9 VAC 25-580. Underground Storage Tanks: Technical Standards and Corrective Action Requirements (amending 9 VAC 25-580-10, 9 VAC 25-580-50, 9 VAC 25-580-130, 9 VAC 25-580-270, 9 VAC 25-580-320; repealing 9 VAC 25-580-290).

9 VAC 25-580-10. Definitions.

The following words and terms, when used in this chapter, shall have the following meaning meanings unless the context clearly indicates otherwise:

"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 a UST system and aboveground releases associated with overfills and transfer operations as the regulated substance moves to or from a UST system.

"Ancillary equipment" means any devices including, but not limited to, such devices as piping, fittings, flanges, valves, and pumps used to distribute, meter, or control the flow of regulated substances to and from an UST.

"Below ground release" means any release to the subsurface of the land and to ground water. 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.

"Board" means the State Water Control Board.

"Building official" means the executive official of the local government building department empowered by § 36-105 of the Code of Virginia to enforce and administer the Virginia Uniform Statewide Building Code (USBC).

"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 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 (42 USC § 9601 et seq.).

"Compatible" 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.

"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

9 VAC 25-580. Underground Storage Tanks: Technical Standards and Corrective Action Requirements (amending 9 VAC 25-580-10, 9 VAC 25-580-50, 9 VAC 25-580-130, 9 VAC 25-580-270, 9 VAC 25-580-320; repealing 9 VAC 25-580-290). engineer who has certification or licensing that includes education and experience in corrosion

control of buried or submerged metal piping systems and metal tanks.

"De minimis" means trivial and beyond the intent of regulation, as that term is used at 53 Fed. Reg. 37108-37109.

"Department of Waste Management" means the Virginia Department of Waste Management which has jurisdiction over the proper handling and disposal of solid and hazardous wastes in the Commonwealth of Virginia.

"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).

"Director" means the director of the Department of Environmental Quality.

"Electrical equipment" means underground equipment that contains dielectric fluid that is necessary for the operation of equipment such as transformers and buried electrical cable.

"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:

1. 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,

- 2. a. Either a continuous on-site physical construction or installation program has begun; or,
 - b. 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. "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 nonaqueous phase liquid (e.g., liquid not dissolved in water).

"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.

"Hazardous substance UST system" means an underground storage tank system that contains a hazardous substance defined in § 101(14) of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980 (42 USC § 9601 et seq.) (but not including any substance regulated as a hazardous waste under subtitle C of RCRA) or any mixture of such substances and petroleum, and which is not a petroleum UST system.

9 VAC 25-580. Underground Storage Tanks: Technical Standards and Corrective Action Requirements (amending 9 VAC 25-580-10, 9 VAC 25-580-50, 9 VAC 25-580-130, 9 VAC 25-580-270, 9 VAC 25-580-320; repealing 9 VAC 25-580-290). "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.

"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.

"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.

"Motor fuel" means petroleum or a petroleum-based substance that is motor gasoline, aviation gasoline, No. 1 or No. 2 diesel fuel, or any grade of gasohol, and is typically used in the operation of a motor engine.

"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 (See also "existing tank system").

"Noncommercial purposes" with respect to motor fuel means not for resale.

"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 under Part VII.

"Operator" means any person in control of, or having responsibility for, the daily operation of the UST system.

"Overfill release" is a release that occurs when a tank is filled beyond its capacity, resulting in a discharge of the regulated substance to the environment.

"Owner" means:

- 1. In the case of a UST system in use on November 8, 1984, or brought into use after that date, any person who owns an UST system used for storage, use, or dispensing of regulated substances; and
- 2. In the case of any UST system in use before November 8, 1984, but no longer in use on that date, any person who owned such UST immediately before the discontinuation of its use.

The term "owner" shall not include any person who, without participating in the management of an underground storage tank or being otherwise engaged in petroleum production, refining, and marketing, holds indicia of ownership primarily to protect the holder's security interest in the tank.

"Person" means an individual, trust, firm, joint stock company, corporation, including a government corporation, partnership, association, any state or agency thereof, municipality, county, town, commission, political subdivision of a state, any interstate body, consortium, joint venture, commercial entity, the government of the United States or any unit or agency thereof.

"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

9 VAC 25-580. Underground Storage Tanks: Technical Standards and Corrective Action Requirements (amending 9 VAC 25-580-10, 9 VAC 25-580-50, 9 VAC 25-580-130, 9 VAC 25-580-270, 9 VAC 25-580-320; repealing 9 VAC 25-580-290). 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 nonearthen materials.

"Pipeline facilities (including gathering lines)" are new and existing pipe rights-of-way and any associated equipment, facilities, or buildings.

"RCRA" means the federal Resource Conservation and Recovery Act of 1976 as amended (42 USC § 6901 et seq.).

"Regulated substance" means an element, compound, mixture, solution, or substance that, when released into the environment, may present substantial danger to the public health or welfare, or the environment. The term "regulated substance" includes:

- 1. Any substance defined in § 101(14) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980 (42 USC § 9601 et seq.), but not any substance regulated as a hazardous waste under subtitle C of the Resource Conservation and Recovery Act (RCRA) of 1976 (42 USC § 6901 et seq.); and
- 2. Petroleum, including crude oil or any fraction thereof, that is liquid at standard conditions of temperature and pressure (60°F and 14.7 pounds per square inch absolute). The term "regulated substance" includes but is not limited to 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 ground water, surface water or subsurface soils.

"Release detection" means determining whether a release of a regulated substance has occurred from the UST system into the environment or into the interstitial space between the UST system and its secondary barrier or secondary containment around it.

"Repair" means to restore a tank or UST system component that has caused a release of product from the UST system.

"Residential tank" is a tank located on property used primarily for dwelling purposes.

"SARA" means the Superfund Amendments and Reauthorization Act of 1986.

"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.

"Storm water or waste water 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.

"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.

9 VAC 25-580. Underground Storage Tanks: Technical Standards and Corrective Action Requirements (amending 9 VAC 25-580-10, 9 VAC 25-580-50, 9 VAC 25-580-130, 9 VAC 25-580-270, 9 VAC 25-580-320; repealing 9 VAC 25-580-290). "Tank" is a stationary device designed to contain an accumulation of regulated substances and

constructed of nonearthen materials (e.g., concrete, steel, plastic) that provide structural support.

"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 release" means any belowground release.

"Underground storage tank" or "UST" means any one or combination of tanks (including underground pipes connected thereto) that is used to contain an accumulation of regulated substances, and the volume of which (including the volume of underground pipes connected thereto) is 10% or more beneath the surface of the ground. This term does not include any:

- 1. Farm or residential tank of 1,100 gallons or less capacity used for storing motor fuel for noncommercial purposes;
- 2. Tank used for storing heating oil for consumption on the premises where stored, except for tanks having a capacity of more than 5,000 gallons and used for storing heating oil;
- 3. Septic tank;
- 4. Pipeline facility (including gathering lines) regulated under:
 - a. The Natural Gas Pipeline Safety Act of 1968 (49 USC App. 1671, et seq.);
 - b. The Hazardous Liquid Pipeline Safety Act of 1979 (49 USC App. 2001, et seq.); or
 - c. Which is an intrastate pipeline facility regulated under state laws comparable to the provisions of the law referred to in subdivisions 4 a or 4 b of this definition;

- 5. Surface impoundment, pit, pond, or lagoon;
- 6. Storm water or wastewater collection system;
- 7. Flow-through process tank;
- 8. Liquid trap or associated gathering lines directly related to oil or gas production and gathering operations; or
- 9. Storage tank situated in an underground area (such as a basement, cellar, mineworking, drift, shaft, or tunnel) if the storage tank is situated upon or above the surface of the floor.

The term "underground storage tank" or "UST" does not include any pipes connected to any tank which is described in subdivisions 1 through 9 of this definition.

"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.

"Wastewater treatment tank" means a tank that is designed to receive and treat an influent wastewater through physical, chemical, or biological methods.

9 VAC 25-580-50. Performance standards for new UST systems.

9 VAC 25-580. Underground Storage Tanks: Technical Standards and Corrective Action Requirements (amending 9 VAC 25-580-10, 9 VAC 25-580-50, 9 VAC 25-580-130, 9 VAC 25-580-270, 9 VAC 25-580-320; repealing 9 VAC 25-580-290). Owners and operators must obtain a permit, the required inspections and a Certificate of Use issued

in accordance with the provisions of the Virginia Uniform Statewide Building Code. No UST system shall be installed or placed into use without the owner and operator having obtained the required permit, inspections and Certificate of Use from the building official under the provisions of the Virginia Uniform Statewide Building Code (§ 36-97 et seq. of the Code of Virginia).

In the case of state-owned facilities the Department of General Services shall function as the building official in accordance with § 36-98.1 of the Code of Virginia.

In the case of federal facilities the building official must be contacted. Owners and operators must obtain a permit, the required inspections and a Certificate of Use must be issued in accordance with the provisions of the Virginia Uniform Statewide Building Code.

In order to prevent releases due to structural failure, corrosion, or spills and overfills for as long as the UST system is used to store regulated substances, all owners and operators of new UST systems must meet the following requirements.

1. Tanks.

Each tank must be properly designed and constructed, and any portion underground that routinely contains product must be protected from corrosion, in accordance with a code of practice developed by a nationally recognized association or independent testing laboratory as specified below:

a. The tank is constructed of fiberglass-reinforced plastic;

NOTE: The following industry codes may be used to comply with subdivision 1 a of this section: Underwriters Laboratories Standard 1316, "Standard for Glass-Fiber-Reinforced Plastic

Underground Storage Tanks for Petroleum Products"; Underwriters Laboratories of Canada CAN4-S615-M83, "Standard for Reinforced Plastic Underground Tanks for Petroleum Products"; or American Society of Testing and Materials Standard D4021-86, "Standard Specification for Glass-Fiber-Reinforced Polyester Underground Petroleum Storage Tanks."

- b. The tank is constructed of steel and cathodically protected in the following manner:
 - (1) The tank is coated with a suitable dielectric material;
 - (2) Field-installed cathodic protection systems are designed by a corrosion expert;
 - (3) Impressed current systems are designed to allow determination of current operating status as required in subdivision 3 of 9 VAC 25-580-90; and
 - (4) Cathodic protection systems are operated and maintained in accordance with 9 VAC 25-580-90; or

NOTE: The following codes and standards may be used to comply with subdivision 1 b of this section:

- (a) Steel Tank Institute "Specification for STI-P3 System of External Corrosion Protection of Underground Steel Storage Tanks";
- (b) Underwriters Laboratories Standard 1746, "Corrosion Protection Systems for Underground Storage Tanks";
- (c) Underwriters Laboratories of Canada CAN4-S603-M85, "Standard for Steel Underground Tanks for Flammable and Combustible Liquids," and CAN4-G03.1-M85, "Standard for Galvanic Corrosion Protection Systems for Underground Tanks for Flammable and Combustible Liquids," and CAN4-S631-M84, "Isolating Bushings for Steel Underground Tanks Protected with Coatings and Galvanic Systems"; or

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- (d) National Association of Corrosion Engineers Standard RP-02-85, "Control of External
- Corrosion on Metallic Buried, Partially Buried, or Submerged Liquid Storage Systems," and Underwriters Laboratories Standard 58 "Standard for Steel Underground Tanks for Flammable and Combustible Liquids."
- c. The tank is constructed of a steel-fiberglass-reinforced-plastic composite; or

NOTE: The following industry codes may be used to comply with subdivision 1 c of this section:

Underwriters Laboratories Standard 1746, "Corrosion Protection Systems for Underground

Storage Tanks," or the Association for Composite Tanks ACT-100, "Specification for the

Fabrication of FRP Clad Underground Storage Tanks."

- d. The tank construction and corrosion protection are determined by the board to be designed to prevent the release or threatened release of any stored regulated substance in a manner that is no less protective of human health and the environment than subdivisions 1 a through c of this section.
- 2. Piping. The piping that routinely contains regulated substances (e.g., fill pipes, product lines) and is in contact with the ground must be properly designed, constructed, and protected from corrosion in accordance with a code of practice developed by a nationally recognized association or independent testing laboratory as specified below:
 - a. The piping is constructed of fiberglass-reinforced plastic.

NOTE: The following codes and standards may be used to comply with subdivision 2 a of this section:

(1) Underwriters Laboratories Subject 971, "UL Listed Non-Metal Pipe";

- (2) Underwriters Laboratories Standard 567, "Pipe Connectors for Flammable and Combustible and LP Gas";
- (3) Underwriters Laboratories of Canada Guide ULC-107, "Glass Fiber Reinforced Plastic Pipe and Fittings for Flammable Liquids"; and
- (4) Underwriters Laboratories of Canada Standard CAN 4-S633-M81, "Flexible Underground Hose Connectors."
- b. The piping is constructed of steel and cathodically protected in the following manner:
 - (1) The piping is coated with a suitable dielectric material;
 - (2) Field-installed cathodic protection systems are designed by a corrosion expert;
 - (3) Impressed current systems are designed to allow determination of current operating status as required in subdivision 3 of 9 VAC 25-580-90; and
 - (4) Cathodic protection systems are operated and maintained in accordance with 9 VAC 25-580-90; or

NOTE: The following codes and standards may be used to comply with subdivision 2 b of this section:

- (a) National Fire Protection Association Standard 30, "Flammable and Combustible Liquids Code":
- (b) American Petroleum Institute Publication 1615, "Installation of Underground Petroleum Storage Systems";
- (c) American Petroleum Institute Publication 1632, "Cathodic Protection of Underground Petroleum Storage Tanks and Piping Systems"; and

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(d) National Association of Corrosion Engineers Standard RP-01-69, "Control of External

Corrosion on Submerged Metallic Piping Systems."

- c. The piping construction and corrosion protection are determined by the board to be designed to prevent the release or threatened release of any stored regulated substance in a manner that is no less protective of human health and the environment than the requirements in subdivisions 2 a through b of this section.
- 3. Spill and overfill prevention equipment.
 - a. Except as provided in subdivision 3 b of this section, to prevent spilling and overfilling associated with product transfer to the UST system, owners and operators must use the following spill and overfill prevention equipment:
 - (1) Spill prevention equipment that will prevent release of product to the environment when the transfer hose is detached from the fill pipe (for example, a spill catchment basin); and
 - (2) Overfill prevention equipment that will:
 - (a) Automatically shut off flow into the tank when the tank is no more than 95% full; or
 - (b) Alert the transfer operator when the tank is no more than 90% full by restricting the flow into the tank or triggering a high-level alarm-; or
 - (c) Restrict the flow 30 minutes prior to overfilling, alert the operator with a high level alarm one minute before overfilling, or automatically shut off flow into the tank so that none of the fittings located on top of the tank are exposed to product due to overfilling.
 - b. Owners and operators are not required to use the spill and overfill prevention equipment specified in subdivision 3 a of this section if:

- (1) Alternative equipment is used that is determined by the board to be no less protective of human health and the environment than the equipment specified in subdivision 3 a (1) or (2) of this section; or
- (2) The UST system is filled by transfers of no more than 25 gallons at one time.
- 4. Installation. All tanks and piping must be properly installed in accordance with a code of practice developed by a nationally recognized association or independent testing laboratory and in accordance with the manufacturer's instructions.

NOTE: Tank and piping system installation practices and procedures described in the following codes may be used to comply with the requirements of subdivision 4 of this section:

- a. American Petroleum Institute Publication 1615, "Installation of Underground Petroleum Storage System";
- b. Petroleum Equipment Institute Publication RP100, "Recommended Practices for Installation of Underground Liquid Storage Systems"; or
- c. American National Standards Institute Standard B31.3, "Petroleum Refinery Piping," and American National Standards Institute Standard B31.4 "Liquid Petroleum Transportation Piping System."

NOTE: These industry codes require that prior to bringing the system into use the following tests be performed: (i) tank tightness test (air); (ii) pipe tightness test (air or hydrostatic); and (iii) precision system test in accordance with NFPA 329 (detection of .05 gal/hr leak rate).

5. Certification of installation. All owners and operators must ensure that one or more of options a through d of the following methods of certification, testing, or inspection is performed, and a Certificate of Use has been issued in accordance with the provisions of the Virginia Uniform

9 VAC 25-580. Underground Storage Tanks: Technical Standards and Corrective Action Requirements (amending 9 VAC 25-580-10, 9 VAC 25-580-50, 9 VAC 25-580-130, 9 VAC 25-580-270, 9 VAC 25-580-320; repealing 9 VAC 25-580-290). Statewide Building Code to demonstrate compliance with subdivision 4 of this section. A

certification of compliance on the UST Notification form must be submitted to the board in accordance with 9 VAC 25-580-70.

- a. The installer has been certified by the tank and piping manufacturers;
- b. The installation has been inspected and certified by a registered professional engineer with education and experience in UST system installation;
- c. All work listed in the manufacturer's installation checklists has been completed; or
- d. The owner and operator have complied with another method for ensuring compliance with subdivision 4 of this section that is determined by the board to be no less protective of human health and the environment.
- 6. Release detection. Release detection shall be provided in accordance with Part IV of this chapter.
- 9 VAC 25-580-130. General requirements for all petroleum and hazardous substance UST systems.
- A. Owners and operators of new and existing UST systems must provide a method, or combination of methods, of release detection that:
 - 1. Can detect a release from any portion of the tank and the connected underground piping that routinely contains product;
 - 2. Is installed, calibrated, operated, and maintained in accordance with the manufacturer's instructions, including routine maintenance and service checks for operability or running condition; and

- 3. Meets the performance requirements in 9 VAC 25-580-160 or 9 VAC 25-580-170, with any performance claims and their manner of determination described in writing by the equipment manufacturer or installer. In addition, methods used after December 22, 1990, except for methods permanently installed prior to that date, must be capable of detecting the leak rate or quantity specified for that method in subsections 2, 3 and 4 of 9 VAC 25-580-160 or subdivisions 1 and 2 of 9 VAC 25-580-170 with a probability of detection of 0.95 and a probability of false alarm of 0.05.
- B. When a release detection method operated in accordance with the performance standards in 9 VAC 25-580-160 or 9 VAC 25-580-170 indicates a release may have occurred, owners and operators must notify the board in accordance with Part V of this chapter.
- C. Owners and operators of all UST systems must comply with the release detection requirements of this part by December 22 of the year listed in the following table:

SCHEDULE FOR PHASE-IN OF RELEASE DETECTION

	Yea	r when	release	detection	on is
Year system	required (by December 22 of the				
was installed	year indicated)				
	1989	1990	1991	1992	1993
Before1965					
or date	RD∗	P			
unknown					
1965-1969					

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	P/R			
	D			
1970-1974	Р	RD		
1975-1979	Р		RD	
1980-1988	Р			RD

New tanks (after December 22, 1988) immediately upon installation.

P = Must begin release detection for all pressurized piping in accordance with subdivision 2 a of 9 VAC 25-580-140.

RD = Must begin release detection for tanks and suction piping in accordance with subsection 1 and subdivision 2 b of 9 VAC 25-580-140, and 9 VAC 25-580-150.

* = Heating oil tanks greater than 5,000 gallons capacity installed before 1965 or date unknown are allowed until December 22, 1990, to comply with this requirement.

D. Any existing UST system that cannot apply a method of release detection that complies with the requirements of this part must complete the closure procedures in Part VII by the date on which release detection is required for that UST system under subsection C of this section.

9 VAC 25-580-270. Free product removal.

At sites where investigations under subdivision A 6 of 9 VAC 25-580-250 indicate the presence of free product, owners and operators must remove free product to the maximum extent practicable as determined by the board while continuing, as necessary, any actions initiated under 9 VAC 25-580-240 through 9 VAC 25-580-260, or preparing for actions required under 9 VAC 25-580-280 through 9 VAC 25-580-290. In meeting the requirements of this section, owners and operators must:

- 1. Conduct free product removal in a manner that minimizes the spread of contamination into previously uncontaminated zones by using recovery and disposal techniques appropriate to the hydrogeologic conditions at the site, and that properly treats, discharges or disposes of recovery by-products in compliance with applicable local, state and federal regulations;
- 2. Use abatement of free product migration as a minimum objective for the design of the free product removal system;
- 3. Handle any flammable products in a safe and competent manner to prevent fires or explosions; and
- 4. Unless directed to do otherwise by the board, prepare and submit to the board, within 45 days after confirming a release, a free product removal report that provides at least the following information:
 - a. The name of the persons responsible for implementing the free product removal measures;
 - b. The estimated quantity, type, and thickness of free product observed or measured in wells, bore holes, and excavations;
 - c. The type of free product recovery system used;
 - d. Whether any discharge will take place on-site or off-site during the recovery operation and where this discharge will be located;

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 - e. The type of treatment applied to, and the effluent quality expected from, any discharge;
 - f. The steps that have been or are being taken to obtain necessary permits for any discharge; and
 - g. The disposition of the recovered free product.
- 9 VAC 25-580-290. Corrective action plan (CAP) permit. (Repealed.)
- A. Owners and operators shall file a complete application for and obtain a Corrective action plan (CAP) permit from the board for any corrective action plan required by 9 VAC 25-580-280 of this chapter.
- B. If the corrective action plan involves a point source discharge of pollutants to surface waters, the CAP permit application shall be processed in accordance with the procedures and the requirements set forth in the board's permit regulation (9 VAC 25-30-10 et seq.) and the provisions of that regulation shall apply mutatis mutandis. The CAP permit shall include, but not be limited to, a schedule and format for the corrective action plan, the corrective action plan, and all of the pertinent conditions set forth in 9 VAC 25-30-10 et seq.
- C. If the corrective action plan involves only the management of pollutants that are not point source discharges to surface waters, the owner and operator shall be exempt from the requirement to obtain a Virginia Pollution Abatement (VPA) permit under 9 VAC 25-30-10 et seq. conditioned upon:
 - 1. The owner and operator shall obtain the CAP permit which shall contain the conditions, and be processed in accordance with the procedures and requirements, set forth in 9 VAC 25-30-10 et seq.;
 - 2. The CAP permit shall include, where appropriate, a schedule and format for the corrective action plan and the corrective action plan; and

3. The application shall be publicly noticed in accordance with 9 VAC 25-580-300 and subsections A and B of 9 VAC 25-30-10 et seq.

D. If the corrective action plan involves the introduction of pollutants into publicly owned treatment works, owners and operators shall also comply with the board's and any publicly owned treatment work's pretreatment program requirements.

9 VAC 25-580-320. Permanent closure and changes-in-service.

Owners and operators must obtain a permit and the required inspections in accordance with the Virginia Uniform Statewide Building Code (§ 36-47 et seq. of the Code of Virginia).

A permit from the building official must be obtained prior to permanent tank closure or a change-in-service. No UST system shall be permanently closed or changed-in-service unless and until the system is inspected in accordance with the provisions of the Virginia Uniform Statewide Building Code (§ 36-47 et seq. of the Code of Virginia).

If such closure is in response to immediate corrective actions that necessitate timely tank removal, then the building official must be notified and the official's directions followed until a permit is issued.

In the case of state-owned facilities the Department of General Services shall function as the building official in accordance with § 36-98.1 of the Code of Virginia.

In the case of federal facilities the building official must be contacted. Owners and operators must obtain a permit and the required inspections in accordance with the provisions of the Virginia Uniform Statewide Building Code.

1. Owners and operators must within 30 days after either permanent closure or a change-in-service submit an amended UST notification form (Appendix I) to the board.

9 VAC 25-580. Underground Storage Tanks: Technical Standards and Corrective Action Requirements (amending 9 VAC 25-580-10, 9 VAC 25-580-50, 9 VAC 25-580-130, 9 VAC 25-580-270, 9 VAC 25-580-320; repealing 9 VAC 25-580-290).

- 2. The required assessment of the excavation zone under 9 VAC 25-580-330 must be performed after notifying the building official but before completion of the permanent closure or a change-inservice.
- 3. To permanently close a tank, owners and operators must empty and clean it by removing all liquids and accumulated sludges. When the owner or operator suspects that the residual sludges are hazardous in nature the Department of Waste Management Environmental Quality regulations shall be followed to facilitate the proper treatment, storage, manifesting, transport, and disposal. All tanks taken out of service permanently must also be either removed from the ground or filled with an inert solid material.
- 4. Continued use of an UST system to store a nonregulated substance is considered a change-in-service. Before a change-in-service, owners and operators must empty and clean the tank by removing all liquid and accumulated sludge and conduct a site assessment in accordance with 9 VAC 25-580-330.

NOTE: The following cleaning and closure procedures may be used to comply with this section:

- a. American Petroleum Institute Recommended Practice 1604, "Removal and Disposal of Used Underground Petroleum Storage Tanks";
- b. American Petroleum Institute Publication 2015, "Cleaning Petroleum Storage Tanks";
- c. American Petroleum Institute Recommended Practice 1631, "Interior Lining of Underground Storage Tanks," may be used as guidance for compliance with this section; and

d. The National Institute for Occupational Safety and Health "Criteria for a Recommended					
Standard *** Working in Confined Space" may be used as guidance for conducting safe closure					
procedures at some hazardous substance tanks.					
	Robert G. Burnley, Director, DEQ				
Date:					