UNDERGROUND STORAGE TANK SYSTEM INSTALLATION/UPGRADE SUPPLEMENT

For use by Unidocs Member Agencies or where approved by your Local Jurisdiction
Authority Cited: California Fire Code (CFC); Chapter 6.7, Health and Safety Code (HSC);
Title 23, Div. 3, Ch. 16 California Code of Regulations (CCR)

I. General Information

This document, accompanied by all required attachments, shall be completed and submitted along with the project plans and installation/upgrade permit application. It is intended to serve as a general overview of flammable and combustible liquid UST installation and upgrade requirements and is not all-inclusive. The Unidocs "Underground Storage Tank System Installation Guidelines" provide additional information on installation requirements.

II. Project Information

Provide the following information:

Facility Name (Tank Site): _____ Bldg. No.: _____

Site Address: _____ City: _____ Zip: _____

Project Contact Name: _____ Phone No.: (____) _____ ext. _____

Contractor Name (DBA): _____ Contractor License No.: _____

Plan Check No.: _____ Date Plans Submitted: _____

This information is intended to expedite the plan review and approval process. Where appropriate, enter, on the line to the right of each item, the number of the page within your submitted plans on which the item asked for is described. Highlight the information in your plans. If an item is not applicable to this project, mark "N/A" on the "Submittal Page No." line. Calculations, brochures and/or manufacturers' cut sheets for all system components, and other required information shall be submitted as attachments to the plans.

A. Tanks

Agency Use Only	Code Section		Submittal Page No.
☐	HSC § 25290.1(c)	Tanks are product tight and compatible with materials intended to be stored.	
☐	CCR § 2631(b)	Design and construction of primary containment is approved by an independent testing organization (e.g., UL).	
☐	CCR § 2635(a)(6)	Tank systems will be installed in accordance with manufacturers' written installation instructions.	
☐	CFC § 3404.2.11.2#1	Tanks are located with respect to existing foundations and supports such that the loads carried by the latter cannot be transmitted to the tank.	
☐	CFC § 3404.2.11.2#2	Tanks are located not less than 3 feet from the nearest wall of a basement, pit, cellar, or lot line.	
☐	CFC § 3404.2.11.2#3	Tanks are separated by at least 1 foot, measured shell-to-shell.	
☐	HSC §§ 25290.1(f) 25290.2(e) 25291(c) CCR §§ 2635(b) 2665	A spill container having minimum 5 gallon capacity and drain valve allowing drainage of collected spills to the primary tank is provided at each tank fill location.	

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☐	HSC §§ 25290.1(f) 25290.2(e) 25291(c) CCR §§ 2635(b) 2665	An approved overfill prevention device is provided at each tank fill location. *[Note: The device must restrict flow at 90% of tank capacity or trigger an audible and visual alarm at 90% of tank capacity or positively shut off flow at 95% of tank capacity to alert the operator.]*	
☐	CCR § 2631(c)	Striker plates are installed center-to-center below all accessible tank openings.	

B. Piping

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☐	HSC§§ 25290.1(c)(1) 25290.2(c)(1) 25291(a)(1) CFC § 2703.2.2.1#1 NFPA 30 § 5.2.1	Piping is product tight and compatible with the material(s) intended to be stored; is of adequate strength and durability to withstand the pressure, structural stress, and exposure to which it will be subject; and complies with ASME B31.	
☐	CCR § 2631(b) CFC § 2206.6.3	Design and construction of piping is approved by an independent testing organization (e.g., UL).	
☐	CCR § 2636(c)(2)	Piping systems will be installed in accordance with manufacturers' written installation instructions.	
☐	CCR § 2636(c)(1)	Double wall piping that is not equipped with continuous vacuum/pressure/hydrostatic monitoring is sloped so that all releases will flow to a monitored collection sump located at the low point of the underground piping run.	
☐	CFC § 3403.6.9	Underground liquid, vent, and vapor return piping is provided with listed and approved flexible joints at the following points: ° Where piping connects to underground tanks; ° Where piping ends at dispensing islands and vent risers; ° At points where differential movement in the piping can occur. *[Exception: Not required for FRP piping in locations where piping diameter does not exceed 4 inches and the piping has a straight run of at least 4 feet on one side of the connection when connections result in a change of direction.]*	
☐	CFC § 3404.2.7.3.3	Tank vent piping discharges to a safe point outside of buildings and away from adjacent walls, eaves, or other obstructions to assist in vapor dispersion, with the following minimum distances: ° 12 feet above adjacent ground level; ° 5 feet to any lot line of a property that can be built upon or opening into a building.	
☐	CFC § 2206.7.4	Liquid supply piping is provided with an approved shear/fusible link emergency shutoff valve at the base of each dispenser supplied by a remote pump.	

C. Secondary Containment *[Note: Laminated, coated, or clad primary containment is considered single-walled, and does not satisfy requirements for secondary containment.]*

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☐	HSC § 25290.1(c)	Secondary containment is provided for tanks.	

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☐	HSC §§ 25290.1(c) 25290.2(c) 25291(a) CCR § 2636	Secondary containment is provided for piping as follows: ° USTs installed on or after 7/1/2003 — Secondary containment is required for all product and remote fill lines; and all underground vent lines, vapor recovery lines, and riser piping connected to tank primary containment. ° USTs installed after 7/1/1987 but prior to 7/1/2003 — Secondary containment is required for all replacement product and remote fill lines and any vapor recovery lines having sags or traps [and any vent or riser piping not exempted pursuant to 23 CCR §2636(a)(1)];	
☐	CCR §§ 2631(b) 2631(d)	The design and construction of each integral secondary containment system is approved by an independent testing organization (e.g., UL). Each secondary containment system which is not an integral part of primary containment is designed and constructed according to an engineering specification approved by a state-registered Professional Engineer or according to a nationally recognized industry code or engineering standard which includes the construction procedures.	
☐	HSC§§ 25290.1(c)(2) 25290.2(c)(2) 25291(a)(2)	Secondary containment is product tight and constructed to prevent structural weakening as a result of contact with any hazardous substance released from primary containment.	
☐	HSC §§ 25290.1(c)(3) 25290.2(c)(3)	All secondary containment systems will be constructed to prevent any water intrusion into the system by precipitation, infiltration, or surface runoff. *[Note: Required for tank systems installed on or after 7/1/2003.]*	
☐	HSC §§ 25290.1(c) 25290.2(c) 25291(a) CCR § 2636(g)	An under-dispenser containment (UDC) sump or pan is provided for each dispenser.	

D. Corrosion Protection:

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☐	CCR § 2635(a)(2)	Tanks are protected from corrosion.	
☐	CCR § 2636(b)	Corrodable underground piping, if in direct contact with backfill, is protected against corrosion.	

E. Burial and Cover:

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☐	CFC § 3404.2.11.3	Tanks are set on a firm foundation and surrounded by a minimum 6 inches of noncorrosive inert material, such as clean sand or pea gravel.	
☐		A certification, stamped by a registered engineer, that flooding will not occur and that groundwater conditions do not warrant additional engineering to counteract tank buoyancy, is included with this application. *[Alternative: Attach buoyancy calculations, stamped by a registered engineer and based upon the assumption that each tank lies completely submerged.]*	

F. Dispensers:

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☐	CFC § 2206.7.3	Concrete islands at least 6 inches high are provided (or other approved method of vehicle impact protection).	
☐	CFC § 2203.1	Dispensers are sited with the following minimum distances: 1.) 10 feet to any lot line; 2.) 20 feet to any fixed source of ignition; 3.) 10 feet to buildings having combustible exterior wall surfaces or buildings having noncombustible exterior wall surfaces that are not 1-hour rated or buildings having combustible overhangs; 4) such that all portions of vehicles being fueled will be on the premises of the facility.	
☐	CFC § 2203.1#4	Dispenser hoses, when fully extended, reach no closer than 5 feet from any building opening.	
☐	CFC § 2206.7.5	Dispenser hoses are listed and approved, and are no more than 18 feet in length. When not in use, hoses will be reeled, racked, or otherwise protected from damage.	
☐	CFC § 2206.7.5.1	Each dispenser hose is provided with an approved emergency break-away connector designed to retain liquid on both sides of the breakaway point.	
☐	CFC § 2206.7.6	Each dispenser hose is provided with a listed automatic-closing-type nozzle valve.	
☐	CFC § 2204.3	If dispensing is unsupervised, the following are provided: ° A telephone that does not require a coin to operate (or other approved, clearly identified means to notify the Fire Department); ° Dispensing devices are programmed to limit uninterrupted fuel delivery to 25 gallons or limit delivery by use of a pre-programmed card.	

G. Emergency Shut-Off:

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☐	CFC § 2203.2	Switch(es) to shut off electrical power used in dispensing operations are distinctly labeled "EMERGENCY FUEL SHUTOFF."	
☐	CFC § 2203.2	Switch(es) are installed at approved location(s) no less than 20 feet and no more than 100 feet from any dispenser.	
☐	CFC § 2203.2	Switch or sign is visible from every dispensing location.	

H. Monitoring:

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☐	HSC §§ 25290.1(d) 25290.2(d) 25291(b) 25291(e)	All secondary containment systems (i.e., tank annular spaces, secondary piping, sumps, UDC) are continuously monitored by approved electronic leak detection systems that can detect the entry of hazardous substance and water. *[Note: Secondary containment for tank systems installed on or after 7/1/2004 must be equipped with continuous vacuum/pressure/hydrostatic monitoring equipment.]*	

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☐	CCR §§ 2632 2636	Electronic monitoring sensors are located at the following points in secondarily-contained tank systems installed prior to 7/1/2004: ° At the bottom of the interstitial space of each secondarily-contained tank, positioned as near as possible to the bottom of the tank; ° In collection sumps at end of each secondarily-contained pipe run, positioned as near as possible to the bottom of the collection sump; ° In UDC pans or sumps other than those provided with mechanical leak detection equipment that shuts off the flow of product to the dispenser when a leak is detected. ° Along secondarily-contained pipe runs, portions of which do not slope towards monitored locations, positioned at the low point of each depressed or low-lying area.	
☐	HSC §§ 25290.1(h) 25290.2(g) 25291(f) 25292(e) CCR § 2636(f) (2)	Automatic line leak detectors are installed to monitor underground pressurized piping. *[Exception: Not required for Emergency Generator Tank Systems (EGTS) meeting the requirements of 23 CCR §2636(f)(6).]*	
☐	CCR §§ 2632(c)(2)(B) 2634(b)	The alarm panel provides both audible and visual alarms. It is located in a protected area and within sight and hearing distance of on-site personnel and hard-wired to a dedicated circuit.	