



EULESS FIRE DEPARTMENT FIRE MARSHAL'S OFFICE

INFORMATION LINE: *Underground Storage Tanks* *Revised 8/08*

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EFD-FMO 2-1

2003 Edition
International Fire
Code As Amended

TCEQ
Rules & Regulations
PEI Standards

BASIS FOR REQUIREMENTS

- Adopted edition of the International Fire Code
- Adopted edition of the International Building Code
- Nationally recognized standards and practices (NFPA, AIA, U.L., Factory Mutual, INC., DOT)
- Euleless Fire Marshal's Office Policy
- Texas Commission on Environmental Quality

INSTALLATION POLICY, MINIMUM SPECIFICATIONS AND SUBMITTAL FORM OUTLINE UNDERGROUND STORAGE TANKS

ADDITIONAL REFERENCES

Manufacturer's installation instructions for flammable liquid storage tank and lines shall be followed in addition to applicable codes and standards.

ZONING

Underground storage tanks are restricted to specific zoning districts. It is the installers responsibility to insure that no zoning issues prohibit the placement of a tank at a specific location.

OBTAINING PERMIT

Prior to issuance and commencement of any work, three (3) copies of a site plan and construction plans shall be submitted to the Fire Marshal's Office. Such plans shall be of standard blue print quality, drawn to scale, and list all engineering calculations, detail diagrams, or other data necessary to obtain a permit. Upon review, a stamped "Approved for Construction" copy listing changes or alterations will be returned upon issuance of the permit. Contact the **Fire Marshals Office at 817-685-1600**.

NOTE: A set of "As Built" plans may be required upon the completion of the installation for a permanent record.

Tank Removals:

Prior to the removal of any tank a permit application shall be obtained listing the tank(s) to be removed and other work to be done.

Tank Contents, The Changing of:

Prior to the changing of any underground storage tank (UST) contents a permit application shall be submitted to the office of the Fire Marshal, describing the location of the tanks, storage amount and the contents being changed.

Tank/Product Lines Installation, Repair or Replacement:

A permit application shall be submitted for the repair or replacement of existing lines or submerged pumps. The permit shall describe the work to be done.

Vapor Recovery Systems:

A permit application form shall be submitted prior to any installation or repair of vapor recovery or vent line systems.

NOTE: A copy of the permit MUST remain at the work site during the time work is in progress.

INSTALLATION REQUIREMENTS (brief summary):

All installations must comply with the 2003 IFC; PEI Standards; TCEQ Regulations; NFPA Standards

Underground Storage Tanks:

- Maximum capacity of any one tank is not to exceed 20,000 gallons.
- Tanks must be located so that delivery trucks can be parked at least twenty-five (25) feet from any dispensing device and off of the public street.
- An approved method of secondary containment shall be provided for the tank.
- Dry sumps – Approved sampling tubes a minimum of six (6) inches in diameter shall be installed in the back fill material of each storage tank. The tubes shall extend from twelve (12) inches below ground level and be provided with surface access caps. Each tank site shall provide a sampling sump at the corners of the excavation with a minimum of four sumps.

UST Tank Anchorage:

Where a tank may become buoyant due to a rise in the level of the water table, or due to its location in an area that may be subjected to flooding, suitable precautions shall be observed to anchor the tank in place. (See IFC for special provisions)

Vent Lines:

- Each tank shall be vented through piping adequate in size to prevent blowback of vapor or liquid at the fill opening while tank is being filled, but shall not be less than 1 ¼ inches nominal inside diameter.
- Lines are to be laid so as to drain toward the tank.
- Vent line risers shall be located in an area or manner so that they will not be subjected to physical damage. Vent lines attached to a building shall be designed in height so as not to allow vapors to be drawn into the building or trapped under the eaves.
- Manifolding of vent lines is permissible subject to pressure limitations. Different products may not be manifolded together.

Piping, Valves and Fittings:

- Piping, valves, fittings and related components intended for use with flammable and combustible liquids shall be designed and fabricated from suitable materials having adequate strength and durability to withstand the pressures, structural stress, and exposures to which they may be subjected. Such equipment shall conform to nationally recognized engineering standards, be listed for the application or be approved by the fire code official.
- UL-Listed (or approved equivalent) flexible connectors shall be installed at both ends of each pressurized product or delivery line to provide for flexibility and to allow for vertical and horizontal movement in the tank and piping.
- Sampling tubes shall be placed in the product line excavation within ten (10) feet of the tank and every fifty (50) feet along product lines to dispersion. A minimum of two (2) are required.
- Secondary containment is required on all lines.

Testing:

- Tanks and lines must be hydrostatically (or pneumatically where allowed by code) tested upon installation as may be appropriate. All tests must be witnessed by the Fire Marshal or his designee.

- All tests shall be at the expense of the owner or operator.
- The system shall not be covered or product dispensed into the tank or lines until it has been approved by the Fire Marshal's Office. Call (817) 685-1600 to request an inspection date and time. Contractor should allow for twenty-four (24) hour lead time for any inspection.
- Tests conducted on **new** tank/line installations shall be as follows: Tanks will be pneumatically tested at five (5) psi for sixty (60) minutes. Lines will be tested pneumatically at 1.1 times the normal working pressure or hydrostatically tested at 1.5 times the normal working pressure. (50 psi for 1 hour on lines is considered acceptable.) A soap bubble test of all fittings will also be conducted at this time. These tests shall be witnessed by a representative of the Fire Marshal's Office. If a manufacturer requires an alternative testing method, the installer shall contact the Fire Marshals office for approval prior to conducting the test.
- Tests conducted on **existing** tank/line installations shall be an approved type test. The test may be performed using the product in the tank. If the test indicates the tank is leaking, the product must be immediately removed. The Fire Marshal's Office may require that the test be conducted in his or his representative's presence. The Fire Marshal's Office must be notified twenty-four (24) hours prior to testing existing installations.

Leaking tanks must be emptied of product and shall be removed as soon as possible. Fiberglass tanks may be properly repaired, in accordance with the manufacturer's instructions, by a competent, qualified contractor. A permit is required for removal/repair of leaking tanks. If leaking lines are to be replaced, a permit is required.

Concerning all new and existing underground storage tank installations for flammable or combustible liquids, including waste oil storage tanks and lines, it is the owner or operator's responsibility to ensure that an approved test, such as a "Petro-tight" type test is conducted at least once every five (5) years. This test shall be conducted by an approved competent contractor, and the Fire Marshal's Office shall be contacted twenty-four (24) hours prior to the test in order to arrange for an inspector to witness the test if desired.

A copy of the test results, with an indication that the tank and lines are either tight or leaking, shall be provided to the Fire Marshal's Office within ten (10) days of the test. An inconclusive test will be considered as an unsatisfactory test and the test must be repeated or all product removed from the tanks. Test results may be faxed to the Fire Marshal's Office at 817-685-1816.

Liquefied Petroleum Gas and Compressed Natural Gas

Motor Vehicle Fuel Dispensing Stations:

- Plans and specifications shall follow the same submittal format as for UST Installations.
- Rules and Regulations established by the Texas Railroad Commission shall apply to all installations in addition to those regulations established by the adopted International Fire Code. Where any rules and regulations that may be considered to be in conflict are found, the rules and regulations established by the TRC shall take precedence and will be enforced. Rules established by NFPA58 and other applicable International Codes shall also apply.