

SOC Matrices for California Part I - Release Detection Matrix

A release detection method is present and operational. The release detection system meets minimum Federal performance standards. (See Requirements Below)

If underground storage tanks (USTs) are in temporary closure, yet still contain product, release detection requirements are being met. (See Requirements Below)

The Local Agency has been notified of suspected releases as required. (Cal. Code Regs., tit. 23, § 2650.) [40 C.F.R. § 280.40(b).]

Release detection records are available. (To be in significant operational compliance, must have records for the two most recent consecutive months and for 8 of the last 12 months.) [40 C.F.R. §§ 280.41(a), 280.45(b).]

Hazardous substance USTs are double-walled. (Cal. Code Regs., tit. 23, § 2631, subd. (a).), [40 C.F.R. § 280.42(b).]

TANK Leak Detection Methods [40 C.F.R. § 280.43.]

Interstitial Monitoring [includes traditional and vapor, pressure, and hydrostatic (VPH) systems]

Sensors are properly located to detect a release. (Cal. Code Regs., tit. 23, §§ 2630, subd. (d), 2632, subd. (c), 2641, subd. (a) OR Health & Saf. Code, § 25290.1 subd. (e)), [40 C.F.R. §§ 280.43(g)(1), 280.43(g)(2), 280.40(a)(2).] AND

Sensors are operational. (Cal. Code Regs., tit. 23, § 2638 OR Health & Saf. Code, § 25290.1 subd. (e).)

Statistical Inventory Reconciliation (SIR) [40 C.F.R. §§ 280.43(h)(1)-(2), 280.41(a).]

SIR is performed properly. (Cal. Code Regs., tit. 23, §§ 2646.1, 2643, subd. (b)(3), 2643.1.) AND

Biennial 0.1 gph tank integrity test performed properly. (Cal. Code Regs., tit. 23, § 2646.1, subd. (g).) AND

Non-passing results are reported and properly investigated. (Cal. Code Regs., tit. 23, §§ 2646.1, subd. (d), 2646.1, subd. (f), 2646.1, subd. (h).)

Automatic Tank Gauging [40 C.F.R. §§ 280.40(a)(1)-(2), 280.43(d)(1).]

0.2 gph monthly tank gauging test performed. (Cal. Code Regs., tit. 23, § 2643, subd. (b)(1).) OR

0.1 gph monthly tank gauging test AND manual inventory reconciliation properly performed. (Cal. Code Regs., tit. 23, § 2643, subd. (b)(2).)

Manual Tank Gauging (for USTs with 1,000-gallon capacity or less) [40 C.F.R. §§ 280.43(b)(1), 280.43(b)(3)-(5).]

Weekly manual tank gauging performed properly. (Cal. Code Regs., tit. 23, § 2645.) AND

If necessary, tank integrity test conducted. (Cal. Code Regs., tit. 23, § 2645, subd. (d)(3).)

Vadoze Zone (Vapor) Monitoring [40 C.F.R. §§ 280.43(e)(3), 280.43(e)(6).]

Vadoze zone monitoring system properly installed and monitored. (Cal. Code Regs., tit. 23, §§ 2647, 2649.)

Ground Water Monitoring [40 C.F.R. §§ 280.43(f)(2), 280.43(f)(7).]

Ground water monitoring system properly installed and monitored. (Cal. Code Regs., tit. 23, §§ 2648, 2649.)

Part I - Release Detection Matrix (continued)

PIPING Leak Detection Methods [280.44]

Double-Walled Pressurized Piping (includes traditional and VPH systems)

[40 C.F.R §§ 280.40(a)(2), 280.43(g)(1), 280.43(g)(2), 280.44(a).]

ALL three of the following:

Interstitial monitoring properly conducted. (Cal. Code Regs., tit. 23, § 2636, subd. (f)(1) OR Health & Saf. Code, § 25290.1 subd. (e).) AND

Line leak detector present and operational. (Cal. Code Regs., tit. 23, § 2643, subd. (c)(1).) AND

Line leak detector tested annually. (Cal. Code Regs., tit. 23, § 2641, subd. (j).)

And ONE of the following:

Line leak detector restricts or shuts off flow of product (for non emergency generator systems). (Cal. Code Regs., tit. 23, § 2636, subd. (f)(2).) OR

Line leak detector activates an audible or visual alarm and the monitoring system is checked daily (emergency generator systems only). (Cal. Code Regs., tit. 23, § 2636, subd. (f)(2).)

*Note: Federal regulations do not require lines that are interstitially monitored to also be tightness tested.

Double-Walled Suction Piping (includes traditional and VPH systems)

Interstitial Monitoring is conducted properly. (Cal. Code Regs., tit. 23, § 2636, subd. (f)(1) OR Health & Saf. Code, § 25290.1 subd. (e).) [40 C.F.R. §§ 280.40(a)(2), 280.43(g)(1), 280.43(g)(2).]

Single-Walled Pressurized Piping

BOTH of the following: [40 C.F.R. § 280.44(a).]

3.0 gph line leak detector present and operational. (Cal. Code Regs., tit. 23, § 2643, subd. (c)(1).) AND

Line leak detector tested annually. (Cal. Code Regs., tit. 23, §§ 2638, 2641, subd. (j).)

AND one of the following:

0.1 gph line integrity test performed annually. (Cal. Code Regs., tit. 23, § 2643, subd. (c)(3).) [40 C.F.R. §§ 280.40(a)(3), 280.41(b)(1)(ii).] OR

0.2 gph line integrity test performed monthly. (Cal. Code Regs., tit. 23, § 2643, subd. (c)(2).) [40 C.F.R. §§ 280.41(b)(1)(ii), 280.44(c).]

Single-Walled Suction Piping

0.1 gph line integrity test performed triennially (every 3 years). (Cal. Code Regs., tit. 23, § 2643, subd. (d).) [40 C.F.R. §§ 280.40(a)(3), 280.41(b)(2).]

Single-Walled Safe Suction Piping

Piping meets the safe suction requirements. (Cal. Code Regs., tit. 23, § 2636, subd. (a)(3)(A) – (D).) [40 C.F.R. §§ 280.41(b)(2)(i) – (v).]

Part II - Release Prevention Matrix

1. Spill container present and in good condition. (Cal. Code Regs., tit. 23, §§ 2635 subd. (b)(1), 2665.) [40 C.F.R. §§ 280.20(c)(1), 280.20(c)(1)(i), 280.21(d).]
2. The appropriate overfill prevention system is present and operational. (Cal. Code Regs., tit. 23, § 2635, subd. (b)(2), 2665.) [40 C.F.R. §§ 280.20(c)(1), 280.20(c)(1)(ii)(A), 280.20(c)(1)(ii)(B), 280.21(d).]
[Note: Overfill prevention system requirement may be waived for USTs that meet the requirements of California Code of Regulations, Title 23, section 2635(b)(3).]
3. Repaired tanks or piping are tightness tested within 30 days of the repair. (Cal. Code Regs., tit. 23, § 2661, subd. (f).) [40 C.F.R. § 280.33(d).]
4. If corrosion of steel tank or piping is discovered during an upgrade or repair, the tank and piping comply with the cathodic protection (CP) applicable design, certification, installation, inspection, and testing requirements. (Cal. Code Regs., tit. 23, § 2660, subd. (n).) [40 C.F.R. § 280.33(d).]
5. The cathodic protection system is performing adequately and provides continuous protection. (Cal. Code Regs., tit. 23, § 2635(a)(2).) [40 C.F.R. §§ 280.31(a), 280.31(b)(1).] (Note: CP is required whether tanks are in operation or in temporary closure. (Cal. Code Regs., tit. 23, § 2671, subd. (b).) [40 C.F.R. § 280.70(a).])

AND

The cathodic protection system is checked by a cathodic protection tester within 6 months of installation and at least every three years thereafter. (Cal. Code Regs., tit. 23, § 2635, subd. (a)(2)(A).) [40 C.F.R. § 280.31(b)(1).]

6. The impressed current cathodic protection system is checked every 60 days. (Cal. Code Regs., tit. 23, § 2635, subd. (a)(2)(A).) [40 C.F.R. § 280.31(c).]
7. Interior lined tanks are inspected within 10 years of lining installation and every 5 years thereafter; and the lining is compliant. (Cal. Code Regs., tit. 23, § 2663, subd. (h).) [40 C.F.R. § 280.21(b)(1)(ii).]
8. Buried metal tanks and piping (including fittings, connections, etc.) are corrosion protected. (40 C.F.R. §§ 280.20(a)-(b) [for USTs installed after 12/22/88], 280.21(a)-(c) [for USTs installed on or before 12/22/88].)
California Code of Regulations, Title 23, sections 2635(a)(2) and 2633(b) for new tanks
California Code of Regulations, Title 23, sections 2636(b) and 2663(b) for new piping
California Code of Regulations, Title 23, section 2662(c) for existing tanks
California Code of Regulations, Title 23, section 2666(b) for existing piping