



Reg Obj #: For Office Use Only

CHECKLIST FOR UNDERGROUND TANK INSTALLATION

Complete one form for each tank and related piping.

The information you provide may be used for secondary purposes [Privacy Law, s.15.04(1)(m)].

Return Completed Checklist To: Wisconsin Department of Commerce ERS Division Bureau of Petroleum Products and Tanks P. O. Box 7837 Madison, WI 53707-7837

This checklist covers

- installation of: [ ] Tank; [ ] Piping; [ ] Vapor Recovery; [ ] Spill Containment; [ ] Overfill Protection; [ ] Leak Detection; [ ] Corrosion Protection; [ ] Automated Fueling (key-card-code); [ ] Lining

A. IDENTIFICATION: (Please Print)

Form section A containing fields for Installation Name, Owner Name, Street Address, City/Village/Town, State, Zip Code, County, Telephone No., Installation Company Name, Certified Installer Name, and Installer Certification No.

B. PLAN APPROVAL

- 1. Plans have been submitted and approved.
2. State plan number/LPO plan number is:
3. Tank Capacity: \_\_\_\_\_ gallons. Tank contents, if known: \_\_\_\_\_

C. TANK CONSTRUCTION

- 1. Tank is new and carries UL or other national testing label.
2. Tank is used, but has been recertified to meet the EPA new tank standard.
3. Tank is corrosion protected ( [ ] cathodically protected steel, [ ] fiberglass or [ ] composite tank) and matches the equipment listed in the plan review.
4. Test stations have been installed for monitoring cathodic protection on the tank.
5. Gasoline and other Class I flammable tank vents discharge at least 12 feet above ground level, discharge only upward, and do not terminate under eaves or near a building opening.
6. Fuel oil, diesel or other Class II or III A liquid storage tank vents are at least 4 feet above ground level.
7. Overfill protection device is installed and matches plan submittal.
8. Spill containment device installed.

D. TANK HANDLING AND TESTING

- 1. Tank coating was inspected and any damage to the coating repaired.
2. Pre-installation test of single wall tank conducted by pressurizing tank with 3-5 psi air pressure, soaping all surfaces, seams, and fittings and inspecting for bubbles.
or
Preinstallation test of double-walled tank: pressurize inner tank to a maximum of 5 psi, seal inner tank and disconnect external air supply, monitor for one hour. After one hour, pressurize the interstitial space with a maximum 5 psi air from the inner tank and use a second gauge for monitoring the pressure. Soap all surfaces, seams and fittings and inspect for bubbles.
3. Tank tested after backfilling through precision test, approved tank gauge or interstitial monitor.
4. Tank gauge or interstitial monitor verified as operative.

E. TANK SITE AND BACKFILL

- 1. Tank located a minimum of 3 feet from property lines and 1 foot from buildings.
2. Tank is spaced a minimum of 2 feet from any other tank.
3. Backfill for steel or fiberglass clad steel tank is clean, washed, well granulated sand, crushed rock, or pea gravel no larger than 3/4 inch.
4. Backfill for fiberglass tank is pea gravel naturally round with minimum diameter of 1/8 inch and maximum size of 3/4 inch or crushed rock or gravel between 1/8 and 1/2 inch in size.
5. Minimum of 1 foot of compacted backfill in bottom of excavation. (If hold down pads are used, bedding may be reduced to 6 inches.)
6. Hold down pads compacted backfill over top of pad: [ ] Fiberglass tank - 1 foot [ ] Steel tank - 6 inches
7. Backfill material placed over tank to a depth of at least 1 foot.
8. Backfill compaction is adequate to securely and evenly support the tank and prevent movement/settlement.
9. Excavation is in a bog, swampy area or landfill and a filter fabric was used to prevent the migration of the backfill material.
10. Tank in area of vehicle traffic, 3 feet of earth cover or 18 inches of earth plus 6 inches of reinforced concrete or 8 inches of asphalt.

**E. TANK SITE AND BACKFILL (continued)**

Installer Verified Inspector Verified NA

11. Tank in area not subject to traffic, a minimum of 2 feet of earth or 1 foot of earth plus 4 inches of reinforced concrete or 6 inches of asphalt.

**F. TANK ANCHORAGE**

1. Installation is in an area of high water table or subject to flooding and tank is anchored.
- a. Anchor straps for fiberglass tank were nonmetallic and were placed according to manufacturer's specifications.
- b. Anchor straps for steel tank were either nonmetallic or electrically isolated from the tank structure. (All metal fittings are protected from corrosion.)
- c. Mid anchoring with non conductive material between tank and concrete.

**G. PIPING (Indicate whether piping is Fiberglass; Steel; or Flexible; then check one of the types below before proceeding to answer 1-8.**

- Pipe installation is vapor recovery pipe only.
- Pressurized piping with  auto shutoff,  alarm or  flow restrictor.
- Suction piping with check valve at tank.  Suction piping with check valve at pump and inspectable.

1. Piping maintains a 1/8 inch per foot slope to a sump or a tank.
2. Piping trench provides at least 18 inches of compacted backfill and paving on top of piping.
3. Pipes are separated by at least twice the pipe diameter.
4. Pipes are separated from the trench excavation sidewalls by at least 6 inches.
5. Piping was isolated from the tank and dispenser and tested at 150% of operating pressure of the system (but not less than 50 psi) for 1 hour prior to and after backfilling.
6. Secondary containment piping was tested for tightness before it was covered, enclosed or placed in use. For rigid secondary piping test at 10 psi
- For flexible secondary piping, test at manufacturers' recommendation: \_\_\_\_\_ psi.
7. After backfilling, piping was isolated from the tank and dispenser and precision tested at 110% of operating pressure but not less than 50 psi for 1 hour.
8. Piping was isolated from the tank and dispenser and tested through another approved means prior to and after backfilling. Indicate method(s): Prior \_\_\_\_\_
- After \_\_\_\_\_

**H. PRE-OPERATIONAL FUNCTIONALITY VERIFICATION (Both TANK and PIPING)**

1. Tank test including ullage verified tank is tight
2. Sumps and spill buckets have been verified as liquid tight
3. All sensors have been verified as functional
4. ATG setup has been verified as accurate and functional
5. Leak detection method has been verified functional within the respective methodology parameters

**H. PRIMARY LEAK DETECTION (Check which applies under both TANK and PIPING)**

1. Tank
- Electronic interstitial monitoring  Automatic tank gauging  Tightness testing and inventory control
- Manual tank gauging (only for tanks of 1,000 gallons or less)  Statistical Inventory Reconciliation (SIR)

2. Manufacturer / Vendor: \_\_\_\_\_ Probe #: \_\_\_\_\_

3 Model Name/#: \_\_\_\_\_ Material Approval #: \_\_\_\_\_

4. Piping ⇔  single wall,  double wall

**Primary Piping System Type:**  Pressurized piping with ⇔ A.  Pump auto shutoff - ELLD; B.  flow restrictor – MLLD

Suction piping with check valve at tank  Suction piping with check valve at pump and inspectable  Not needed if waste oil

**Piping Leak Detection Method:**  Interstitial monitoring ⇔ Electronic:  NO  YES ⇔ Sump or cable sensor  Yes  No

Tightness testing  Electronic line monitor -ELLD  SIR  Not required

5. Manufacturer / Vendor: \_\_\_\_\_ Probe #: \_\_\_\_\_

6 Model Name/#: \_\_\_\_\_ Material Approval #: \_\_\_\_\_

7. Catastrophic Manufacturer Name: \_\_\_\_\_ Model: \_\_\_\_\_ Material Approval #: \_\_\_\_\_

**I. Comments:**

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**J. INSPECTOR INFORMATION**

Inspection Dates: 1) \_\_\_\_\_ 2) \_\_\_\_\_ 3) \_\_\_\_\_ 4) \_\_\_\_\_ 5) \_\_\_\_\_ 6) \_\_\_\_\_

Inspector Signature: \_\_\_\_\_ Inspector #: \_\_\_\_\_ Local Operator #: \_\_\_\_\_

Date Signed: \_\_\_\_\_ Fire department providing coverage: \_\_\_\_\_ FDID #: \_\_\_\_\_

**K. INSTALLER CERTIFICATION**

I certify that the tank and related piping was installed according to the manufacturers' instructions and comply with one of the following standards:  API 1615,  PEI RP100 or  ANSI B31.4.

Installer Signature: \_\_\_\_\_

Date Signed: \_\_\_\_\_

**TANK INVENTORY FORM ERS-7437 SIGNED BY THE OWNER MUST BE SUBMITTED WITH EACH INSTALLATION CHECKLIST.**