



Application for Permit to Operate

(For Use With All Systems Except Field Constructed or Airport Hydrant Systems)
UST Management Division
 (This form may be used to comply with SC UST Regulation 280.23(b))

I. REGISTRATION AND SITE INFORMATION

_____			_____		
Facility Name			SCDHEC Permit Identification Number		
_____			_____		
Physical Street Address	City	County	Facility Telephone Number		

II. TANK INFORMATION

Tank Number (list each compartment separately)					
Capacity (gallons)					
Serial Number of Tank					
Construction Material (check one)					
Fiberglass-Reinforced Plastic (FRP)					
Steel-FRP Composite					
Steel-Polyurethane					
Other (specify)					
Containment (check one)					
Double Wall-Brine					
Double Wall-Vacuum					
Double Wall-Dry					
Other (specify)					

Is the tank information provided identical to the information submitted on the Application for the Permit to Install? Yes No

Tank Manufacturer: _____ Model: _____

Were any tanks or compartments manifolded? Yes No

If yes, indicate which tanks/compartments were manifolded _____

III. INSTALLATION PROCEDURES

All underground storage tank systems must be installed and operated per R.61-92, Part 280: UST Control Regulations, manufacturer's instructions and industry standards. Please indicate which standard(s) was used to oversee the tank system installation (check all that apply):

- American Petroleum Institute Publication 1615, "Installation of Underground Petroleum Storage Systems."
- Petroleum Equipment Institute Publication RP100, "Recommended Practices for Installation of Underground Liquid Storage Systems."
- Petroleum Equipment Institute Publication RP1000, "Recommended Practices for Installation of Marina Systems."
- National Fire Protection Association Publication 30, "Flammable and Combustible Liquids Code."
- National Fire Protection Association Publication 30(a), "Code for Motor Fuel Dispensing."

IV. TANK INSTALLATION INFORMATION

Backfill/Overburden:

The backfill should be a clean, washed, well granulated, free-flowing, non-corrosive inert material that is free of debris, rock or other organic materials. Examples of accepted materials are sand, crushed rock (no larger than ½ inch), or pea gravel (no larger than ¾ inch). **NOTE: You must attach a receipt indicating delivery of backfill with this application.**

Type of backfill used: Sand Pea Gravel Crushed Rock Other _____

Amount of backfill under tanks (Minimum of 12 inches required): _____

Was backfill tamped under lower quadrant of tanks to fill any potential voids? Yes No

If sand backfill was used, was it compacted to ensure adequate support of tank and prevent settlement? Yes No

If yes, indicate the method of compaction that was used: Sand-Slurry Method Mechanical Other (specify): _____

Are tanks located in a traffic area? Yes No

If yes, how much overburden was used? (choose one)

At least 2.5 feet of compacted backfill and 6 inches of asphalt paving

At least 1.5 feet of compacted and 8 inches of reinforced concrete

If no, how much overburden was used? (choose one)

At least 2 feet of compacted backfill

At least 1 foot of compacted backfill plus 4 inches of reinforced concrete

Does concrete or asphalt extend to at least one foot beyond the tank outline? Yes No

Tank Condition:

Was there a pressure change of greater than +/- 5" Hg between shipping and installation? Yes No

If yes, were repairs made? Yes No

Was there any damage to the tank(s) during installation? Yes No

If yes, was the damage repaired? Yes No

Excavation Dimensions:

Indicate the horizontal clearance for the following (at least 12 inches is required for steel tanks or 18 inches for fiberglass tanks):

Excavation walls: _____ Other tanks: _____

Were the side walls of the excavation sloped or shored? Yes No

Does the distance from the top of the tank to final grade exceed tank diameter for steel or composite tanks? Yes No

Does the distance from the top of the tank to final grade exceed 7 feet for fiberglass tanks? Yes No

Anchoring System:

Was water encountered during installation? Yes No Was an anchoring system used? Yes No

If yes, indicate the system that was used: _____

V. PIPING INFORMATION

Product Line (list each product line separately)				
Material of Construction (check one)				
Flexible				
Fiberglass Reinforced Plastic (FRP)				
Other (Specify)				
Containment (check one)				
Double Wall				
Other (specify) Example: Compatible chase pipe				

V. PIPING INFORMATION (CONTINUED)

Pumping System (check one per product line)					
Pressurized					
Suction – Foot/Angle Valve Indicate location:					
Suction – Vertical Check Valve					
Other (Specify)					

Is the piping information provided identical to the information submitted on the Application for the Permit to Install? Yes No

Piping Manufacturer: _____ Model: _____

Any lines manifolded? Yes No If yes, please list lines that were manifolded: _____

VI. PIPING INSTALLATION INFORMATION

Backfill/Overburden:

The backfill should be a clean, washed well-granulated, free-flowing, non-corrosive inert material that is free of debris, rock or other organic materials. Examples of accepted materials are sand, crushed rock (no larger than 1/2 inch), or pea gravel (no larger than 3/4 inch). **NOTE: You must attach a receipt indicating delivery of backfill with this application.**

Type of backfill to be used: Sand Pea Gravel Crushed Rock Other _____

Indicate the amount of spacing used for the following:

Below all piping: _____ Above all piping: _____ Between piping and sidewalls (minimum of 6 inches): _____

Between adjacent piping (minimum of twice the pipe diameter): _____

If sand backfill was used, was it compacted to ensure adequate support of tank and prevent settlement? Yes No

If yes, please indicate the method of compaction that was used: Sand-Slurry Method Mechanical Other (specify): _____

Is piping located in a traffic area? Yes No

If yes, how much overburden was used?

At least 6 inches of compacted backfill and additional backfill plus enough paving to equal 18 inches of material from the top of the piping to the bottom of the grade

If no, how much overburden was used?

At least 2 feet of compacted backfill

At least one foot of compacted backfill plus 6 inches of reinforced concrete

Piping Condition:

Was there any damage to the piping during installation? Yes No

If yes, was the damage repaired? Yes No

Excavation:

Is all piping sloped to at least 1/8 of an inch per foot from the dispenser(s) to the tank(s)? Yes No

If no, supply written manufacturer approval or reasoning.

Does the piping pass over the tank(s) at any point? Yes No

Are all product lines located in the same trench? Yes No

Was sufficient clearance allowed between other structure (water lines, conduit, etc) and the piping? Yes No

Was the trench cleared of debris and obstructions prior to backfilling? Yes No

VII. SPILL PREVENTION, OVERFILL PREVENTION, AND OTHER EQUIPMENT

Spill Prevention Equipment:

Manufacturer: _____ Model: _____ Capacity: _____

Type of spill prevention equipment being installed: Single Wall [] Double Wall []

If double wall spill prevention is being installed, will the interstice be monitored monthly? Yes [] No []

If yes, please indicate the monthly monitoring method to be used: _____

Surface mounded to channel water away from the spill prevention equipment? Yes [] No []

Overfill Prevention Equipment:

Drop Tube Shut Off Valve [] Alarm [] Other (specify): _____

Manufacturer: _____ Model: _____

Do the drop tubes extend to within 6 inches of the bottom of the tank? Yes [] No []

Was a secondary overfill prevention method installed? If yes, please indicate type: _____

If yes, was the secondary method installed so as not to impact the functionality if the primary method? Yes [] No []

Tank Top Sumps:

Manufacturer: _____ Model: _____

Type of containment installed: Single Wall [] Double Wall []

If double wall containment was installed, will the interstice be monitored monthly? Yes [] No []

If yes, please indicate the monthly monitoring method: _____

Were all entry and exit points confirmed to be tight and secure? Yes [] No []

NOTE: The monthly monitoring of the interstice between the primary and secondary wall of a dispenser sump does not constitute release detection for the piping. You must also incorporate monthly interstitial monitoring for the piping.

Under Dispenser Containment:

Manufacturer: _____ Model: _____

Type of under dispenser containment installed: Single Wall [] Double Wall []

If double wall under dispenser containment was installed, will the interstice be monitored monthly? Yes [] No []

If yes, please indicate the monthly monitoring method to be used: _____

Were all entry and exit points confirmed to be tight and secure? Yes [] No []

NOTE: The monthly monitoring of the interstice between the primary and secondary wall of a dispenser sump does not constitute release detection for the piping. You must also incorporate monthly interstitial monitoring for the piping.

Transition Sumps:

Were transition sumps installed? Yes [] No []

If yes, indicate the location on the as built map.

For emergency generators/marinas: Is a transition sump installed at the point where the piping becomes aboveground? Yes [] No []

Vapor Recovery:

Was Stage 1 vapor recovery installed? Yes [] No []

If yes, indicate which tanks: _____

VIII. RELEASE DETECTION

Double Wall systems must use interstitial monitoring as the primary method for tank and line release detection. When considering your installation, you must decide whether you will be installing a closed system, open system, or a Department approved combination. Please see the descriptions of the requirements for each below. The system that you choose will be inspected for compliance with the requirements listed prior to issuing a permit to operate. In addition, per SC UST Regulation 280.40(a)(4), you must provide certification that your release detection methods used meet the required standards as set forth by the manufacturer.

Open System

Submersible turbine pump sump (STP)- the piping interstice must be open at the low point sump of the piping run, with a sump sensor being installed at the lowest point of the containment sump.

Under dispenser containment (UDC)- all interstice access points are open without any obstructions. Monthly visual monitoring or sensor monitoring would be allowed on all sumps because the open access points allow liquid to flow freely from sump to sump reaching the lowpoint sump sensor, typically located at the STP.

Closed System

Submersible turbine pump sump (STP)- the piping interstice must be open at the low point sump of the piping run, with a sump sensor being installed at the lowest point of the containment sump.

Under dispenser containment (UDC)- all interstice access points are closed and are continuous throughout the entire piping run with a sump sensor properly installed at the lowest point of each containment sump. Crossover tubing may be utilized to maintain interstice continuity. Leaks from the buried portions of the piping will be forced under pressure to the low point STP sump via the continuous piping interstice for detection. Because this system isolates other secondary containment sumps (dispenser and transition sumps) from the low point sump, typically at the STP, sensors are required to detect a leak before it exceeds the capacity of any sump.

Release Detection	Tank(s)	Piping		
Interstitial Monitoring with Secondary Containment Indicate type of system (you must choose one): Open [] Closed [] Department Approved Combination [] NOTE: Please also indicate the sensor locations as applicable on your attached site map for review and approval.	Tank Sensor Manufacturer: <hr/> Tank Sensor Model: <hr/>	<p>At Dispensers All interstices are open: Yes [] No [] N/A []</p> <p>Indicate if visual monitoring or sensors is being used: <hr/></p> <p align="center">OR</p> <p>All interstices are closed but continuous: Yes [] No [] N/A []</p> <p>If sensor(s) are used, are they connected to an ATG: Yes [] No [] N/A []</p> <p>If sensors are used, are they equipped with positive shut off? Yes [] No [] N/A []</p> <p>Is an audible alarm being used? Yes [] No [] N/A []</p> <p>Dispenser Sensor Manufacturer: <hr/></p> <p>Dispenser Sensor Model: <hr/></p>	<p>At Tank Top Does the STP sensor connect to ATG? Yes [] No [] N/A []</p> <p>Is positive shut off being used? Yes [] No [] N/A []</p> <p>Sensor Manufacturer: <hr/></p> <p>Sensor Model: <hr/></p>	<p>Line Leak Detectors Type of Line Leak Detector: Electronic [] Mechanical []</p> <p>Manufacturer: <hr/></p> <p>Model: <hr/></p> <p>Was a high flow STP installed? Yes [] No []</p> <p>If yes, please indicate one of the leak detection options below:</p> <p>Line leak detector on STP (in leak detector port): Yes [] No [] N/A []</p> <p>Electronic line leak detector in-line: Yes [] No [] N/A []</p> <p>In-line mechanical line leak detector, sump sensor at lowest point of liquid tight containment sump AND positive shutdown of STP: Yes [] No [] N/A []</p>
				In-line mechanical line leak detector, sump sensor at lowest point of liquid tight containment sump AND visual or audible alarm Yes [] No [] N/A []

IX. INSTALLATION CERTIFICATION

All owners and operators must ensure that one or more of the following methods of certification, testing, or inspection was used.

[] The installer is certified by tank and piping manufacturers.

Name of installer: _____

Contact person, email address and telephone number: _____

Associated certifications: _____

[] The installation has been inspected and certified by a SC registered professional engineer with education and experience in underground storage tank system installation (attach report).

[] The correct notification requirements have been followed and the installation has been inspected and approved by a representative of the UST Management Division.

[] All work listed in the manufacturer's installation checklists has been completed.

X. SUPPLEMENTAL INFORMATION

Tank and piping manufacturers' installation checklists attached? Yes [] No []

Testing results for tanks, lines, leak detectors, sensors, spill prevention equipment, overfill prevention equipment, piping interstice, and containment sumps attached on an acceptable form? Yes [] No []

NOTE The spill prevention and containment sump testing conducted at installation satisfies the requirements outlined in 280.35. The next test will be due 3 years from the initial test date.

Was tank testing completed at 90 or 95% capacity, as applicable? Yes [] No []

"As-Built" map with all UST system components attached? Yes [] No []

NOTE: The As built map should contain the following: structures, roads, dispensers, entire piping runs, sensor locations as applicable, and transition sumps as applicable.

Was product introduced to ballast the tanks? Yes [] No []

If yes, was the required written notification received prior to the introduction of the product into the tanks? Yes [] No []

If yes, were daily stick readings taken until such time as interstitial monitoring was operational? Yes [] No []

If yes, please attach stick readings to this application review.

Current financial responsibility documentation on file? Yes [] No []

Phase 1 and 2 installation inspections have been conducted by the UST Division? Yes [] No []

Receipt showing proof of correct backfill delivery for tanks and piping attached? Yes [] No []

XI. NOTES OR ADDITIONAL INFORMATION

XII. CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted herein and all attached documents, and that based on my inquiry of those individuals responsible for obtaining the information and installing the UST system, I believe that the submitted information is true, accurate, and complete.

Name of tank owner or owner's authorized representative (print) _____ Title _____

Signature _____ Date _____

Name of installer (print) _____ Title _____

Signature _____ Date _____

XIII. State Use Only

Date Permit to Operate Application Received: _____

Phase 1 and 2 completed: Yes [] No []

Phase 3 Scheduled: Yes [] No []

Name of contact person with whom the Phase 3 was scheduled: _____

Date of Phase 3: _____

Person Conducting Phase 3 installation Inspection: _____

Issues noted during Phase 3: Yes [] No [] If yes indicate issues found: _____

Date Permit to Operate is approved: _____



Application for a Permit to Operate for Underground Storage Tanks (USTs)

General Information:

The primary purpose of this form is to obtain sufficient information that allows for the issuance of a Permit to Operate a UST system. State regulations require owners of USTs that plan on storing regulated substances submit this application and receive approval prior to beginning the operation of a UST system.

Please read the instructions carefully prior to completing the form. Please type or print in ink. Also, please be sure that you have signatures in ink.

Who must complete this form?

Any person who proposes to install a new tank must apply for a Permit to Operate and possess this permit prior to the operation of the tank system.

What USTs are included?

An UST system is defined as any one or combination of tanks that is used to contain an accumulation of regulated substances, and whose volume (including connected underground piping) is 10 percent or more beneath the ground. Regulated USTs store petroleum or hazardous substances. This includes UST systems with field-constructed tanks and airport hydrant fuel distribution systems.

When and Who to Notify?

Any owner that wishes to operate a regulated UST system must submit this application to the Permitting Coordinator prior beginning operation. Please allow sufficient time for Departmental review and approval of the permit application. An invoice for the registration fee, as authorized by the State Underground Petroleum Environmental Response Bank (SUPERB), will be issued at the time that a UST system is ballasted with fuel or at the time the Permit to Operate is issued, whichever is earliest. **Note:** It is a violation of South Carolina Underground Storage Tank Control Regulations 61-92, Part 280 to operate an UST system without an approved Permit to Operate .

What Tanks are Excluded from these Requirements?

- Tanks removed from the ground prior to January 1, 1986;
- Farm or residential tanks of 1,100 gallons or less used to store motor fuel for noncommercial purposes;
- Tanks storing heating oil for use on the premise being stored;
- Septic tanks;

- Certain pipeline facilities regulated under Chapters 601 and 603 of Title 49;
- Surface impoundments, pits, ponds, or lagoons;
- Storm water or wastewater collection systems;
- Flow-through process tanks;
- Liquid traps or associated gathering lines directly related to oil or gas production and gathering operations;
- Tanks on or above the floor of underground areas, such as basements or tunnels;
- Tanks with a capacity of 110 gallons or less;
- Wastewater treatment tank systems;
- UST systems containing radioactive materials that are regulated under the Atomic Energy Act of 1954;
- UST systems that are part of an emergency generator system at nuclear power generation facilities regulated by the Nuclear Regulatory Commission under 10 CFR part 50.

What Substances are Covered?

These requirements apply to USTs containing petroleum or certain hazardous substances. Petroleum includes gasoline, used oil, diesel fuel, crude oil, or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees F and 14.7 pounds per square inch absolute). Hazardous substances are those found in Section 101 (14) of the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) of 1980 with the exception of those substances regulated as hazardous waste under Subtitle C of the Resource Conservation and Recovery Act (RCRA).

Instructions for Completing the Permit to Operate Application:

I. Registration and Site Information: Enter the name, physical street address (including county), telephone number and permit identification number of the facility where the tank(s) are located.

II. Tank Information: Complete the all applicable boxes within the table which include capacity, serial number(s) of the tanks, construction material and type of secondary containment type. Because construction and installation details may vary for individual tanks, a column for up to five tanks has been provided. It is required that you designate a number for each individual tank that was installed. You must also check yes or no to indicate that the information is identical to the Permit to Install application. If you mark no, please provide an explanation in the Additional Information section. Indicate whether tanks/compartments are manifolded

III. Installation Procedures: Complete the empty boxes or spaces as indicated. **Note:** You must choose at least one standard that used for the installation process.

IV. Tank Installation Information: Complete all subsections (Backfill/Overburden, Tank Condition, Excavation Dimensions and Anchoring System) by completing the empty boxes or spaces, as applicable.

V. Piping Information: Complete all applicable boxes within the table which include construction material, secondary containment and pumping system. The design, construction, and installation details may vary for individual piping runs so a column for each individual piping run (up to five) has been provided. Please ensure that you complete the questions regarding manufacturer and model. Indicate if any of the lines are manifolded. If so, provide the line numbers. You must also check yes or no to indicate that the information is identical to the Permit to Install application. If you mark no, please provide an explanation in the Additional Information section.

VI. Piping Installation Information: Complete all subsections(Backfill/Overburden, Piping Condition, and Excavation Dimensions) by filling in the empty boxes or spaces, as applicable.

VII. Spill Prevention, Overfill Prevention, and Other Equipment: Complete the blanks as indicated regarding the manufacturer and model and secondary containment of all spill, overfill prevention, tank top sumps, under dispenser containment equipment and transition sumps (if applicable). Indicate if vapor recovery was installed.

VIII. Release Detection: Interstitial monitoring is the only method allowed for tank release detection. You must review the definitions of open and closed systems and then check the type of system that was installed. You will then need to answer specific questions within the table that apply to your chosen type of system. For piping release detection, line leak detectors are required in conjunction with interstitial monitoring so you must indicate the type and location of the leak detector as well as the manufacturer and model. Be sure to complete the section on high flow systems, if applicable.

IX. Installation Certification: Complete the empty boxes or spaces as indicated.

X. Supplemental Information: Attach all required supplemental information. Indicate that the information has been attached by checking the appropriate boxes. A Permit to Operate will not be issued without the associated supplemental information.

XI. Notes or Additional Information: Fill in the blanks as needed.

XII. Certification: The application must be signed by the owner or an authorized representative of the facility.

Office Mechanics and Filing:

After completing the form, send the application and associated supplemental information to:

UST Permitting Coordinator
2600 Bull Street
Columbia, SC 29201

This application becomes a part of the permanent file.

Retention Schedule: Forms will be retained within DHEC's electronic records for a period of 13 years after tanks are permanently closed.

Contact Information: Please contact the Permitting Coordinator at (803) 898-0587 for further information.