

State of Vermont
Department of Environmental Conservation
UNDERGROUND STORAGE TANK INSTALLATION CHECKLIST

Facility ID# : _____

Facility Name: _____

Physical Address: _____

Owner Of Tank(s): _____

Address: _____

Type Of Tank: Steel____ Fiberglass____

Jacketed____

Manufacturer _____

Installation Company: _____

Company Address (Street/State/Zip):

Installation Foreman: _____

Tank Size: 1. _____

Tank U.L.# _____

2. _____

Tank U.L.# _____

3. _____

Tank U.L.# _____

4. _____

Tank U.L.# _____

BEFORE COMPLETING THIS CHECKLIST, PLEASE READ CERTIFICATION ON PAGE 7.

This document references Recommended Practices for Installation of Liquid Underground Storage Systems (PEI/RP 100-2005).

Installation foreman must answer each question in order to verify the use of proper installation procedures. Please provide accurate figures and dimensions. **Questions marked with [PHOTO] must include photographs.** The photographs must be clear and in focus. Each picture will be numbered with the corresponding section of this checklist, and detailed descriptions are to be provided on the back of each picture. This checklist and photographs are to be submitted with 15 days of completion of installation to:

State of Vermont
Department of Environmental Conservation
Underground Storage Tank Program
103 South Main Street
Waterbury, VT 05671-0404

As the installer, you are **required** to be certified by the tank manufacturer (listed on page 1). Have you been certified by the tank manufacturer to install their product? (Circle one).....YES NO

Please provide certification# _____ Date ____/____/____

Name of Certifier _____

A. TANK HANDLING

1. Explain how the tank was removed from the delivery truck. Please note equipment used:

2. Was the tank set on the ground prior to installation?.....YES NO

If yes, explain how the tank was supported as to not to be damaged by contact with the ground (PEI 2.3)

[PHOTO]: _____

3. Was equipment able to lift and lower the tank without dragging or dropping?.....YES NO

4. Was the tank coating/shell damaged during transport or unloading?.....YES NO

If yes, describe repairs: _____

B. PRE-INSTALLATION TANK TEST

1. Were tanks shipped from factory with the interstitial space under vacuum? [PHOTO]YES NO

2. Describe tank test method: _____

3. Does the method used for pre-installation tank test comply with manufacturers instructions?.....YES NO

C. EXCAVATION AND BEDDING TYPE

1. Type of backfill material placed as bedding between tank and native soil or anchoring pad:

_____ Amount of material: _____ inches.

2. How far beyond the tank perimeter does the backfill material extend?: _____

3. Distance of each tank from any wall, foundation, structure, property line, etc.:

Tank 1 _____ ft from _____ Tank 2 _____ ft from _____

Tank 3 _____ ft from _____ Tank 4 _____ ft from _____

4. Is the burial depth greater than the tank diameter?.....YES NO

5. What is the tank's burial depth? _____ ft.

6. Are tanks set deep enough to allow a minimum slope of one eighth inch per foot and a minimum of 18" of burial over **all portions** of piping?.....YES NO

7. Was groundwater encountered?.....YES NO

If yes, how was the water handled?_____

Was a discharge permit issued for de-watering?.....YES NO

Note: De-watering the excavation may require approval from the Wastewater Management Division of the Department of Environmental Conservation. Please contact the Wastewater Management Division at (802) 241-3822.

D. BACKFILL

1. Please describe backfill used (i.e. particle size, type of material, etc.):_____

2. Is this backfill acceptable to the manufacturer?..... YES NO

a. Is backfill free of debris such as chunks of rock, ice, snow, organic material or other debris?..... YES NO

b. Has a filter fabric been used to prevent backfill migration?..... YES NO

c. Is backfill even along underside of tank to ensure full support along tank's bottom half?..... YES NO

Note: If clean sand is used, mechanical compaction must be implemented according to the tank manufacturer's recommendations, or in lifts of not more than 1 ft. each.

d. Are there at least two feet of backfill between the tanks and excavation walls, and over the tanks? (PEI Fig. 5-5)..... YES NO

3. Are the tanks in an area subject to traffic?

a. Select which overburden cover requirement has been used:

____ 30 inches compacted backfill and 6 inches asphalt paving or asphaltic concrete. (Traffic area)

____ 18 inches compacted backfill and 8 inches of reinforced concrete. (Traffic area)

____ 12 inches of backfill covered by a filter fabric and 12 inches of earth. (Non-traffic area)

____ 12 inches of backfill and 4 inches of reinforced concrete (Non-traffic area)

____ Overburden is being used to prevent floatation.

(Please refer to the tank manufacturer's installation documents for required overburden calculation).

b. Tanks of 25,000 gallons or greater have stricter over-burden requirements. Have the manufacturer's instructions for overburden been followed?..... YES NO

c. How far does concrete and/or asphalt extend beyond the outline of the tank?_____

E. ANCHORING & BALLASTING

Note: Anchoring and ballasting is required if groundwater is OR WILL BE in contact with the tank at any time during the year, or if there are impermeable soils in the bottom of the excavation that may cause a bathtub effect.

1. Did groundwater conditions require anchoring and ballasting?..... YES NO

If yes, complete all sections that apply:

a. Overburden amount _____ ft. (Submit Float Out Calculation on a separate sheet of paper when submitting this checklist, see PEI-RP 100, Appendix A)

b. Deadman Anchors:

i. Number of anchors _____ Size: _____ ft x _____ ft x _____ in

ii. Are the deadman anchors placed outside of the tank profile?..... YES NO

iii. Were deadmen supplied by the tank manufacturer?..... YES NO

iv. If not, were they constructed in accordance with manufacturer's instructions?..... YES NO

c. Slab at Grade and Backfill – Accomplished by which method?:

i. Adding ballast weight on top of tank. Weight used: _____

ii. Increased burial depth _____ ft.

iii. Increased pavement thickness:

Reinforced concrete: _____ ft x _____ ft x _____ in

Asphalt _____ ft x _____ ft x _____ in

d. Bottom Hold-Down Pad:

i. Size of concrete pad _____ ft x _____ ft x _____ in

ii. How far does the pad extend beyond: Tank End: _____ ft/in Tank Side: _____ ft/in

iii. Construction of pad _____

iv. Is there a minimum of six inches backfill between tank and hold-down pad?..... YES NO

e. When Deadman Anchors or Hold-Down Pads are used, have hold down straps or cables been positioned at points designated by the manufacturer?..... YES NO

i. How many hold down straps were used? _____

ii. Were they supplied by the tank manufacturer?..... YES NO

iii. Are they uniformly snug?..... YES NO

iv. Are straps nonmetallic?..... YES NO

v. Are straps electrically isolated from tank to ensure proper corrosion protection?..... YES NO

vi. Describe isolation material used:_____

f. Was fuel added to the tank for ballast before installation was complete?..... YES NO

F. SPILL CONTAINMENT AND OVERFILL PREVENTION

1. Has a containment manhole been installed at each fill port?..... YES NO

Manufacturer and construction:_____

Size:_____gallons. **Note:** Minimum Size allowed is 15 gallons unless variance is granted by UST Program

Drain valves are not allowed. Is there a drain valve in any of the containment devices?..... YES NO

2. Select which overfill protection device is used:

____ **Automatic Shutoff Device** (Not suitable for loose fill or pressurized delivery)

Is it installed at a distance equal or no more than 95% of tank capacity?..... YES NO

____ **Overfill Alarms** (This method is effective for loose fill or pressurized deliveries.)

Is it on an electrical circuit that is active all the time?..... YES NO

Is there an audible/visible alarm such that the delivery driver can hear it and see it ?..... YES NO

Is it set to activate at not more than 90% capacity of tank?..... YES NO

____ **Ball Float Valves** (Prohibited for suction dispensing systems, generators, coaxial vapor recovery and loose fill and pressurized deliveries)

What length is the Ball Float extension? _____inches

Is it set to shut at 90% capacity of tank?..... YES NO

Is it equipped with an extractable fitting?..... YES NO

____ **Vent Whistle** (Allowed only on tanks receiving fuel deliveries by peddle truck)

What distance is the vent pipe from the fill port?_____ft

Is the whistle set to stop at not more than 90% capacity of tank?..... YES NO

Is the whistle audible during deliveries?..... YES NO

____ **Manual overfill prevention** (Only for tanks never receiving more than 25 gallons at one time)

CERTIFICATION

I certify under penalty of law that this document, photographs, and any other attachments were prepared under my direction or supervision. The information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and/or imprisonment for knowing violations. I am aware that release detection must be conducted and documented at least weekly, and that all release detection documentation must be kept for 3 years.

****Required**** Signature of Tank owner or authorized agent

Date

****Required**** Signature of authorized agent for contractor

Date