



MISSOURI DEPARTMENT OF NATURAL RESOURCES  
ENVIRONMENTAL REMEDIATION PROGRAM  
**REGULATORY REQUIREMENTS FOR INSTALLATIONS FOR NEW UNDERGROUND  
STORAGE TANK SYSTEMS COMPLIANCE CHECKLIST**

Any installer who intends to install an underground storage tank, or UST, system for storage of a regulated substance, must, at least 30 days before installing the tank, notify the department by letter of the intent to install a UST.

**1. INITIAL 30-DAY NOTIFICATION** (include a - e) (10 CSR 20-10.022)

- a. Owner's name.
- b. Name and location of tank site.
- c. Date installation will commence.
- d. Date tank will be brought online.
- e. Installer name and phone number.
- f. Request for waiver of 30-day notification.

**2. TANK DESIGN\*** (10 CSR 20-10.020(1)(A))

- a. Fiberglass reinforced plastic, or FRP.
- b. Dielectrically coated steel tank with CP\*\*.
- c. FRP clad steel tank.
- d. Double-walled tank\*\*\*.
- e. Bare metal in non-corrosive environment#.

**3. PIPING DESIGN\*** (10 CSR 20-10.020(1)(B)1. – 6.)

- a. FRP piping.
- b. Dielectrically coated steel with CP\*\*.
- c. Flexible thermoplastic piping.
- d. Double-walled thermoplastic piping.
- e. Bare metal in non-corrosive environment#.

**4. SPILL PROTECTION** (10 CSR 20-10.020(1)(C)1.A.)

- a. Spill bucket at fill pipe.
- b. Spill catchment basin.
- c. Not required if filling less than 25 gallons at a time (e.g. used oil tanks).

**5. OVERFILL PROTECTION** (10 CSR 20-020(1)(C)1.B.)

- a. Automatic shut off device.
- b. Overfill alarm.
- c. Ball float valve.
- d. Not required if filling less than 25 gallons at a time (e.g. used oil tanks).

\* Tank and piping designs must be built and installed per industry standards.

\*\* CP stands for cathodic protection or corrosion protection.

\*\*\* Steel outer walls of double walled tanks must still have corrosion protection.

# Must be certified by a corrosion expert not to be corrosive enough to cause a release for the life of the system.

**6. RELEASE DETECTION FOR TANKS (10 CSR 20-10.043)**

- a. Inventory control and tightness testing (may be used for only ten years after new tank is brought on-line; tank tightness test required every five years).
- b. Automatic tank gauge, or ATG.
- c. Groundwater monitoring.
- d. Vapor monitoring.
- e. Interstitial monitoring (for double walled tanks).
- f. Statistical inventory reconciliation, or SIR.
- g. Not required (emergency generator tanks only).
- h. Other method that meets requirements of 10 CSR 20-10.043(H).

**7. RELEASE DETECTION FOR PIPING\* (10 CSR 20-10.044)**

- a. Automatic line leak detector (required for pressurized systems).
- b. ATG capable of line testing (e.g. includes an electronic LLD).
- c. Groundwater monitoring.
- d. Vapor monitoring.
- e. Interstitial monitoring (for double walled piping).
- f. Statistical inventory reconciliation (SIR).
- g. Not required – “Safe Suction” (meeting 10 CSR 20-10.041(1)(B)2.A-E).
- h. Suction (with three-year line tightness testing).
- i. Suction (with c, d, e or f above).

**8. CORROSION PROTECTION\*\* (10 CSR 20-10.020)**

- a. Meets corrosion protection by design ● .
- b. Sacrificial anode system.
- c. Impressed current system.

**9. INSTALLATION PER INDUSTRY STANDARD (10 CSR 20-10.020(1)(D))**

- a. Installed per American Petroleum Institute Std. 1615.
- b. Installed per Petroleum Equipment Institute RP100.

**10. CERTIFICATION OF INSTALLATION (10 CSR 20-10.020(1)(E) & 10.022(4))**

- a. Installer certified by tank and piping manufacturer.
- b. Installation inspected and certified by a professional engineer.
- c. Manufacturer’s checklists completed ● ● .

\* Pressurized systems require automatic line leak detectors, or ALLD, plus one monthly monitoring method 7. c-f. An alternative to one of the monthly monitoring methods is to do annual line tightness testing. Mechanical and electronic ALLDs cannot be used with suction systems.

\*\* A corrosion expert must design all field installed CP systems, except for CP for metallic piping connectors (including flex connectors) in sump or under dispensers. All CP systems must be tested within six months of installation and every three years thereafter.

● FRP and FRP clad tanks and FRP or thermoplastic piping do not require CP.

●● If the manufacturer’s instructions are not followed, the warranty may be voided, and could result in a premature release.

**11. FINANCIAL RESPONSIBILITY COVERAGE (10 CSR 20-11)**

- a. Petroleum Storage Tank Insurance Fund.
- b. Financial test of self-insurance.
- c. Guarantee.
- d. Insurance or risk retention group.
- e. Surety bond.
- f. Letter of credit.
- g. Trust fund.
- h. Local government mechanism.

**12. REGISTRATION WITHIN 30 DAYS (must include a – c) (10 CSR 20-10.022(2))**

- a. Registration form completed.
- b. Registration form signed by owner.
- c. Registration (with original signature) mailed within 30 days of bringing tank into use.

In the St. Louis and Kansas City areas contact one of the following offices for:

**13. STAGE I AND II VAPOR RECOVERY CONSTRUCTION PERMITS\***

**KANSAS CITY AREA (Stage I only)**

- a. Kansas City Dept. of Health Air Quality 816-513-6314 (Kansas City Metro Area).
- b. Kansas City Regional Office 816-622-7000 (for Clay, Jackson and Platte counties).

**ST. LOUIS AREA (Stage I and II)**

- a. St. Louis City Air Pollution 314-613-7300.
- b. St. Louis Regional Office 314-416-2960 (for Franklin, Jefferson or St. Charles counties).
- c. St. Louis County Air Pollution 314-615-8923.

**SUMMARY**

This checklist is a summary of the regulatory requirements for petroleum UST systems.

If a system meets these requirements, it should be in compliance. However, the checklist may not cover every aspect of an installation. Please notify the department at least five days prior to the installation so an inspector may be present to provide technical assistance during the installation.

Mention of specific tank designs in the above checklist is not intended as an endorsement by the department of any tank or piping product or manufacturer.

For questions or further assistance, contact the Missouri Department of Natural Resources' Tanks Section at 573-751-6822.