# EXAMPLE OF "PROJECT DESCRIPTION" FOR NEW UST INSTALLATIONS ON EARZ and TZ

Installation of new Underground Storage Tank (UST) facilities and modifications to existing UST facilities located on the Recharge and Transitions Zones of the Edwards Aquifer require prior approval from the Texas Commission on Environmental Quality (TCEQ). Appropriate applications are available from the TCEQ regional offices in San Antonio and Austin. An example of the **Project Description** requested on the application is presented below.

**EXAMPLE I**
**New Installations**

The proposed new underground static hydrocarbon storage system will consist of three new 10,000 gallon double-wall fiberglass-reinforced plastic (FRP) tanks to be used for the storage of gasoline fuels. Each tank will be equipped with a 3/4 horsepower, 4-inch diameter submersible pump. Overfill prevention for each tank will be provided by an automatic shut off valve which will be installed in the tank below the fill tube and must be set to shut off flow into the tank when the volume of liquid in the tank reaches no more than 95% of the tank capacity. Spill protection for each tank will be provided by a spill containment manhole which will be fitted on the fill tube of each tank.

Product and vent piping will be U.L. listed fiberglass-reinforced plastic piping. Product lines will be of double-wall construction and will consist of a 2-inch diameter primary pipe within a 3-inch diameter secondary containment pipe. Vent lines will be 2-inch diameter single-wall pipe. A safety shear valve will be installed on each product line at the dispenser island surface level to assure automatic shut-off of product flow during emergencies. In addition, stainless steel braid flexible connectors will be installed at both ends of each product line to connect to the dispenser unit and the submersible pump.

Corrosion protection for the metallic components of the underground storage systems will be provided by electrical isolation. The submersible pump housings and pump-end flexible connectors will be installed within a liquid-tight fiberglass-reinforced plastic piping sump which will provide isolation from the corrosive elements of the backfill material while also providing secondary containment for any leaks from these components. The dispenser-end flexible connector will be similarly isolated by enclosure within a flexible isolation sleeve. The vapor recovery riser, the fill tube riser, and the riser for the automatic tank gauging system will be thoroughly wrapped with a suitable dielectric material.

The proposed tanks and piping will be monitored for leaks by means of inventory, leak detection, and a line pressure monitor. Each tank will be equipped with a liquid discrimination sensor which will be installed in the interstitial space between the walls of the double-wall tanks. Each of the product piping systems will be monitored by a liquid discrimination sensor which will be installed adjacent to the submersible pump in the piping sump. Four 4-inch diameter slotted PVC observation wells will be installed in the corners of the tank pit excavation, of which two wells will be equipped with a vapor/conductivity (water) probe to provide a means of monitoring the backfilled tank pit area. Each tank will also be equipped with an automatic tank gauging probe which will

automatically inventory the product volume in the tank. Each product piping line will be equipped with an electronic positive flow shut off that is designed to stop product flow in the event a leak in the product line is detected. The probes and sensors from all tanks, piping, and observation wells will be connected to a programmable control unit to be located in the store building. This central monitoring unit is designed to provide visual and audible alarms when hydrocarbon liquids, hydrocarbon vapors, or water is detected.

# EXAMPLE OF "PROJECT DESCRIPTION" FOR MODIFICATIONS TO EXISTING UST's on EARZ and TZ

**EXAMPLE II**
**Modifications to Existing UST's**

The proposed modification will consist of disconnecting an existing product piping line from a submersible pump and removing this piping from service. The submersible pump will then be connected to the product piping near the submersible pump which is installed on the adjacent tank.

Eight to ten feet of new product piping will be required and will be of double wall construction. Product piping will be U.L. listed fiberglass-reinforced plastic piping. Product lines will be of double-wall construction and will consist of a 2-inch diameter primary pipe within a 3-inch diameter secondary containment pipe. A U.L. listed flexible connector will be installed between the existing piping and the new piping.

Corrosion protection for the flexible connector will be by electrical isolation from the corrosive elements. The flexible connector will be isolated by enclosure within a secondary containment sleeve.

# REQUIREMENTS FOR MODIFICATIONS TO EXISTING UST's on EARZ and TZ

The following table lists the modifications to an existing system which require TCEQ approval prior to initiating construction. If the table indicates that prior approval is required, please submit a UST application with the required information and fees, as shown below, to the appropriate regional office.

UST Modification Table

| Equipment | Will concrete be broken? | UST Application and Prior Approval Required | Fee due[1] | Site plan required | Profile required |
|---|---|---|---|---|---|
| Double-wall tanks | Yes | Yes | $650/UST | Yes | Yes |
| Primary and Secondary Piping | Yes | Yes | $650 | Yes | Yes |
| Tank Anchor | Yes | Yes | $650 | No | No |
| Synthetic Liner | Yes | Yes | $650 | Yes | Yes |

1: Maximum total fee is $6500 per site.