



New UST Systems – The Installation Inspection Process

After an application for a Permit to Install has been approved, there are a series of phase inspections that contractors are asked to schedule with the central office permitting coordinator. During these inspections, Agency staff (inspector) may not be able to see all installation activities for the day. However, there are basic things that they will observe. The following are descriptions of each type of phase inspection:

Phase 1 – Tanks. Tanks installed must be secondarily contained (i.e., double-walled). A tank is considered double walled if an interstitial space is present. An interstitial space is located between the primary, or interior wall, and the secondary, or outer wall of the tank. The interstice can be dry (vacuum) or can be filled with a blue liquid, referred to as “brine.”

During the Phase 1 inspection, tanks should be on the ground surface and readily accessible for visual inspection. The type and number of tanks is confirmed. Depending on the type of interstice (dry or brine filled), the inspector will check information related to the conditions at the time the tank(s) left the manufacturer, and the conditions at the time of the inspection. As part of the inspection, the inspector will typically:

- Ask for the shipping manifest;
- Ask for current vacuum readings for each tank interstice (dry interstice only);
- Walk around each tank and look for obvious signs of damage;
- Look at the backfill material to make sure it is appropriate for the type of tank, and that it is clean and free of debris. The tank(s) should not be placed in the tank pit and covered with backfill prior to inspection;
- Note if any type of tank anchoring method is present.

Basic rules for the Phase 1 inspection:

For a brine filled interstice, damage to the outer wall of a tank will be obvious. Brine is a blue liquid that can be seen on the tank or on the ground in the vicinity of the tank.

For vacuum on the interstice, if there is a change in 5 mmHg (mercury) above or below the level at the time the tank was shipped as compared to the vacuum of the tank on site, this is out of the standard allowance for a change in the vacuum readings.

The inspector will notify the permitting coordinator in the central office if there is any apparent damage to a tank. The permitting coordinator will work directly with the contractor to request corrective actions and to request documentation of repairs.

Phase 2 – Piping. During the Phase 2 inspection, the inspector will review the installation of the piping. All piping is required to be double-walled. Containment sumps are required at all submersible pumps, dispensers, and at any other locations where single-walled piping components are present. This may also include transition sumps. The entire piping run should be visible for inspection. Clamshells or other fittings that will prevent the

viewing of soap testing of the joints should not be installed until after the Phase 2 inspection.

For fiberglass piping, the inspector will:

- Observe the soap testing of all joints, prior to the installation of fittings. This would be at all points where the primary of the piping is exposed, before “clamshell” fittings, etc. are installed;
- Make note of gauge readings;
- Check the piping at the dispensers and in the tank top sumps; and
- Observe hydrostatic testing of sumps, if applicable.

For flexible piping, since there are typically no joints along the piping run, except for inside dispensers and tank top containment sumps, soap testing would be conducted at only those points. The inspector will make the same observations as they would for fiberglass piping.

Other Phase 2 activities might include, but are not limited to the following:

- Observing conditions in the piping trench to ensure the trench is free of trash and debris.
- Inspectors may also remind the contractor to do the following:
 - Remove any materials used in placement of piping, prior to completing the backfilling;
 - Remove any trash or debris prior to backfilling;
 - Make sure piping is installed with required spacing requirements;
 - Confirm an As-built map has been completed;
 - Under-dispenser containment must be present and be tested to make sure they are liquid tight; and
 - If the tanks have been ballasted with fuel, they will confirm notification to the Department was done prior to receiving fuel and that release detection is being conducted daily; and

Phase 3 - Complete Installation Inspection. This inspection is done after receipt of the permit to operate application package. It is an inspection of all installed equipment to ensure that the equipment installed matches the submitted application. If issues are found that cannot be fixed on site, documentation must be provided to the permitting coordinator prior to final issuance of the permit to operate.

Activities conducted during a Phase 3 inspection include:

- Confirmation that spill buckets are present and installed correctly;
- Confirmation that overfill prevention equipment is present and installed correctly (Note: Ball Float Vent Valves can no longer be installed as a primary method of overfill prevention);
- Check the Automatic Tank Gauge for alarms and ensure all sensors are configured properly;

- Check to ensure that the interstices are open in all STP sumps; and
- Ensure that all interstices are open or closed based on the permit to operate application.

Phase 4 -Compliance Assistance/Outreach. The Compliance Assistance/Outreach inspection is designed to provide one-on-one in person guidance. The owner and operator will have the opportunity to meet with a central office staff person and the regional inspector. The regional inspector will conduct future annual compliance inspections. The installation contractor is encouraged to attend. If any equipment issues are discovered during the Outreach, the contractor may facilitate repairs at that time. The Outreach is a great opportunity for owners and operators to ask questions about current and upcoming regulatory requirements.

The Scheduling Process:

- After the Permit to Operate is approved, Central office staff will contact the owner to schedule the Outreach. The Outreach will be scheduled at least seven to 10 days in advance.
- The owner can invite the store operator and/or installation contractor to attend.
- The owner needs to make sure they have someone available to provide access to all equipment during the Outreach.

Goals of the Outreach:

- To provide one-on-one customer service;
- To provide accurate and complete information regarding tank owner responsibilities; and
- To check equipment and release detection activities soon after the USTs are placed in operation.

Potential Outcomes of the Outreach:

At the conclusion of the Outreach paperwork is generated that will be provided to the owner. The outcome (or, type of paperwork provided) is dependent on the results.

The Results:

What if there are no issues?

During the facility visit, if everything looks good, this is considered the first compliance inspection and an In Compliance Letter is issued. The next inspection will be in approximately one year.

What if there is an issue found? What happens?

The inspector will issue a Compliance Assistance/Outreach document to the owner. Depending on the type of issues found, the document will provide a variety of information. For any violations, the document will provide an explanation of all issues that were found, the citations that are normally associated with them, and what needs to be

completed to get the violations resolved. With any issue found, the first compliance inspection will be conducted approximately 90 days from the date of the Outreach.

Are there different categories of violations?

Yes, violations are normally categorized as Part 1 or Part 2 violations.

For general violations, which would be listed under the heading "Part 2," the owner is asked to get issues corrected before the first compliance inspection.

If there are violations found that the UST Program considers to be a "Part 1" violation, both a Compliance Assistance/Outreach document and a delivery prohibition letter will be provided to the owner, requiring a 15 day deadline to correct the Part 1 violation(s). Normally, Part 1 violations will result in a referral to Enforcement, unless the owner can demonstrate there was no Part 1 violation at the time of the Outreach/facility visit. Part 1 violations are normally serious issues related to the pressurized piping line leak detector, spill or overfill prevention devices.

For instances where the inspector suspects a release may have occurred, normal compliance procedures will be followed, with a 30-day deadline to complete corrective actions. Corrective actions may include, but not be limited to investigation of the source of a suspected release, stopping a release, removal of fuel (product) from containment sumps, hydrostatic testing of spill/containment sumps, and/or sampling of soil. Examples of a suspected release include: fuel/product that appears to have overflowed from a containment sump, indications of tank and/or piping failures, fuel odors or stained/fuel saturated soil, etc.

If you own an underground storage tank system, you can request assistance at any time. Please feel free to call 803-898-0589 to make a request. An Agency staff member will be glad to meet with you at your facility to discuss your responsibilities as an owner.