WEBB ENVIRONMENTAL

Common Terms Associated with Underground Storage Tank

- "Aboveground release" means any release to the surface of the land or to surface water. This includes, but is not limited to, releases from the aboveground portion of an UST system and aboveground releases associated with overfills and transfer operations as the regulated substance moves to or from an UST system.
- “All-Stop” refers to a button built into the register that the facility clerk can push, which will stop all product flowing from all fueling points at the facility.
- “American petroleum institute” API is the largest U.S. trade association for the oil and natural gas industry. It claims to represent about 650 corporations involved in production, refinement, distribution, and many other aspects of the petroleum industry.
- “American Style” or Common Style suction refers to a suction system where the check valve is on top of the UST, or in the UST, which leaves the extending line full of fuel at all times, and if there is a leak in the lines, the fuel cannot drain back into the tank, making it possible for liquid to leak. *This suction style is no longer used in new installations or replacements.*
- "Ancillary equipment" means any device, including but not limited to, piping, fittings, flanges, valves, and pumps, used to distribute, meter, or control the flow of regulated substances to and from an UST.
- “Annulus” see “Interstitial space”.

- “Automatic Line Leak Detector” refers to a device that automatically shuts off or restricts flow or triggers an alarm if there is a leak.
- “Automatic Shut-off Valve” is a mechanism, in the pipe that connects the fuel delivery port to the bottom of the tank, that shuts off or restricts the flow of the delivered product if the tank reaches 95% of its capacity.
- “Automatic Tank Gauge” or ATG refers to an electronic device, whose basic function is to monitor the fuel level in the tank over a period of time to see if the tank is leaking.
- "Belowground release" means any release to the subsurface of the land and to groundwater. This includes, but is not limited to, releases from the belowground portions of an underground storage tank system and belowground releases associated with overfills and transfer operations as the regulated substance moves to or from an underground storage tank.
- "Beneath the surface of the ground" means beneath the ground surface or otherwise covered with earthen materials.
- “Breakaways” are integrated into the hose coming out of the dispenser. If a vehicle drives off with the nozzle still attached to its fuel port, the breakaway will separate and stop the flow of all product.
- “Catchment basin” see “Spill Bucket”.
- "Cathodic protection" is a technique to prevent corrosion of a metal surface by making that surface the cathode of an electrochemical cell. For example, a tank system can be cathodically protected through the application of either galvanic anodes (Sacrificial Anode), or Impressed Current.
- "Cathodic protection tester" means a person who can demonstrate an understanding of the principles and measurements of all common types of cathodic protection systems as applied to buried or submerged metal piping and tank systems. At a minimum, such persons must have education and experience in soil resistivity, stray current, structure-to-soil potential, and component electrical isolation measurements of buried metal piping and tank systems.

- "CERCLA" means the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, as amended.
- “Cladding” refers to an external coating or jacketing on a UST to help fight corrosion.
- “Class A operator” means an individual who has primary responsibility to operate and maintain the UST system in accordance with applicable requirements established by the Department. The Class A operator typically manages resources and personnel, such as establishing work assignments, to achieve and maintain compliance with regulatory requirements.
- “Class B operator” is the individual with day-to-day responsibility for implementing applicable regulatory requirements. The Class B operator implements in-field aspects of operation, maintenance, and associated recordkeeping for the UST system.
- “Class C operator” means the individual responsible for initially addressing emergencies presented by a spill or release from an UST system. The Class C operator typically controls or monitors the dispensing/sale of regulated substances.
- “Closure in place” refers to a closed UST being left underground due to obstacles which render its removal impossible.
- “Common Style Suction” was previously known as American Style Suction and refers to a suction system where the check valve is on top of the UST, or in the UST, which leaves the extending line full of fuel at all times, and if there is a leak in the lines, the fuel cannot drain back into the tank, making it possible for liquid to leak. *This suction style is no longer used in new installations or replacements.*
- "Compatibility" means the ability of two or more substances to maintain their respective physical and chemical properties upon contact with one another for the design life of the tank system under conditions likely to be encountered in the UST.
- "Connected piping" means all underground piping including valves, elbows, joints, flanges, and flexible connectors attached to a tank system through which regulated substances flow. For the purpose of

determining how much piping is connected to any individual UST system, the piping that joins two UST systems should be allocated equally between them.

- “Continuous in-tank leak detection” or CITLD is the EPA verbiage for the release detection method which monitors the UST system continuously during down-times between fuelings.
- "Consumptive use" with respect to heating oil means consumed on the premises.
- “Containment Sump” means a liquid-tight container that protects the environment by containing leaks spills of regulated substances from piping, dispensers, pumps and related components in the containment area. Containment sumps may be single walled or secondarily contained and located at the top of tank (tank top or submersible turbine pump sump), underneath the dispenser (under-dispenser containment sump), or at other points in the piping run (transition or intermediate sump).
- “Continuous in-tank leak detection” refers to a release detection method where the automatic tank gauge gathers release information automatically during quiet periods between dispensing
- "Corrosion expert" means a person who, by reason of thorough knowledge of the physical sciences and the principles of engineering and mathematics acquired by a professional education and related practical experience, is qualified to engage in the practice of corrosion control on buried or submerged metal piping systems and metal tanks. Such a person must be accredited or certified as being qualified by the National Association of Corrosion Engineers or be a registered professional engineer who has certification or licensing that includes education and experience in corrosion control of buried or submerged metal piping systems and metal tanks.
- “Corrosion protection” refers to methods used to ensure that tanks do not corrode or fail as a result of the surrounding environment.

- "Dielectric material" means a material that does not conduct direct electrical current. Dielectric coatings are used to electrically isolate UST systems from the surrounding soils.
- “Dielectric bushings” are used to electrically isolate portions of the UST system (e.g., tank from piping).
- “Dispenser” means equipment located aboveground that dispenses regulated substances from the UST system.
- “Dispenser system” means the dispenser and the equipment necessary to connect the dispenser to the underground storage tank system.
- “Drop tube” refers to the pipe that connects that connects the fuel delivery port to the bottom of the tank.
- “Double-Walled” refers to a tank having an external tank surrounding it or second wall, creating an empty space between which can be monitored for releases.
- “E-STOP” this button will stop all product flow and cut all electrical current from all devices at the facility.
- "Electrical equipment" means underground equipment that contains dielectric fluid that is necessary for the operation of equipment such as transformers and buried electrical cable.
- “Electronic Line Leak Detector” refers to a piece of equipment typically located on the submersible turbine pump which senses for leaks by pressuring the line and measuring how long it takes for the pressure to decay.
- “Emergency-Shut Off Valve” is also known as a Shear Valve and is installed at the base of a dispenser and designed to break off and shut off the flow or product in the event of a car hitting the dispenser.
- “Environmental Protection Agency” or EPA refers to the US agency that institutes most of the guidelines and best practices for UST use and regulation.
- “European system” or Safe Suction refers to a suction pump system which has a check valve installed just below the dispenser, which

means if a leak develops and the fuel stops, the remaining fuel in the line will dain back into the tank.

- "Excavation zone" means the volume containing the tank system and backfill material bounded by the ground surface, walls, and floor of the pit and trenches into which the UST system is placed at the time of installation.
- "Existing tank system" means a tank system used to contain an accumulation of regulated substances or for which installation has commenced on or before December 22, 1988. Installation is considered to have commenced if:
    - The owner or operator has obtained all federal, state, and local approvals or permits necessary to begin physical construction of the site or installation of the tank system; and if,
    - Either a continuous on-site physical construction or installation program has begun; or,
    - The owner or operator has entered into contractual obligations-which cannot be cancelled or modified without substantial loss-for physical construction at the site or installation of the tank system to be completed within a reasonable time.
- "Farm tank" is a tank located on a tract of land devoted to the production of crops or raising animals, including fish, and associated residences and improvements. A farm tank must be located on the farm property. "Farm" includes fish hatcheries, rangeland and nurseries with growing operations.
- “Fiberglass” refers to tanks created by composite material made up of fiber-reinforced plastic combined with a binding agent, like polyester resin.
- “Fill port” refers to the ground-level opening above the tank where product is transferred during delivery
- “Fill port adapter” connects the fill port to the tube which goes down into the tank.
- “Fill port cap” closes tightly and protects the fill port when not in use.

- "Flow-through process tank" is a tank that forms an integral part of a production process through which there is a steady, variable, recurring, or intermittent flow of materials during the operation of the process. Flow-through process tanks do not include tanks used for the storage of materials prior to their introduction into the production process or for the storage of finished products or by-products from the production process.
- "Free product" refers to a regulated substance that is present as a non-aqueous phase liquid (e.g., liquid not dissolved in water.)
- “Functionality test” refers to testing the proper workings of equipment with a specific method.
- "Gathering lines" means any pipeline, equipment, facility, or building used in the transportation of oil or gas during oil or gas production or gathering operations.
- “Groundwater Monitoring” detects the presence of liquid product floating on the groundwater near the tank and along piping runs.
- "Hazardous substance UST system" means an underground storage tank system that contains a hazardous substance defined in Section 101(14) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (but not including any substance regulated as a hazardous waste under subtitle C) or any mixture of such substances and petroleum, and which is not a petroleum UST system.
- "Heating oil" means petroleum that is No. 1, No. 2, No. 4-light, No. 4-heavy, No. 5-light, No. 5-heavy, and No. 6 technical grades of fuel oil; other residual fuel oils (including Navy Special Fuel Oil and Bunker C); and other fuels when used as substitutes for one of these fuel oils. Heating oil is typically used in the operation of heating equipment, boilers, or furnaces.
- “Hoses” move the product from the dispenser to the certified container.

- "Hydraulic lift tank" means a tank holding hydraulic fluid for a closed-loop mechanical system that uses compressed air or hydraulic fluid to operate lifts, elevators, and other similar devices.
- “Hydrostatic test” includes filling release prevention equipment with fluid and waiting a period of time to see if the level of the fluid remains static, or unchanging.
- “Impressed current” refers to a cathodic protection system which uses a rectifier to convert alternating current to direct current, which travels through an insulated wire to the anodes, buried in the soil near the UST. The current then flows through the soil to the UST system, and returns to the rectifier through an insulated wire attached to the UST. The UST system is protected because the current going to the UST system overcomes the corrosion causing current normally flowing away from it.
- “Inspection” refers to visual checks and reviews of facility equipment.
- “Internal lining” refers to a corrosion protected coating that is applied to the internal wall of the UST to help avoid failure and releases.
- “Interstice” *see “Interstitial space”.*
- “Interstitial space” means the opening formed between the inner and outer wall of an UST system with double-walled construction or the opening formed between the inner wall of a containment sump and the UST system component that it contains.
- “Jacketing” *see “Cladding”.*
- "Liquid trap" means sumps, well cellars, and other traps used in association with oil and gas production, gathering, and extraction operations (including gas production plants), for the purpose of collecting oil, water, and other liquids. These liquid traps may temporarily collect liquids for subsequent disposition or reinjection into a production or pipeline stream, or may collect and separate liquids from a gas stream.
- "Maintenance" means the normal operational upkeep to prevent an underground storage tank system from releasing product.

- “Manual monitoring” refers to a method of monitoring the space between the first layer and the second layer of containment and is as basic as dropping a dipstick to the lowest point of the containment space to check for the presence of liquid.
- “Manual Tank Monitoring” involves weekly measurements of the tank's contents, and calculating the change in measurements to determine the change in product volume.
- “Mechanical Line Leak Detectors” are designed to detect catastrophic releases and test for leaks each time the pump is turned on.
- "Motor fuel" means a complex blend of hydrocarbons typically used in the operation of a motor engine, such as motor gasoline, aviation gasoline, No. 1 or No. 2 diesel fuel, or any blend containing one or more of these substances (for example: motor gasoline blended with alcohol).
- "New tank system" means a tank system that will be used to contain an accumulation of regulated substances and for which installation has commenced after December 22, 1988.
- "Noncommercial purposes” with respect to motor fuel means not for resale.
- “Nozzle” refers to fueling points which are placed inside of the vehicle's fueling port to transfer product during purchase.
- "On the premises where stored" with respect to heating oil means UST systems located on the same property where the stored heating oil is used.
- "Operational life" refers to the period beginning when installation of the tank system has commenced until the time the tank system is properly closed.
- "Operator" means any person in control of, or having responsibility for the daily operation of the UST system.
- "Overfill" is a release that occurs when a tank is filled beyond its capacity, resulting in a discharge of the regulated substance to the environment.

- “Overfill protection” is designed to stop product flow and/or reduce flow before the overly full tank begins releasing hazardous materials into the environment.
- “Overfill protection device” is located on the fill drop tube and automatically restricts or stops flow from delivery if product reaches beyond 95% tanks capacity.
- "Owner" means:
    - In the case of an UST system in use on November 8, 1984, or brought into use after that date, a person who owns an UST system used for storage, use, or dispensing of regulated substances;
    - In the case of any UST system in use before November 8, 1984, but no longer in use on that date, a person who owned such an UST immediately before the discontinuation of its use; or
    - A person who has assumed legal ownership of the UST through the provisions of a contract of sale or other legally binding transfer of ownership.
- “Periodic in-tank leak detection” refers to a release detection method where the automatic tank gauge runs tests when the station is closed, requires significant downtime.
- “Permanent closure” refers to a UST being removed from the ground emptied and cleaned or left in the ground and filled with a harmless solid.
- "Person" means an individual, partner, corporation organized or united for a business purpose, or a governmental agency.
- “Petroleum Equipment Institute” or PEI refers to the foremost authority on recommended best practices for UST ownership and maintenance; released RP900 and RP1200
- "Petroleum UST system" means an underground storage tank system that contains petroleum or a mixture of petroleum with de minimis quantities of other regulated substances. Such systems include those

containing motor fuels, jet fuels, distillate fuel oils, residual fuel oils, lubricants, petroleum solvents, and used oils.

- "Pipe" or "Piping" means a hollow cylinder or tubular conduit that is constructed of non-earthen materials.
- "Pipeline facilities (including gathering lines)" are new and existing pipe rights- of-way and any associated equipment, facilities, or buildings.
- “Potable Drinking Water Well” means any hole (dug, driven, drilled, or bored) that extends into the earth until it meets groundwater which:
    - Supplies water for a non-community public water system, or
    - Otherwise supplies water for household use (consisting of drinking,bathing, and cooking, or other similar uses).
    - Such wells may provide water to entities such as a single-family residence, group of residences, businesses, schools, parks, campgrounds, and other permanent or seasonal communities.
- “Poppet valve” refers to the lid that seals the vapor recovery port and easily pops open and closed during use.
- “Pressurized system” refers to a system where the pump is located within the tank, called a Submersible Turbine Pump or STP. This system is used in most facilities as it can service several dispensers at once.
- “Pumps” move regulated substances from the UST to the intended approved container.
- "Regulated substance" means:
    - A substance defined in Section 101(14) of CERCLA, but not including any substance regulated as a hazardous waste under subtitle C of RCRA; and
    - Petroleum and petroleum products, including crude oil or any fraction thereof that is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute).
    - The term "regulated substance" includes petroleum and petroleum-based substances comprised of a complex blend of

hydrocarbons derived from crude oil through processes of separation, conversion, upgrading, and finishing, such as motor fuels, jet fuels, distillate fuel oils, residual fuel oils, lubricants, petroleum solvents, and used oils.

- "Release" means any spilling, leaking, emitting, discharging, escaping, leaching or disposing from an UST into subsurface soils, groundwater, or surface water.
- "Release detection" means determining whether a release of a regulated substance has occurred from the UST system into the environment or a leak has occurred into the interstitial space between the UST system and its secondary barrier or secondary containment around it.
- “Release Prevention” refers to the equipment that stops or prevents releases and guidance on spill containment and proper fuel delivery procedures, cathodic protection, secondary containment and response to alarms.
- "Repair" means to restore to proper operating condition a tank, pipe, spill prevention equipment, overfill prevention equipment, corrosion protection equipment, release detection equipment or other UST system component that has caused a release of product from the UST system or has failed to function properly.
- “Replaced” means:
    - For a tank—to remove a tank and install another tank.
    - For piping—to remove more than 25 percent of piping and install other piping, excluding connectors, connected to a single tank. For tanks with multiple piping runs, this definition applies to each piping run.
- “Report” means to notify the appropriate state agency of any release over 25 gallons or which threatens a sensitive receptor.
- "Residential tank" is a tank located on property used primarily for dwelling purposes.
- “Safe Suction” see European Suction.

- "SARA" means the Superfund Amendments and Reauthorization Act of 1986.
- “SPA” or State Program Approval status refers to a state being granted jurisdiction over their own UST regulation and inspection by the Federal government.
- “Sacrificial Anode” refers to a cathodic protection system where sacrificial anodes are pieces of metal more electrically active than the steel UST. Because these anodes are more active, the corrosive current will exit from them rather than the UST, sacrificing the attached anode, and saving the UST from corrosion.
- "Secondary containment" or “secondarily contained” means an impervious layer of materials which is installed around a tank or system of tanks, so that any volume of regulated substances which may leak from a tank will be prevented from contacting the environment outside said impervious layer for the period of time necessary to detect and recover released regulated substances. Materials or devices used to provide a secondary containment may include concrete, impervious liners, double-wall tanks or other materials or devices, singularly or in combination, which is approved by the Department.
    - The term “Secondary containment” or “secondarily contained” also means a release prevention and release detection system for a tank or piping. This system has an inner and outer barrier with an interstitial space that is monitored for leaks. This term includes containment sumps when used for interstitial monitoring of piping.
- “Sensitive receptors” are places where releases of regulated substances may come in contact with groundwater or other natural substances. This must be guarded against with great precaution.
- "Septic tank" is a water-tight covered receptacle designed to receive or process, through liquid separation or biological digestion, the sewage discharged from a building sewer. The effluent from such receptacle is distributed for disposal through the soil and settled

solids and scum from the tank are pumped out periodically and hauled to a treatment facility.

- “Service plans” are maintenance and inspection schedules for an entire UST system, designed, implemented and delegated by the A/B operator
- “Single-Walled” refers to tanks with one layer of protection; can be steel or fiberglass, if steel may have external cladding and cathodic protection
- “Solid Waste Disposal Act” means the Solid Waste Disposal Act of 1965. The Resource Conservation and Recovery Act amended the requirements of the Solid Waste Disposal Act.
- “Spill buckets” are contained systems that surround the fuel delivery and vapor recovery port. They are designed to capture product that is spilled or overfilled during delivery.
- “Spill kit” is a release response tool located at the facility that includes oil-absorbent materials, tools to clean up fuel, markers and fire fighting equipment.
- “Staffed Facility” refers to a site which must have an A, B or C operator present when the facility is open for business.
- “State regulatory inspection” is when a regulatory official from the implementing agency visit each facility once every three years to examine all release detection and prevention equipment and all required paperwork.
- “Statistical Inventory Reconciliation” (SIR) is a method in which a trained professional uses sophisticated computer software to conduct a statistical analysis of inventory, delivery, and dispensing data.
- "Storm water or wastewater collection system" means piping, pumps, conduits, and any other equipment necessary to collect and transport the flow of surface water run-off resulting from precipitation, or domestic, commercial, or industrial wastewater to and from retention areas or any areas where treatment is designated to occur. The collection of storm water and wastewater does not include treatment except where incidental to conveyance.

- “Submersible Turbine Pumps” or STP’s are pumps which are fully submerged within the product to be pumped out. Widely used today due to high flow rate and ability to service multiple fueling points simultaneously.
- “Sumps” act as secondary containment and collect released product as well as water and other debris. They are located in many places throughout the UST system including STP Containment Sumps, Under-Dispenser Containment Sumps (UDC), and Piping Transition Sumps.
- “Suction system” refers to configurations where the pump is located within the dispenser and “sucks” the regulated substance out of the UST and up to the intended container.
- “Sump” (see “Containment Sump)
- "Surface impoundment" is a natural topographic depression, man-made excavation, or diked area formed primarily of earthen materials (although it may be lined with man-made materials) that is not an injection well.
- “Swivels” refer to hardware located at the junction between the hose coming out of the dispenser and the nozzle. These allow for ease of use and minimize damage to hoses.
- "Tank" is a stationary device designed to contain an accumulation of regulated substances and constructed of non-earthen materials (e.g., concrete, steel, plastic) that provide structural support.
- “Temporary closure” is when a UST is not in use for a period of 12 months or less; certain compliance actions are still required during this time.
- “Training program” means any program that provides information to and evaluates the knowledge of a Class A, Class B, or Class C operator through testing, practical demonstration, or another approach acceptable to the Department regarding requirements for UST systems that meet the requirements of Subpart J of this part.
- “Under-dispenser containment” or “UDC” means containment underneath a dispenser system designed to prevent leaks from the

dispenser and piping within or above the UDC from reaching soil or groundwater. Such containment must:
    - Be liquid-tight on its sides, bottom, and at any penetrations;
    - Be compatible with the substance conveyed by the piping; and
    - Allow for visual inspection and access to the components in the containment system and/or be monitored.
- "Underground area" means an underground room, such as a basement, cellar, shaft or vault, providing enough space for physical inspection of the exterior of the tank situated on or above the surface of the floor.
- "Underground storage tank" or "UST" means any one or combination of tanks, including underground pipes connected to it, which is used to contain an accumulation of regulated substance, and the volume of which is ten percent or
    - more beneath the surface of the ground. This term does not include any:
    - Farm or residential tank of 1,100 gallons or less capacity used for storing motor fuel for noncommercial purposes;
    - Tank used for storing heating oil for consumptive use on the premises where stored;
    - Septic tank;
    - Pipeline facility, including gathering line, regulated under the Federal Natural Gas Pipeline Safety Act of 1968 or the Federal Hazardous Liquid Pipeline Safety Act of 1979, or any pipeline facility regulated under state
    - laws comparable to the provisions of these federal provisions of law;
    - Surface impoundment, pit, pond, or lagoon;
    - Storm water or wastewater collection system;
    - Flow-through process tank;
    - Liquid trap or associated gathering lines directly related to oil or gas production and gathering operations;

    - Storage tank situated in an underground area, such as a basement, cellar, mine working, drift, shaft, or tunnel, if the petroleum storage tank is situated upon or above the surface of the floor;
    - Hydraulic lift reservoirs, such as for automobile hoists and elevators, containing hydraulic oil; or pipes connected to any tank in this definition.
- “Unstaffed Facility” refers to a location where a designated A/B operator must be able to be on site when contacted.
- "Upgrade" means the addition or retrofit of some systems such as cathodic protection, lining, or spill and overfill controls to improve the ability of an underground storage tank system to prevent the release of product.
- "UST system" or "Tank system" means an underground storage tank, connected underground piping, underground ancillary equipment, and containment system, if any.
- “Vacuum monitoring” can be used in interstitial monitoring where a vacuum within the interstitial space is monitored for any changes.
- “Vapor Monitoring” refers to a leak detection system that looks for leaked vapors in the soil outside the tank.
- “Vapor recovery” refers to a method of overfill protection which collects vapors during fuel delivery before they are released into the environment.
- “Vapor recovery port” is the ground-level opening that leads to the vapor recovery.
- “Visual walk-through inspection” involve surveying the facility and visually examining release detection and release prevention equipment for wear or degradation.
- "Wastewater treatment tank" means a tank that is designed to receive and treat an influent wastewater through physical, chemical, or biological methods.