

# HAZARDOUS WASTE TANK SYSTEM REQUIREMENTS FOR LARGE QUANTITY GENERATORS AND ONSITE TREATMENT FACILITIES

*For Use by Unidocs Member Agencies or where approved by your Local Jurisdiction  
Authority Cited: California Health and Safety Code (HSC); Title 22 California Code of Regulations (CCR)*

## A. Scope

Large Quantity Generators (LQG) of hazardous waste may accumulate hazardous waste in tanks on-site for 90 days or less without a hazardous waste treatment/storage/disposal facility (TSDF) Facility Permit from the Department of Toxic Substances Control (DTSC) provided that they comply with the tank system requirements in Article 10 of Chapter 15 of Division 4.5 of Title 22, California Code of Regulations (CCR), except for Section (§) 66265.197(c) and §66265.200. [22CCR §66262.34(a)]

The requirements of Article 10 also apply to:

- Owners/operators of onsite treatment unit tank systems authorized under the following onsite hazardous waste “Tiered Permit” treatment tiers:
  - Conditional Exemption (CE) if the facility is a large quantity generator; [HSC §25201.5(d)(9)]
  - Conditional Authorization (CA) even if the facility is a small quantity generator; [HSC §25200.3(c)(4)]
  - Permit-by-Rule (PBR) even if the facility is a small quantity generator. [22CCR §67450.3(c)(9)(F)]
- Tank systems holding Excluded Recyclable Material where no local ordinance regulates the storage of hazardous material and requires secondary containment of hazardous waste storage areas. [HSC §25143.9(c)]
- Tanks, sumps, and other collection devices used in conjunction with drip pads and regulated under Article 17.5 of Chapter 15 of Division 4.5 of Title 22, CCR. [22CCR §66265.190(c)]

This document is intended for use by hazardous waste generators with tanks that are not permitted Treatment/Storage/Disposal Facility (TSDF) units. Additional requirements apply to TSDF’s permitted tank systems. The requirements listed in this document are not all-inclusive. Other requirements including, but not limited to, those in California Fire Code and California underground storage tank (UST) law/regulations may also apply. The California Code of Regulations is available on the Internet at [www.calregs.com](http://www.calregs.com); Health and Safety Code at [www.leginfo.ca.gov/calaw.html](http://www.leginfo.ca.gov/calaw.html); and the Code of Federal Regulations (CFR) at [www.gpoaccess.gov/cfr/index.html](http://www.gpoaccess.gov/cfr/index.html).

## B. Definitions [22CCR §66260.10]

For the purposes of this document, the following definitions apply:

- **Acutely Hazardous Waste** – Means any hazardous waste identified as an Acute Hazardous Waste in Article 4 of Chapter 11 of Division 4.5, Title 22, California Code of Regulations (CCR).
- **Ancillary Equipment** – Means any device including, but not limited to, such devices as piping, fittings, flanges, valves, and pumps that is used to distribute, meter or control the flow of hazardous waste from its point of generation to a storage or treatment tank, between hazardous waste storage and treatment tanks to a point of disposal onsite, or to a point of shipment for disposal offsite.
- **Conditionally Exempt Small Quantity Generator (CESQG)** – Means a hazardous waste generator who generates no more than 100 kilograms (220 pounds) of waste per month as defined in Title 40 of the Code of Federal Regulations (40 CFR) §261.5.
- **Excluded Recyclable Material** – Means a recyclable material excluded from classification as a waste pursuant to HSC §25143.2.

- **Existing Tank System or Existing Tank Component** – Means a tank system or component used for the transfer, storage, or treatment of hazardous waste and that was in operation, or for which installation had commenced on or prior to the following dates:
  - 7/14/1986 for tanks holding RCRA waste if the owner/operator is a LQG and is not exempted from the requirements of 40 CFR Part 264 or 265 per 40 CFR §264.1 or 265.1;
  - 7/1/1991 for tanks holding Non-RCRA hazardous waste;
  - 7/1/1991 for tanks containing RCRA hazardous waste if the owner/operator is exempted from the requirements of 40 CFR Part 264 or 265 per 40 CFR §264.1 or 265.1 but is still subject to the requirements of 22 CCR, Division 4.5, Chapter 15, Article 10;
- **Large Quantity Generator (LQG)** – Means a hazardous waste generator who generates in a calendar month: 1,000 kilograms (2,205 pounds) or more of hazardous waste, including non-RCRA (i.e., California regulated only) wastes such as used oil; or 1 kilogram of acutely hazardous waste (AHW) or 100 kilograms of debris resulting from the spill of an AHW. Or a generator who accumulates on-site more than 6,000 kilograms (13,228 pounds) of hazardous waste at any one time.
- **New Tank System or New Tank Component** – Means a tank system or component used for the transfer, storage, or treatment of hazardous waste and that is not an existing tank system or component.
- **Non-RCRA Hazardous Waste** – Means a waste regulated as hazardous waste by California, but not by the federal Resource Conservation and Recovery Act (RCRA). Examples include used oil and waste antifreeze.
- **RCRA Hazardous Waste** – Means a waste identified as hazardous pursuant to the Resource Conservation and Recovery Act in 40 CFR, Chapter 1, Subchapter I, Part 261, and applicable appendices.
- **Small Quantity Generator (SQG)** – Means a generator of hazardous waste who generates less than 1,000 kilograms of hazardous waste, including non-RCRA wastes such as used oil, per month.
- **Tank** – Means a stationary device designed to contain an accumulation of hazardous waste, which is constructed primarily of non-earthen materials (e.g., wood, concrete, steel, plastic) which provide structural support.
- **Tank System** – Means a hazardous waste transfer, storage, or treatment tank and its associated ancillary equipment and containment system.

## C. Secondary Containment<sup>1</sup>

1. **General** — Secondary containment systems for tanks must consist of double-wall tanks, vault systems, external liner systems, or equivalent devices approved by DTSC. [22CCR §66265.193(d)]
2. **Aboveground Tanks Holding Non-RCRA Hazardous Waste or RCRA-Exempt Waste, or Tiered Permit Tank Systems** — The following types of tank systems must be provided with secondary containment meeting the requirements of 22 CCR §66265.193(l). [22CCR §66265.193(j)(1)]
  - Systems containing non-RCRA hazardous wastes generated onsite; [22CCR §66265.193(j)(2)(A)]
  - Onsite treatment unit tank systems authorized under the following tiers: [22CCR §66265.193(j)(2)(A)]
    - Conditional Exemption (CE) if the facility is a LQG;
    - Conditional Authorization (CA);
    - Permit-by-Rule (PBR).
  - Systems containing RCRA hazardous wastes generated onsite if 40 CFR §265.1 exempts the owner/operator from the requirements of 40 CFR Part 265.<sup>2</sup> [22CCR §66265.193(j)(2)(B)(2)]

<sup>1</sup> All deadlines for retrofitting existing systems have passed. Those deadline dates are listed in Table 1, at the end of this document.

Secondary containment for these tank systems must satisfy the requirements of 22 CCR §66265.193(e) and consist of double-wall tanks, vault systems, external liner systems, or equivalent devices approved by DTSC; or consist of any device or combination of devices as approved in writing by the local Certified Unified Program Agency (CUPA), which is: [22CCR §66265.193(f)]

- Designed, installed, and operated to prevent any migration of wastes or accumulated liquid out of the system to the soil, ground water, surface water, or air at any time during the use of the tank system; [22CCR §66265.193(f)(1)]
- Capable of detecting and collecting releases and accumulated liquids until the collected material is removed. [22CCR §66265.193(f)(2)]

**3. Aboveground Tanks Holding RCRA Hazardous Waste and UST Systems** — For the following types of tank systems, the requirements of 22 CCR 66265.193(j) do not apply:

- Aboveground tank systems containing RCRA hazardous wastes generated onsite when the owner/operator is subject to the requirements of 40 CFR Part 265;
- Underground storage tank systems.

For these tanks, secondary containment systems must be provided which are: [22CCR §66265.193(a)]

- Designed, installed, and operated to prevent any migration of wastes or accumulated liquid out of the system to the soil, ground water, or surface water at any time during the use of the tank system; [22CCR §66265.193(b)(1)]
- Capable of detecting and collecting releases and accumulated liquids until the collected material is removed; [22CCR §66265.193(b)(2)]
- Constructed of or lined with materials that are compatible with the waste(s) to be placed in the tank system and have sufficient strength and thickness to prevent failure due to pressure gradients, physical contact with the waste to which they are exposed, climatic conditions, the stress of installation, and the stress of daily operation (including stresses from nearby vehicular traffic); [22CCR §66265.193(c)(1)]
- Placed on a foundation or base capable of providing support to the secondary containment system and resistance to pressure gradients above and below the system and capable of preventing failure due to settlement, compression, or uplift; [22CCR §66265.193(c)(2)]
- Provided with a leak detection system that is designed and operated so that it will detect the failure of either the primary and secondary containment structure or any release of hazardous waste or accumulated liquid in the secondary containment system within 24 hours; [22CCR §66265.193(c)(3)]
- Sloped or otherwise designed or operated to drain and remove liquids resulting from leaks, spills, or precipitation. [22CCR §66265.193(c)(4)]

**4. Double-Wall Tanks** — Double-wall tanks must be: [22CCR §66265.193(e)(3)]

- Designed as an integral structure (i.e., an inner tank within an outer shell) so that any release from the inner tank is contained by the outer shell;
- Protected, if constructed of metal, from both corrosion of the primary tank interior and the external surface of the outer shell; and

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<sup>2</sup> Exemptions in 40 CFR §265.1(c) include, but are not limited to, exemptions for: SQGs; transfer facilities; publicly owned treatment works (POTW) facilities; some municipal or industrial solid waste facilities; some facilities that manage recyclable materials; some Universal Waste handlers; and certain elementary neutralization units or wastewater treatment units.

- Provided with a built-in, continuous leak detection system capable of detecting a release within 24 hours or at the earliest practicable time, if the owner/operator can demonstrate to DTSC, and DTSC concurs, that site conditions will not allow detection of a release within 24 hours.

**5. Vault Systems** — Vault systems must be: [22CCR §66265.193(e)(2)]

- Designed or operated to contain 100 percent of the capacity of the largest tank within its boundary;
- Designed or operated to prevent run-on and infiltration of precipitation into the secondary containment system unless the collection system has sufficient excess capacity, in addition to that required above, to contain run-on and infiltration of precipitation from a 25-year, 24-hour rainfall event;
- Constructed with chemical-resistant water stops in place at all joints, if any;
- Provided with an impermeable interior coating or lining that is compatible with the waste being transferred, stored or treated and that will prevent migration of waste into the concrete;
- Provided with a means to protect against the formation of and ignition of vapors within the vault, if the waste being transferred, stored or treated meets the definition of ignitable waste per 22 CCR §66262.21; or reactive waste per §66262.23 and may form an ignitable or explosive vapor;
- Provided with an exterior moisture barrier or be otherwise designed or operated to prevent migration of moisture into the vault if the vault is subject to hydraulic pressure.

**6. External Liner Systems** — External liner (i.e., bermed) systems must be: [22CCR §66265.193(e)(1)]

- Designed or operated to contain 100 percent of the capacity of the largest tank within its boundary;
- Designed or operated to prevent run-on and infiltration of precipitation into the secondary containment system unless the collection system has sufficient excess capacity, in addition to that required above, to contain run-on and infiltration of precipitation from a 25-year, 24-hour rainfall event;
- Free of cracks or gaps;
- Designed and installed to completely surround the tank and to cover all surrounding earth likely to come into contact with the waste if released from the tank(s) (i.e., capable of preventing lateral as well as vertical migration of the waste).

**7. Ancillary Equipment** — Ancillary equipment must be provided with:

- Full secondary containment (e.g., trench, jacketing, double-walled piping) meeting the requirements of 22 CCR §66265.193(b) and (c). [22CCR §66265.193(f)]
- Secondary containment as specified in §66265.193(f) or an alternative device or devices as approved in writing by the CUPA, which would prevent and/or detect any release of wastes out of the tank system before such wastes could migrate to the soil, ground water, or surface water at any time during the use of the tank system. [22CCR §66265.193(m)]

The following are examples of alternatives that may be proposed for review and approval by the CUPA:

- Containment of the entire system within a bermed containment area with visual and/or electronic leak detection monitoring;
- Double-walled piping with continuous interstitial monitoring located at low elevation points along pipeline;
- Double-walled piping with translucent or transparent sections located at low points or low endpoints so that visual monitoring is possible;
- Troughs or pipe runs with impermeable liners that incorporate the following:
  - Continuous electronic leak detection monitoring for releases; or
  - Sumps located at low elevations with leak detection monitors; or

- Visual monitoring during hours of operation.

**8. Secondary Containment Exceptions<sup>3</sup>** — The following equipment is exempted from 22 CCR secondary containment provisions provided that the equipment is visually inspected for leaks on a daily basis:<sup>4</sup>

- Aboveground piping runs (except for valves, flanges, joints, and connections); [22CCR §66265.193(f)(1)]
- Welded flanges, welded joints, and welded connections; [22CCR §66265.193(f)(2)]
- Sealless or magnetic coupling pumps and sealless valves; [22CCR §66265.193(f)(3)]
- Pressurized aboveground piping systems with automatic shut-off devices (e.g., excess flow check valves, flow metering shutdown devices, loss of pressure actuated shut-off devices). [22CCR §66265.193(f)(4)]

Tank systems used to transfer, store or treat hazardous waste containing no free liquids and that are situated inside a building with an impermeable floor are exempted from the requirements of 22 CCR §66265.193.<sup>5</sup> [22CCR §66265.190(a)]

Tank systems and sumps that serve as part of a secondary containment system to collect or contain releases of hazardous wastes are exempted from the requirements of 22 CCR §66265.193(a). [22CCR §66265.190(b)]

Unless otherwise required by federal law, the requirements of 22 CCR §66265.193 do not apply to Conditional Exemption (CE) or Conditionally Authorized (CA) on-site treatment tank system ancillary equipment if:

- The equipment's integrity is attested to pursuant to 22 CCR §66265.191 every 2 years from the date that retrofitting requirements would otherwise apply; [HSC §§25200.3(c)(4)(A) or 25201.5(e)(1)] OR
- It is not feasible for the equipment to undergo integrity testing and the operator implements the best feasible leak detection measures determined to be sufficient by DTSC, and those measures do not reveal any leaks. [HSC §§25200.3(c)(4)(B)(iii) and 25201.5(e)(2)(C)]

Any CE or CA tank system ancillary equipment found to leak must be retrofitted by the operator to meet full secondary containment standards. [HSC §§25200.3(c)(4)(B)(iii) and 25201.5(e)(2)(C)]

## **D. Spill Prevention and Overflow Prevention Controls**

Tanks must be provided with the following: [22 CCR §66265.194(b)]

- Spill prevention controls (e.g., check valves, dry disconnect couplings);
- Overflow prevention controls (e.g., level-sensing devices, high level alarms, automatic feed cutoff, bypass to a standby tank);
- In the case of uncovered tanks, at least 2 feet of freeboard to prevent overtopping by wave or wind action or by precipitation.<sup>6</sup>

<sup>3</sup> Local ordinances or codes may require secondary containment of these systems even if it is not required by 22 CCR. Check with your CUPA.

<sup>4</sup> These inspections must be documented as required by 22 CCR §66265.195(c).

<sup>5</sup> To demonstrate the absence or presence of free liquids in the waste, Method 9095 (Paint Filter Liquids Test) as described in "Test Methods for Evaluating Solid Wastes, Physical/Chemical Methods" (EPA Publication No. SW-846, 3<sup>rd</sup> edition and Updates incorporated by reference in §66260.11) must be used.

<sup>6</sup> This 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.

## E. Written Assessments for Tank Systems and Components

**1. New Aboveground Tanks Holding Non-RCRA Hazardous Waste or RCRA-Exempt Waste, or Tiered Permit Tank Systems** — For the following types of tank systems, a written assessment meeting the requirements of 22 CCR §66265.192(k) must be obtained prior to placing a new tank system or component in service: [22CCR §66265.192(h)(1)]:

- Systems containing non-RCRA hazardous wastes generated onsite; [22CCR §66265.192(h)(2)(A)]
- Onsite treatment unit tank systems authorized under the following tiers: [22CCR §66265.192(h)(2)(A)]
  - Conditional Exemption (CE) if the facility is a LQG;
  - Conditional Authorization (CA);
  - Permit-by-Rule (PBR).
- Systems containing RCRA hazardous wastes generated onsite if 40 CFR §265.1 exempts the owner/operator from the requirements of 40 CFR Part 265. [22CCR §66265.192(h)(2)(B)(2)]

An independent, qualified California-registered professional engineer (PE)<sup>7</sup> must review the assessment and attest that the tank system has sufficient structural integrity and is acceptable for the transferring, storing and treating of hazardous waste. [22CCR §66265.192(h)(1)]

The assessment must include the following information: [22CCR §66265.192(k)]

- Hazardous characteristics of the waste(s) that have been or will be handled; [22CCR §66265.192(k)(8)]
- Tank configuration (i.e., horizontal or vertical), material of construction, and gross capacity in gallons; [22CCR §66265.192(k)(1)]
- All of the following information: [22CCR §66265.192(k)(2)]
  - Material of construction;
  - Material thickness and the method used to determine the thickness;
  - Description of tank system piping (i.e., material, diameter);
  - Description of any internal and external pumps; and
  - Sketch or drawing of tank including dimensions.
- Design standard(s), if available, according to which the tank and ancillary equipment were or will be constructed, including design considerations (i.e., calculations) to ensure that: [22CCR §66265.192(k)(2)]
  - Tank foundations will maintain the load of a full tank;
  - Tank systems will be anchored to prevent flotation or dislodgment where the tank system is placed in a saturated zone, or is located within a seismic fault zone;
  - Tank systems will withstand the effects of frost heave.
- If the tank was previously used, the age of the tank system if available (otherwise, an estimate of the age); [22CCR §66265.192(k)(3)]
- Description and evaluation of any leak detection equipment; [22CCR §66265.192(k)(4)]
- Description and evaluation of any corrosion protection equipment, devices, or materials; [22CCR §66265.192(k)(5)]
- Description and evaluation of spill prevention and overflow equipment; [22CCR §66265.192(k)(6)]
- Description and evaluation of secondary containment for the tank system and ancillary equipment demonstrating that it meets the requirements of 22 CCR §§66265.192(j)(1) through (j)(3) and §66265.193(f); [22CCR §66265.192(k)(7)]

<sup>7</sup> DTSC's interpretation is that a qualified PE is one whose license allows that individual to engage in the work of assessing whether or not a tank system meets the operating requirements specified in the applicable regulations. Further, §415 of Title 16, CCR requires that a PE practice and perform engineering work only in the field or fields in which he/she is by education and/or experience fully competent and proficient.

- The results of the inspection(s) performed by the installation inspector or PE prior to placing a new tank system or component in use; [22CCR §66265.192(k)(9)]
- The results of all tank and ancillary equipment tightness tests performed prior to placing the system in use. [22CCR §66265.192(k)(10)]
- All discrepancies found during tank and ancillary equipment tightness testing. [22CCR §66265.192(k)(9)]
- The estimated remaining service life of the tank system based on findings of §66265.192(k)(1) through (k)(10). [22CCR §66265.192(k)(11)]
- A certification by the PE worded exactly as indicated in Section G, below. [22CCR §66265.192(h)(1)]

The assessment is valid for a maximum period of five (5) years from the date of certification by the PE, or the remaining service life of the tank system as stated in the assessment, whichever is less. It must be reviewed and recertified by a PE before the current five year certification expires. [22CCR §66265.192(h)(1)]

The current assessment must be kept on file at the facility. [22CCR §66265.192(h)(1)]

**2. New Aboveground Tanks Holding RCRA Hazardous Waste and UST Systems** — For the following types of tank systems, the requirements of 66265.192(h) do not apply:

- Aboveground tank systems containing RCRA hazardous wastes generated onsite when the owner/operator is subject to the requirements of 40 CFR Part 265.
- Underground storage tank systems.

Prior to placing a new tank system of this type in service, the owner/operator must obtain a written assessment as described below. The assessment must be reviewed and certified by an independent, qualified California-registered PE<sup>7</sup> attesting that the system has sufficient structural integrity, is acceptable for the transferring, storing and treating of hazardous waste, and that the tanks and containment system are suitably designed to achieve the requirements of Article 10. [22CCR §66265.192(a)]

The assessment must include the following information: [22CCR §66265.192(a)]

- Hazardous characteristics of the waste(s) to be handled; [22CCR §66265.192(a)(2)]
- Design standard(s) according to which the tank(s) and ancillary equipment are or will be constructed; [22CCR §66265.192(a)(1)]
- Design considerations (i.e., calculations) to ensure that:
  - Tank foundations will maintain the load of a full tank; [22CCR §66265.192(a)(5)(A)]
  - Tank systems will be anchored to prevent flotation or dislodgment where the tank system is placed in a saturated zone, or is located within a seismic fault zone; [22CCR §66265.192(a)(5)(B)]
  - Tank systems will withstand the effects of frost heave. [22CCR §66265.192(a)(5)(C)]
- For tank systems or components in which the external shell of a metal tank or any external metal component of the tank system is or will be in contact with the soil or with water, a determination by a corrosion expert of: [22CCR §66265.192(a)(3)]
  - Factors affecting the potential for corrosion, including but not limited to: soil moisture content; soil pH; soil sulfides level; soil resistivity; structure to soil potential; influence of nearby underground metal structures (e.g., piping); stray electric current; and existing corrosion-protection measures (e.g., coating, cathodic protection).
  - The type and degree of external corrosion protection that are needed to ensure the integrity of the tank system during the use of the tank system or component, consisting of one or more of the following: corrosion-resistant materials of construction such as special alloys or fiberglass-reinforced plastic; corrosion-resistant coating (e.g., epoxy or fiberglass) with cathodic protection

(e.g., impressed current or sacrificial anodes); and electrical isolation devices such as insulating joints and flanges.

- For UST system components that are likely to be affected by vehicular traffic, a determination of design or operational measures that will protect the tank system against potential damage. [22CCR §66265.192(a)(4)]
- A certification by the PE worded exactly as indicated in Section G, below. [22CCR §66265.192(a)]

The current assessment must be kept on file at the facility. [22CCR §66265.192(a)]

**3. Replacement Parts or Components** — A written reassessment is not required for the replacement of the following identical or functionally equivalent tank system parts or components:<sup>8</sup> [22CCR §66265.192(d)]

- Pumps (same type and capacity);
- Plumbing or piping components such as unions, elbows, tees and gaskets;
- Valves and check valves;
- Piping and valve hangers and supports.

Approval from the CUPA must be obtained before installing any identical or functionally equivalent replacement tank system part or component other than the items listed above. The tank system owner/operator must provide the CUPA with the following information in writing so that a determination can be made as to whether or not the part(s) are identical or equivalent: [22CCR §66265.192(m)]

- Name, address, and EPA identification number of the facility;
- Date of planned replacement;
- Description part or component to be replaced;
- Description of the tank system and type of waste(s) handled;
- Description of how the part or component is identical or functionally equivalent to the part or component to be replaced.

If the part(s) or component(s) are determined to be identical or functionally equivalent by the CUPA, a written reassessment is not required.<sup>8</sup>

If the part(s) or component(s) are not the identical or functionally equivalent items specified above, or the CUPA determines that other replacement parts or components are not identical or functionally equivalent, then a written reassessment as specified in 22 CCR §66265.192(k) is required.

**4. Temporary Exemption** — Owners/operators of new aboveground non-RCRA or RCRA-exempt tank systems whose design and installation have been approved by a local agency or agencies may, at the discretion of the CUPA, delay preparation of the written assessment specified in §66265.192(k) beyond the date the tank system is placed in service provided that all of the following requirements are met: [22CCR §66265.192(j)]

- The tank system must have secondary containment capable of containing 100 percent of the contents of the tank and ancillary piping volume; [22CCR §66265.192(j)(1)]
- If the tank system is exposed to precipitation, the secondary containment system must have sufficient capacity, in addition to that required above, to contain infiltration from a 25-year, 24-hour rainfall event; [22CCR §66265.192(j)(2)]

<sup>8</sup> Even if a written assessment is not required, you may still be required to obtain a permit or approval from the local agency that regulates hazardous materials storage and/or the local Building Department prior to beginning such work.



- The tank system secondary containment must be provided with a leak detection system designed and operated so that it will detect either the failure of the primary and secondary containment structure or any release of hazardous waste or accumulated liquid in the secondary containment system within 24 hours. [22CCR §66265.192(j)(3)]
- Prior to placing the tank system in service, the owner/operator must submit the following information to the CUPA for review and obtain CUPA approval: [22CCR §66265.192(j)]
  - A request for temporary exemption from the written assessment requirement with information showing that the conditions of 22 CCR §66265.192(j)(1) through (3) have been met; (*Note: a Hazardous Waste Tank System Written Assessment Temporary Exemption Application form is available at [www.unidocs.org](http://www.unidocs.org)*)
  - Documentation of local agency approval of the tank system design and installation.

The CUPA may grant an extension for up to three (3) years. [22CCR §66265.192(j)]

*Note(s): (1) Some CUPAs that grant extensions allow owners/operators to apply for a new extension before the current extension expires. Contact your CUPA regarding their requirements.*

*(2) It is recommended that hazardous waste generators whose status changes from SQG to LQG due to an increase in the quantity of waste generated request this extension from their CUPA to avoid being in violation while the written tank system assessment is prepared.*

**5. Existing Tank Systems** — Owners/operators of existing tank systems that did not have secondary containment meeting the requirements of 22 CCR §66265.193 at the time the tanks were installed were required to obtain a written tank system assessment in accordance with §66265.191 by the deadlines specified in Table 3 (at the end of this document). [22CCR §66265.191(a)]

If, as a result of an assessment the tank system is found to be leaking or unfit for use, the owner or operator must remove the tank from service as required by 22 CCR §66265.196. [22CCR §66265.191(d)]

The assessment is valid for a period of one (1) year from the date of certification. It must be reviewed and recertified by a PE before the current certification expires. [22CCR §66265.191(e)(1)]

The current assessment must be kept on file at the facility. [22CCR §66265.191(e)(1)]

An existing tank system that had secondary containment meeting the requirements of 22 CCR §66265.193 before 7/1/1991 is not required to have a written tank system assessment unless the system is modified. Per USEPA and DTSC, if such a system is modified, it is subject to the requirements for new tank systems.

## **F. Installation of New Tank Systems and Components**

### **1. Installation Requirements**

The owner/operator must ensure that proper handling procedures are adhered to in order to prevent damage to the system during installation. [22CCR §66265.192(b)]

New tank systems or components and piping that are placed underground and that are backfilled must be provided with a backfill material that is a noncorrosive, porous, homogeneous substance and that is carefully installed so that the backfill is placed completely around the tank and compacted to ensure that the tank and piping are fully and uniformly supported. [22CCR §66265.192(c)]

Ancillary equipment must be supported and protected against physical damage and excessive stress due to settlement, vibration, expansion or contraction. [22CCR §66265.192(e)]

The owner or operator must provide the type and degree of corrosion protection necessary, based on the information provided under §66265.192(a)(3), to ensure the integrity of the tank system during use of the tank system. [22CCR §66265.192(f)]

The installation of a corrosion protection system that is field fabricated must be supervised by an independent corrosion expert to ensure proper installation. [22CCR §66265.192(f)]

The tank system owner/operator must obtain, and keep on file at the facility, written statements by those persons required to certify the design of the tank system and supervise the installation of the tank system per the requirements of 22 CCR §66265.192(b) through (f) to show that the system was properly designed and installed and that any repairs required pursuant to §66265.192(b) and (d) were performed. These statements must include a certification statement worded exactly as indicated in Section G, below. [22CCR §66265.192(g)]

## 2. Inspections and Testing<sup>9</sup>

Prior to covering, enclosing, or placing a new tank system or component in use, an independent, qualified installation inspector or an independent, qualified California-registered PE, either of whom is trained and experienced in the proper installation of tank systems, must inspect the system or component for the presence of any of the following items: weld breaks; punctures; scrapes of protective coatings; cracks; corrosion; other structural damage or inadequate construction or installation. [22CCR §66265.192(b)]

The independent inspector/PE must document in writing the results of the inspections. [22CCR §66265.192(k)(9)]

All new tanks and ancillary equipment must be tested for tightness prior to being covered, enclosed or placed in use. If a tank system is found not to be tight, all repairs necessary to remedy the leak(s) in the system must be performed prior to the tank system being covered, enclosed, or placed in use. [22CCR §66265.192(d)]

Integrity or leak test requirements must be in compliance with all local requirements. Contact the local agency prior to conducting such testing. [22CCR §66265.192(k)(10)]

All discrepancies must be remedied before the tank system is covered, enclosed, or placed in use. [22CCR §§66265.192(b) and (k)(9)(D)]

## G. Certification Statements

Certification statements must be worded exactly as follows: [22CCR §66270.11(a)]

“I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to be the best of my knowledge and belief, true, accurate, and

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<sup>9</sup> Your local agency may require that an agency inspector be present to witness inspections and/or verify corrective actions.

complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.”<sup>10</sup>

## H. Operating Requirements

1. **Inspections** — Tank system owners/operators must perform and document inspections of the following items at least once each operating day: [22 CCR §66265.195 as referenced by 66262.34(a)(1)]
  - Overfill/spill control equipment to ensure good working order;
  - Aboveground portions of the tank system, if any, to detect corrosion or releases of waste;
  - 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 specified in 22 CCR §66265.194(b)(3).
2. **Spill Cleanup** — Spilled or leaked waste and accumulated precipitation must be removed from secondary containment systems within 24 hours or, if removal of the released waste or accumulated precipitation cannot be accomplished within 24 hours, in as timely a manner as is possible to prevent harm to human health or the environment. [22CCR §66265.193(c)(4)]
3. **Air Emissions** — LQGs must also comply with 22 CCR, Division 4.5, Chapter 15, Articles 27, 28, and 28.5. [22CCR §66262.34(a)(1)(A)]
4. **Underground Storage Tanks (UST)** — Owners/operators of UST systems must also comply with the applicable requirements of Title 23, CCR relating to UST systems. [22CCR §§66265.191(f), 66265.192(i), and 66265.193(k)]

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<sup>10</sup> Civil, Structural, or Geotechnical PEs may sign certifications for entire systems but they may need to rely upon other professionals for specific areas of competence. In these cases, all PEs contributing to the assessment must sign, with each PE signing and certifying only the part(s) of the tank assessment within their specific discipline. Certifications must include the name and license number for each engineer who is approving a section or sections of an assessment.

**Table 1**  
**Secondary Containment Deadlines**

Type of Hazardous Waste Held in Tank System	Tank System Installation Date	Type of Hazardous Waste Generator	Compliance Deadline and Code Citation <sup>11</sup>
Non-RCRA Hazardous Waste	After 7/1/1991 ("New Tank")	LQG	Before placing system in service [22 CCR §66265.193(a)(1)]
Non-RCRA Hazardous Waste	<b>Known and documented</b> to be on or before 7/1/1991 ("Existing Tank")	LQG	7/1/1993 <sup>12</sup> or when tank system was 15 years old, whichever came later [22 CCR §66265.193(a)(3)(B)(1)]
Non-RCRA Hazardous Waste	<b>Undocumented</b> and facility was built on or after 7/1/1984	LQG	7/1/1999 [22 CCR §66265.193(a)(5)(A)]
Non-RCRA Hazardous Waste	<b>Undocumented</b> and facility was in existence before 7/1/1984	LQG	7/1/1993 <sup>4</sup> or when facility was 15 years old, whichever came later [22 CCR §66265.193(a)(5)(A)]
RCRA Hazardous Waste	After 7/14/1986 ("New Tank")	LQG	Before placing system in service [22 CCR §66265.193(a)(1)]
RCRA Hazardous Wastes F020, F021, F022, F023, F026, or F027	On or before 7/14/1986 ("Existing Tank")	LQG exempted from 40 CFR §265 per 40 CFR §265.1 but still subject to 22 CCR, Div. 4.5, Chapter 15, Article 10	7/1/1993 [22 CCR §66265.193(a)(2)(B)(2)]
RCRA Hazardous Wastes F020, F021, F022, F023, F026, or F027	On or before 7/14/1986 ("Existing Tank")	LQG	1/12/1989 <sup>13</sup> [22 CCR §66265.193(a)(2)(A)]
RCRA Hazardous Waste	<b>Known and documented</b> to be on or before 7/14/1986 ("Existing Tank")	LQG	1/12/1989 <sup>5</sup> or when tank system was 15 years old, whichever came later [22 CCR §66265.193(a)(3)(A)]
RCRA Hazardous Waste	<b>Undocumented</b> and facility was built on or after 1/12/1980	LQG	1/12/1995 [22 CCR §66265.193(a)(4)(A)]
RCRA Hazardous Waste	<b>Undocumented</b> and facility was in existence before 1/12/1980	LQG	1/12/1989 <sup>5</sup> or when facility was 15 years old, whichever came later [22 CCR §66265.193(a)(4)(A)]
RCRA Hazardous Waste	<b>Known and documented</b> to be on or before 7/14/1986 ("Existing Tank")	LQG exempted from 40 CFR §265 per 40 CFR §265.1 but still subject to 22 CCR, Div. 4.5, Chapter 15, Article 10	7/1/1993 or when tank system was 15 years old, whichever came later [22 CCR §66265.193(a)(3)(B)(2)(b)]
RCRA Hazardous Waste	<b>Undocumented</b> and facility was built on or after 7/1/1984	LQG exempted from 40 CFR §265 per 40 CFR §265.1 but still subject to 22 CCR, Div. 4.5, Chapter 15, Article 10	7/1/1999 [22 CCR §66265.193(a)(5)(A)]
RCRA Hazardous Waste	<b>Undocumented</b> and facility was in existence before 7/1/1984	LQG exempted from 40 CFR §265 per 40 CFR §265.1 but still subject to 22 CCR, Div. 4.5, Chapter 15, Article 10	7/1/1993 or when facility was 15 years old, whichever came later [22 CCR §66265.193(a)(5)(A)]

<sup>11</sup> The Code Citations referenced for existing tank systems are the citations that were in regulation prior to 9/8/2006, when 22 CCR §66265.193 was revised to eliminate references to deadline dates that had already passed. This is when you should have complied.

<sup>12</sup> For Non-RCRA Hazardous Waste which became regulated as hazardous after 7/1/1991, substitute "Two years from the date the waste became a Hazardous Waste" for 7/1/1993 in column 4 of the table.

<sup>13</sup> For a RCRA Hazardous Waste which became regulated as hazardous after 1/12/1987, substitute "Two years from the date the waste became a Hazardous Waste" for 1/12/1989 in column 4 of the table.

**Table 2**  
**Tank System Assessment/Reassessment Types and Deadlines**

Type of Tank System	Type of Assessment Required	Initial Assessment Deadline	Assessment Renewal Deadline
New Aboveground Tank System Holding <b>Non-RCRA</b> HazWaste	Per §66265.192(k)	Prior to placing tank system in service	Every 5 years <sup>14</sup>
New Aboveground Tank System Holding <b>RCRA-Exempt</b> HazWaste	Per §66265.192(k)	Prior to placing tank system in service	Every 5 years <sup>14</sup>
New Tiered Permit Tank System	Per §66265.192(k)	Prior to placing tank system in service	Every 5 years <sup>14</sup>
New Aboveground Tank System Holding <b>RCRA</b> HazWaste	Initial: Per §66265.192(a) Renewals: Per §66265.192(k)	Prior to placing tank system in service	N/A (See below if system is modified)
New Underground Tank System Holding any HazWaste	Initial: Per §66265.192(a) Renewals: Per §66265.192(k)	Prior to placing tank system in service	N/A (See below if system is modified)
Existing tank system with full secondary containment per §66265.193	Written assessment not required unless system is modified	N/A	Prior to placing system back in service if modified (Modified systems are subject to requirements for “New” systems)
Existing tank system without full secondary containment per §66265.193	Per §66265.191	See Table 3, below	Every 12 months until full secondary containment was provided (see Table 1, above for deadlines) (When secondary containment was provided, these systems became subject to requirements for “New” systems)
Any <b>Modified</b> tank system	Per §66265.192(k)	Prior to placing modified system or new component(s) in service	Every 5 years (All modified systems are subject to requirements for “New” systems)

<sup>14</sup> If originally assessed prior to 6/1/1995, reassessment is due 5 years from date of original assessment or 6/1/2000, whichever came first, and every 5 years thereafter.

**Table 3**

**Existing Tank System Assessment Deadlines<sup>15</sup>**

(Existing Tanks, Piping, and Ancillary Equipment Without Secondary Containment Required by 22 CCR §66265.193)

Type of Material Held in Tank System	Type of HazWaste Generator	Type of Tank System	Compliance Deadline and Code Citation <sup>11</sup>
Excluded Recyclable Material	Any	Any	7/1/1991 [22 CCR §66265.191(a)(2)(A)]
Non-RCRA Hazardous Waste generated on-site	LQG	Aboveground	1/24/1998 [22 CCR §66265.191(e)(1)]
Non-RCRA Hazardous Waste	LQG	Underground	7/1/1991 [22 CCR §66265.191(a)(2)(A)]
Non-RCRA Hazardous Waste	LQG	Tank system authorized under CE, CA, or PBR on-site treatment permit tier	1/24/1998 [22 CCR §66265.191(e)(1)]
Non-RCRA Hazardous Waste which becomes regulated as hazardous after 7/1/1991	LQG	Any	12 Months after the waste becomes regulated as hazardous [22 CCR §66265.191(c)(2)(A)]
RCRA Hazardous Waste	LQG	Any	1/12/1988 [22 CCR §66265.191(a)(1)]
RCRA Hazardous Waste which becomes regulated as hazardous after 7/14/1986	LQG	Any	12 Months after the waste becomes regulated as hazardous [22 CCR §66265.191(c)(1)]
RCRA Hazardous Waste	LQG exempted from 40 CFR §265 per 40 CFR §265.1 but still subject to 22 CCR, Div. 4.5, Chapter 15, Article 10	Aboveground	1/24/1998 [22 CCR §66265.191(e)(1)]
RCRA Hazardous Waste	LQG exempted from 40 CFR §265 per 40 CFR §265.1 but still subject to 22 CCR, Div. 4.5, Chapter 15, Article 10	Any	7/1/1991 [22 CCR §66265.191(a)(2)(B)(2)]
RCRA Hazardous Waste which becomes regulated as hazardous after 7/1/1991	LQG exempted from 40 CFR §265 per 40 CFR §265.1 but still subject to 22 CCR, Div. 4.5, Chapter 15, Article 10	Any	12 Months after the waste becomes regulated as hazardous [22 CCR §66265.191(c)(2)(B)(2)]

<sup>15</sup> Annual updating of the assessment was required until full secondary containment was provided.