammable/combustible, acid, alkaline, oxidizer and reactive. These groups are incompatible with each other and must be stored separately. The best way to determine incompatibility of your chemicals is to consult the Material Safety Data Sheets (MSDS). Section One of the MSDS will identify the chemical family and Section Four (Reactivity Data) will identify incompatible materials. Hazardous waste may be harder to categorize, as it may have undergone chemical changes in the process of becoming a waste. If the waste has not retained the same chemical properties as the material, consult the waste profile (for disposal) or a professional to help you determine in what hazard group the waste belongs.

Hazardous Materials Labeling

If hazardous materials are not properly labeled they must be managed as hazardous waste [22 CCR 66261.2(f)]. Title 32 of the Los Angeles County Code 8001.9.8 requires that individual containers, cartons or packages be conspicuously marked or labeled in accordance with nationally recognized standards. These standards can be found in the Occupational Safety and Health Act (OSHA), Title 29 CFR 1910.1200(f), which require that each



ACETONE	<input type="checkbox"/>	4 Severe hazard
HEALTH	1	3 Serious hazard
FLAMMABILITY	3	2 Moderate hazard
REACTIVITY	2	1 Slight hazard
PERSONAL PROTECTION	<input type="checkbox"/>	0 Minimal hazard

container of hazardous chemicals in the workplace be labeled, tagged or marked with the following information:

- Identity of the hazardous chemical(s)
- Appropriate hazard warnings

Labels or tags can be purchased from a safety supply company, or the required information can be marked directly on the container. Chemical name(s) and hazard warnings can be found on the MSDS provided by the supplier when the chemical was purchased. If you can not locate the MSDS, obtain one from the supplier. Place the label, tag or marking in a conspicuous place on the container. Individual stationary process containers can be identified by signs, rather than affixing the label to the container.

Who Qualifies as a Hazardous Materials Handler?

Reporting Criteria

State law requires disclosure by all businesses that handle a hazardous material or a mixture containing a hazardous material above the reportable quantity at any one time during the reporting year. Reportable quantities are aggregate quantities equal to or greater than a total volume of 55 gallons or a total weight of 500 pounds, or 200 cubic feet at standard temperature and pressure for compressed gases.

A mixture that contains one percent or more of a hazardous ingredient is a hazardous material. A mixture that contains on tenth of one percent or more of a carcinogen is a hazardous material. Regulated substances (RS) must be reported if the listed threshold quantity (TQ) is exceeded even if this quantity is less than 55 gallons, 500 pounds, or 200 cubic feet.

A business that handles quantities of hazardous materials that exceed the above referenced reportable quantities must complete the required unified program forms to obtain a Hazardous Materials Management Program permit from our Department unless one of the following exemptions apply.

Exemptions

Oxygen, nitrogen, and nitrous oxide, ordinarily maintained by a physician, dentist, podiatrist, veterinarian, or pharmacist, stored at each office or place of business in quantities of not more than 1,000 cubic feet of each material at any one time, are exempt from reporting requirements [HSC 25503.5 (b)(1)].

Lubricating oil is exempt *if* the total volume of each type of lubricating oil does not exceed 55 gallons and the total volume of all types of lubricating oil handled at that facility does not exceed 275 gallons, at any one time. “Lubricating oil” means any oil intended for use in an internal combustion crankcase, or the transmission, gearbox, differential, or hydraulic system of an automobile, bus, truck, vessel, plane, heavy equipment, or other machinery powered by an internal combustion or electric powered engine [HSC 25503.5 (b) (2) (A) and (B)]. “Lubricating oil” DOES NOT INCLUDE used oil.

Retail stores are exempt from disclosure requirements if the hazardous material is contained solely in a consumer product for direct distribution to, and use by, the general public [HSC 25503.5 (c) (1)]. Auto parts retail stores that are collection centers for used oil need to disclose waste oil. If a retail business handles certain quantities of a product which the inspector discerns to pose a significant threat to public health, safety or the environment, the business can be required to disclose that material. Mixed retail/wholesale stores are exempt from disclosure requirements with the exception of propane (or other hazardous materials) used by the store for operational purposes. Auto parts retail stores that are collection centers for used oil need to disclose waste oil. All hazardous waste generated at retail stores in quantities exceeding state reporting quantities IS NOT exempt.

Unstaffed remote facilities located in an isolated sparsely populated area may be exempt from annual reporting requirements. Businesses deemed as exempt will be required to submit an initial inventory and business plan for review and pay a processing fee. Upon approval, the business will no longer be required to submit an annual inventory or business plan. The business will also be exempt from any annual fees. Not all unstaffed remote facilities qualify for the exemption. For example, the types and quantities of materials onsite are limited to one or more of the following:

- (1) Five hundred standard cubic feet of compressed inert gases,
- (2) Five hundred gallons of combustible liquid used as a fuel source,
- (3) Two hundred gallons of corrosive liquids used as electrolytes in closed containers,
- (4) Five hundred gallons of lubricating and hydraulic fluids,
- (5) Twelve hundred gallons of flammable gas used as a fuel source.



Farms: A business plan is not required from a business operating a farm for the purposes of cultivating the soil or raising or harvesting any agricultural or horticultural commodity; however, the business is required to submit an annual inventory to the County Agricultural Commissioner [HSC 22503.5 (c) (5)]. The County Agricultural Commissioner then forwards the inventory directly to our Department.

Marine and rail transportation containers: Hazardous materials contained in any rail car, tank car, rail freight container, marine vessel, or marine freight container that remains within the same railroad facility, marine facility, or business facility for less than 30 days are exempt from disclosure reporting requirements. But if storage is for more than 30 days the business is subject to disclosure reporting requirements [HSC 25503.7].

Diesel fuel at a construction sites: Diesel fuel stored at any temporary construction site is exempt from disclosure reporting requirements. However, the responsible construction company should notify the local fire station, in writing, stating how much diesel is involved, how it is stored, where it is stored, and the estimated length of time it will be at the site.

Hazardous Materials Management Program Requirements

General Requirements

Most businesses that handle reportable quantities of hazardous materials are required by state law and regulation to prepare, submit, and implement hazardous business plans for emergency response to releases or threatened releases of hazardous materials. These business plans must include the facility's inventory of hazardous materials handled, an emergency response plan for actual or threatened releases, an employee-training program, and a facility map displaying the locations of reportable hazardous materials. The chemical inventories are to be updated and submitted annually, and the overall business plans are to be reviewed and submitted every three years or as often as significant changes in business operation require. These requirements are specified in the California Health and Safety Code, Sections 25503.5, 25504, 25505, 25509 & 25510, and in Title 19 of the California Code of Regulations, Sections 2729-2734. In addition to these disclosure requirements, hazardous materials handlers within the jurisdiction of our Department must obtain an annual Unified Program Facility Permit for the Hazardous Materials Management



Program and any of the other CUPA program element permits if applicable.

Standardized Unified Program Forms

In order to help businesses comply with the Hazardous Materials Management Program requirements, our Department has adopted standardized state forms that, when completed and submitted, satisfy the disclosure requirements for most businesses. The pertinent laws and regulations should always be reviewed to verify that the completed form submittals are sufficient to comply with the requirements expected for your business. Copies of the Standardized Unified Program (UP) Forms can be downloaded electronically by accessing our Department's web site at <http://www.lacofd.org>. Once you access our home page, please select the "Customer Services" ellipsis and, then, left-click on "Health Haz Mat" to access the Health Hazardous Materials Division web page, where the forms can be downloaded from.

General UP Forms to be completed include the Business Activities Page and Business Owner/Operator Identification Page (Form 2730). UP Forms to be completed that are specific to the Hazardous Materials Management Program include the Consolidated Contingency Plan and the Hazardous Materials Inventory – Chemical Description (Form 2731). These two specific forms are described below.

The Consolidated Contingency Plan (CCP), when completed and submitted to our Department, generally satisfies the business plan, emergency response plan, employee-training program, and facility map requirements of the Hazardous Materials Management Program. At a minimum, the CCP should be reviewed and submitted to our Department every three years.

The Hazardous Materials Inventory – Chemical Description (Form 2731) when completed and submitted to our Department, generally satisfies the hazardous materials inventory requirement of the Hazardous Materials Management Program. The hazardous materials inventory must be updated submitted to our Department every year. However, after the businesses' complete their initial inventory submittals, the inventories are entered into our Department's computer database, whereby the businesses will later receive annual computer-generated printouts of their inventories to review, update and, then, submit to our Department.

Clarifications for Annual Hazardous Materials Reporting Form Submittals

After your business initially submits the required UP Forms for the Hazardous Materials Reporting Program, it will begin receiving an annual Hazardous Materials Reporting Forms compliance package from our Department, which will include a computer generated printout of your Hazardous Material Inventory. The annual compliance package will also include blank Hazardous Materials Inventory, Chemical Descriptions Forms (Form 2731) and a blank Consolidated Contingency Plan (CCP). In order to avoid confusion, the following clarifications have been provided to help businesses understand and complete Hazardous Materials Reporting Forms included in the annual compliance packages. These clarifications were derived from common reporting mistakes and frequently asked questions.

Consolidated Contingency Plans (CCPs)

- Blank CCPs will be attached to you Annual Hazardous Materials Reporting Forms every year. The law requires that a CCP for your business must be completed or updated every three years. Therefore, **if you have completed a CCP within the last two years**, you DO NOT have to complete and submit the blank CCP forms enclosed in the compliance packaged.

Hazardous Materials Inventory – Chemical Description (Form 2731)

- The “**MAXIMUM DAILY AMOUNT**” (Field #218) referenced on Form 2731 is the MAXIMUM amount of the chemical you have at anytime during the year. It is NOT the maximum amount of the chemical you USE on a daily basis.
- The “**AVERAGE DAILY AMOUNT**” (Field #217) referenced on Form 2731 is the AVERAGE amount of the chemical you have at anytime during the year. It is NOT the average amount of the chemical you USE on a daily basis.
- If you are **REVISING** or **DELETING** chemicals from your Hazardous Materials Inventory, please make revisions or write “delete” directly on the enclosed **computer printout** of your chemical inventory information.

- If you are **ADDING new chemicals** to your inventory, use the blank Form 2731 enclosed in the compliance package. If you have more than one chemical to add, make copies of the blank form. Please use one Form 2731 per chemical.
- If there is NOT a **computer printout** of your chemical inventory in your annual Hazardous Materials Reporting Forms compliance package, then, you need to **ADD** your chemicals by completing one Form 2731 per chemical.
- If your Hazardous Material is **PURE**, be sure to fill in the **CHEMICAL NAME** (Field #205), **COMMON NAME** (Field #207), and **CAS #** (Field #209) on Form 2731. You DO NOT complete the **HAZARDOUS COMPONENT** section (Fields #226 to #246b).
- If your Hazardous Material is a **MIXTURE** or **WASTE**, DO NOT fill in the **CHEMICAL NAME** (Field #205) or the first **CAS #** (Field #209) on Form 2731. However, be sure to complete the **HAZARDOUS COMPONENT** section (Fields #226 to #246b), which includes the component names, EHS status, and CAS #.
- For **PURE** chemicals, only “Check” “**YES**” for RS (Field #246a) EXCEEDS the Threshold Quantity (TQ) amount listed on Regulated **Substances List** enclosed in the compliance package.
- For **MIXTURES** or **WASTES** only “Check” “**YES**” for RS (Field #246b) on Form 2731 **IF** the **HAZARDOUS COMPONENTS** are LISTED AND EXCEED the Threshold Quantity (TQ) amounts listed on the **Regulated Substances List** enclosed in the compliance package.
- Our Division prefers that **PRESSURIZED GASES** (including liquefied gases) be disclosed in cubic feet (Field #221) on Form 2731 at standard temperature and pressure. However, if the gas is a **REGULATED SUBSTANCE** (see below), it must be reported in pounds.

Regulated Substance Registration Form

- If your **PURE** chemicals in your chemical inventory are NOT LISTED or NO NOT EXCEED the Threshold Quantity (TQ) amounts listed on the **Regulated Substances Lists** enclosed in the compliance packaged, DO NOT complete the Regulated

Substance Registration form also enclosed in the compliance packaged.

- If the **COMPONENTS** of your **MIXTURES** or **WASTES** in your chemical inventory are NOT LISTED or DO NOT EXCEED the Threshold Quantity (TQ) amounts listed on **the Regulated Substance List** enclosed in the compliance package, DO NOT complete the Regulated Substance Registration form also enclosed in the compliance packaged.

CHAPTER 3

CALIFORNIA ACCIDENTAL RELEASE PREVENTION PROGRAM (Cal-ARP)

CALIFORNIA ACCIDENT RELEASE PREVENTION PROGRAM (Cal-ARP)

The California Accident Release Prevention (CalARP) program's main objective is to prevent accidental releases to ambient air of those regulated substances (RS) determined to potentially pose the greatest risk of immediate harm to the public and the environment. The planning activities required by the program are intended to minimize the possibility of an accidental release by encouraging engineering and administrative controls.¹ It is further intended to mitigate the effects of an accidental release, by requiring owners or operators of facilities to develop and implement an accident prevention program. Subsequently, the owner or operator may be required to develop and submit a risk management plan (RMP) to the administering agency

The Cal-ARP program encompasses both the federal "Risk Management Program", established in the Code of Federal Regulations, Title 40, Part 68, and the State of California program, in accordance with the California Health and Safety Code, Chapter 6.95, Article 2.

Selected Definitions in the CalARP Program:

Administering Agency – Is the local agency responsible to implement the Cal-ARP Program. The local agency can either be a Certified Unified Program Agency (CUPA) or a Participating Agency (PA), depending on where the facility is located (See the list of CUPAs and PA). In most instances in Los Angeles County area, the administering agency is the Los Angeles County Fire Department.

Owner or operator – any person who owns, leases, operates, controls, or supervises a stationary source.²

Person – an individual, corporation, partnership, association, state, municipality, political subdivision of state, and any agency, department, or instrumentality of the United States and any officer, agency, or employee thereof.³

¹ OES CalARP Implementing Agency Guidance

² USEPA Guidance Document for Risk Management

³ California Code of Regulations, Title 19, Section 2735.3

Regulated Substance – any substance listed in California Code of Regulations, Title 19, Section 2770.5. The regulated substance list is found in Appendix C

Risk Management Plan (RMP) – a document that must be a true and accurate reflection of a facility’s compliance with all of the risk reduction elements of the Cal-ARP program.⁴ It includes the implementation aspects of accidental release prevention program for that facility.

Stationary source – any buildings, structures, equipment, installations, or substance emitting stationary activities which belongs to the same industrial group, which are located on one or more contiguous properties, which are under a control of the same person, and from which an accidental release may occur.⁵

Who is covered under the Cal-ARP Program?

Any owner or operator of a stationary source that has more than a threshold quantity of a regulated substance (RS) in a process would be covered under Cal-ARP Program. (See Appendix C).

What is considered a process?

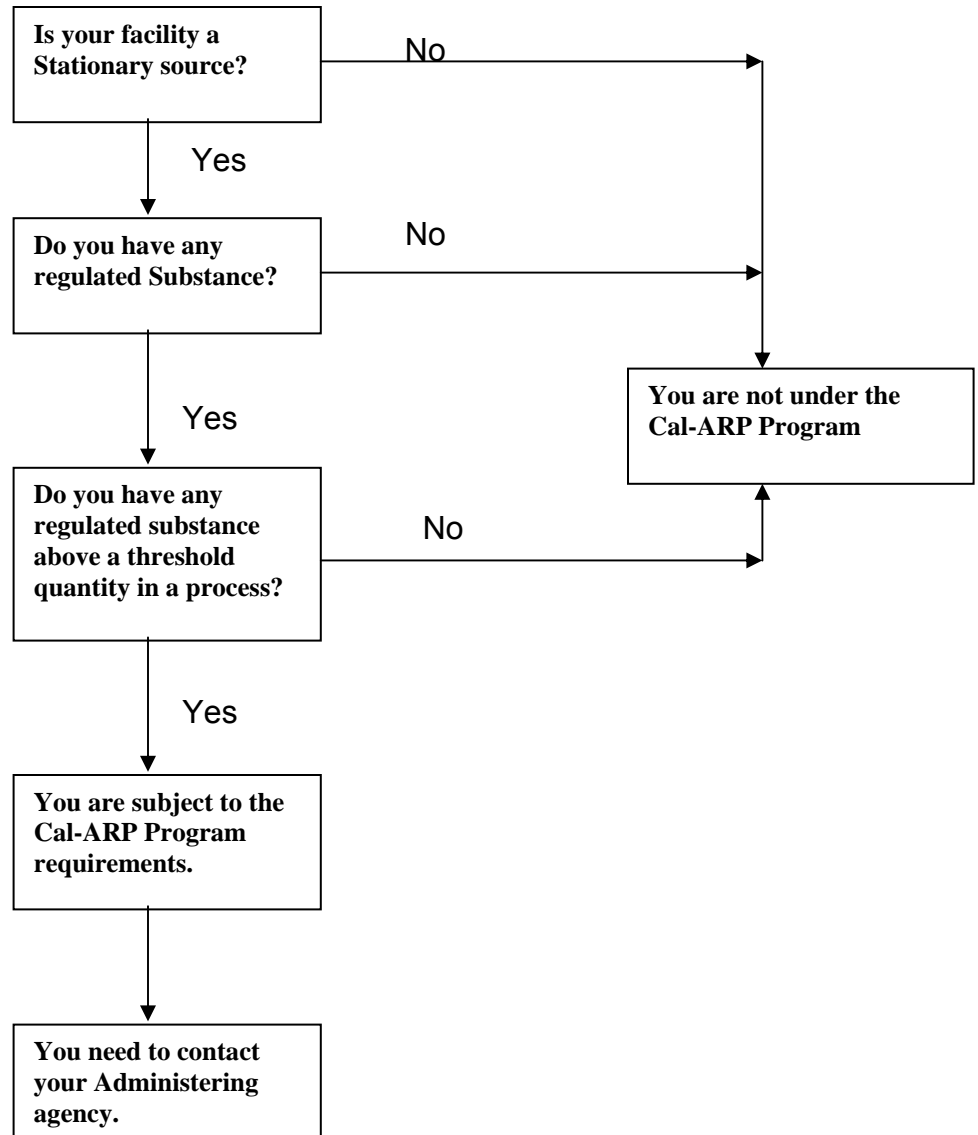
Process means any activity involving a regulated substance including any use, storage, manufacturing, handling, or on-site movement of such substances, or combination of these activities. A process can involve one or more storage containers, tank farms, plating tanks, reactor vessels, distillation columns, receivers, pumps, waste treatment process, etc.

⁴ OES CalARP Implementing Agency Guidance

⁵ California Code of Regulations, Title 19, Section 2735.3

Exhibit 1

How to Identify Covered Process



Once it is determined the process is under Cal-ARP program, what's the next step?

Owners or operators of stationary source must submit a Regulated Substance Registration form that is found in the Unified Program Forms, to this department. The Unified Program Forms are available online at <http://lacofd.org/hhazmat.htm>.

If the RS exceeds the quantity in Table 1 or Table 2, the facility is subject to Federal ARP requirements and must submit a copy of the RMP to USEPA. In addition, the facility must provide a copy of the RMP, with a completed RS registration to the administering agency.

However, if a facility has an RS that exceeds the quantity in Table 3 but less than Table 1, the facility may be required to submit an RMP along with RS registration to the administering agency.⁶ The administering agency will make a preliminary determination as to whether the handling of an RS has significant likelihood to pose an accident risk. If the administering agency finds an RMP is required, the owner or operator of a facility would work closely with administering agency to determine the appropriate level of documentation required for an RMP.

Three Program Levels:

The regulations define three program levels depending upon the complexity, accident history, and potential offsite consequence of covered processes. Each process is assigned to a program level, which indicates the risk management measures necessary to comply with the regulation for that process, not the facility as a whole.⁷

- ✓ **Program Level 1** covers processes that pose comparatively low risks to the public, with no public receptors within the distance to an endpoint from a worst-case release scenario. In addition, the facility must not have had a release of the RS from the process during the past five years.

- ✓ **Program Level 3** typically covers the more complex chemical processes. The process is subject to the OSHA Process Safety Management (PSM) standard, or the stationary source has an accident history, or the process is in Standard Industrial Classification (SIC) Codes 2611, 2812, 2812, 2819, 2865, 2869, 2873, 2879, or 2911. Program Level 3 processes are primarily

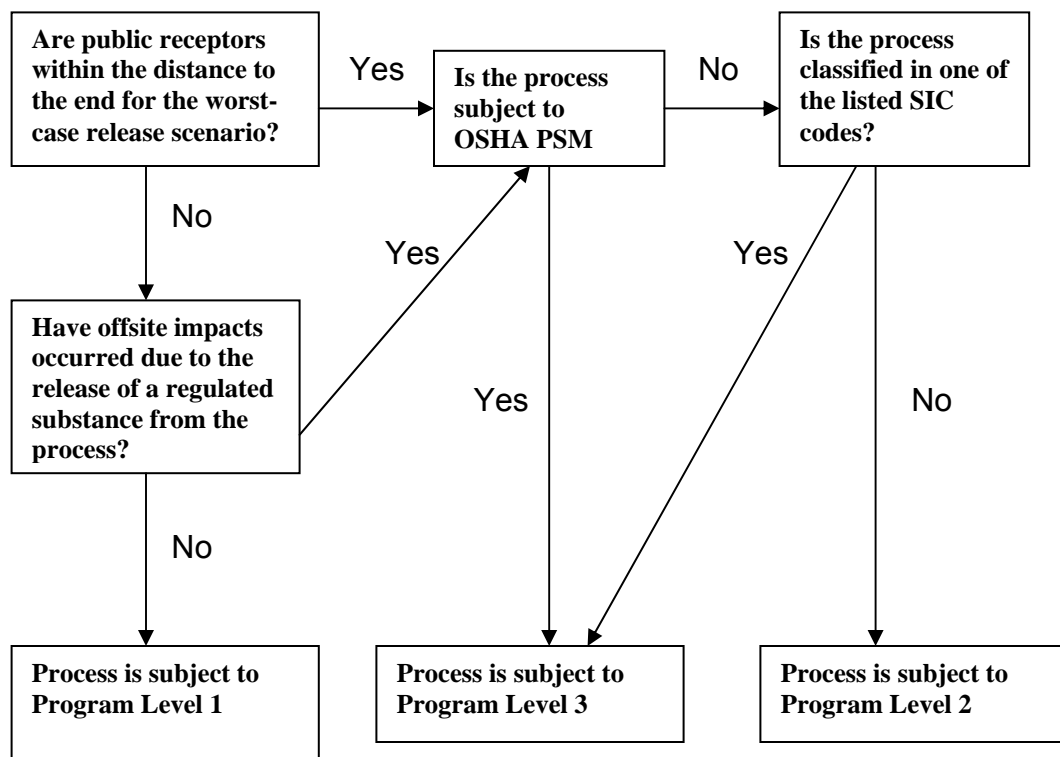
⁶ OES Cal-ARP Implementing Agency Guidance

⁷ USEPA Guidance Document for Risk Management Programs

located at medium to large manufacturing facilities, petroleum refineries, facilities with large refrigeration systems, utilities, and publicly owned drinking water or wastewater treatment plants,⁸ refineries, facilities with large refrigeration systems, utilities, and publicly owned drinking water or wastewater treatment plants.⁹

- ✓ **Program Level 2** covers processes that do not meet the Program Level 1 and Program Level 3 requirements. The processes typically have less complex processes than program Level 3.

Program Level Assignment



Once the program level is identified, determine the level of documentation required in the RMP. The five-year accident history and the worst-case release scenario are required, regardless of the program levels of the processes involved. Furthermore, only one RMP needs to be submitted for all the processes. Requirements for each program level are summarized as follow:

⁸ OES Cal-ARP Implementing Agency Guidance

⁹ OES Cal-ARP Implementing Agency Guidance

PROGRAM REQUIREMENTS

Program 1	Program 2	Program 3
Worst-case release analysis	Worst-case release analysis	Worst-case release analysis
	Alternative release analysis	Alternative release analysis
5-year accident history	5-year accident history	5-year accident history
	Document management system	Document management system
Prevention Program		
Certify no additional prevention steps needed	Safety Information	Process Safety Information
	Hazard Review	Process Hazard Analysis
	Operating Procedures	Operating Procedures
	Training	Training
	Maintenance	Mechanical Integrity
	Incident Investigation	Incident Investigation
	Compliance Audit	Compliance Audit
		Management of Change
		Pre-Startup Review
		Contractors
		Employee Participation
		Hot Work Permits

EMERGENCY RESPONSE PROGRAM

Coordinate with local Emergency responders	Develop plan and program (if applicable) and coordinate with local emergency responders	Develop plan and program (if applicable) and coordinate with local emergency responders
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The following table¹⁰ serves as a guide on submission requirements:

Over Table 1 or 2 Threshold Quantity	Over Table 3 Threshold Quantity	Type of Facility	Submission To:	Timeframe
Yes	Yes or No	Existing	USEPA and AA	RMP was due by 6/21/99. If RMP was not submitted, the facility is out of compliance.
Yes	Yes or No	New or Modified	USEPA and AA	Before the threshold quantity of the chemical is in the process.
No	Yes	Updates	AA only	12-36 months after the AA determines an RMP is required
No	Yes	New or Modified	AA only	Before the threshold quantity of the chemical is <u>used</u> in the process

¹⁰ OES CalARP Implementing Agency Guidance

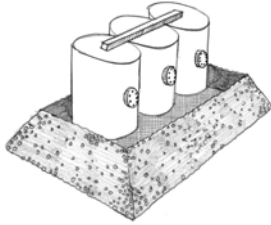
Components in RMPs are extensively discussed in USEPA Guidance Document for Risk Management Program. The following resources are tools how to develop and implement the RMP:

Federal Code of Regulations, Title 40, Part 68	http://www.access.gpo.gov/nara/cfr/cfrhtml_00/Title_40/40cfr68_00.html
California Health and Safety Code, Sections 25531-25543.3	http://www.leginfo.ca.gov
California Code of Regulations, Title 19, Sections 2735.1-2785.1	http://www.calregs.com
USEPA Guidance Document	http://yosemite.epa.gov/oswer/ceppoweb.nsf/content/EPAguidance.htm
Governor's Office of Emergency Services	http://www.oes.ca.gov/Operational/OESHome.nsf/OpenForm

CHAPTER 4

ABOVEGROUND PETROLEUM STORAGE TANKS

|



APSA
HSC 25270-25270.13

SPCC Requirements
40 CFR 112

ABOVEGROUND STORAGE TANK PROGRAM

The Aboveground Storage Tank (AST) Program is regulated by the California Aboveground Petroleum Storage Act (APSA) and is currently enforced, and administered by the CUPA to the extent provided by Chapter 6.67 and Sections 25270-25270.13 of the California Health and Safety Code. The local CUPA also has the authority to verify whether AST facilities are in compliance with the Federal Spill Prevention Control and Countermeasure Plan requirements. This authority became effective on January 1, 2008 with the passage of AB1130 amending the APSA. Prior to the passage of this law, the State Water Resource Control Board and the Regional Water Quality Control Board administered this program.

Aboveground Petroleum Storage Act

APSA was enacted in 1990 and later amended on October 13, 2007, in response to petroleum spills and releases from aboveground tanks and associated piping. The APSA was enacted in direct response to the 1988 spill of 400,000 gallons from the Shell Oil Refinery in the City of Martinez. The goal of the AST Program is to protect navigable waters from the damaging effects of petroleum releases by ensuring the safe operation of aboveground petroleum storage facilities. The APSA refers to federal oil pollution prevention regulations.

Facilities Subject to the AST Program

The AST Program applies to aboveground storage facilities containing petroleum subject to Spill Prevention, Control and Countermeasure (SPCC) requirements specified in Part 112 of Title 40 of the Federal Code of Regulations.

A facility is subject to the AST Program if it meets all the following criteria:

- The facility stores petroleum-based products that are liquids at 60°F and 14.7 psi. Some examples include aviation and automotive fuels, lubricating oils, heating oils, and some solvents. Biofuels that contain E85, B20 and B99 are also included. The above definition of petroleum-based product does not include propane.
- The cumulative aboveground storage capacity of petroleum-based products at the facility is greater than 1,320 gallons. However, only ASTs or containers of oil with a capacity of 55 gallons or greater are counted. The aboveground storage capacity of a facility does not include the capacity of containers

that is designated as “permanently closed., completely buried tanks or storage containers used exclusively for waste water treatment.” Also, the 1,320-gallon threshold applies to storage capacity contained in operating equipment as well as to storage capacity in containers.

- The facility could reasonably be expected to discharge oil into or upon the navigable waters of the United States or adjoining shorelines during a release incident. It is the SWRCB’s general position that all petroleum AST facilities in California that meet the 1320-gallon threshold requirement have a reasonable probability of discharging into the navigable waters of the state. The US EPA concurs with this determination.

AST Program Requirements

Notification

On or before January 1, 2009 and annually thereafter, owners and operators of petroleum AST facilities with a cumulative storage capacity of greater than 10,000 gallons must file a tank facility statement with the CUPA with the following information:

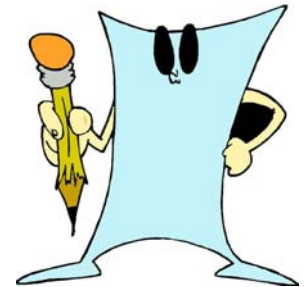
- Name and address of tank facility
- Name of a designated contact person for the facility
- The total storage capacity of the tank facility
- For each tank that exceeds 10,000 gallons in capacity and which holds substances containing at least five percent petroleum, the following information has to be documented:
 - Location (on facility)
 - Size (in gallons)
 - Age (in years)
 - Contents (type of petroleum product)

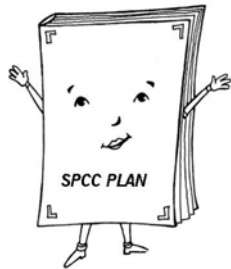
Most AST facilities that are subject to the AST program (i.e., store more than 10,000 gallons of petroleum based products) must prepare and implement an SPCC Plan in accordance with the oil pollution prevention guidelines contained in Part 112 of Title 40 of the Code of Federal Regulations. These plans must include procedures, methods, and equipment at the facility to prevent discharges of petroleum from reaching navigable waters. The SPCC Plan may be self-certified for 10,000 gallons or less aggregate oil storage capacity or professional engineer certified for more than 10,000 gallons aggregate aboveground oil storage capacity has examined the facility. Once completed, the plan must be kept at the facility.

Petroleum ASTs
Pose a Risk to
California's Navigable
Waters



Got ASTs?
You Must Notify the
SWRCB

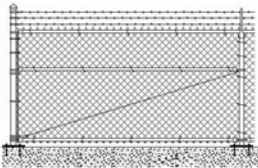




Prevent Oil Spills



AST Facilities should
Be Secured



Spill Prevention, Control and Countermeasure Plan

The SPCC Plan must include:

- Name and correspondence address of the person responsible for the facility
- Facility location
- Spill prevention information
 - Name and title of person accountable for spill prevention
 - List of possible equipment failure sources and types of failures to be expected
 - Predicted rate and direction of spill flow
 - Spill prevention procedures developed for facility
 - Documentation of personnel training in spill prevention, pollution control, and other pertinent training
- Facility drainage information
 - Procedures to remove water and rainwater without subsequent contamination by oil
 - Drainage for assessing water quality of water released from diked areas and discharged to storm drains or watercourses, if applicable.
- Bulk storage tank information
 - Description of tank materials and design
 - Secondary containment design
 - Tank inspection methods and record keeping practices
- Security
 - Facility fences, gates, and entrance ways managed to prevent unauthorized entry
 - Locked valves and locked pump controls to prevent tampering or accidental releases
 - Adequate lighting

The above list is just an example of what is usually addressed in SPCC Plans. Please refer to the guidelines contained in Part 112

Most Farms are Exempt
From Federal SPCC
Requirements



of Title 40 of the Code of Federal Regulations for SPCC Plan requirements applicable to your AST facility. For additional information, visit U.S. EPA Website at <http://epa.gov./oilspill/spcc.htm>

Exemptions from Spill Prevention, Control and Countermeasure Requirements

The following are exempt from SPCC requirements:

- Boilers and Pressure vessels
- Oil production tanks
- Hazardous waste tanks covered under PBR and at DTSC permitted facilities.
- Nursery & farms and logging & construction sites with:
 - Single AST capacities of less than 20,000 gallons
 - Cumulative AST capacity of less than 1000,000 gallons
- Most oil filled electrical equipment

AST Program Fees

Each year, commencing in calendar year 2010, each owner or operator of a tank facility who is subject to the requirements of 25270.6 (a) shall pay a fee to the CUPA, on or before a date specified by the CUPA (H&SC § 25270.6(b))

For additional information, visit U.S. Environmental Protection Agency's Web site at:

www.calepa.ca.gov/CUPA/Aboveground/FactSheetSPCC.pdf.
<http://www.epa.gov/oilspill/spcc.htm>.

CHAPTER 5

UNDERGROUND STORAGE TANK PROGRAM

UNDERGROUND STORAGE TANK PROGRAM

The Underground Storage Tank (UST) Program began in 1984 when the United States Congress passed the Resource Conservation and Recovery Act (RCRA). Subtitle I of this federal statute establishes the UST Program. The Code of Federal Regulation (CFR) further defines the UST requirements of RCRA. Most of the UST regulations can be found in 40CFR Part 280 and 40CFR Part 281. Federal requirements can be found on the U.S. Environmental Protection Agency's Office of Underground Storage Tanks web site: <http://www.epa.gov/oust/>.

The State of California has further defined the federal laws and regulations related to the UST Program. State law, Health and Safety Code (HSC) Division 20, Chapter 6.7, governs the UST Program, and regulates the program in the California Code of Regulations (CCR) Title 23, Division 3, Chapter 16 and Chapter 18. The State Water Resources Control Board (SWRCB) is the authorized State agency to regulate the UST Program. The HSC and CCR can be viewed on the SWRCB web site: <http://www.swrcb.ca.gov/cwphome/ust/>. Financial requirements for the cleanup of any unauthorized release or spill from the UST system can be found on the SWRCB Cleanup Fund web site: <http://www.swrcb.ca.gov/cwphome/ustcf/index.html>.

The Los Angeles County Code Title 11, Division 4, Underground Storage of Hazardous Materials, established the UST Program in Los Angeles County in 1983. Under the Los Angeles County Code, any tank which is substantially or totally beneath the surface of the ground which is used to store hazardous materials or substances is considered to be an underground storage tank. There are no exemptions provided under the Los Angeles County Code for underground storage tanks as there are in the HSC and CCR. Permitting UST facilities in the Unincorporated Los Angeles County areas and 76 cities (see attached list) is the jurisdiction of the Los Angeles County Department of Public Works (DPW), Environmental Programs Division. DPW is a Participating Agency (PA) to the Los Angeles County Certified Unified Program Agency (CUPA) or Los Angeles County Fire Department (LACoFD). The Los Angeles County Code can be found on the following website: <http://ordlink.com/codes/lacounty/> DATA/TITLE11/

UST permits (installation, modifications/addendum's, transfer of CUPA UST operating permit, closure by removal, closure in-place and temporary closure) must be initiated at the DPW Environmental Programs Division.

A. To permit the installation of new USTs, applications should include the following:

- Completed Hazardous Materials Underground Storage Permit (HMUSP) application
- Completed New Construction Plan Clearance/Addendum application;
- All fees payable to the Los Angeles County Department of Public Works (for HMUSP, pro-rated Annual Permit Maintenance Fee, and Plan Check Addendum fees);
- Completed Unified Program Forms BUSINESS, FACILITY (Form A) and TANK (Form B);
- Completed Certification of Financial Responsibility form;
- Work plan to perform enhanced leak detection or other approved method;
- Monitoring proposal/response plan;
- At least 4 sets of plans need to be submitted. Submitted plans should include the following:
 - Site plan to scale depicting the tank(s) and fill and piping sumps, type of hazardous material to be stored, piping layout (product/waste, vapor recovery (gasoline), tank vent, remote fill) and dispensers (if any), location of monitoring system panel, audible/visual alarms (if any), building structures, streets (and cross street), utilities, and north arrow;
 - A detailed part list which includes the manufacturer name, model number, and third party approval of equipment to be installed. The parts list shall include (but not be limited to):
 - ◆ Double-walled tank, size and product to be stored;
 - ◆ Sumps (fill and piping);
 - ◆ Phase I Enhanced Vapor Recovery equipment (see Air Resources Board Executive Orders <http://www.arb.ca.gov/vapor/eo.htm>);
 - ◆ Spill buckets;
 - ◆ Drop tube;
 - ◆ Overfill protection device(s);
 - ◆ Double-walled piping (product, vent, vapor recovery, remote fill, flex) and sizes;
 - ◆ Penetration/bullhead fittings/test boots;
 - ◆ Turbine (for pressurized systems);

- ◆ Automatic Line Leak Detector (for pressurized systems);
 - ◆ Under dispenser containment (UDCS);
 - ◆ Monitoring panel and alarm;
 - ◆ Monitoring sensors: Tank interstitial, automatic tank gage/high level alarm (if any), fill and piping sump sensors, UDC sensors and any vapor sensors.
- Detail drawing of each: All primary and secondary containment equipment which is designed to hold hazardous materials (tanks, sumps, penetration fittings, piping, UDC) must be labeled as being product tight. Tank details should show the parts listed above at a minimum.
- All construction must conform to the requirements of the HSC and CCR as well as local fire and building and safety codes. When construction is completed, the Unified Program Tank Installation form (Form C), monitoring system certification, line test results, secondary containment testing results and results of enhanced leak detection or other approved method to satisfy requirements of the HSC must be submitted to the DPW Environmental Programs Division before the UST is put into service.
 - Permits/clearance for installations must also be obtained from the LACFD or local fire department, the DPW Building and Safety Division or local city building and safety equivalent, either the South Coast or Antelope Valley Air Quality Management Districts (AQMD), and the State Division of Occupation, Safety and Health (Cal-OSHA) Excavation Permit.

B. Modifications and/or addendum's made to the underground storage tank facility:

Modifications and/or addendum's to the underground storage tank system may be made only if permitted by the DPQ Environmental Programs Division. In general, a modification is any change to the UST's primary and/or secondary containment, including piping, under dispenser containment, fill and/or piping sumps.

To make changes to a UST system component, such as removing piping and or dispensers, generally the requirements for new tank installation apply except that vent and vapor recovery piping are not required to be double walled, enhanced leak detection is not required, and the Unified Program Facility form, Certification of Financial Responsibility, and the Hazardous Materials Underground Storage Permit application and the pro-rated Annual Maintenance fees do not need to be submitted.

C. Transfers of the Hazardous Materials Underground Storage Permit (HMUSP):

DPW Environmental Programs Division must be notified within 30 days of any change in ownership or in the event of a change of operator of an underground storage tank. When a transfers of ownership occurs, the MHUSP may be transferred to the new owner by completing the Application of Transfer, submitting the applicable fee, Unified Program Facility form, a Certification of Financial Responsibility and paying applicable fees.

D. UST closure by removal, closure in-place, and temporary closure:

Closure of an underground storage tank is permitted by the DPW Environmental Programs Division. Closure by removal of a UST, piping and/or dispensers, the closure in-place of a UST and the temporary closure of a UST must comply with the closure conditions as directed on the Closure Permit as well as meet the requirements of HSC Chapter 6.7, Section 25298, CCR Title 23, Division 3, Chapter 16, Sections 2670 through 2672, and the Los Angeles County Code. It is the policy of Los Angeles County to not allow closure in-place of a UST unless it can be demonstrated that it is not applicable to do so.

Closure permit applications shall include at a minimum:

- Site plan to scale which shows the tanks, piping, dispensers, structures, property lines and overhead and underground utilities;
- Completed Unified Program Forms (FACILITY (Form A) and TANK (Form B)).

DPW authorization to remove, close in-place or temporary close USTs is only valid for 180 days. Closure by removal or in-place requires a closure report to be submitted within 30 days of

completing closure-related activities. A closure report will include soil sampling results, plot plan to scale of sampling points, a description of the method of obtaining, handling, and/or transporting soil samples, completed and signed chain of custody, disposal destination of USTs and evidence of legal disposal, analysis date, methods of extraction, and methods of analysis, documentation as the depth manifests, which document hazardous waste disposal of, removed piping, soil, and tank rinsate, and the report must be prepared under the direction of a California registered geologist, or Civil Engineer. Soil samples are required under each tank, every 20 feet of piping and under each dispenser or remote fill. For USTs containing petroleum hydrocarbons, soil sampling analysis must meet at a minimum the California Regional Water Quality Control Board Los Angeles Region requirements of June 5, 2000 http://www.swrcb.ca.gov/rwqcb4/docs/lab_req_6-00.doc

Permits/clearance for closure must also be obtained from the LACoFD or local fire department, the DPW Building and Safety Division or local city building and safety equivalent, either the South Coast (rules 1149 and 1166) or Antelope Valley AQMD, and Cal-OSHA Excavation Permit.

For questions regarding the underground storage tank program you may contact.

County of Los Angeles
Department of Public Works
Environmental Programs Division
900 South Fremont Avenue
Annex 3rd Floor
Alhambra, CA 91803-1331
Phone No. 626-458-3517
Fax No. 626-458-3569

JURISDICTION FOR WHICH THE UNDERGROUND STORAGE TANK PROGRAM (UST) IS ADMINISTERED BY LOS ANGELES COUNTY DEPARTMENT OF PUBLIC WORKS, ENVIRONMENTAL PROGRAMS DIVISION

UNINCORPORATED LA COUNTY	GARDENA	NORWALK
AGOURA HILLS	GLENDORA	PALMDALE
ALHAMBRA	HAWAIIAN GARDENS	PALOS VERDES ESTATES
ARCADIA	HAWTHRONE	PARAMOUNT
ARTESIA	HERMOSA BEACH	PICO RIVERA
AVALON	HIDDEN HILLS	POMONA
AZUSA	HUNTINGTON PARK	RANCHO PALOS VERDES
BALDWIN PARK	CITY OF INDUSTRY	REDONDO BEACH
BELL	INGLEWOOD	ROLLING HILLS
BELL GARDENS	IRWINDALE	ROLLING HILLS ESTATES
BELLFLOWER	LA CANADA FLINTRIDGE	ROSEMEAD
BEVERLY HILLS	LA HABRA HEIGHTS	SAN DIMAS
BRADBURY	LA MIRADA	SAN GABRIEL
CALABASAS	LA PUENTE	SAN MARINO
CARSON	LA VERNE	SANTA CLARITA
CERRITOS	LAKEWOOD	SIERRRA MADREE
CLAREMONT	LANCASTER	SOUTH EL MONTE
COMMERCE	LAWNDALE	SOUTH GATE
COMPTON	LOMITA	SOUTH PASADENA
COVINA	LYNWOOD	TEMPLE CITY
CUDAHY	MALIBU	WALNUT
CULVER CITY	MANHATTAN BEACH	WEST COVINA
DIAMOND BAR	MAYWOOD	WEST HOLLYWOOD
DOWNEY	MONROVIA	WESTLAKE VILLAGE
DUARTE	MONTEBELLO	WHITTIER
EL MONTE	MONTEREY PARK	

CHAPTER 6

SITE REMEDIATION OVERSIGHT PROGRAM

SITE REMEDIATION OVERSIGHT PROGRAM

The Site Mitigation Unit (SMU) of the Health Hazardous Materials Division, Los Angeles County Fire Department provides corrective action and voluntary oversight for remediation of contaminated sites and approval of closure plans within the jurisdiction of the Los Angeles County Unified Program Agency (LACoCUPA). This service is provided to ensure protection of public health and the environment and to facilitate completion of site a business and/or property owner intending to obtain site closure with agency oversight in the LACoCUPA jurisdiction: Regional Water Quality Control Board (RWQCB) and the Department of Toxic Substances Control (DTSC). Outside of LACoCUPA, this service may be provided by the Cities of Glendale, Santa Fe Springs, El Segundo, Long Beach and Vernon.

SITE ASSESSMENT/REMEDiation OVERSIGHT AUTHORITY

California Health and Safety Code, Section 101480 et seq. and the Los Angeles County Code Title 12, Chapter 12.60 gives authority to Los Angeles County Fire Department to provide voluntary oversight for the assessment and remediation of hazardous materials releases and to recover costs from responsible parties (RPs). The Department of Toxic Substances Control (DTSC) amended California Code of Regulations (CCR) Title 22 Chapter 45, §67450.7 and adopted Title 22, Chapter 50, §68400.11-.16 in August 2006, to delegate Corrective Action (CA) authority to the Certified Unified Program Agencies (CUPA). DTSC has determined that Los Angeles County CUPA is qualified at the Tier 2 level (highest Tier) to implement and enforce environmental assessment and corrective action conducted pursuant to Health and Safety Code, §25200.3©(3), 25187, 25187.1, 25200.10, and 2500.14 and in accordance with the requirement of CCR Title 22, §68400.11 et seq. Pursuant to CA authority, Los Angeles County CUPA is qualified to:

- Inspect permit-by-rule facilities
- Review phase I environmental assessments
- Enforce compliance with phase I requirements
- Issue an order for corrective action
- Implement and enforce corrective action at applicable sites

The SMU staff is involved with oversight of site assessment and remediation work.

SITES SUBJECT TO SITE REMEDIATION OVERSIGHT PROGRAM

The owner or responsible party of any real estate property wishing agency oversight and approval of contaminated site remediation and a final closure report may voluntarily request such by submitting an appropriate request, fee and existing site investigation reports.

OVERSITE FEES

An initial fee of \$1974.00 and an hourly rate of \$131.58 (July 1, 2007) are charged to the RP to recover the SMU review of site assessment and remediation activities, as approved by the County Auditor Controller (12.60.050). Hourly charges begin upon assignment of the case to an SMU project officer.

DOCUMENTATION/REPORTS

The documentation necessary for submittals must generally conform to DTSC's "Preliminary Endangerment Assessment Guidance Manual" (PEA). If groundwater resources are potentially threatened, as determined by SMU, assessment and remediation must also generally conform to the RWQCB's "Interim Site Assessment and Cleanup Guidebook". Other Cal-EPA or United States Environmental Protection Agency Superfund guidance documents should also be considered as a performance standard.

TO INITIATE SITE REMEDIATION OVERSIGHT, SUBMIT THE FOLLOWING:

1. Written requests for oversight, signed by the responsible party, indicating willingness to enter into SMU cost recovery program. Property owner information, responsible party information, and Assessor Identification number for the property must be included in the letter.
2. A check for \$1974.00
3. A copy of all existing site investigation reports.

If you have any questions or require any additional information, please contact the Site Mitigation Unit at (323) 890-4106 or (323) 890-4045.

**APPENDIX A
CUPA'S IN LOS ANGELES COUNTY**

El Segundo Fire Department
314 Main Street
El Segundo, CA 90245
(310) 524-2242

Glendale Fire Department
780 Flower Street
Glendale, CA 91201
(818) 548-4030

**Long Beach/Signal Hill JPA
Long Beach Health Department**
2525 Grand Avenue
Long Beach, CA 90815
(562) 570-4128

Vernon Environmental Health
4305 Santa Fe Avenue
Vernon, CA 90058
(323) 583-8811

Santa Fe Springs Fire Department
11300 Greenstone Avenue
El Segundo, CA 90245
Santa Fe Springs, CA 90670
562) 944-9713

Los Angeles City Fire Department
200 N. Main St., Rm. 970
Los Angeles, CA 90012
(818) 548-4030
(213) 485-8080

City of Santa Monica Environmental Programs
200 Santa Monica Pier #1
Santa Monica, CA 90401
(310) 458-8228

**Los Angeles County Fire Department
Health Hazardous Materials Division**
5825 Rickenbacker Road
Commerce, CA 90040
(323) 890-4045

APPENDIX B

LOS ANGELES COUNTY CUPA PARTICIPATING AGENCIES

Alhambra Fire Department

301 N. First Street
Alhambra, CA 91801
Tel: (626) 570-3234
FAX: (626) 457-8961

Programs

Haz Materials Program
Cal-ARP Program

Burbank Fire Department

311 E. Orange Grove Ave
Burbank, CA 91502
Burbank, CA 91502
Tel: (818) 238-3384
FAX: (818) 238-3479

Programs

Haz Materials Program
Cal-ARP Program
UST Program

Compton Fire Department

201 S. Acacia
Compton, CA 90220
Tel: (310) 605-6294
FAX: (310) 632-8414

Programs

Haz Materials Program
Cal-ARP Program

Culver City Fire Department

P.O. Box 507
9770 Culver Blvd
Culver City, CA 90232-0507
Tel: (310) 253-5930
FAX: (310) 253-5824

Programs

Haz Materials Program
Cal-ARP Program

Downey Fire Department

11111 Brookshire Ave
Downey, CA 90241
Tel: (562) 904-7348
FAX: (562) 904-7270

Programs

Haz Materials Program
Cal-ARP Program

Monrovia Fire Department

141 E. Lemon Avenue
Monrovia, CA 91016
Tel: (626) 256-8110
FAX: (626) 256-8112

Programs

Haz Materials Program
Cal-ARP Program

Pasadena Fire Department
199 S. Los Robles Ave #550
Pasadena, CA 91101
TEL: (626) 744-4288
FAX: (626) 585-9164

Programs
Haz Mat Program
Cal-ARP Program
UST Program

**Redondo Beach
Fire Department**
401 S. Broadway
Redondo Beach, CA 90277
TEL: (310) 318-0663
FAX: (310) 376—3407

Programs
Haz Materials Program
Cal-ARP Program

**South Pasadena
Fire Department**
817 S. Mound Street
South Pasadena, CA 91030
Tel: (626) 403-7300
FAX: (626) 403-7301

Programs
Haz Mat Programs
Cal-ARP Program

Torrance Fire Department
3031 Torrance Blvd
Torrance, CA 90503
Tel: (310) 618-2973
FAX: (310) 781-7506

Programs
Haz Materials Program
Cal-ARP
UST

**County of Los Angeles
Agricultural Commissioner/
Weights & Measures**
12300 Lower Azusa Road
Arcadia, CA 91006
Tel: (626) 459-8892
FAX: (626) 443-6652

Programs
Haz Mat Program
For Farms & Nurseries

**Los Angeles County
Department of Public
Works, Environmental Program**
Division
900 S. Fremont Avenue
Alhambra, CA 91803-1331
Tel: (626) 458-3511
FAX: (626) 458-3569

Programs
UST Program for all jurisdictions,
except Burbank,
Pasadena and Torrance

Appendix C

Cal-ARP Program Combined¹ List of Chemicals and Threshold Quantities (TQ)

Chemical Name	CAS Number	Table 1 TQs in (lbs)	Table 2 ² TQs in (lbs)	Table 3 TQs in (lbs)
Acetaldehyde	75-07-0		10,000	
Acetone cyanohydrin ³	75-86-5			1,000
Acetone thiosemicarbazide	1752-30-3			1,000/10,000 ⁴
Acetylene [Ethyne]	74-86-2		10,000	
Acrolein [2-Propenal]	107-02-8	5,000		500
Acrylamide	79-06-1			1,000/10,000 ⁴
Acrylonitrile [2-Propenenitrile]	107-13-1	20,000		10,000
Acrylyl chloride [2-Propenoyl chloride]	814-68-6	5,000		100
Aldicarb	116-06-3			100/10,000 ⁴
Aldrin	309-00-2			500/10,000 ⁴
Allyl alcohol [2-Propen-1-ol]	107-18-6	15,000		1,000
Allylamine [2-Propen-1-amine]	107-11-9	10,000		500
Aluminum phosphide ⁵	20859-73-8			500
Aminopterin	54-62-6			500/10,000 ⁴
Amiton oxalate	3734-97-2			100/10,000 ⁴
Ammonia (conc 1% or greater) ⁶	7664-41-7			500
Ammonia (anhydrous) ⁶	7664-41-7	10,000		500
Ammonia (conc 20% or greater) ⁶	7664-41-7	20,000		
Ammonium hydroxide (ammonia conc 1% or greater) ⁶	1336-21-6			500
Ammonium hydroxide (ammonia conc 20% or greater) ⁶	1336-21-6	20,000		
Aniline ³	62-53-3			1,000
Antimycin A	1397-94-0			1,000/10,000 ⁴
ANTU	86-88-4			500/10,000 ⁴
Arsenic pentoxide	1303-28-2			100/10,000 ⁴
Arsenous oxide	1327-53-3			100/10,000 ⁴
Arsenous trichloride	7784-34-1	15,000		500
Arsine	7784-42-1	1,000		100
Azinphos-ethyl	2642-71-9			100/10,000 ⁴
Azinphos-methyl	86-50-0			10/10,000 ⁴
Benzene, 1-(chloromethyl)-4-nitro-	100-14-1			500/10,000 ⁴
Benzeneearsonic acid	98-05-5			10/10,000 ⁴
Benzimidazole, 4,5-dichloro-2-(trifluoromethyl)-	3615-21-2			500/10,000 ⁴
Benzotrichloride ³	98-07-7			100
Bicyclo[2.2.1] heptane-2-carbonitrile, 5-chloro- 6-(((methylamino) carbonyl)oxy)Imino)-, (1s-(1-alpha, 2-beta, 4-alpha, 5-alpha, 6E))-.	15271-41-7			500/10,000 ⁴
Bis(Chloromethyl) ketone	534-07-6			10/10,000 ⁴
Bitoscanate	4044-65-9			500/10,000 ⁴
Boron trichloride [Borane, trichloro-]	10294-34-5	5,000		500
Boron trifluoride [Borane, trifluoro-]	7637-07-2	5,000		500

Chemical Name	CAS Number	Table 1 TQs in (lbs)	Table 2 ² TQs in (lbs)	Table 3 TQs in (lbs)
Boron trifluoride compound with methyl ether (1:1) [Boron, trifluoro [oxybis[metane]]]-, T-4-	353-42-4	15,000		1,000
Bromadiolone	28772-56-7			100/10,000 ⁴
Bromine	7726-95-6	10,000		500
Bromotrifluoroethylene [Ethene, bromotrifluoro-]	598-73-2		10,000	
1,3-Butadiene	106-99-0		10,000	
Butane	106-97-8		10,000	
1-Butene	106-98-9		10,000	
2-Butene	107-01-7		10,000	
Butene	25167-67-3		10,000	
2-Butene-cis	590-18-1		10,000	
2-Butene-trans [2-Butene, (E)]	624-64-6		10,000	
Cadmium oxide	1306-19-0			100/10,000 ⁴
Cadmium stearate	2223-93-0			1,000/10,000 ⁴
Calcium arsenate	7778-44-1			500/10,000 ⁴
Camphechlor	8001-35-2			500/10,000 ⁴
Cantharidin	56-25-7			100/10,000 ⁴
Carbachol chloride	51-83-2			500/10,000 ⁴
Carbamic acid, methyl-,o-(((2,4-dimethyl-1,3-dithiolan-2-yl)methylene) amino)-.	26419-73-8			100/10,000 ⁴
Carbofuran	1563-66-2			10/10,000 ⁴
Carbon disulfide	75-15-0	20,000		10,000
Carbon oxysulfide [Carbon oxide sulfide (COS)]	463-58-1		10,000	
Chlorine	7782-50-5	2,500		100
Chlorine dioxide [Chlorine oxide (ClO ₂)]	10049-04-4	1,000		
Chlorine monoxide [Chlorine oxide]	7791-21-1		10,000	
Chlormequat chloride	999-81-5			100/10,000 ⁴
Chloroacetic acid	79-11-8			100/10,000 ⁴
Chloroform [Methane, trichloro-]	67-66-3	20,000		10,000
Chloromethyl ether [Methane, oxybis[chloro-]]	542-88-1	1,000		100
Chloromethyl methyl ether [Methane, chloromethoxy-]	107-30-2	5,000		100
Chlorophacinone	3691-35-8			100/10,000 ⁴
1-Chloropropylene [1-Propene, 1-chloro-]	590-21-6		10,000	
2-Chloropropylene [1-Propene, 2-chloro-]	557-98-2		10,000	
Chloroxuron	1982-47-4			500/10,000 ⁴
Chromic chloride	10025-73-7			1/10,000 ⁴
Cobalt carbonyl	10210-68-1			10/10,000 ⁴
Cobalt, ((2,2'-(1,2-ethanediylbis(nitrilomethylidene)) bis(6-fluorophenolato))(2-)-N,N',O,O')-.	62207-76-5			100/10,000 ⁴
Colchicine	64-86-8			
Coumaphos	56-72-4			100/10,000 ⁴
Coumatetralyl	5836-29-3			500/10,000 ⁴
Cresol, o-	95-48-7			1,000/10,000 ⁴
Crimidine	535-89-7			100/10,000 ⁴

Chemical Name	CAS Number	Table 1 TQs in (lbs)	Table 2² TQs in (lbs)	Table 3 TQs in (lbs)
Crotonaldehyde [2-Butenal]	4170-30-3	20,000		1,000
Crotonaldehyde, (E)- [2-Butenal, (E)-]	123-73-9	20,000		1,000
Cyanogen bromide	506-68-3			500/10,000 ⁴
Cyanogen iodide	506-78-5			1,000/10,000 ⁴
Cyanogen [Ethanedinitrile]	460-19-5		10,000	
Cyanogen chloride	506-77-4	10,000		
Cyanuric fluoride	675-14-9			100
Cycloheximide	66-81-9			100/10,000 ⁴
Cyclohexylamine [Cyclohexanamine]	108-91-8	15,000		10,000
Cyclopropane	75-19-4		10,000	
Decaborane(14)	17702-41-9			500/10,000 ⁴
Dialifor	10311-84-9			100/10,000 ⁴
Diborane	19287-45-7	2,500		100
Dichlorosilane [Silane, dichloro-]	4109-96-0		10,000	
Diepoxybutane ³	1464-53-5			500
Difluoroethane [Ethane, 1,1-difluoro-]	75-37-6		10,000	
Digitoxin	71-63-6			100/10,000 ⁴
Digoxin	20830-75-5			10/10,000 ⁴
Dimethoate	60-51-5			500/10,000 ⁴
Dimethylamine [Methanamine, N-methyl-]	124-40-3		10,000	
Dimethyldichlorosilane [Silane, dichlorodimethyl-]	75-78-5	5,000		500
1,1-Dimethylhydrazine Hydrazine, 1,1-dimethyl-]	57-14-7	15,000		1,000
Dimethyl-p-phenylenediamine	99-98-9			10/10,000 ⁴
Dimethyl sulfate ³	77-78-1			500
2,2-Dimethylpropane [Propane, 2,2-dimethyl-]	463-82-1		10,000	
Dimetilan	644-64-4			500/10,000 ⁴
Dinitrocresol	534-52-1			10/10,000 ⁴
Dinoseb	88-85-7			100/10,000 ⁴
Dinoterb	1420-07-1			500/10,000 ⁴
Diphacinone	82-66-6			10/10,000 ⁴
Disulfoton ³	298-04-4			500
Dithiazanine iodide	514-73-8			500/10,000 ⁴
Dithiobiuret	541-53-7			100/10,000 ⁴
Emetine, dihydrochloride	316-42-7			1/10,000 ⁴
Endosulfan	115-29-7			10/10,000 ⁴
Endothion	2778-04-3			500/10,000 ⁴
Endrin	72-20-8			500/10,000 ⁴
Epichlorohydrin [Oxirane, (chloromethyl)-]	106-89-8	20,000		1,000
EPN	2104-64-5			100/10,000 ⁴
Ergocalciferol	50-14-6			1,000/10,000 ⁴
Ergotamine tartrate	379-79-3			500/10,000 ⁴
Ethane	74-84-0		10,000	
Ethyl acetylene [1-Butyne]	107-00-6		10,000	
Ethylamine [Ethanamine]	75-04-7		10,000	
Ethyl chloride [Ethane, chloro-]	75-00-3		10,000	
Ethylene [Ethene]	74-85-1		10,000	
Ethylenediamine [1,2-Ethanediamine]	107-15-3	20,000		10,000
Ethylene fluorohydrin	371-62-0			10

Chemical Name	CAS Number	Table 1 TQs in (lbs)	Table 2 ² TQs in (lbs)	Table 3 TQs in (lbs)
Ethyleneimine [Aziridine]	151-56-4	10,000		500
Ethylene oxide [Oxirane]	75-21-8	10,000		1,000
Ethyl ether [Ethane, 1,1'-oxybis-]	60-29-7		10,000	
Ethyl mercaptan [Ethanethiol]	75-08-1		10,000	
Ethyl nitrite [Nitrous acid ethyl ester]	109-95-5		10,000	
Fenamiphos	22224-92-6			10/10,000 ⁴
Fluometil	4301-50-2			100/10,000 ⁴
Fluorine	7782-41-4	1,000		500
Fluoroacetamide	640-19-7			100/10,000 ⁴
Fluoroacetic acid	144-49-0			10/10,000 ⁴
Fluoroacetyl chloride	359-06-8			10
Fluorouracil	51-21-8			500/10,000 ⁴
Formaldehyde (including solutions) ⁶	50-00-0	15,000		500
Formetanate hydrochloride	23422-53-9			500/10,000 ⁴
Formparanate	17702-57-7			100/10,000 ⁴
Fuberidazole	3878-19-1			100/10,000 ⁴
Furan	110-00-9	5,000		500
Gallium trichloride	13450-90-3			500/10,000 ⁴
Hydrazine	302-01-2	15,000		1,000
Hydrochloric acid (conc 37% or greater)	7647-01-0	15,000		
Hydrocyanic acid	74-90-8	2,500		100
Hydrogen chloride (gas / anhydrous)	7647-01-0	5,000		500
Hydrogen fluoride	7664-39-3	1,000		100
Hydrofluoric acid (conc 1% or greater) ⁶	7664-39-3			100
Hydrofluoric acid (conc 50% or greater)	7664-39-3	1,000		
Hydrogen selenide	7783-07-5	500		10
Hydrogen	1333-74-0		10,000	
Hydrogen sulfide	7783-06-4	10,000		500
Hydroquinone ⁷	123-31-9			500/10,000 ⁴
Iron, pentacarbonyl- [Iron carbonyl (Fe(CO) ₅), (TB-5-11)-]	13463-40-6	2,500		100
Isobenzan	297-78-9			100/10,000 ⁴
Isobutane [Propane, 2-methyl]	75-28-5		10,000	
Isobutyronitrile [Propanenitrile, 2-methyl-]	78-82-0	20,000		1,000
Isocyanic acid, 3,4-dichlorophenyl ester	102-36-3			500/10,000 ⁴
Isodrin	465-73-6			100/10,000 ⁴
Isopentane [Butane, 2-methyl-]	78-78-4		10,000	
Isophorone diisocyanate	4098-71-9			100
Isoprene [1,3-Butadiene, 2-methyl-]	78-79-5		10,000	
Isopropylamine [2-Propanamine]	75-31-0		10,000	
Isopropyl chloride [Propane, 2-chloro-]	75-29-6		10,000	
Isopropyl chloroformate [Carbono chloridic acid, 1-methylethyl ester]	108-23-6	15,000		1,000
Leptophos	21609-90-5			500/10,000 ⁴
Lewisite ³	541-25-3			10
Lindane	58-89-9			1,000/10,000 ⁴
Lithium hydride ⁵	7580-67-8			100

Chemical Name	CAS Number	Table 1 TQs in (lbs)	Table 2² TQs in (lbs)	Table 3 TQs in (lbs)
Ethyleneimine [Aziridine]	151-56-4	10,000		500
Ethylene oxide [Oxirane]	75-21-8	10,000		1,000
Ethyl ether [Ethane, 1,1'-oxybis-]	60-29-7		10,000	
Ethyl mercaptan [Ethanethiol]	75-08-1		10,000	
Ethyl nitrite [Nitrous acid ethyl ester]	109-95-5		10,000	
Fenamiphos	22224-92-6			10/10,000 ⁴
Fluometil	4301-50-2			100/10,000 ⁴
Fluorine	7782-41-4	1,000		500
Fluoroacetamide	640-19-7			100/10,000 ⁴
Fluoroacetic acid	144-49-0			10/10,000 ⁴
Fluoroacetyl chloride	359-06-8			10
Fluorouracil	51-21-8			500/10,000 ⁴
Formaldehyde (including solutions) ⁶	50-00-0	15,000		500
Formetanate hydrochloride	23422-53-9			500/10,000 ⁴
Formparanate	17702-57-7			100/10,000 ⁴
Fuberidazole	3878-19-1			100/10,000 ⁴
Furan	110-00-9	5,000		500
Gallium trichloride	13450-90-3			500/10,000 ⁴
Hydrazine	302-01-2	15,000		1,000
Hydrochloric acid (conc 37% or greater)	7647-01-0	15,000		
Hydrocyanic acid	74-90-8	2,500		100
Hydrogen chloride (gas / anhydrous)	7647-01-0	5,000		500
Hydrogen fluoride	7664-39-3	1,000		100
Hydrofluoric acid (conc 1% or greater) ⁶	7664-39-3			100
Hydrofluoric acid (conc 50% or greater)	7664-39-3	1,000		
Hydrogen selenide	7783-07-5	500		10
Hydrogen	1333-74-0		10,000	
Hydrogen sulfide	7783-06-4	10,000		500
Hydroquinone ⁷	123-31-9			500/10,000 ⁴
Iron, pentacarbonyl- [Iron carbonyl (Fe(CO) ₅), (TB-5-11)-]	13463-40-6	2,500		100
Isobenzan	297-78-9			100/10,000 ⁴
Isobutane [Propane, 2-methyl]	75-28-5		10,000	
Isobutyronitrile [Propanenitrile, 2-methyl-]	78-82-0	20,000		1,000
Isocyanic acid, 3,4-dichlorophenyl ester	102-36-3			500/10,000 ⁴
Isodrin	465-73-6			100/10,000 ⁴
Isopentane [Butane, 2-methyl-]	78-78-4		10,000	
Isophorone diisocyanate	4098-71-9			100
Isoprene [1,3-Butadiene, 2-methyl-]	78-79-5		10,000	
Isopropylamine [2-Propanamine]	75-31-0		10,000	
Isopropyl chloride [Propane, 2-chloro-]	75-29-6		10,000	
Isopropyl chloroformate [Carbonyl chloridic acid, 1-methylethyl ester]	108-23-6	15,000		1,000
Leptophos	21609-90-5			500/10,000 ⁴
Lewisite ³	541-25-3			10
Lindane	58-89-9			1,000/10,000 ⁴
Lithium hydride ⁵	7580-67-8			100

Chemical Name	CAS Number	Table 1 TQs in (lbs)	Table 2 ² TQs in (lbs)	Table 3 TQs in (lbs)
Malononitrile	109-77-3			500/10,000 ⁴
Manganese, tricarbonyl methylcyclopentadienyl ³	12108-13-3			100
Mechlorethamine ³	51-75-2			10
Mercuric acetate	1600-27-7			500/10,000 ⁴
Mercuric chloride	7487-94-7			500/10,000 ⁴
Mercuric oxide	21908-53-2			500/10,000 ⁴
Methacrylonitrile [2-Propenenitrile, 2-methyl-]	126-98-7	10,000		500
Methacryloyl chloride	920-46-7			100
Methacryloyloxyethyl isocyanate	30674-80-7			100
Methamidophos	10265-92-6			100/10,000 ⁴
Methane	74-82-8		10,000	
Methanesulfonyl fluoride	558-25-8			1,000
Methidathion	950-37-8			500/10,000 ⁴
Methiocarb	2032-65-7			500/10,000 ⁴
Methomyl	16752-77-5			500/10,000 ⁴
Methoxyethylmercuric acetate	151-38-2			500/10,000 ⁴
Methylamine [Methanamine]	74-89-5		10,000	
Methyl bromide	74-83-9			1,000
2-Methyl-1-butene	563-46-2		10,000	
3-Methyl-1-butene	563-45-1		10,000	
Methyl chloride [Methane, chloro-]	74-87-3	10,000		
Methyl 2-chloroacrylate	80-63-7			500
Methyl chloroformate [Carbono- chloridic acid, methylester]	79-22-1	5,000		500
Methyl ether [Methane, oxybis-]	115-10-6		10,000	
Methyl formate [Formic acid, methyl ester]	107-31-3		10,000	
Methyl hydrazine [Hydrazine, methyl-]	60-34-4	15,000		500
Methyl isocyanate [Methane, isocyanato-]	624-83-9	10,000		500
Methyl isothiocyanate ⁵	556-61-6			500
Methyl mercaptan [Methanethiol]	74-93-1	10,000		500
Methylmercuric Dicyanamide	502-39-6			500/10,000 ⁴
Methyl phosphonic dichloride ⁵	676-97-1			100
2-Methylpropene [1-Propene, 2-methyl-]	115-11-7		10,000	
Methyl thiocyanate [Thiocyanic acid, methyl ester]	556-64-9	20,000		10,000
Methyltrichlorosilane [Silane, trichloromethyl-]	75-79-6	5,000		500
Methyl vinyl ketone	78-94-4			10
Metolcarb	1129-41-5			100/10,000 ⁴
Mexacarbate	315-18-4			500/10,000 ⁴
Mitomycin C	50-07-7			500/10,000 ⁴
Monocrotophos	6923-22-4			10/10,000 ⁴
Muscimol	2763-96-4			500/10,000 ⁴
Mustard gas ³	505-60-2			500
Nickel carbonyl	13463-39-3	1,000		1
Nitric oxide [Nitrogen oxide (NO)]	10102-43-9	10,000		100
Nitrobenzene ³	98-95-3			10,000
Nitrogen dioxide	10102-44-0			100
Norbormide	991-42-4			100/10,000 ⁴

Chemical Name	CAS Number	Table 1 TQs in (lbs)	Table 2² TQs in (lbs)	Table 3 TQs in (lbs)
Oleum (Fuming H ₂ SO ₄) [Sulfuric acid, mixture with SO ₃] ³	8014-95-7	10,000		
Organorhodium complex (PMN-82-147)	MIXTURE			10/10,000 ⁴
Ouabain	630-60-4			100/10,000 ⁴
Oxamyl	23135-22-0			100/10,000 ⁴
Ozone	10028-15-6			100
Paraquat dichloride	1910-42-5			10/10,000 ⁴
Paraquat methosulfate	2074-50-2			10/10,000 ⁴
Parathion-methyl	298-00-0			100/10,000 ⁴
Paris Green	12002-03-8			500/10,000 ⁴
Pentaborane	19624-22-7			500
Pentadecylamine	2570-26-5			100/10,000 ⁴
1,3-Pentadinene	504-60-9		10,000	
Pentane	109-66-0		10,000	
1-Pentene	109-67-1		10,000	
2-Pentene, (E)-	646-04-8		10,000	
2-Pentene, (Z)-	627-20-3		10,000	
Peracetic acid [Ethaneperoxoic acid]	79-21-0	10,000		500
Perchloromethylmercaptan [Methanesulfonyl chloride, trichloro-]	594-42-3	10,000		500
Phenol	108-95-2			500/10,000 ⁴
Phenol, 2,2'-thiobis(4-chloro-6-methyl)-	4418-66-0			100/10,000 ⁴
Phenol, 3-(1-methylethyl)-, methylcarbamate	64-00-6			500/10,000 ⁴
Phenoxarsine, 10, 10' - oxydi-	58-36-6			500/10,000 ⁴
Phenyl dichloroarsine ³	696-28-6			500
Phenylhydrazine hydrochloride	59-88-1			1,000/10,000 ⁴
Phenylmercury acetate	62-38-4			500/10,000 ⁴
Phenylsilatrane	2097-19-0			100/10,000 ⁴
Phenylthiourea	103-85-5			100/10,000 ⁴
Phorate ³	298-02-2			10
Phosacetim	4104-14-7			100/10,000 ⁴
Phosfolan	947-02-4			100/10,000 ⁴
Phosgene [Carbonic dichloride]	75-44-5	500		10
Phosmet	732-11-6			10/10,000 ⁴
Phosphine	7803-51-2	5,000		500
Phosphonothioic acid, methyl-, S-(2-(bis(1-ethylethyl)amino)ethyl) O-ethyl ester. ³	50782-69-9			100
Phosphorus ⁵	7723-14-0			100
Phosphorus oxychloride [Phosphoryl chloride]	10025-87-3	5,000		500
Phosphorus pentachloride ⁵	10026-13-8			500
Phosphorus trichloride [Phosphorous trichloride]	7719-12-2	15,000		1,000
Physostigmine	57-47-6			100/10,000 ⁴
Physostigmine, salicylate (1:1)	57-64-7			100/10,000 ⁴
Picrotoxin	124-87-8			500/10,000 ⁴
Piperidine	110-89-4	15,000		1,000
Potassium arsenite	10124-50-2			500/10,000 ⁴
Potassium cyanide ⁵	151-50-8			100
Potassium silver cyanide ⁵	506-61-6			500

Chemical Name	CAS Number	Table 1 TQs in (lbs)	Table 2 ² TQs in (lbs)	Table 3 TQs in (lbs)
Promecarb	2631-37-0			500/10,000 ⁴
Propadiene [1,2-Propadiene]	463-49-0		10,000	
Propane	74-98-6		10,000	
Propargyl bromide	106-96-7			10
Propiolactone, beta- ³	57-57-8			500
Propionitrile [Propanenitrile]	107-12-0	10,000		500
Propiophenone, 4-amino-	70-69-9			100/10,000 ⁴
Propyl chloroformate [Carbonochloridic acid, propylester]	109-61-5	15,000		500
Propylene [1-Propene]	115-07-1		10,000	
Propylene oxide [Oxirane, methyl-]	75-56-9	10,000		10,000
Propyleneimine [Aziridine, 2-methyl-]	75-55-8	10,000		10,000
Propyne [1-Propyne]	74-99-7		10,000	
Prothoate	2275-18-5			100/10,000 ⁴
Pyrene	129-00-0			1,000/10,000 ⁴
Pyridine, 4-amino-	504-24-5			500/10,000 ⁴
Pyridine, 4-nitro-, 1-oxide	1124-33-0			500/10,000 ⁴
Pyriminil	53558-25-1			100/10,000 ⁴
Salcomine	14167-18-1			500/10,000 ⁴
Sarin ³	107-44-8			10
Selenious acid	7783-00-8			1,000/10,000 ⁴
Semicarbazide hydrochloride	563-41-7			1,000/10,000 ⁴
Silane	7803-62-5		10,000	
Sodium arsenate	7631-89-2			1,000/10,000 ⁴
Sodium arsenite	7784-46-5			500/10,000 ⁴
Sodium azide (Na (N3)) ⁵	26628-22-8			500
Sodium cacodylate	124-65-2			100/10,000 ⁴
Sodium cyanide (Na (CN)) ⁵	143-33-9			100
Sodium fluoroacetate	62-74-8			10/10,000 ⁴
Sodium selenate	13410-01-0			100/10,000 ⁴
Sodium selenite	10102-18-8			100/10,000 ⁴
Sodium tellurite	10102-20-2			500/10,000 ⁴
Stannane, acetoxetriphenyl-	900-95-8			500/10,000 ⁴
Strychnine	57-24-9			100/10,000 ⁴
Strychnine sulfate	60-41-3			100/10,000 ⁴
Sulfur dioxide	7446-09-5			500
Sulfur dioxide (anhydrous)	7446-09-5	5,000		
Sulfuric acid ⁸	7664-93-9			1,000
Sulfur tetrafluoride [Sulfur fluoride (SF4),(T-4)-]	7783-60-0	2,500		100
Sulfur trioxide ⁵	7446-11-9	10,000		100
Tabun ³	77-81-6			10
Tellurium hexafluoride	7783-80-4			100
Tetrafluoroethylene [Ethene, tetrafluoro-]	116-14-3		10,000	
Tetramethyllead [Plumbane, tetramethyl-]	75-74-1	10,000		100
Tetramethylsilane [Silane, tetramethyl-]	75-76-3		10,000	
Tetranitromethane [Methane tetranitro-]	509-14-8	10,000		500
Thallium sulfate	10031-59-1			100/10,000 ⁴
Thallos carbonate	6533-73-9			100/10,000 ⁴
Thallos chloride	7791-12-0			100/10,000 ⁴
Thallos malonate	2757-18-8			100/10,000 ⁴

Chemical Name	CAS Number	Table 1 TQs in (lbs)	Table 2 ² TQs in (lbs)	Table 3 TQs in (lbs)
Thallos sulfate	7446-18-6			100/10,000 ⁴
Thiocarbazide	2231-57-4			1,000/10,000 ⁴
Thiofanox	39196-18-4			100/10,000 ⁴
Thiosemicarbazide	79-19-6			100/10,000 ⁴
Thiourea, (2-Chlorophenyl)-	5344-82-1			100/10,000 ⁴
Thiourea, (2-Methylphenyl)-	614-78-8			500/10,000 ⁴
Titanium tetrachloride [Titanium chloride (TiCl ₄) (T-4)-]	7550-45-0	2,500		100
Toluene 2,4-diisocyanate [Benzene, 2,4-diisocyanato-1-methyl-] ³	584-84-9	10,000		500
Toluene 2,6-diisocyanate [Benzene, 1,3-diisocyanato-2-methyl-] ³	91-08-7	10,000		100
Toluene diisocyanate (unspecified isomer) [Benzene, 1,3-diisocyanatomethyl-] ³	26471-62-5	10,000		
Triamphos	1031-47-6			500/10,000 ⁴
Trichloro(chloromethyl)silane	1558-25-4			100
Trichloro(dichlorophenyl)silane	27137-85-5			500
Trichlorosilane [Silane, trichloro-]	10025-78-2		10,000	
Triethoxysilane	998-30-1			500
Trifluorochloroethylene [Ethene, chlorotrifluoro-]	79-38-9		10,000	
Trimethylamine [Methanamine, N, N-dimethyl-]	75-50-3		10,000	
Trimethylchlorosilane [Silane, chlorotrimethyl-]	75-77-4	10,000		1,000
Trimethylolpropane phosphite	824-11-3			100/10,000 ⁴
Trimethyltin chloride	1066-45-1			500/10,000 ⁴
Triphenyltin chloride	639-58-7			500/10,000 ⁴
Tris(2-chloroethyl)amine ³	555-77-1			100
Valinomycin	2001-95-8			1,000/10,000 ⁴
Vanadium pentoxide	1314-62-1			100/10,000 ⁴
Vinyl acetate monomer [Acetic acid ethenyl ester]	108-05-4	15,000		1,000
Vinyl acetylene [1-Buten-3-yne]	689-97-4		10,000	
Vinyl chloride [Ethene, chloro-]	75-01-4		10,000	
Vinyl ethyl ether [Ethene, ethoxy-]	109-92-2		10,000	
Vinyl fluoride [Ethene, fluoro-]	75-02-5		10,000	
Vinylidene chloride [Ethene, 1, 1-dichloro-]	75-35-4		10,000	
Vinylidene fluoride [Ethene, 1, 1-difluoro-]	75-38-7		10,000	
Vinyl methyl ether [Ethene, methoxy-]	107-25-5		10,000	
Warfarin	81-81-2			500/10,000 ⁴
Warfarin sodium	129-06-6			100/10,000 ⁴
Xylylene dichloride	28347-13-9			100/10,000 ⁴
Zinc, dichloro(4,4-dimethyl-5(((methylamino) carbonyl)oxy)imino)pentanenitrile)-, (T-4)-.	58270-08-9			100/10,000 ⁴
Zinc phosphide ⁵	1314-84-7			500

- 1 Consult Section 2770.5 of the CalARP Program regulations (Tables 1, 2, and 3) for the official chemical listings. Consult Sections 2770.2, 2770.4, and 2770.4.1, for specific exemptions and exclusions.
- 2 Flammable substances when used as a fuel or held for sale as a fuel at a retail facility are excluded from the CalARP Program (Section 2770.4.1).
- 3 Substances that failed the evaluation pursuant to Section 25532(g)(2) of the HSC but remain listed pursuant to potential health impacts. The exemption in Section 2770.2(b)(1)(B) regarding portions of a process where these regulated substances are handled at partial pressures below 10 mm Hg does not apply to these substances.
- 4 These extremely hazardous substances are solids. These substances are regulated at the lower listed threshold if: 1) the chemical is in powdered form with a particle size of less than 100 microns; or 2) if handled in solution or in molten form; or 3) the substance has an NFPA rating for reactivity of 2, 3, or 4. If the above 3 conditions do not apply, the threshold for each of these substances is 10,000 pounds. (Note: The 10,000 pound threshold for these substances is a remnant from the former RMPP program. OES is considering initiating a regulatory change to remove the 10,000 pound thresholds, in accordance with HSC 25532(g)(2)(A)(iii).) In addition, the exemption in Section 2770.2(b)(1)(B) regarding portions of a process where these regulated substances are handled at partial pressures below 10 mm Hg does not apply to these substances.
- 5 These extremely hazardous substances are reactive solids. The exemption in Section 2770.2(b)(1)(B) regarding portions of a process where these regulated substances are handled at partial pressures below 10 mm Hg does not apply to these substances.
- 6 Appropriate synonyms or mixtures of extremely hazardous substances with the same CAS number are also regulated, e.g., formalin. The listing of ammonia includes anhydrous and aqueous forms of ammonia pursuant to Section 25532(g)(2). Consult USEPA's "CAA

Section 112 (r) Frequently Asked Questions,” April 2000, Questions II. 20 (List Rule Response to Comments, page 50, Docket A 91-74), II. 22, II. 36, and II. 37 for further discussion on ammonium hydroxide and formaldehyde.

- 7 Hydroquinone is exempt in crystalline form.

- 8 Sulfuric acid fails the evaluation pursuant to Section 25532(g)(2) of the HSC but remains listed as a Regulated Substance only under the following conditions:
 - If concentrated with greater than 100 pounds of sulfur trioxide or the acid meets the definition of oleum. (The Table 3 threshold for sulfur trioxide is 100 pounds.) (The Table 1 threshold for oleum is 10,000 pounds.)
 - If in a container with flammable hydrocarbons (flash point < 73⁰ F).

REFERRAL PHONE NUMBERS

Health Hazardous Materials Division
5825 Rickenbacker Road, Commerce, CA 90040
(323) 890-4045

Website address: <http://www.lacofd.org>

Unified Program Forms can be accessed: lacofd.org/upforms.htm

HHMD:

Complaint:	(323) 890-4089
Emergency Response Coordinator	(323) 890-4317
Investigations Unit:	(323) 890-4085
Tiered Permit Coordinator:	(310)-348-1785
Site Mitigation Section:	(323) 890-4106
Cal-ARP Unit:	(323) 890-4035

Inspection Districts:

North	(818) 363-7120
East	(626) 450-7450
South East	(562) 564-2620
Central	(323) 890-4107
West	(310) 348-1781
Southwest	(310) 534-6270

State Department of Toxic Substances Control:

Chatsworth Regional Office	(818) 717-6500
Cypress Regional Office	(714) 484-5300

Household Hazardous Waste Disposal:

LA County Department of Public Works	(818) 252-2652
LA County Sanitation District www.lacsd	(800) 238-0173
LA City Household Hazardous Waste Roundup	(800) 988-6942
City of Santa Monica	(310) 458-8255

Information on Hazardous Materials within the following cities:

Alhambra Fire Department	(626) 579-3234
Burbank Fire Department	(818) 238-3384
Compton Fire Department	(310) 605-6294
Culver City Fire Department	(310) 253-5930
Downey Fire Department	(562) 904-7348
Monrovia Fire Department	(626) 256-8110
Pasadena Fire Department	(626) 744-4288
South Pasadena Fire Department	(626) 403-7300
Torrance Fire Department	(310) 781-2973

**Hazardous waste disposal from Conditionally Exempt
Small Quantity Generators:**

Los Angeles City (213) 473-8276

**Information on Hazardous Materials Aboveground Storage
Tanks in LA County:**

Regional Water Quality Control Board (213) 576-6600

Information on Underground Storage Tanks:

Los Angeles County

Department of Public Works (626) 458-3517

Los Angeles City Fire Department (213) 482-6900

Burbank Fire Department (818) 238-3391

Pasadena Fire Department (626) 744-4115

Torrance Fire Department (310) 618-2973

South Coast Air Quality Management District:

Air Pollution Complaints (800) 288-7664

Asbestos Complaints (800) 728-6942

**LA County Health Services Department/Environmental Health
Services:**

Food Poisoning Complaints (626) 430-5400

Solid Waste (626) 430-5540

Lead Program (323) 869-7068

CONTACTS IN LOS ANGELES COUNTY

Agency Type	Agency Name	City	Phone Number	Website
LA County Agriculture Commissioners	County Agriculture Commissioner	Arcadia	(626) 575-5451	www.acwm.co.la.ca.us
Certified Unified Program Agency (CUPA)	Glendale City Fire Department	Glendale	(818) 548-4030	www.fire.ci.glendale.ca.us
	Long Beach/Signal Hill JPA	Long Beach	(562) 570-4128	www.cityofsignalhill.org
	Santa Monica City Env. Programs	Santa Monica	(310) 458-2213	www.smgov.net
	LA City fire Department	Los Angeles	(213) 485-8080	lafd.org
	Los Angeles County Fire Department	Commerce	(323) 890-4042	www.fire.lacounty.gov
	Santa Fe Springs Fire Department	Santa Fe Springs	(562) 944-9713	www.santafesprings.org/d
	Vernon City Environmental Health	Vernon	(323) 583-8811	www.cityofVernon.org
	El Segundo City Fire Department	El Segundo	(310) 524-2242	stsumura@elsegundo.org
County Environmental Health Department				
	Vernon Health Environmental Control	Vernon	(213) 583-8811	www.cityofVernon.org
	Pasadena Environmental Health Division	Pasadena	(626) 744-6005	www.ci.pasadena.ca.us
	Long Beach Environmental Health	Long Beach	(562) 570-4121	www.longbeach.gov/health
	Los Angeles County Environmental Health	Baldwin Park	(626) 430-5100	http://www.dhs.co.la.ca.us
LA County Public Works Department	Los Angeles County Department of Public Works	Alhambra	(626) 458-5100	http://www.dpw.co.la.ca.us
Household Hazardous Waste Division	Azusa Department of Public Works	Azusa	626-812-5244	www.ci.azusa.ca.us

Agency Type	Agency Name	City	Phone Number	Website
Public Works	City of Huntington Park	Huntington Park	(323) 584-6274	www.huntingtonpark.org
	City of Paramount	Paramount	(582) 220-2020	www.paramountcity.com
	Los Angeles Bureau of Sanitation	Los Angeles	(800) 773-2489	www.ci.la.ca.us/SAN/se
	City of La	La Puente	(626) 855-1500	www.lapuente.org

	Puente			
	Bell Gardens Department of Public Works	Bell Gardens	(562) 806-7770	www.bellgardens.org
	El Monte Public Works	El Monte	(626) 580-2250	www.ci.el-monte.ca.us
	City of Santa Clarita	Santa Clarita	(661) 255-4942	www.santa-clarita.com
	Glendale Environmental Management Control/Fire Department	Glendale	(818) 548-4030	www.ci.glendale.ca.us/fi
	City of Norwalk Public Works	Norwalk	(562) 929-5700	www.norwalkct.org/DPV
	Los Angeles County Sanitation	Whittier	(562) 699-7411	www.lacsd.org/contact
	City of Pico Rivera	Pico Rivera	(562) 801-4415	www.picorivera.org
	City of Redondo Beach	Redondo Beach	(310) 318-0686	www.redondo.org/depts _works
	Lancaster Department Of Public Works	Lancaster	(661) 723-6040	www.cityoflancaster.org
	City of Lynwood	Lynwood	(800) 238-0173	www.lynwood.ca.us
	Los Angeles Air Force Base Public Affairs	El Segundo	(310) 653-1131	www.losangeles.af.mil
	City of Compton	Compton	(310) 605-5505	www.comptoncity.org
	City of Palmdale	Palmdale	(661) 267-5300	www.cityofpalmdale.org
	Santa Monica Environmental Protection Division	Santa Monica	(310) 458-2213	www.environmental@smnet.net
	City of Maywood Fire Department	Maywood	(323) 262-2111	www.cityofMaywood.com

Agency Type	Agency name	City	Phone Number	Website
Local Air District				
	Antelope Valley Air Pollution Control District	Lancaster	(661)723-8070	http://www.avaqmd.ca.gov
	South Coast Air Quality Management District	Los Angeles	(909) 396-2000	http://www.aqmd.gov
Regional Water Quality Control Board				

	Los Angeles Regional Water Quality Control Board, Regional 4	Los Angeles	(213) 576-6600	http://www.swrcb.ca.gov
	Lahontan Regional Water Quality Control Board Region 6	Victorville	(760) 241-7308	http://www.swrcb.ca.gov

WEBSITES OF INTEREST

- Federal Register www.gpo.gov/su_docs/aces/aces140.html
- Code of Federal www.gpo.gov/hara/cfr/index.html#page1
- California Law www.leginfo.ca.gov/calaw.html
- California Code of Regulations www.calregs.com/
- Los Angeles County Code www.bpchnet.com/codes/lacounty/index.htm
- Cal-EPA www.calepa.ca.gov/
- Dept of Toxic Substances Control www.dtsc.ca.gov/index.html
- Office of Emergency Services www.oes.ca.gov/
- Air Resources Board www.arb.ca.gov/homepage.htm
- Air Quality Management District www.aqmd.gov/
- Integrated Waste Management Board www.ciwmb.ca.gov/
- Water Resources Control Board www.swrcb.ca.gov/
- Los Angeles County Public Works www.ladpw.org/epd/
- Sanitation Districts of Los Angeles County www.lacsd.org
- Department of Pesticides Regulation www.cdpr.ca.gov