STATE OF VERMONT
*Agency of Natural Resources*

# Underground Storage Tank Rules

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VERMONT
Environmental Conservation

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*These rules replace and supersede the Vermont Underground Storage Tank Rules that were effective October 13, 2018*

Copies of these rules and other information are available at the Vermont underground storage tank program web site:

http://dec.vermont.gov/waste-management/storage-tanks

# VERMONT UNDERGROUND STORAGE TANK RULES
## TABLE OF CONTENTS

**Subchapter 1: GENERAL PROVISIONS** ..... 1-1
**§ 8-101.** Authority ..... 1-1
**§ 8-102.** Purpose and Applicability ..... 1-1
**§ 8-103.** Release Prohibition; Reporting; Emergency Response ..... 1-1
**§ 8-104.** Signatories to Permits and Reports ..... 1-5
**§ 8-105.** Incorporation by Reference ..... 1-5
**§ 8-106.** Fees ..... 1-5
**§ 8-107.** Severability ..... 1-6
**§ 8-108.** Variances ..... 1-6
**§ 8-109.** Transfer of Ownership, Operation; Permits; Notification of Rules ..... 1-6
**Subchapter 2: DEFINITIONS** ..... 2-1
**Subchapter 3: REGISTRATION (NOTIFICATION), PERMITS, AND OPERATOR TRAINING** ..... 3-1
**§ 8-301.** Applicability ..... 3-1
**§ 8-302.** Registration ..... 3-2
**§ 8-303.** Permits for Category One Underground Storage Tank Systems ..... 3-3
**§ 8-304.** Recording Underground Storage Tank Systems in Municipal Land Records ..... 3-11
**§ 8-305.** Financial Responsibility Requirements ..... 3-11
**§ 8-306.** Change-in-Service ..... 3-14
**§ 8-307.** Operator Training Requirements ..... 3-14
**Subchapter 4: DESIGN, MANUFACTURING, AND INSTALLATION STANDARDS FOR UNDERGROUND STORAGE TANK SYSTEMS** ..... 4-1
**§ 8-401.** Applicability ..... 4-1
**§ 8-402.** Prohibitions ..... 4-1
**§ 8-403.** General Requirements ..... 4-2
**§ 8-404.** Tank Installation Standards ..... 4-3
**§ 8-405.** Piping Standards ..... 4-6
**§ 8-406.** Spill Containment & Overfill Prevention Measures and Equipment ..... 4-8
**§ 8-407**. Scheduling Installations of Underground Storage Tank Systems ..... 4-10
**§ 8-408.** Reuse of Tanks ..... 4-11
**§ 8-409.** Underground Storage Tank Systems located at marinas ..... 4-11
**§ 8-410.** Field Constructed tanks and Airport Hydrant Systems ..... 4-11

**Subchapter 5: OPERATING STANDARDS FOR UNDERGROUND STORAGE TANKS** ..... 5-1

**§ 8-501.** Applicability ..... 5-1

**§ 8-502.** General and Recordkeeping Requirements ..... 5-1

**§ 8-503.** Spill and Overfill Prevention; Monitoring of Deliveries ..... 5-2

**§ 8-504.** Cathodic Protection Systems ..... 5-4

**§ 8-505.** General Requirements for Release Detection ..... 5-6

**§ 8-506.** Release Detection Requirements for Tanks ..... 5-8

**§ 8-507.** Release Detection Requirements for Piping, Sumps, and Spill Containment 5-11

**§ 8-508.** Underground Storage Tank System Repairs ..... 5-13

**§ 8-509.** Periodic Inspections and Self-Certifications ..... 5-16

**§ 8-510.** Unstaffed facilities ..... 5-18

**§ 8-511.** Testing of Sumps, Spill Containment, & Overfill Prevention Devices ..... 5-18

**§ 8-512.** Field Constructed tanks and Airport Hydrant Systems ..... 5-20

**Subchapter 6: OUT-OF-SERVICE, CONTINUED USE, AND CLOSURE STANDARDS FOR UNDERGROUND STORAGE TANK SYSTEMS** ..... 6-1

**§ 8-601.** Applicability ..... 6-1

**§ 8-602.** Out-of-Service Underground Storage Tank Systems ..... 6-2

**§ 8-603.** Continued Use of Underground Storage Tank Systems ..... 6-3

**§ 8-604.** Closure of Underground Storage Tank Systems ..... 6-3

**§ 8-605.** Release Assessment at the time of Closure or a Change-in-Service ..... 6-6

**§ 8-606.** Closure Records ..... 6-7

## *Subchapter 1: GENERAL PROVISIONS*

### **§ 8-101.** AUTHORITY

These rules are adopted by the Secretary of the Agency of Natural Resources pursuant to the authority granted by **10 V.S.A. Chapters 59 and 159**.

### **§ 8-102.** PURPOSE AND APPLICABILITY

These rules are intended to protect public health and the environment by establishing standards for the design, installation, operation, maintenance, monitoring and closure of underground storage tanks. These rules apply to persons who own or operate, install, remove, repair, or test underground storage tank systems.

### **§ 8-103.** RELEASE PROHIBITION; REPORTING; EMERGENCY RESPONSE

(a) Release prohibition. The release of hazardous materials, including from spills or tank overflows, into the surface or groundwater, or onto the land of the State is prohibited.

(b) Reporting. Any person who may be liable for release under **10 V.S.A. § 6615** (e.g., owner or operator of an underground storage tank system, owner of the land on which the underground storage tank system is located, transporter of fuel, etc.) and who has knowledge of a release that meets any of the following criteria shall report the release to the Secretary immediately:

(1) A release of any petroleum product that exceeds 2 gallons;

(2) A release of any petroleum product that is less than or equal to 2 gallons and poses a potential or actual threat to human health or the environment;

(3) A release of any hazardous material other than petroleum; or

(4) A suspected release of hazardous material as indicated by the following:

(i) An unusual or unexplained loss of regulated substance from the underground storage tank;

(ii) Unusual operating conditions of underground storage tank system equipment, including but not limited to a loss of prime in product piping, erratic functioning of dispensing equipment, the infiltration of water into the underground storage tank system;

(iii) Monitoring or testing results from any release detection method in **§§ 8-506** for tanks**, or 8-507** for piping that indicate that a release has or may have occurred, or any failing result of any test required under **§8-511**.

(iv) Strong petroleum vapors present in the vicinity of the underground storage tank, or other environmental conditions present in the vicinity of the tank, the facility, or off the facility site that indicate a release may have occurred (e.g. dead vegetation around the underground tank system, vapors in nearby basements, free product in sewers or storm drains, free product seeping from the ground).

(v) An inventory discrepancy showing a loss or gain of regulated substance that, for two consecutive months, is greater than 130 gallons plus one percent of the monthly throughput. In the case of inventory discrepancies, the report shall be made no later than 10 business days into the month following the second consecutive month of the discrepancy.

**Note:** Reporting under this subsection shall be directed to:

Monday through Friday, 7:45 AM to 4:30 PM: Waste Management & Prevention Division at (802) 828-1138.

At all other times: Department of Public Safety Emergency Management Division at (800) 641-5005.

**Note:** Under the Federal Water Pollution Control Act, certain spills of oil and/or hazardous substances are prohibited and shall be reported pursuant to the requirements of **40 CFR Part 110** / Discharge of Oil. Certain spills of hazardous substances shall also be reported pursuant to CERCLA. In both cases, the National Response Center shall be notified at (800) 424-8802.

(c) In the event of a spill, overfill, release, or suspected release of any quantity of a hazardous material or a regulated substance from an underground storage tank system at a facility or off the site, the owner or operator of the underground storage tank system shall:

(1) Take all appropriate immediate actions to remove free product and protect human health and the environment including implementing cleanup and appropriate emergency containment measures; and

(2) Take any further investigatory and corrective actions as specified under **subsections (d), (e) and/or (f) of this section**, and any clean up actions as may be required by appropriate federal, state, or local emergency response officials so that the released material or substance and related contaminated materials no longer present a hazard to human health or the environment.

(d) Site investigation; corrective actions. Any person responsible for a release pursuant to **10 V.S.A. § 6615** shall perform an investigation and corrective action measures to address the release in accordance with **10 V.S.A. § 6615b**, the Investigation and Remediation of Contaminated Properties Rule (as amended), and any other regulations or procedures adopted by the Agency for the investigation and clean-up of contaminated properties.

(e) Emergency response.

(1) Notwithstanding the requirements of **subsection (d) of this section**, the Secretary may require an emergency response when the Secretary determines that a release may cause an immediate and serious threat of harm to human health or the environment.

(2) When undertaking emergency responses pursuant to this subsection, notification to the potentially responsible party pursuant to **10 V.S.A. § 1283** in advance of undertaking an emergency response is not required, unless:

(A) The Secretary determines that there is need for additional investigation of the release to determine the impact to sensitive receptors and to human health and that it is appropriate for the potentially responsible party to conduct the investigation; or

(B) The Secretary determines that an additional response is necessary to remove free product and/or address short-term impacts to sensitive receptors and impacts to human health, and that it is appropriate for the potentially responsible party to conduct the additional response.

(3) The Secretary shall conduct or direct the potentially responsible party to conduct a limited site investigation to determine if the release requires further site investigation or corrective action. As used in this subsection, "limited site investigation" means the steps the Secretary deems necessary to determine whether additional site investigation or corrective action is necessary to respond to the release.

(f) Tightness Testing

(1) All tightness testing equipment and methods shall be third-party certified as capable of detecting a leak rate of one-tenth gallon per hour from any portion of the underground storage tank system that routinely contains regulated substance, with at least 95% probability of detection and at most 5% probability of false alarm.

**Note**: The National Work Group on Leak Detection Evaluation maintains a list of tightness test equipment and methods that have been third-party certified at: http://www.nwglde.org/

(2) Tightness tests shall be performed by a person trained in the proper operation and maintenance of testing equipment in accordance with manufacturer protocols and certification requirements.

(3) Tightness test results shall be reported to the Secretary immediately upon completion of the test.

(4) A written report shall be submitted to the Secretary within 5 business days of the completion of the tightness test and include at least the following information:

(A) The facility name, address and identification number;

**Note**: Facility identification numbers are assigned by the Secretary upon issuance of a permit or processing of a notification form.

(B) The name, address, and phone number of the tank owner;

(C) The name, address, and phone number of the company that conducted the tightness test, and the name of the person(s) who performed the test.

(D) The test date;

(E) An accurate facility map that identifies all tanks on site, and the location of any monitoring well used in the test procedure;

(F) All components tested (e.g., piping and/or tank(s)), and the capacity of any tank tested;

(G) The type of regulated substance stored in the underground storage tank system tested;

(H) The test method used;

(I) The depth from the ground surface to the water table, if required by the tightness test method, and a description of the method used to measure the depth to the water table; and

(J) The test results including all readings and printouts of computer generated data.

(g) Monitoring wells, recovery wells, and observation wells shall be constructed with a liquid-tight cap and maintained at all times in a condition that will prevent contamination of the groundwater resulting from a spill of regulated substance on the ground surface.

**§ 8-104.** SIGNATORIES TO PERMITS AND REPORTS

(a) Unless otherwise specified in these rules, all permit applications, notifications, and reports requested or required by these Rules shall be signed by the applicant or permittee, or by a duly authorized representative of the applicant or permittee, respectively.

(b) A person is a duly authorized representative for purposes of **subsection (a)** only if:

(1) The authorization is made in writing and is signed by the permit applicant;

(2) The authorization states that the applicant has delegated the legal authority for the representative to sign on behalf of the applicant; and

(3) The written authorization is submitted to the Secretary.

(c) If an authorization described in **subsection (b) of this section** no longer meets the requirements of that subsection, a new authorization satisfying the requirement of **subsection (b) of this section** shall be submitted to the Secretary prior to or together with any documents signed by the new authorized representative.

(d) Certification. Any person signing a document pursuant to **subsections (a)** or **(b) of this section** shall make the following certification:

> I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

**§ 8-105.** INCORPORATION BY REFERENCE

When reference is made to CFR titles, their parts, subparts, or sections, the reference is to titles of the Code of Federal Regulations as they existed on the effective date of this rule.

**§ 8-106.** FEES

Fees related to underground storage tank systems are established in **3 V.S.A. § 2822(j)**.

**§ 8-107.** SEVERABILITY

The provisions of any section of these rules are severable. If any provision of these rules is invalid or if any application of these rules to any person or circumstance is invalid, the invalidity shall not affect other provisions or applications that can be given effect without the invalid provision or application.

**§ 8-108.** VARIANCES

(a) The Secretary may grant a variance for one or more of the specific provisions of these rules provided that the person requesting the variance can demonstrate to the satisfaction of the Secretary that the proposed new or alternative technology, method, or application (e.g. equipment, designs, practices or methods) will protect human health and the environment in a manner that is at least equivalent to the regulatory provision(s) for which a variance is sought.

(b) Requests for a variance shall be made in writing. Such requests shall identify the manner in which the proposal varies from the provisions of these rules, and the basis for finding that the proposal provides a level of protection as required in **subsection (a) of this section**. The Secretary may require that additional information be submitted by the person requesting the variance.

(c) In granting a variance the Secretary may impose specific conditions necessary to assure a level of protection of human health and the environment at least equivalent to that provided under these rules.

(d) The Secretary may grant a variance for a particular class or category of innovative or alternative technology in accordance with the requirements of this section.

**§ 8-109.** TRANSFER OF OWNERSHIP, OPERATION; PERMITS; NOTIFICATION OF RULES

(a) Permits issued pursuant to these rules are not transferable, assignable, and do not run with the land. Upon transfer of ownership of the facility, or upon transfer of operational control of the facility, the new owner or new operator, respectively, shall apply for an operating permit in accordance with **Subchapter 3 of these rules**.

(b) Upon transfer of ownership of an underground tank system, the seller shall provide written notification to the new owner of the existence of these rules.

## END OF SUBCHAPTER ONE

## *Subchapter 2: DEFINITIONS*

As used in these rules, all terms not defined herein shall have the meaning given them in **40 CFR Part 280**.

**"Airport hydrant system"** means an underground storage tank system which fuels aircraft and operates under high pressure with large diameter piping that typically terminates into one or more hydrants (fill stands). The airport hydrant system begins where fuel enters one or more tanks from an external source such as a pipeline, barge, rail car, or other motor fuel carrier.

"**Agency**" means the Vermont agency of natural resources.

"**Ancillary equipment**" means any devices including, but not limited to, piping, fittings, flanges, valves, and pumps used in association with an underground storage tank system.

**"Ball Float Valve"** means an overfill prevention device that operates by sealing off the vent opening in an underground storage tank, thereby creating backpressure which slows down the delivery of regulated substance. Ball float valves are also commonly referred to as "vent restriction devices."

**"Business days"** means all days except Saturdays, Sundays, and holidays recognized by the State of Vermont.

**"Carrier"** means a person who transports and transfers a regulated substance from a bulk liquid transport vehicle to an underground storage tank.

**"Category one underground storage tank"** means any underground storage tank, regardless of its capacity, except:

(a) Fuel oil storage tanks used for on-premises heating purposes; or

(b) Farm or residential tanks used for storing motor fuel.

**"Category two underground storage tank"** means any underground storage tank with a capacity greater than 1100 gallons that is a farm or residential motor fuel tank.

**"Category three underground storage tank"** means any underground storage tank used to store fuel oil for on-premises heating that:

(a) Has a capacity greater than 1100 gallons; or

(b) Is located at a public building.

**"Category four underground storage tank"** means any underground storage tank with a capacity equal to or less than 1100 gallons that is either a farm or residential motor fuel tank or a fuel oil storage tank used for on-premises heating.

**"Cathodic protection"** means a technique to prevent corrosion of a metal surface by making that surface the cathode of an electrochemical cell. A tank system can be cathodically protected through the application of either galvanic anodes or impressed current.

**"CERCLA"** means the Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 U.S.C. § 9601 et. seq. (also known as "Superfund").

"**Change-in-service**" means a change in the use of an underground storage tank system which results in a change in the category of that system (e.g., converting a category one retail kerosene tank to a category three or four tank used for domestic heating purposes).

**"Class A operator"** means the individual or individuals designated by the permittee to have primary statutory and regulatory responsibility for the maintenance and operation of the facility. A "class A operator" may hold more than one class of operator position.

**"Class B operator"** means the individual or individuals designated by the permittee to implement applicable regulatory requirements and implementation of the daily aspects of operation, maintenance, and recordkeeping for the facility. A "class B operator" may hold more than one class of operator position.

**"Class C operator"** means the individual or individuals designated by the permittee to have primary responsibility for responding to alarms, emergencies presented by releases or spills, and other problems associated with the operation of the facility. A "class C operator" may hold more than one class of operator position.

**"Class I liquid"** means any liquid that has a flash point below 100 degrees Fahrenheit (37.8 degrees Celsius) measured using a closed-cup testing method, and a Reid vapor pressure not exceeding 40 psia (pounds per square inch absolute) (2068.6 mm Hg) at 100 degrees F (37.8 degrees C).

**"Commencement of construction"** means the initiation of excavation activity such as breaking concrete or asphalt, digging turf or soil, or otherwise removing cover material for the purpose of installing, repairing, replacing, upgrading or closing an underground storage tank system.

**"Compartment"** means a section of an underground storage tank that is separate from other sections, such that a single tank may contain two or more types of regulated substance without the different substances mixing.

**"Compatible"** means that two or more substances maintain their respective physical and chemical properties upon contact with one another under conditions encountered within or around an underground storage tank system for the design life of that system.

**"Construction permit"** means a permit issued by the Secretary under the authority of **10 V.S.A. § 1927** for the construction or substantial alteration of a category one underground storage tank system.

**"Containment manhole"** means a liquid-tight chamber that surrounds the fill pipe of an underground storage tank that is designed to contain any regulated substance released from a transfer hose at, or immediately following, the time of transfer of regulated substance to the underground storage tank. Containment manholes are commonly referred to as "spill buckets."

"**Continued use**" means the use of an underground storage tank system, after closure of that system, to store a non-regulated substance (e.g., using a tank to store water for fire fighting purposes).

**"Corrosion Protection"** means the use of a technology, material, or method of construction to prevent any metallic component of an underground storage tank system from corroding (e.g., cathodic protection, the use of fiberglass-reinforced plastic or other polymer resins when constructing tanks or piping).

**"Dispenser"** means a device that is used to transfer regulated substances from an underground storage tank system to a point of use outside of the tank system (e.g., a dispenser is used to transfer motor fuel from an underground storage tank system to the fuel tank of a motor vehicle).

**"Drop Tube"** means a tube fitted inside the fill pipe of an underground storage tank system, which extends from the top of the fill pipe to within six inches of the bottom of the tank.

**"Emergency response"** means a response action to a situation that may cause immediate and serious threat of harm to human health or the environment.

**"Empty"** when referring to an underground storage tank, means a condition in which regulated substance has been removed from the tank to the extent that no more than 1 inch of residue, or 0.3 percent by weight of the total capacity of the underground storage tank, remains in the system.

**"Existing underground storage tank system"** means any underground storage tank system that was installed on or before July 1, 2007.

**"Facility"** means the property where an underground storage tank system is located.

**"Farm tank"** means 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.

**"Field-constructed tank"** means a tank constructed in the same location as its installation, rather than in a factory. For example, a tank constructed of concrete that is poured in the field, or a steel or fiberglass tank primarily fabricated in the field is considered field-constructed.

**"Free product"** means a regulated substance that is present in the environment as a non-aqueous phase liquid (i.e., liquid not dissolved in water).

**"Hazardous material"** means any material designated as such under **10 V.S.A. § 6602(16).**

**"Interstitial space"** means the space between the primary and secondary barriers of a secondarily contained system (e.g., the interstitial space of a double-wall tank is the space between the two walls of the tank).

**"Lining"** means a liquid-tight non-corrodible material that is bonded firmly to the interior surface of a tank, and that is compatible with any material stored in the tank.

**"Liquid-tight"** means impervious to the passage of water and/or a liquid regulated substance.

**"Manifold"** means piping and other ancillary equipment that connect two or more underground storage tanks designed to contain the same regulated substance. Multiple tanks that are connected by a manifold function as a single tank. A manifold is also referred to as a "siphon bar."

**"Manifolded vent piping"** means vent piping from two or more underground storage tank compartments or systems that are interconnected such that one vent pipe serves two or more underground storage tanks.

**"Minor Alteration"** means:

(a) any repair, maintenance, retrofit, or replacement of any of the following:
    (1) spill containment device;
    (2) dispenser sump;
    (3) tank-top containment sump;
    (4) riser pipe; or
    (5) any other tank-top component of an underground storage tank system that involves excavating to or exposing less than half of the tank top; or

(b) replacement of piping if no excavation of the site is required (the existing piping can be pulled from an existing chase or conduit and the new piping can be installed through the same chase or conduit).

**"Monitoring well"** means a well drilled to collect ground-water samples for the purpose of physical, chemical, or biological analysis to determine the amounts, types, and distribution of contaminants in the groundwater beneath the site.

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

"**New facility**" means a property that has not had an underground storage tank system in use for ten years or more prior to July 1, 2007, and where a person has applied for an underground storage tank permit.

**"New underground storage tank system**" means an underground storage tank system that was installed after July 1, 2007.

**"Observation well"** means a well installed in the tank backfill material to enable observation of subsurface conditions in the backfill material surrounding the tank or tanks.

**"Operating day"** means any day that a facility is open for business and that an underground storage tank system is in operation, or in the case of a tank system that is used to supply a backup generator, any day that the tank system contains fuel regardless of whether the generator is operated that day.

"**Operating life**" refers to the period beginning when installation of the tank system has commenced until the time the tank system is permanently closed under **subchapter 6**.

**"Operating permit"** means a permit issued by the Secretary under the authority of **10 V.S.A. § 1927** for the operation of a category one underground storage tank.

**"Operator"** means any person in control of, or having responsibility for, the daily operation of the underground storage tank system.

"**Out-of-service**" means a condition in which an underground storage tank system is temporarily not in service, and the liquid level in the tank has been lowered to or below the lowest draw-off point (i.e., regulated substance can not be transferred from the tank by the dispenser).

**"Owner"** means:

(a) In the case of any underground storage tank in use on July 1, 1985 or brought into use after that date, any person who owns an underground storage tank used for storage or dispensing of regulated substances; and

(b) In the case of any underground storage tank in use before July 1, 1985 and no longer in use on that date, any person who owned such tank immediately before the discontinuance of its use.

**"Permittee"** means the owner or operator of a category one underground storage tank who has applied for and been issued a permit pursuant to these rules.

**"Person"** means any individual, partnership, company, corporation, association, unincorporated association, joint venture, trust, municipality, the state of Vermont, or any agency, department or subdivision of the state, federal agency, or any other legal or commercial entity.

**"Pipe"** or **"Piping"** means a hollow cylinder or tubular conduit that is constructed of non-earthen materials.

**"Public building"** means a building as defined in **20 V.S.A. § 2730**.

**"Public water source"** means any surface water or groundwater intake used, or permitted to be used, as a source of drinking water for a public water system.

**"Public water system"** means any system(s) or combination of systems owned or controlled by a person, that provides drinking water through pipes or other constructed conveyances to the public and that has at least fifteen (15) service connections or serves an average of at least twenty-five (25) individuals daily for at least sixty (60) days out of the year. A public water system is either a public community water system or a public non-community water system.

**"Public community water system"** means a public water system which serves at least fifteen (15) service connections used by year-round residents or regularly serves at least 25 year-round residents.

**"Public non-transient, non-community (NTNC) water system**" means a public water system that is not a public community water system and that regularly serves at least 25 of the same persons daily for more than six months per year. Examples: schools, factories, office buildings.

**"Public transient, non-community (TNC) water system**" means a public non-community water system that is not a non-transient, non-community system. Examples: restaurants, motels, campgrounds.

**"Recovery well"** means a well used to collect and recover free product that has contaminated the soil or ground water.

**"Regulated substance"** means all petroleum and toxic, corrosive or other chemicals and related sludge including:

(a) Any substance defined in **§101(14)** of CERCLA, but does not include any substance regulated as a hazardous waste under Chapter 159 of Title 10;

(b) Petroleum, including crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute);

(c) Any other motor fuel which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute); and

(d) Any other substance as designated by the Secretary in rule.

**"Release"** means any spilling, leaking, emitting, discharging, escaping, leaching or disposing from an underground storage tank into groundwater, surface water or soils.

**"Release detection"** means the act of determining whether a release of a regulated substance has occurred from an underground storage tank system to the environment or into the interstitial space.

**"Remote facility"** means a facility with no employees or contracted individuals present at the facility. The fuel dispensers at a "remote facility" are activated with credit card or other information provided by the customer. There is no one present at a "remote facility" while the dispensers are operating to respond to emergencies or alarms.

**"Remote fill pipe"** means any pipe that is connected directly to a fill port and constructed in such a way that a gauge stick cannot be lowered through the fill port into the underground storage tank.

**"Secondary containment"** means a liquid tight physical barrier designed to:

(a) Contain any regulated substance that leaks from the primary containment barrier of an underground storage tank system;

(b) Prevent groundwater and soil from coming in contact with the primary containment barrier of an underground storage tank system; and

(c) Allow access to the interstitial space for monitoring and maintenance.

**"Secretary"** means the Secretary of the Vermont Agency of Natural Resources or the Secretary's duly authorized representative.

**"Sensitive receptor"** means any natural or human-constructed feature which may be adversely affected when contacted by a regulated substance. Examples of sensitive receptors include, but are not limited to, public or private water supplies, surface waters, wetlands, sensitive ecological areas, outdoor and indoor air, and enclosed spaces such as basements, sewers, and utility corridors.

**"Staffed facility"** means a facility that sells motor fuels with employees or contracted individuals present during regular operating hours at the facility.

**"Substantial alteration"** means any of the following:

(a) installation of an interior lining;

(b) repair, retrofit, or other modification to a cathodic protection system;

(c) any other repair, maintenance, retrofit, or replacement of a tank-top component of an underground storage tank system that is not a minor alteration and that involves excavating to or exposing half or more than half of the tank top; and

(d) replacement of piping that involves any excavation of the site (the new piping is installed in a piping trench).

**"Sump"** means a liquid-tight container installed as a secondary containment device and/or a monitoring port.

**"Tank chart"** means a table used to determine the volume of liquid within a specific tank by converting measured units of depth to units of volume (e.g., a chart that converts inches to gallons).

**"Ullage"** means the amount of a tank's capacity available for delivery of a regulated substance. For example, a 10,000 gallon tank equipped with an automatic fillpipe shutoff device has a total available capacity of 9,500 gallons (95% of the tank's total capacity). If that tank has 6500 gallons of regulated substance, the tank has 3000 gallons of ullage.

"**Underground storage tank**" or "**underground storage tank system**" means any one or combination of tanks, including underground pipes and secondary containment components connected to it or them, which is or has been used to contain an accumulation of regulated substances, and the volume of which, including the volume of the underground pipes connected to it or them, is 10 percent or more beneath the surface of the ground. The following are excluded from the definition of "underground storage tanks:"

(a) Septic tanks and manure storage tanks;

(b) Flow through process tanks permitted under 10 V.S.A. chapter 47 and tanks regulated by under 10 V.S.A. chapter 159;

(c) Stormwater or wastewater collection systems;

(d) Storage tanks situated in an underground area if the tank is upon or above the area floor;

(e) Pipeline facilities, including gathering lines, which are regulated under 49 U.S.C. chapter 601, or which are intrastate pipeline facilities regulated under state laws as provided in 49 U.S.C. chapter 601, and which are determined by the Secretary of Transportation to be connected to a pipeline, or to be operated or intended to be capable of operating at pipeline pressure or as an integral part of a pipeline;

(f) Liquid petroleum gas storage tanks, used predominantly for the storage of propane, propylene, butane, and butylenes, regulated by the Vermont fire prevention and building code;

(g) Reservoir tanks containing hydraulic fluid for a closed loop mechanical system such as elevators or lifts; and

(h) Oil water separators that are part of a wastewater treatment facility regulated under Section 402 or 307(b) of the Clean Water Act.

**"Underground storage tank contractor"** means any person who conducts work related to underground storage tank system installations, repairs, upgrades, integrity demonstrations, closures, or any other work related to an underground storage tank system.

**"Unstaffed facility"** means any facility with a category one tank, and a regulated substance is available to customers at times when the facility is not staffed by an employee, a Class A, B, or C operator, or other person associated with the facility. Retail facilities that dispense fuel after the store has closed are considered unstaffed facilities.

**"Used Oil"** means any petroleum product that has been refined from crude oil (in whole or in part), or any synthetic oil that has been used and as a result of such use is contaminated by physical or chemical impurities. Used oil is a free-flowing liquid at standard temperature and pressure and has a flash point of greater than 100 degrees (F). Used oil includes oils used as lubricants, heat transfer fluids, hydraulic fluids, and for other similar uses, but does not include materials derived from crude or synthetic oils that are fuels (e.g., gasoline, jet fuel and diesel fuel) or as cleaning agents or solvents (e.g., naphtha or mineral spirits).

**"Vapor-proof"** means that the fittings, seals, gaskets, barriers or any other sealing component of an underground storage tank system prevent passage of regulated substance vapors. An underground storage tank system component is vapor tight when the vapor concentration is less than 50 meter units measured by a photoionization detector calibrated with isobutylene, with the probe held one inch from the component.

**"Vent Restriction Device"** means an overfill prevention device that operates by sealing off the vent opening in an underground storage tank, thereby creating backpressure which slows down the delivery of regulated substance. Vent restriction devices are also commonly referred to as "ball float valves."

# END OF SUBCHAPTER TWO

## *Subchapter 3: REGISTRATION (NOTIFICATION), PERMITS, AND OPERATOR TRAINING*

### **§ 8-301.** APPLICABILITY

The requirements of this subchapter shall apply to underground storage tank systems in accordance with this section:

(a) Category one underground storage tank systems:

(1) New and in-service tanks. For all new and in-service systems, the owner or operator of the system shall comply with:

(A) The municipal land recording requirements of **§ 8-304**;

(B) The permit requirements of **§ 8-303**;

(C) The financial responsibility requirements of **§ 8-305**; and

(D) If applicable, the change-in-service requirements of **§ 8-306**;

(2) Out-of-service tanks. For all out-of-service systems, the owner shall comply with:

(A) The registration requirements of **§ 8-302**;

(B) The municipal land recording requirements of **§ 8-304**;

(C) The financial responsibility requirements of **§ 8-305;** and

(D) If applicable, the change-in-service requirements of **§ 8-306.**

(b) Category two underground storage tank systems. For all category two systems, the owner shall comply with:

(1) The registration requirements of **§ 8-302**;

(2) The municipal land recording requirements of **§ 8-304**;

(3) The financial responsibility requirements of **§ 8-305**; and

**Note:** Pursuant to **10 V.S.A. §1941**, category two underground storage tank systems are eligible for reimbursement under the Vermont Petroleum Cleanup Fund and this may be used as a means of demonstrating financial responsibility.

(4) The change-in-service requirements of **§ 8-306**, as applicable.

(c) Category three underground storage tank systems. For all category three systems, the owner shall comply with:

(1) The registration requirements of **§ 8-302**;

(2) The municipal land recording requirements of **§ 8-304;** and

(3) If applicable, the change-in-service requirements of **§ 8-306**.

**§ 8-302.** REGISTRATION

(a) Applicability. The following persons shall register the tank with the Secretary in accordance with this section:

(1) the owner or operator of:

(A) a category one underground storage tank system that is out of service;

(B) a category two underground storage tank system;

(C) a category three underground storage tank system; and

(2) Any person who knowingly owned or operated an underground storage tank after January 1, 1974, and who does not have knowledge that the tank has been closed in accordance with tank closure requirements of **§ 8-604**, shall make a one-time registration of that tank.

(b) Form submission. Registration shall be made through submission of a complete **Vermont Underground Storage Tank Form** (or other form provided by the Secretary) that is signed in accordance with **§ 8-104 of these rules**. An owner of underground storage tank systems at more than one facility location shall file a separate form for each location. An owner may register multiple underground storage tank systems at one location using one form.

(c) Municipal recording; fee. The owner of any category two or category three underground storage tank system shall submit to the Secretary a municipal recording fee as required by **§ 8-304(b) of this subchapter**. The fee shall be submitted along with the **Vermont Underground Storage Tank Form** as required by this section.

(d) Registration by new owner. No later than 30 days after the transfer of ownership of any category two or category three underground storage tank system, the new owner shall register the tank in accordance with the requirements of this section.

(e) Notification. A person who registers in accordance with this section shall have satisfied the requirement of **10 V.S.A. § 1923** to notify the Secretary of the existence of an underground storage tank.

**§ 8-303.** PERMITS FOR CATEGORY ONE UNDERGROUND STORAGE TANK SYSTEMS

(a) Permit types; applicability:

(1) Construction permit.

(A) No person shall commence construction, installation, or replacement of a category one underground storage tank system without first obtaining a construction permit from the Secretary.

(B) A construction permit shall be valid for up to one year from the date of issuance, and the Secretary may condition the permit to allow the permittee to operate an underground storage tank system for up to 30 days immediately following the date of installation of the system.

(2) Operating permit.

(A) Except as authorized by the Secretary through the issuance of a construction permit pursuant to subdivision (a)(1)(B) above, no person shall operate a category one underground storage tank system without first obtaining an operating permit from the Secretary.

(B) An operating permit shall be valid for a period not to exceed five years from the date of issuance.

(C) A copy of the operating permit shall be displayed in a prominent location at the facility at all times.

(b) Application submission.

(1) Form. All applications for construction and operating permits shall be made using the **Vermont Underground Storage Tank Form.** The application shall be completed in accordance with the form's instructions, and shall be signed in accordance with the signature requirements of **§ 8-104 of these rules**. A person that owns or operates category one underground storage tank systems at more than one facility shall obtain a separate operating permit for each location.

**Note**: One **Vermont Underground Storage Tank Form** may be used to apply for a permit to construct and operate one or more category one underground storage tank systems at a single facility.

(2) Fee. Each **Vermont Underground Storage Tank Form** submitted to the Secretary shall be accompanied by the annual permit fee required pursuant to **3**

**V.S.A. § 2822**. Even though the permit may be valid for up to five years, the permit fee shall be submitted on an annual basis on a date designated by the Secretary for as long as the tank remains in service.

**Note**: Municipalities are exempt from the permit fee pursuant to **3 V.S.A. § 2822**.

(3) Municipal notice; recording. All applicants shall submit a copy of the completed application for a new facility to the municipality in which the facility is proposed to be located. Any person applying for a category one underground storage tank system permit shall comply with the recording fee requirements of **32 VSA §1671(a)(6).**

**Note:** If a person applies for both a construction permit and an operating permit, that person must comply with the recording fee requirement only once.

(4) Applications for first-time operating permits and subsequent renewal permits shall include evidence, including copies of all documents, verifying the financial mechanism or mechanisms used to maintain financial responsibility as required by 8-305 of this section.

(c) Public Notice and Comment. Applications for construction permits and operating permits for category 1 underground storage tanks shall be publicly noticed and a public comment period provided in accordance with 10 V.S.A. chapter 170.

(d) Review of applications; initial permits.

(1) Application for construction permit.

(A) Applications for construction permit shall be reviewed for compliance with these rules. The Secretary may deny an application for a permit for any of the following reasons:

(i) Non-compliance with any requirements of these rules or a current underground storage tank permit;

(ii) Misrepresentation of any fact related to the facility's operations or activities that would trigger additional requirements under these rules; or

(iii) Falsification of any record required to be maintained or submitted to the Secretary by the permittee under these rules.

(B) If an application is denied on the basis of any of the reasons set forth in subdivision (d)(1)(A) above, a written decision denying the

permit and specifying the reasons for denial shall be sent to the applicant within 30 days of the Secretary's decision.

(C) When issuing a final permit, the Secretary may impose any conditions, requirements, or restrictions as deemed necessary to ensure compliance with applicable statutes, regulations, or protect human health and the environment.

(2) Application for operating permit.

(A) An application for an operating permit may be submitted:

(i) Along with an application for a construction permit; or

(ii) Along with a notification of installation or inspection checklist.

(B) Applications for an operating permit shall be reviewed for:

(i) Compliance with these rules and the applicable requirements of the Vermont Air Pollution Control regulations relating to Stage I gasoline vapor recovery controls; and

(ii) That the tank facility and all components were installed and constructed in accordance with the approved construction permit as demonstrated by the installation checklist

(C) The Secretary shall not approve an application for an operating permit prior to submission of the installation notification and review of the inspection checklist as required by **subsection (f)** of this section, respectively.

(D) If an application is denied on the basis of any of the reasons set forth in subdivision (c)(2)(B), a written decision denying the permit and specifying the reasons for denial shall be sent to the applicant within 30 days of the Secretary's decision.

(E) When issuing a final permit, the Secretary may impose any conditions, requirements, or restrictions as deemed necessary to ensure compliance with applicable statutes, regulations, or protect human health and the environment.

(e) Permit renewal.

(1) Not less than 60 days prior to the expiration date of an existing operating permit, the permittee shall request a copy of the **Vermont Underground Storage Tank System Permit Renewal** form from the Secretary.

**Note**: The permit renewal form sent by the Secretary contains the information on file with the Secretary about the permittee, the underground storage tank system, and the facility where the system is located.

(2) The permittee shall review the information provided on the permit renewal form, shall note and correct any information that is not accurate, and submit the completed form signed in accordance with **§ 8-104** to the Secretary at least 30 days prior to expiration of the existing permit.

(3) Any **Vermont Underground Storage Tank System Permit Renewal** form submitted to the Secretary shall include the permit fee specified in **subsection (b)(2) of this section**.

(4) Review. The Secretary shall review the renewal application and either approve or deny the permit in accordance with **subsection (d)(2) of** this section**.**

(5) Effect of renewal. If a permittee has made a timely and complete application for a renewed operating permit in accordance with **subsection (b)** of this section, the terms of the existing permit shall remain in force and effect until final determination on the renewal application has been made by the Secretary.

(f) Completion of Installation; Inspection Checklist

(1) An underground storage tank system shall not be approved to operate under an operating permit until the Secretary has received and approved the installation checklist in accordance with subsection 4 of this section.

(2) Installation checklist. Within 14 days of the date of installation, substantial alteration, or replacement of a category one underground storage tank system, the permittee shall complete an Installation Checklist and submit the completed checklist signed in accordance with **§ 8-104** to the Secretary. Upon completing review of an **Installation Checklist**, the Secretary shall either issue or deny an operating permit.

**Note**: An **Installation Checklist** is provided to the permittee along with the construction permit issued by the Secretary.

(3) Installation of an underground storage tank system in a manner that is different from the specifications indicated on the **Vermont Underground Storage Tank Form** may serve as a basis for denial of an operating permit, and may require the filing of an amended **Vermont Underground Storage Tank Form**.

(4) Permittees shall maintain records of all information used to complete a permit application and any supplemental information submitted to the Secretary in accordance with the recordkeeping requirements of **§ 8-502(c) and (d)**.

(g) Permit Amendment.

(1) The Secretary may amend a permit issued under these rules upon:

(A) a written request by the permittee that contains facts and reasons supporting an amendment; or

(B) the Secretary's own motion and determination of any cause listed in **subdivision (2) of this section**.

(2) Amendments to a permit may be made for cause, which shall include:

(A) Any substantial alteration to a category one underground storage tank system.

(B) Removal of a category one underground tank system at a facility with multiple category one systems.

(C) A change in the type of mechanism used to meet the financial responsibility requirements of **§ 8-305**.

(D) Information received by the Secretary that was not available when the permit was issued (other than revised regulations, guidance, or test methods) and which justifies the addition of new or different permit conditions.

(E) The standards or regulations on which the permit was based have been changed by statute, regulation, or by judicial decision, after the permit was issued.

(F) An error in the permit.

(G) Installation of a manifold connecting more than one compartment or more than one underground tank that were not previously manifolded.

(H) Replacement of overfill prevention device, spill containment device, containment sumps, or similar components.

(3) Suitability of the facility location shall not be considered at the time of modification unless new information or standards indicate that a threat to human health or the environment exists.

(4) Prior to issuance of an amended permit, the permittee shall submit any new or updated information required under this section, including any difference in the permit fee that applies as a result of any change in the permit.

(5) The Secretary may rely on any information submitted by the permittee in determining whether an amendment is appropriate, and may require that the permittee submit an updated **Vermont Underground Storage Tank Form**.

(6) If the Secretary determines that a permit amendment is appropriate, only the conditions subject to modification are reopened. Until amendments are granted or denied in whole or in part, all terms and conditions of the existing permit shall remain in full force and effect.

(7) The Secretary may make *de minimis* modifications to a permit without following the procedure set forth in these rules where the Secretary finds that a change to a permit poses no threat to human health or the environment.

(8) Amendment procedure. A permittee shall notify the Secretary in writing of any minor change to a category one underground storage tank system or implemented at the facility where the system is located, that affects the information contained in the permit. Such notice shall be provided within 10 business days after making the change.

(h) Termination

(1) The secretary may terminate a permit upon learning that an underground storage tank system is out of service.

(2) The secretary may terminate and reissue a permit for any of the following causes:

(A) Any substantial alteration to a category one underground storage tank system;

(B) Any significant change to a permitted facility which justifies the addition of new conditions to the permit or changes to existing permit conditions.

(C) A change in the type of regulated substance stored, if that change is found to be a significant change by the Secretary.

(i) Suspension or Revocation.

(1) Authority. The Secretary may suspend or revoke a permit upon his or her own motion or upon receipt of a written petition for suspension or revocation.

(2) Petition for suspension or revocation. Petitions for revocation or suspension shall be addressed to the Secretary, and shall include the following information:

(A) The name, address, and telephone number of the petitioner;

(B) A statement of the petitioner's interest in the matter;

(C) The alleged basis for suspension or revocation of the permit, along with any facts in support of such suspension or revocation under these rules; and

(D) The signature of the petitioner.

(3) Bases for suspension or revocation. The following shall be bases for suspension or revocation:

(A) Non-compliance with the requirements of **10 V.S.A. Chapter 59 or 159**, these rules, or any permit condition;

(B) False or misleading information submitted in support of a permit application;

(C) False or misleading information submitted as part of any record required to be maintained or submitted to the Secretary under these rules;

(D) A petition to suspend or revoke submitted by the permittee;

(E) Default by the tank owner on a loan made from the Secretary in accordance with **10 V.S.A. § 1944**.

(F) Failure of the permittee to pay:

(1)(i) the required annual permit fee as required in **3 V.S.A. § 2822,**

(2)(ii) the Petroleum Cleanup Fund annual assessment as required in **10 V.S.A. § 1943**;

(G) A determination by the Secretary that the suspension or revocation of a permit is necessary to prevent:

(i) actual substantial harm to the public health, public safety, or the environment; or

(ii) an imminent and substantial threat of harm to the public health, public safety, or the environment.

(4) Notice of suspension or revocation. The Secretary shall provide notice of the suspension or revocation to the permittee. Except as provided in subdivision (e)(5) of this section, such notice shall be provided at least 14 days prior to the date when the suspension or revocation takes effect. The notice shall include:

(A) the legal authority for the proposed action;

(B) a brief statement of the facts upon which the proposed action is based;

(C) the effective date of suspension or revocation of the permit; and

(D) notification of the permittee's right to, within 30 days of receipt of the written notification, request a hearing to present information in response to the notice for suspension or revocation.

(5) Finding of harm; threat of harm. If the Secretary determines that immediate suspension or revocation of an underground storage tank permit is necessary to prevent actual substantial harm or an imminent and substantial threat of harm to the public health, public safety, or the environment, the suspension or revocation shall become effective upon the receipt of the Secretary's notice. The suspension or revocation shall be effective until any requested hearing has been completed and a final decision issued by the Secretary.

(6) Hearing; request. Upon request for a hearing made within 30 days of receipt of the Secretary's notice of suspension or revocation, the Secretary shall hold a hearing on the petition for suspension or revocation of the permit. The failure to request a hearing within 30 days of receipt of the Secretary's notice shall constitute a waiver of the right to a hearing on the petition.

(7) Party status. The Secretary shall determine the right of the petitioner or any other persons requesting party status to participate in the proceedings. In determining party status, the Secretary shall consider whether a person or his or her property is directly affected by the permitted underground storage tanks or the operation of the underground storage tanks. The Agency and the municipality in which the underground storage tanks are located shall automatically be parties to the proceedings.

(8) Burden; admissibility of evidence. The hearing in a contested case shall be conducted by a hearing officer appointed by the Secretary. The burden of establishing that the permit should be suspended or revoked shall be upon the party petitioning for suspension or revocation of the permit. The admissibility of evidence in proceedings under this section shall be determined under the criteria set forth in 3 V.S.A. § 810.

(9) Recording. Upon request of a party, a hearing held under this section shall be transcribed by a qualified stenographer or recorded on an electronic sound device. If a transcription by a stenographer is requested, the request shall be made in writing at least 10 days prior to the scheduled hearing. Costs shall be borne by the requesting party. The requesting party shall provide one copy of the transcript to the Secretary without costs; other parties wishing to obtain a copy of the transcript shall reimburse the requesting party on a prorated basis.

(10) Examination of evidence; decision and order. The examination of evidence, decision, and order shall be governed by the provisions of 3 V.S.A. §§ 811 and 812. The final decision shall be made by the Secretary within 30 days after the

close of the hearing. This decision shall constitute the final decision of the Secretary. Copies of the decision shall be sent to the permittee, other parties, and the legislative body of the municipality.

**§ 8-304.** RECORDING UNDERGROUND STORAGE TANK SYSTEMS IN MUNICIPAL LAND RECORDS

(a) Owners and operators of all category one, two, and three underground storage tank systems shall record the existence and location of underground storage tanks in municipal land records in accordance with this section.

(b) Municipal recording fee. The owner or operator of any category one underground storage tank system shall submit to the Secretary, the municipal recording fee required by **32 V.S.A. § 1671**. The fee shall be submitted with the application required by **§ 8-303(b)** of these rules.

(c) Payment of the recording fee required in **subsections (a) and (b) of this section** shall be made by check payable to the municipality in which the underground storage tank system is located.

**Note:** For category one tank systems, the Secretary will forward the recording fee to the appropriate town or city clerk upon receipt of the installation checklist required under **§ 8-304(b)(5)**. For category two and three tank systems, the Secretary will forward the recording fee to the appropriate town or city clerk upon entering information from the **Vermont Underground Storage Tank Form** about the tank system into the Secretary's records.

(d) No later than 30 days after the transfer of ownership of any category two or category three underground storage tank system, the new owner shall comply with the requirements of this section.

**§ 8-305.** FINANCIAL RESPONSIBILITY REQUIREMENTS

(a) Applicability. Permittees of category one tank systems and permittees of category two tank systems shall be required to demonstrate financial responsibility in accordance with this section. Compliance with this requirement shall require the permittee to obtain financial assurance in the amount(s) and form(s) specified by this section.

(b) Purpose. This section establishes requirements and procedures for owners or operators of underground storage tanks to demonstrate financial responsibility for taking corrective action and for compensating third parties for bodily injury and property damage caused by accidental releases arising from the operation of a tank

(c) Amount. The owner or operator (whoever is the permittee of a tank) shall maintain financial assurance in the following per-occurrence and annual aggregate amounts (at least):

(1) For tanks containing regulated substances derived from petroleum:

(A) Per occurrence: $500,000 per occurrence for tanks with an average monthly throughput of 10,000 gallons or less, and that are not used in the production, refining, or marketing of petroleum to other marketers or to the public; and $1 million per occurrence for all other tanks;

(B) Annual Aggregate: $1 million annual aggregate for permittees of 100 or fewer tanks; or $2 million annual aggregate for permittees of more than 100 tanks.

(2) For hazardous materials tanks, per occurrence and annual aggregate amounts as determined by the Secretary to bear a reasonable relation to the risk associated with a release.

(3) The amounts of financial assurance required in **subsections (c)(1) and (c)(2) of this section** shall exclude legal defense costs.

(d) Financial mechanism. Financial responsibility shall be established by any one or a combination of the following mechanisms:

(1) Qualification as a self-insurer, in accordance with **40 CFR § 280.95**;

(2) Guarantee, in accordance with **40 CFR § 280.96**;

(3) Surety bond, in accordance with **40 CFR § 280.98**;

(4) Letter of credit, in accordance with **40 CFR § 280.99**;

(5) Insurance, in accordance with **40 CFR § 280.97**;

(6) Risk retention pool pursuant to **10 V.S.A. § 1939**, and in accordance with **40 CFR § 280.97**;

(7) Payments to the State Petroleum Cleanup Fund pursuant to **10 V.S.A. § 1941** and in accordance with the fee schedule established in **10 V.S.A. § 1943**;

(8) Trust fund, in accordance with **40 CFR § 280.102**;

(9) Standby trust fund, in accordance with **§ 280.103**; or

(10) Another mechanism approved by the Secretary.

(e) If separate mechanisms or a combination of mechanisms are used to demonstrate financial responsibility, the aggregate amount of assurance provided by each mechanism or combination of mechanisms shall be for the full amount as specified in **§ 8-305(c)**. The Secretary may draw on any or all of the financial mechanisms used to provide for financial responsibility in accordance with this section.

(f) A permittee shall notify the Secretary in writing of any anticipated change in or termination of any financial mechanism used to demonstrate financial responsibility at least 60 days prior to the date of the anticipated change or termination. Upon receiving verification that a new mechanism or mechanisms is in place, the Secretary may modify the operating permit accordingly.

(g) General requirements. Any mechanism or combination of mechanisms used under this subsection shall:

(1) Be valid and enforceable under Vermont law;

(2) Be issued by a provider that is qualified or licensed in Vermont;

(3) Not allow cancellation without allowing the Secretary to draw funds;

(4) Be used only and directly for corrective action and third-party liability costs that result from a release of hazardous materials or regulated substances; and

(5) Be in accordance with **40 CFR § 280, Subpart H**.

(h) Cancellation.

(1) Cancellation of a financial assurance mechanism shall be made by sending a written notice of termination or non-renewal from the financial provided via certified mail to both the Secretary and the owner or operator subject to the following:

(2) The termination of a guarantee, surety bond, or letter of credit may not occur until 120 days after the owner or operator receives such notice.

(3) The termination of insurance, risk retention, group coverage, or state-funded assurance may not occur until 60 days after the owner or operator receives such notice.

(4) The notice of cancellation or any other suspension of financial assurance for any reason shall be made by the provider to the Secretary at least 30 days prior to the date termination becomes effective.

(i) Completion of obligation. Where no corrective action is required, a permittee is not required to maintain financial responsibility under this section after the tank has been closed in accordance with **§8-605 and §8-103** of these rules. Where the Secretary has determined that corrective action is required, financial responsibility may be terminated after corrective action has been completed.

(j) Records. A permittee shall maintain evidence of all financial assurance mechanisms used to demonstrate financial responsibility under this section. Such evidence shall be maintained within the state and shall be made available within 24 hours of a request by the Secretary.

**§ 8-306.** CHANGE-IN-SERVICE

For any change-in-service, the owner or permittee shall:

(1) Notify the Secretary of the anticipated change at least 14 days prior to making the change;

(2) Empty the tank by removing all liquid and accumulated sludge;

(3) Manage all waste in accordance with the **Vermont Hazardous Waste Management Regulations** and any other applicable state and federal requirements; and

(4) Comply with the release assessment requirements of **§ 8-605**.

**§ 8-307.** OPERATOR TRAINING REQUIREMENTS

(a) The permittee of a category one system shall ensure that the following persons are trained and either employed at or under contract with the facility:

(1) one individual designated as a Class A operator and certified pursuant to the testing requirements of **§ 8-308** of these rules;

(2) one individual designated as a Class B operator and certified pursuant to the testing requirements of **§ 8-308** of these rules; and

(3) one individual designated as a Class C operator.

(b) During all hours of normal operation hours, a staffed facility shall have at least one of the following present at the facility:

(1) a Class C operator; or

(2) a person who has been trained in the following areas:

(A) Appropriate emergency actions to be taken in response to a spill or overfill of regulated substance;

(B) The locations and proper use of emergency shut-off switches;

(C) Appropriate response to automatic tank gauge system alarms; and

(D) Appropriate phone numbers to call to report spills, overfills, or other emergencies.

(b) The permittee shall, on a form provided by the Secretary, submit to the Secretary the names of each person designated as the Class A and Class B operators for the facility, the date of certification issuances, the name of the operator training program that certified each listed operator, and the expiration of certification for each listed operator. The permittee shall submit a revised form within 45 days of any change made to the list of operators.

(c) The permittee shall maintain a list of each person designated as a Class C operator assigned for the facility the date that training was completed, the expiration date of the training for each listed operator, and the name of the test or training for operator classification.

(d) A person designated as a Class A or B operator shall have their operator classification certified by passing an approved operator test not later than 30 days after their designation.

(e) A person designated as a Class C operator shall have their operator classification certified either by passing an approved operator test or by being trained by an approved person prior to assuming the responsibilities of a Class C operator.

(f) Class A, B, and C operators shall renew their certifications at least every two years.

(g) Retraining requirements. The Secretary may require additional training or certification of operators at a facility if an inspection identifies significant violations of these rules, or if a history of inspections of the facility identifies a pattern of noncompliance with these rules. Such retraining and testing shall be completed not more than 60 days, after the Secretary has issued notice to the permittee.

(h) The Class A or Class B operator, or an employee working under the direction of the Class A or B operator, shall conduct monthly inspections of the underground storage tank system in accordance with **§ 8-509(a)** of these rules.

**§ 8-308.** APPROVAL OF AN OPERATOR TRAINING TEST

(a) An operator training test must be approved, in writing, by the Secretary as satisfying the minimum criteria the following minimum areas of competence:

(1) For Class A Operators: An understanding and demonstration of such understanding (through testing) of the statutory and regulatory requirements that relate to the permitting of the facility; financial responsibility; spill prevention; overfill protection; release detection; corrosion protection; emergency response; product compatibility; notification requirements; release and suspected release reporting; temporary and permanent closure requirements; reporting and recordkeeping requirements; and training requirements for Class B and C operators.

(2) For Class B operators: A practical and regulatory understanding and demonstration of such understanding (through testing) of the components of an underground storage tank system and its proper operation, including: spill prevention; overfill protection; release detection; corrosion protection; emergency response; product compatibility; release and suspected release reporting; reporting and recordkeeping requirements; and training requirements for Class C operators.

(3) For Class C operators:

(A) An understanding of appropriate actions by the operator to respond to emergencies and alarms.

(B) An understanding of facility layout, or in the case of a generally administered evaluation, the typical layout of a facility.

(C) An understanding of how to read alarm enunciation panels.

(D) Demonstration of the items discussed in subdivisions **§ 8-308(a)(3)(A)**, **(B)**, and **(C)** through either an appropriately administered and evaluated test or the evaluation and personal certification of a Class A or B operator.

(b) The Secretary may approve an operator training test and associated curriculum conducted or approved by another state as meeting the requirements of these rules.

(c) Any operator training test that has been approved by the Secretary may be decertified if there are significant operational compliance issues at three or more facilities with operators who have passed that test.

(d) The Secretary may reject the certification of any operator for any of the following:

(1) the operator's performance indicates a gross failure of understanding of the elements required for their operator classification;

(2) there are significant operational compliance issues at one or more facilities for which the operator is responsible; or

(3) the operator is unable to document that he or she was trained by an appropriate person or passed an approved operator test.

## END OF SUBCHAPTER THREE

## *Subchapter 4: DESIGN, MANUFACTURING, AND INSTALLATION STANDARDS FOR UNDERGROUND STORAGE TANK SYSTEMS*

### **§ 8-401.** APPLICABILITY

This subchapter applies to category one and category two underground storage tank systems that store regulated substances.

### **§ 8-402.** PROHIBITIONS

(a) For all new facilities, no portion of any category one or category two underground storage tank system shall be located:

(1) Within the Source Protection Area of a public community water system or public non-transient, non-community (NTNC) water system using a groundwater source;

(2) Within Zone 1 or Zone 2 of a Source Protection Area of a public community water system or NTNC water system using a surface water source except that the Secretary may, on a case-by-case basis make a determination that an underground storage tank may be sited in the zone 2 of a source protection area of a water system using a surface water source;

(3) Within 200 feet of a public transient, non-community (TNC) water system source;

(4) Within 100 feet of any private drinking water supply source;

(5) Within 25 feet of any public water distribution line; or

(6) In any area designated as a Class I or Class II groundwater zone.

**Note:** As of February 2020, there are no areas designated as Class I groundwater, and only one area (in the town of Brandon) designated as Class II groundwater. More areas designated Class I or II groundwater are expected in the future, so anyone planning to install a new underground tank system should check. The layer containing groundwater classification areas can be found in the Drinking Water and Groundwater folder on the Vermont Natural Resources Atlas: http://anrmaps.vermont.gov/websites/anra5/

(b) For all new facilities, and new underground storage tanks being installed at existing facilities, no portion of the tank system shall be located within five feet from any wall, foundation, or property line.

(c) No person shall reuse a tank (i.e., remove an underground storage tank from the ground and reinstall that tank for the purpose of storing a regulated substance) except in accordance with 8-408 of this subchapter.

(d) Any component of an underground storage tank system that renders another component ineffective is prohibited.

(e) Beginning on the effective date of these rules, a vent restriction device shall not be used for overfill prevention in a new or substantially modified underground storage tank system in which the excavation uncovered the vent access.

**§ 8-403.** GENERAL REQUIREMENTS

(a) Compatibility. All category one and category two underground storage tank systems shall be made of or lined with materials that are compatible with the substance(s) stored in them.

(1) Owners and operators must notify the secretary at least 30 days prior to switching to a regulated substance containing greater than 10 percent ethanol, greater than 20 percent biodiesel, or any other regulated substance identified by the secretary. Owners and operators with underground storage tank systems storing these regulated substances shall demonstrate compatibility of all components of the underground storage tank system. Owners and operators may demonstrate compatibility by one of the following:

(A) Certification or listing of system components by a nationally recognized, independent testing laboratory for use with the regulated substance stored; or

(B) The equipment manufacturer's written approval, indicating an affirmative statement of compatibility for a specified range of biofuel blends; or

(C) Another option determined by the Secretary to be no less protective of human health and the environment than the options listed above.

(2) Owners and operators shall maintain records documenting compliance with this section for as long as the underground storage tank system is used to store the regulated substance.

(b) Any installation or substantial alteration of a category one or category two underground storage tank system shall be conducted in accordance with Petroleum Equipment Institute Publication RP100– 2017 edition: “Recommended Practices for Installation of Underground Liquid Storage Systems.”

(c) All tanks and components, including piping, spill and overfill prevention devices, and automatic tank gauges shall be installed in accordance with the manufacturer’s instructions.

**§ 8-404.** TANK INSTALLATION STANDARDS

(a) New tank systems. All new category one and category two tanks shall meet the following standards for design and manufacture of the tank system, and for corrosion protection, as applicable:

(1) Design and Manufacturing Standards.

(A) Steel tanks. A new steel tank shall meet:

(i) At least one of the following design and manufacturing standards:

(1) Underwriters Laboratories Standard 58: "Standard for Steel Underground Tanks for Flammable and Combustible Liquids;" or

(2) Underwriters Laboratories of Canada ULC-S603-14 "Standard for Steel Underground Tanks for Flammable and Combustible Liquids;" and

(ii) At least one of the following corrosion protection standards:

(1) Steel Tank Institute "Specification for STI-P3-System of External Corrosion Protection of Underground Steel Storage Tanks;" or

(2) Underwriters Laboratories Standard 1746: "Corrosion Protection Systems for Underground Storage Tanks;" or

(3) Underwriters Laboratories of Canada CAN/ULC-S603.1: "External Corrosion Protection Systems for Steel Underground Tanks for Flammable and Combustible Liquids" and CAN4-S631-M84 (R1998): "Standard for Isolating Bushings for Steel Underground Tanks Protected with Coatings and Galvanic Systems;" or

(4) National Association of Corrosion Engineers Standard SDP0285: "Control of External Corrosion on Metallic Buried, Partially Buried, or Submerged Liquid Storage Systems."

(B) Fiberglass tanks. A new fiberglass-reinforced plastic tank shall meet at least one of the following:

(i) Underwriters Laboratories Standard 1316: "Standard for Glass-Fiber-Reinforced Plastic Underground Storage Tanks for Petroleum Products, Alcohols, and Alcohol-Gasoline Mixtures"; or

ii) Underwriters Laboratories of Canada ULC-S1615: "Standard for Reinforced-Plastic Underground Tanks for Flammable and Combustible Liquids."

(C) Any new tank constructed of a steel and plastic composite shall meet Underwriters Laboratories Standard 58, "Standard for Steel Underground Tanks for Flammable and Combustible Liquids;" and at least one of the following corrosion protection standards:

(i) Underwriters Laboratories Standard 1746: "Corrosion Protection Systems for Underground Storage Tanks;" or

(ii) Steel Tank Institute ACT-100 Specification F894: "External Corrosion Protection of FRP Composite Steel Underground Storage Tanks;" or

(iii) Steel Tank Institute ACT-100-U Specification F961: "External Corrosion Protection of Composite Steel Underground Storage Tanks."

(b) Existing tanks. Any category one or category two underground storage tank installed prior to the effective date of these rules shall meet the following standards, as applicable:

(1) Steel tanks. An existing tank shall meet:

(A) At least one of the following design and manufacturing standards:

(i) Underwriters Laboratories Standard 58: "Standard for Steel Underground Tanks for Flammable and Combustible Liquids;" or

(ii) Underwriters Laboratories of Canada CAN 4-5603-M85 "Standard for Steel Underground Tanks for Flammable and Combustible Liquids;" and

(B) At least one of the following corrosion protection standards:

(i) Steel Tank Institute "Specification for STI-P3-System of External Corrosion Protection of Underground Steel Storage Tanks;" or
(ii) Underwriters Laboratories Standard 1746: "Corrosion Protection Systems for Underground Storage Tanks;" or

(iii) Underwriters Laboratories of Canada CAN 4-603.1-M85: "Standard for Galvanic Corrosion Protection Systems for Underground Tanks for Flammable and Combustible Liquids" and CAN 4-5631-M84: "Isolating Bushings for Steel Underground Tanks Protected with Coatings and Galvanic Systems;" or

(iv) NACE International Standard RP-0285-2002: "Corrosion Control of Underground Storage Tank Systems by Cathodic Protection."

(2) Fiberglass tanks. Any existing fiberglass reinforced plastic tank shall meet at least one of the following:

(A) Underwriters Laboratories Standard 1316: "Standard for Glass-Fiber-Reinforced Plastic Underground Storage Tanks for Petroleum Products"; or

(B) Underwriters Laboratories of Canada 4-5615-M83: "Standard for Reinforced-Plastic Underground Tanks for Petroleum Products."

(3) Any existing tank constructed of steel and plastic composite shall meet at least one of the following corrosion protection standards:

(A) Underwriters Laboratories Standard 1746: "Corrosion Protection Systems for Underground Storage Tanks;" or

(B) Association for Composite Tanks ACT-100: "External Corrosion Protection of FRP Composite Steel Underground Storage Tanks" (note – the Association for Composite Tanks is now part of the Steel Tank Institute.); or

(C) Steel Tank Institute ACT-100-U: "External Corrosion Protection of Composite Steel Underground Storage Tanks."

(c) Secondary containment for tanks

(1) Any portion of a new category one or category two underground storage tank that is intended to contain regulated substance shall be equipped with secondary containment in accordance with this section.

(2) All new category one and category two double-walled tanks shall be designed such that a leak through the inner wall in any portion of the tank that routinely contains regulated substance can be detected readily.

(3) All double-walled category one and category two tanks with an outer wall made of steel shall meet the design and manufacturing standards specified in Steel Tank Institute standard F841-91: "Standards for Dual-Wall Underground Storage Tanks."

**§ 8-405.** PIPING STANDARDS

(a) Design standards. Piping for category one and category two underground storage tank systems shall meet the following standards as specified:

(1) Steel piping

(A) Steel piping shall be at least schedule 40 factory-coated black steel pipe, with comparable malleable iron or steel screw-type fittings and extra-heavy couplings; and

(B) Steel piping, including flexible connectors attached to fiberglass piping, and any ancillary equipment containing a regulated substance that is in contact with the ground shall be protected against corrosion by a cathodic protection system that uses either galvanic anodes or impressed current. All cathodic protection systems shall meet NACE International Standard RP0285-2002: "Corrosion Control of Underground Storage Tank Systems by Cathodic Protection."

(2) New piping made of fiberglass-reinforced plastic or flexible extruded thermoplastic shall meet Underwriters Laboratories Standard 971-2005: "Standard for Nonmetallic Underground Piping for Flammable Liquids."

(b) All fill pipes, pump out pipes, or other tank-top fittings shall be connected to the tank using vapor-proof fittings, and shall be equipped with vapor-proof caps that remain closed whenever the pipe or fitting is not in use.

(c) All fill pipes, except for tank systems containing used oil or #4 or #6 fuel oil, shall be equipped with a drop tube that extends to within 4-6 inches of the tank bottom.

(d) All pressurized piping shall be equipped with:

(1) An automatic line leak detector capable of alerting the underground storage tank system operator within one hour of regulated substance first leaking at a rate of, or equivalent to, at least three gallons per hour at an operating pressure of 10 pounds per square inch; and

(2) A shear valve in the supply line to the dispenser, that is located at the inlet to the dispenser, and is securely anchored to a structural member of the dispensing island. This valve shall be designed and installed to close automatically in the event that the dispenser is accidentally dislodged from the inlet pipe.

(e) Any category one or category two underground storage tank located at an elevation that produces a gravity head on the dispenser shall be equipped with a device (e.g., a solenoid-operated anti-siphon valve) that prevents the flow of regulated substance by

gravity from the tank when the dispenser is not in use, or in the event of a piping or hose failure.

(f) Secondary containment.

(1) Except as provided for in **subsection (f)(3) of this section**, all piping, including remote fill pipes and manifolds, that is intended to contain a hazardous material shall be equipped with secondary containment.

(2) Piping sumps shall be installed as follows:

(A) Except as allowed in **subsection (f)(3) of this section**, containment sumps for all new pressurized piping shall be installed at the tank-top. Submersible pump heads shall be housed in containment sumps. All containment sumps shall be monitored for releases in accordance with the requirements of **§8-507(a)(1)**.

(B) All dispenser sumps shall be capable of containing a release of regulated substance from the internal workings of the dispenser and all exposed piping. All dispenser sumps shall be monitored for releases in accordance with the requirements of **§8-507(a)(1)**. A dispenser sump is not required if the dispenser operates under suction and the pipe connecting the tank to the dispenser rises directly vertically from the tank (e.g. a "Gasboy" system). For all other piping systems, dispenser sumps shall be installed for:

(i) Any dispenser connected to new piping, including any dispenser connected to new piping that is exempted from secondary containment in accordance with **subsection (3) of this section**; and

(ii) Any dispenser installed after July 1, 2007 and connected to existing piping, if installation of that dispenser requires excavation below the dispenser island.

(C) Any point where different types of new piping are joined underground, or any point between a tank and dispenser where liquid would likely accumulate first in the interstitial space of the piping system, shall be contained within an intermediary sump that is monitored for releases in accordance with the requirements of **§ 8-507(a)(1)** of these rules.

(3) Secondary containment is not required for piping that operates at less than atmospheric pressure (i.e., a suction line), provided:

(A) The piping is installed with a minimum continuous slope of one-eighth of an inch per foot such that any regulated substance contained in the piping drains into the tank if the suction is released; and

(B) Only one check valve is used per suction line; and

(C) The check valve in the suction line is located directly below, and as close as practical, to the pump; and

(D) The permittee or tank owner can readily demonstrate compliance with this subsection (e.g., by maintaining detailed records, installing a test plug at/in the check valve).

**§ 8-406.** SPILL CONTAINMENT & OVERFILL PREVENTION MEASURES AND EQUIPMENT

(a) Spill containment.

(1) New and existing category one and category two underground storage tank systems shall be equipped with a liquid-tight device that will contain any regulated substance spilled from a carrier's transfer hose when the hose is detached from the tank system's fill pipe, or in the case of a tank containing used oil, when the used oil is poured into or withdrawn from the fill port.

(2) Spill containment devices installed or replaced after July 1, 2007 shall:

(A) Have a minimum capacity of 15 gallons; and

(B) Not be equipped with a drain valve.

(b) Overfill prevention

(1) Except for underground storage tank systems that meet the criteria of **subsection (b)(2) of this section**, all category one and category two underground storage tank systems shall be equipped with an overfill prevention device that, at the time of any delivery of regulated substance, either:

(A) Automatically shuts off the flow of regulated substance to the tank before the tank is 95 percent full; or

(B) Alerts the person making the delivery before the tank is 90 percent full by triggering a visible and/or audible alarm; or

(C) For existing tanks only, alerts the person making the delivery before the tank is 90 percent full by restricting the flow of air and vapors from the tank, thereby also restricting the flow of regulated substance into the tank. Vent restriction devices shall only be used in tank system designs that are consistent with vent restriction devices. Any vent restriction device shall be installed in such a manner as to allow access to the device and the ability to remove the device for inspection, maintenance, tightness testing,

or another purpose. Vent restriction devices shall not be installed on new underground storage tank systems.

**Note:** A listing of the tank system designs that are inconsistent with vent restriction devices can be found in **§ 8-503(d)(4)(B)**.

(2) Any category one or category two underground storage tank system that never receives more than 25 gallons of regulated substance at one time is not required to be fitted with an overfill prevention device, provided the tank is:

(A) Never more than 90 percent full; and

(B) Operated in accordance with the manual overfill prevention requirements of **§ 8-503(e)**.

(3) Any time an underground storage tank system is substantially modified and the excavation uncovers the vent access, the vent restriction device shall be removed entirely and replaced with either an automatic fill pipe shutoff valve as per **§ 8-406(b)(1)(A)** or with an audible or visible overfill alarm as per **§ 8-406(b)(1)(B).**

(c) Facility diagram.

(1) At any facility with a category one or category two underground storage tank system, a diagram shall be displayed at all times in a location that is protected from the weather and readily visible to any carrier delivering regulated substance to an underground storage tank system at the facility. The diagram shall identify:

(A) The relative location of each underground storage tank and fill pipe;

(B) The regulated substance stored in each underground storage tank; and

(C) The capacity and diameter of each underground storage tank.

(2) Upon any change in the information listed in **(c)(1)(A)** through **(c)(1)(C)**, the diagram shall be updated to reflect that change.

(d) Marking or labeling of fill pipes.

(1) The fill pipe of each underground storage tank shall be marked or labeled to clearly identify the material stored in that tank. This requirement may be met by following the American Petroleum Institute Publication 1637.

(2) The fill pipe and pump-out pipe of any underground storage tank holding used oil shall be marked or labeled to clearly identify the contents of that tank as used oil. Upon any change in the material stored in a tank, the labeling or marking on the

fill pipe (and pump-out pipe, where applicable) shall be updated to reflect that change.

**§ 8-407**. SCHEDULING INSTALLATIONS OF UNDERGROUND STORAGE TANK SYSTEMS

(a) No person shall either install:

(1) A category one underground storage tank system without first obtaining a permit from the Secretary in accordance with **§ 8-303**; or

(2) A category two underground storage tank system without:

(A) Maintaining records documenting that the relevant general, design, construction, corrosion protection, spill containment, and overfill prevention standards specified under **§§ 8-403 through 8-406** have been met; and

(B) Registering the tank in accordance with **§ 8-302** within 30 days of the installation date.

(b) Any person installing a category one underground storage tank (i.e., the permittee or permittee's agent) shall:

(1) Schedule the installation with the Secretary at least five (5) business days prior to the commencement of construction.

(2) If construction is not likely to commence on the scheduled date, notify the Secretary at least 24 hours prior to the originally scheduled date.

(3) Following construction, but prior to backfilling, ensure that the installation or alteration has been:

(A) Inspected by either:

(i) The Secretary; or

(ii) A registered professional engineer with education and experience related to the installation of underground storage tanks, who certifies in writing to the Secretary that the installation or alteration meets the requirements of these rules; and

(B) Approved by the Secretary.

(4) Within 30 days of completing an installation or substantial alteration, submit to the Secretary the completed and signed installation checklist(s) required under **§8-303(f)(2)**. An accurate drawing or as-built plan showing the size and

location of all underground tanks and piping, property boundaries, building locations, and underground utilities, shall be submitted with the checklist(s).

**§ 8-408.** REUSE OF TANKS

(a) No person shall reuse a tank (i.e., remove an underground storage tank from the ground and reinstall that tank for the purpose of storing a regulated substance) unless the following conditions are met:

(1) The tank meets the requirements of **§ 8-404(a)**;

(2) The tank manufacturer or the manufacturer's representative inspects the tank and provides written certification to the Secretary that the tank is in compliance with all applicable design standards

(3) The tank is installed in accordance with the requirements of this subchapter before it is brought into service.

(b) Any piping that is removed from the ground shall not be reinstalled as part of an underground storage tank system used to contain a regulated substance.

**Note:** Vermont's Fire Code, and standards adopted by the National Fire Protection Association (NFPA), prohibit using a tank designed for underground use in any above-ground application. More information is available from the Fire Prevention Division of the Vermont Department of Public Safety.

**§ 8-409.** UNDERGROUND STORAGE TANK SYSTEMS LOCATED AT MARINAS

All category one underground storage tank systems located at marinas, shall be installed or retrofitted in accordance with the provisions contained within the Petroleum Equipment Institute's Publication PEI/RP 1000-14: "Recommended Practices for the Installation of Marina Fueling Systems."

**§ 8-410.** FIELD CONSTRUCTED TANKS AND AIRPORT HYDRANT SYSTEMS

Field-constructed tanks and airport hydrant systems shall be constructed in accordance with all applicable requirements of 40 CFR § 280, Subpart K.

## END OF SUBCHAPTER FOUR

## *Subchapter 5: OPERATING STANDARDS FOR UNDERGROUND STORAGE TANKS*

### **§ 8-501.** APPLICABILITY

This subchapter applies to permittees of category one underground storage tank systems and the owners of category two underground storage tank systems.

### **§ 8-502.** GENERAL AND RECORDKEEPING REQUIREMENTS

(a) Any suspected release of regulated substance shall be reported to the Secretary in accordance with the requirements of **§ 8-103**.

(b) Any underground storage tank system or system component from which regulated substance has been released or that is leaking shall be taken out-of-service immediately. The tank system and any system components taken out-of-service in accordance with this section shall remain out-of-service until each are repaired in accordance with **§ 8-508**, or until the underground storage tank system is permanently closed in accordance with **§ 8-604.**

(c) Records required to be maintained. For all underground storage tank systems, the permittee or tank owner shall maintain written or electronic facility records which document, in chronological order, the following, as applicable:

(1) The facility name, address, and name and contact information of the permittee(s), and name or initials of the person responsible for each entry;

(2) Documentation of compliance with the following maintenance, repair, and monitoring activities, as applicable:

(i) Manual overfill prevention as required under **§ 8-503(e)(3)**;

(ii) Cathodic protection system testing and monitoring as required under **§ 8-504(c)**;

(iii) Release detection monitoring as required under **§ 8-505**;

(iv) Inventory monitoring as required under **§ 8-506(b)(1)**; and

(v) Underground storage tank system repairs as required under **§ 8-508(f)**.

(vi) Testing results for sumps, spill containment devices, and overfill prevention devices, as required under **§ 8-511.**

(3) The following information related to the performance of activities listed in **(c)(2)** of this section:

(i) The date(s) (day, month, year) the activity was performed;

(ii) The name of the person and company performing the activity;

(iii) The specific device or underground storage tank system that was maintained, repaired, or monitored;

(iv) A brief description of the work performed; and

(v) The results of monitoring performed, including any observations of an actual or suspected release.

**Note:** It may be helpful to maintain a separate log book for each underground storage tank system at a facility.

(d) Form of records.

(1) Records shall be maintained in chronological order based on the date that each entry was created.

(2) Records documenting repairs and upgrades of the tank system and all tank system components shall be maintained at the facility for the full operating life of the facility. All other records maintained under this section shall be maintained for at least three years. All records shall be made available to the Secretary upon request.

(3) Records maintained pursuant to this section may be created and maintained in an electronic format so long as full copies of such records can be made available to the Secretary promptly upon request.

**§ 8-503.** SPILL AND OVERFILL PREVENTION; MONITORING OF DELIVERIES

(a) Facility diagram. The permittee shall maintain the facility diagram required by **8-406(c)** and shall update the diagram in accordance with **§ 8-406(c)(2)**.

(b) Marking or labeling of fill pipes. The permittee shall mark and/or label tank pipes in accordance with **§ 8-406(d)** to identify stored materials, and shall update the information presented by the marking or labeling in accordance with **§ 8-406(d)(2)**.

(c) Maintenance and testing of spill containment devices.

(1) All spill containment devices required under **§ 8-406(a)** shall be kept free of liquids and debris, and shall be maintained in a fully operational (i.e. non-

leaking) state. Any spill containment device found to be leaking or in imminent danger of leaking, shall be repaired or replaced in accordance with **§8-508.**

(2) Prior to accepting any delivery of regulated substance, the permittee or tank owner shall verify that the spill containment device is free of liquid and debris.

(3) Any liquid that collects within a spill containment device during or immediately after a delivery of regulated substance shall be removed prior to departure of the delivery vehicle.

Note: All liquid and debris removed from a spill containment device shall be managed in accordance with the **Vermont Hazardous Waste Management Regulations** and all other applicable state and federal requirements.

(4) The permittee shall test spill containment devices that lack secondary containment at least once every three years, and shall report results to the Secretary, as required under **§ 8-511.** The permittee shall monitor secondarily contained spill prevention devices as required under **§ 8-507(b).**

(d) Overfill prevention

(1) All overfill prevention equipment required under **§ 8-406(b)** shall be maintained in a fully operational state. Manual overfill prevention may be performed in accordance with **subdivision (e)** of this section.

(2) Monitoring of deliveries. Any time a tank receives a delivery, before the transfer is made, the permittee shall ensure that the volume available in the tank is greater than the volume of regulated substance to be transferred to the tank and shall ensure that the transfer operation is monitored constantly to prevent overfilling and spilling.

(3) The permittee shall inspect and test overfill prevention equipment at least once every three years in accordance with **§ 8-511 of this subchapter** and shall either report failing results or forward passing results to the Secretary, as required under **§ 8-511(e).**

(4) Vent restriction devices that meet any of the following criteria shall be removed entirely and shall simultaneously be replaced with an overfill prevention device listed under **§ 8-406(b)(1)(A) or (B)**:

(A) A vent restriction device that is not operational or is not functioning properly;

(B) A vent restriction device that is installed in any of the following types of tank systems:

(i) Any system where there is the possibility of receiving a pumped delivery;

(ii) Any system equipped with a suction dispenser and an air eliminator;

(iii) Any system equipped with coaxial Stage I vapor recovery;

(iv) Any system equipped with a remote fill pipe and gauge opening;

(v) Any system fueling an emergency generator or a fuel oil burner (e.g. a heating oil supply tank).

(5) Within 30 days of the replacement of a vent restriction device as required under this section, the permittee shall inform the Secretary in writing that the device has been replaced.

(e) Manual overfill prevention. Subject to compliance with conditions in **subdivisions (e)(1) through (e)(3) of this subsection**, overfill prevention equipment is not required for any tank that never receives more than 25 gallons of regulated substance at one time, and never is more than 90 percent full. This provision shall only apply provided the permittee or tank owner:

(1) Measures the volume of liquid in the tank at least once per week or more frequently as necessary to ensure that the volume never exceeds 90 percent of the tank's capacity; and

(2) Measures the level of liquid in the tank to the nearest 1/8 of an inch, and converts that measurement to volume using a manufacturer tank chart maintained at the facility that corresponds with the dimensions of the tank being measured; and

(3) Maintains a record in accordance **with § 8-502(d)** which documents:

(A) The level of liquid in the tank (to the nearest 1/8 of an inch);

(B) The volume of liquid corresponding to the liquid level (i.e., as determined using a tank chart); and

(C) The percentage of tank capacity being utilized.

**§ 8-504.** CATHODIC PROTECTION SYSTEMS

(a) Systems using galvanic anodes shall:

(1) Be tested within six months of installation and, for factory-installed anodes at least once every three years thereafter; for field-installed anodes, at least annually thereafter. Such systems shall be tested by persons trained in the principles and methods of testing cathodic protection systems, and who hold

certification from NACE International as a Cathodic Protection Tester, or an equivalent certification approved by the Secretary.

(2) Be tested using a saturated copper/copper sulfate reference electrode placed over the centerline of each tank and piping run, and in any other location deemed appropriate by the tester. Readings for tanks shall be taken in as many locations as the tester deems necessary in order to determine whether the anodes are providing adequate cathodic protection, but at a minimum the tester shall take three readings for each tank: one reading over each end of the tank, and one reading midway between each end of the tank. Readings for piping shall be taken over the centerline of the piping.

(3) If the anodes are factory-installed, achieve readings that are equal to, or more negative than, - 0.85 volts.

(4) If the anodes are field-installed, achieve the minimum passing voltage readings specified by the system designer at locations specified by the system designer.

(b) Systems using impressed current shall:

(1) At least once every 60 days, be monitored by a person trained to ensure that the equipment is operating properly, and the voltage and current output are within the range specified by the system manufacturer and/or designer; and

(2) At least annually, be inspected and tested to evaluate all components of the impressed current system for conformance with the specifications established by the system manufacturer and/or designer. This inspection and test shall be performed by:

(A) A certified or licensed professional engineer with education and experience in corrosion control of buried metal pipes and tanks; or

(B) A person certified by NACE International as one or more of the following: Corrosion Specialist, Cathodic Protection Specialist, Senior Corrosion Technologist, Corrosion Technologist, or Cathodic Protection Tester; or

(C) A person who can demonstrate successful completion of the Steel Tank Institute's Cathodic Protection Tester Training; or

(D) A person with an equivalent level of competence, as determined by the Secretary.

(c) The permittee or tank owner shall:

(1) Maintain a record in accordance with **§ 8-502(d)** that documents any cathodic protection system monitoring, testing and/or inspection activity conducted pursuant to **subsections (a) and/or (b) of this section**;

(2) For each cathodic protection system test, obtain a report from the tester that documents the results of the test, and maintain a copy of that report within the state for at least three years following the test;

(3) For each passing cathodic protection system test, submit a copy of the test report to the Secretary within 30 days of the test; and

(4) Comply with the requirements of **subsection (d) of this section** for any cathodic protection system test that does not meet the applicable criteria established in **subsections (a) and (b) of this section,** (i.e. a failed test).

(d) In the event of a failed cathodic protection system test the permittee or tank owner shall:

(1) Notify the Secretary within one business day of the failed test.

(2) Submit a copy of the test report to the Secretary within five business days of the failed test, or immediately upon request by the Secretary.

(3) Within 120 days of a failed test, determine the cause of failure and, if necessary, repair or replace the cathodic protection systems in accordance with **§ 8-508(e)**.

(6) Within 30 days of repairing a cathodic protection system, submit a written report to the Secretary describing the cause of failure and the measures taken to correct the failure.

(7) If repairs to the cathodic protection system are not completed within120 days of the date of the failed test, either take the underground storage tank system out-of-service in accordance with **§ 8-602**, or close the underground storage tank system in accordance with **§ 8-604**. On a case-by-case basis, the Secretary may allow an underground storage tank system to remain in service for more than 120 days after the date of the failed test.

## **§ 8-505.** GENERAL REQUIREMENTS FOR RELEASE DETECTION

(a) All category one and category two underground storage tank systems that are in operation, or that are taken out-of-service in accordance with **§ 8-602** but still contain regulated substance, shall be monitored at least weekly for releases in accordance with **§ 8-506** (for tanks) and **§ 8-507** (for piping).

(b) All release detection equipment shall be calibrated and operated in accordance with the manufacturer's specifications and maintained in a fully operational state.

(c) All interstitial spaces of secondarily contained systems shall be maintained free of liquids, unless the space is designed to contain a liquid as an integral component of the release detection system (e.g. brine-filled interstice in a fiberglass tank). Any liquid that accumulates in an interstitial space intended to be dry shall be removed and handled in accordance with the Vermont Hazardous Waste Management Regulations.

(d) Permittees and tank owners shall notify the Secretary in writing within ten business days of any change in the method(s) of release detection used.

(e) All release detection equipment for each method specified in Table 1 shall be certified by an independent third party as being capable of detecting the leak rate specified in Table 1 for that method with a probability of detection of at least 95 percent and a probability of false alarm of 5 percent or less.

(f) All release detection equipment for each method specified in Table 1 shall be operated within the limitations and restrictions specified in the third-party certification report for each release detection device.

**Table 1**

| Method | Specified Leak Rate |
|---|---|
| Automatic Tank Gauging [**§ 8-506(c)(2)**] | 0.2 gallons per hour |
| Automatic Line Leak Detectors [**§ 8-507(b)(5)**] | 3 gallons per hour |

**Note**: The National Work Group on Leak Detection Evaluations maintains a list of release detection equipment that has been third-party certified. The list is available on-line at http://www.nwglde.org

(g) Tank-bottom water checks

(1) Permittees and tank owners shall check each of their underground storage tanks for the presence of tank-bottom water at least weekly and, except for tanks containing used oil, immediately before and after any delivery of regulated substance.

(2) Any measuring device used to check for the presence of tank-bottom water shall be capable of measuring the liquid level in an underground storage tank to one-eighth of an inch.

(3) If water is detected in an underground storage tank, the permittee or tank owner shall compare the results of consecutive tank water checks and determine if the level of water in the tank is changing over time. Any sudden change in the level

of tank-bottom water shall be considered a suspected release and reported to the Secretary in accordance with **§ 8-103(b)**.

(h) All permittees or tank owners shall maintain a weekly record of release detection monitoring activities in accordance with **§ 8-502(d).** This record shall document:

(1) Information about the method of release detection used and the specific tank(s) and/or piping being monitored;

(2) All monitoring results, including any indication that a release may have occurred;

(3) All calibrations, maintenance and repairs of release detection equipment that is permanently located at the facility; and

(4) For tank water checks:

(A) Whether or not water is detected in the tank; and

(B) If water is detected, the volume of water present in the tank.

**§ 8-506.** RELEASE DETECTION REQUIREMENTS FOR TANKS

(a) Category one and Category two underground storage tanks shall be monitored for releases as follows:

(1) For tanks with secondary containment:

(A) inventory monitoring as specified under **subsection (b) of this section** (except tanks that contain used oil or that do not dispense regulated substances through a metered dispenser)**,** and

(B) interstitial monitoring as specified under **subsection (c)(1)** of this section.

(2) For tanks without secondary containment:

(A) inventory monitoring as specified under **subsection (b) of this section** (except tanks that contain used oil or that do not dispense regulated substances through a metered dispenser), and

(B) automatic tank gauging as specified under **subsection (c)(2)** of this section.

(3) Tanks that contain used oil or that do not dispense regulated substance through a metered dispenser, are not required to use inventory monitoring.

(b) Inventory monitoring

(1) Except as allowed under **subsection (a)(3) of this section**, for each category one and category two underground storage tank system, the permittee or tank owner shall:

(A) Measure the volume of regulated substance in the tank at the beginning and end of each operating day, including the total amount of regulated substance that was added to and/or removed from the tank during each operating day.

(B) Measure the level of liquid in the tank prior to and following each delivery. Measurements shall be made to the nearest 1/8 inch. The amount measured under this provision shall be compared against receipts for deliveries of regulated substance to verify that receipts accurately represent the amount of regulate substance added to the tank. All liquid level measurements shall be taken utilizing a drop tube and gauge stick.

(C) Maintain records in accordance with **8-502(d)** that document volumes and liquid level measures taken in **(A)** and **(B)**.

(D) Ensure that all regulated substance dispensed from the tank is metered in accordance with the standards for meter calibration established by the Vermont Agency of Agriculture Food & Markets, Division of Weights and Measures.

(E) Utilize a manufacturer tank chart that corresponds to the dimensions of the tank when converting liquid level measurements (i.e., recorded to the nearest one-eighth of an inch) to the volume of liquid in the tank.

(F) Each month, evaluate the written records required under **subsection (C) of this section** by comparing the volume of regulated substance lost or gained during the previous month to a standard of 130 gallons plus one percent of the throughput of regulated substance from the previous month. The results of this evaluation shall be documented in writing and shall be made available to the Secretary within 24 hours of a request.

(G) Ensure that inventory monitoring is conducted by a person trained in the proper use of monitoring equipment and the requirements of this section.

**Note**: Practices described in the American Petroleum Institute Publication 1621: "Recommended Practice for Bulk Liquid Stock Control at Retail Outlets" meet the requirements for inventory monitoring.

(2) A suspected release shall be reported to the Secretary in accordance with **§ 8-103(b)(4)** when inventory monitoring for any tank indicates:

(A) A loss or gain of regulated substance that, for two consecutive months, is greater than one percent of the total monthly throughput plus 130 gallons.

(B) A sudden loss of regulated substance that, within 24 hours of the time the discrepancy is discovered cannot be attributed to circumstances other than a release; or

(C) Any other signs of an actual or suspected release shall be reported to the Secretary pursuant to **§ 8-103(b)**.

(c) The following release detection methods may be used for category one and category two underground storage tanks as specified under **subsection (a) of this section**:

(1) Interstitial monitoring

(A) Interstitial monitoring shall be conducted at least weekly.

(B) Any tank with an interstitial space shall be monitored using one of the following methods:

(i) Electronic monitoring;

(ii) Manual gauging;

(iii) Vacuum monitoring;

(iv) Mechanical monitoring; or

(v) Another method that uses either an inert gas or liquid.

(C) Interstitial monitoring shall be capable of detecting the presence of liquid in, or a loss of negative pressure (vacuum) from, an interstitial space designed to be dry, or the loss of liquid from an interstitial space designed to contain a brine solution or other inert liquid.

(D) The interstitial monitoring method used shall be appropriate for the design of the underground storage tank system.

(E) For an interstitial space designed to be dry, monitoring shall occur in a location within the interstitial space where liquid is likely to accumulate first.

(F) Access covers to the interstitial space shall be clearly marked, secured to prevent unauthorized access, and protected from damage if located in a traffic area.

(G) A suspected release shall be reported to the Secretary in accordance with **§8-103(b)(4)** when the results of interstitial monitoring indicate:

(i) The presence of liquid in an interstitial space designed to be dry;

(ii) Loss of vacuum or pressure; or

(iii) Any indications of regulated substance in the interstitial space, or loss of liquid from an interstitial space designed to contain a brine solution or other inert liquid.

(2) Automatic Tank Gauging

(A) Automatic tank gauges shall be operated in a mode that is capable of detecting a leak rate of 0.2 gallon per hour (gph).

(B) Automatic tank gauging shall be conducted, and conclusive results obtained, at least weekly.

(C) A suspected release shall be reported to the Secretary in accordance with **§8-103(b)(4)** when an automatic tank gauge indicates a leak rate, or an infiltration rate, that is equal to or greater than:
(i) 0.2 gallon per hour (gph); or
(ii) The minimum leak rate that the tank gauge is capable of detecting, whichever is less.

**§ 8-507.** RELEASE DETECTION REQUIREMENTS FOR PIPING, SUMPS, AND SPILL CONTAINMENT

(a) Release detection requirements for piping. Except for piping that operates under suction and is designed and constructed in accordance with the standards specified in **§ 8-405(f)(3)**, any underground piping that is connected to a tank, and routinely contains a regulated substance shall be monitored for a release as follows:

(1) Piping with secondary containment, and all sumps for pressurized piping and suction piping that does not meet the requirements of **§8-405(f)(3)**, shall be monitored using interstitial monitoring as specified under **subsection (c)(1) of this section**.

(2) All pressurized piping shall be monitored using an automatic line leak detector which alerts the operator to the presence of a leak by restricting or shutting off the flow of regulated substances or by triggering an audible or visual alarm. All automatic line leak detectors shall be able to detect a leak of 3 gallons per hour at 10 pounds per square inch line pressure within 1 hour. All automatic line

leak detectors shall be maintained and operated as specified under **subsection (c)(3) of this section**.

(3) In addition to using interstitial monitoring as specified under subsection (c)(1) of this section, the owner or permittee of any existing flexible thermoplastic piping that is ten years old or older and does not meet the standards established by Underwriters Laboratories Standard 971-2005: "Standard for Nonmetallic Underground Piping for Flammable Liquids," shall conduct a visual inspection of that piping at least annually. The results of that inspection shall be reported on a form which will be provided by the Secretary, and the completed form shall be submitted to the Secretary within 30 days of completing the inspection.

(b) The interstitial space of double-wall sumps and double wall spill containment devices shall be monitored and recorded during the monthly inspections required under **§ 8-509(a).** Acceptable monitoring methods include manual monitoring, electronic sensors, vacuum gauges, mechanical gauges, or other methods specified by the manufacturer.

(c) Release detection requirements for category one and category two underground storage tank system piping:

(1) Interstitial monitoring. All requirements applicable to the interstitial monitoring of tanks specified in **§ 8-506(c)(1)** also apply to the interstitial monitoring of piping.

(2) Any dispenser sump installed after July 1, 2007 shall be monitored interstitially.

(3) Automatic Line Leak Detectors and Shear Valves

(A) Each automatic line leak detector and shear valve required for pressurized piping under **§ 8-405(d)** shall be tested in accordance with the process and testing criteria provided in/with manufacturer's recommendations at the time of installation and at least annually thereafter.

(B) The permittee or tank owner shall maintain copies of all automatic line leak detector and shear valve test reports in accordance with the requirements of **§ 8-502(c)**.

(C) The permittee or tank owner shall submit a copy of each passing test report to the Secretary within 30 days of the date of the test.

(D) Upon discovery of a line leak detector or shear valve that fails to meet compliance with the manufacturer's testing criteria, the permittee or tank owner shall take the corresponding piping out of service until the defective unit is repaired or a properly functioning line leak detector or shear valve is installed.

Note: All releases (actual or suspected) must be reported in accordance with **§ 8-103.**

**§ 8-508.** UNDERGROUND STORAGE TANK SYSTEM REPAIRS

(a) Substantial and Minor Alterations

(1) Prior to making a substantial alteration to an underground storage tank system, the permittee or tank owner shall notify the Secretary of the anticipated replacement or repair. If necessary, the Secretary shall amend the tank system's permit, as provided under **§ 8-303.**

(2) A permittee may conduct a minor alteration without applying for a permit, but the permittee shall notify the secretary of the work that was done within 15 days of the completion of a minor alteration.

(b) Any component of an underground storage tank system that renders another component ineffective shall not be used.

(c) Tank repairs. Any tank that is equipped with secondary containment and that has an inner wall that requires repair shall either be closed in accordance with the provisions of Subchapter 6, or repaired in accordance with the following:

(1) Any repaired steel tank shall meet the applicable design and construction standards specified in **§ 8-404.**

(2) A tank that is equipped with secondary containment may be repaired by installing an interior lining. Installation of an interior lining within a tank shall be conducted in accordance with American Petroleum Institute publication 1631 "Interior Lining and Periodic Inspection of Underground Storage Tanks."

(3) Any lined tank that lacks secondary containment shall be internally inspected:

(A) Within 10 years of the date that the lining was installed and 5 years following the initial inspection; and

(B) By a person either certified by the manufacturer of the lining, or with other appropriate expertise.

(4) The permittee or tank owner shall submit a report detailing the results of each inspection required under subsection **(c)(3)** of this section, within 30 days of the inspection. If the inspection report reveals a flaw in the lining, the permittee shall, within 60 days of receipt of the inspection report, close the underground storage tank system in accordance with the requirements of **§ 8-604**.

(5) The permittee or tank owner may petition the Secretary to allow a lined tank that lacks secondary containment to remain in service for up to five years following the 10-year lining inspection, and the Secretary may grant the petition upon a determination that:

(A) No release has occurred from the tank system;

(B) The tank has passed the internal inspection; and

(C) No repairs are needed to the tank liner.

(6) Within 90 days of completing a repair of any cathodically protected tank, the permittee or tank owner shall test the cathodic protection system in accordance with either **§ 8-504(a)** (systems using galvanic anodes) or **§ 8-504(b)** (systems using impressed current), as applicable.

(7) Fiberglass-reinforced plastic tanks shall be repaired by an authorized representative of the tank manufacturer.

(8) Any repaired fiberglass reinforced plastic tank shall, at a minimum, meet the design and construction standards specified in **§ 8-404(a)(2)** (new tanks), or **8-404(b)(2)** (existing tanks), as applicable.

(9) Following the repair of a tank, the permittee or tank owner shall comply with the following:

(A) Before using the tank, test the tank for tightness in accordance with **§ 8-103(f)**, or another method recommended by the manufacturer. Within 30 days of performing a test under this provision, the permittee shall submit a copy of the report to the Secretary. The permittee shall also maintain a copy of the test report in accordance with **§ 8-502(d)** of these Rules.

(B) Before using the tank, obtain from the person who repaired the tank a written warranty that:

(i) Warrants against structural failure for a period of at least ten years following the repair; and

(ii) For any steel tank, warrants against failure due to external corrosion for a period of at least ten years following the repair.

(C) Maintain a copy of the warranty required under **subsection (c)(3)(B) of this section** within the state for the operating life of the tank; and

(D) Make a copy of the warranty available to the Secretary within 24 hours of a request by the Secretary.

(d) Piping Repairs

(1) All replacement piping shall meet the design and construction standards for piping identified in **subchapter 4** of these rules.

(2) If any piping is added to or replaced in a category one underground storage tank system, the permittee shall notify the Secretary of the change in accordance with **§ 8-303**.

(3) Before any new or repaired piping may be used, the permittee or tank owner shall conduct a line test as directed by the Secretary.

(4) Within 30 days of completing the line test required under **subsection (d)(3) of this section**, the permittee or tank owner shall submit a copy of the line test report to the Secretary.

(5) The permittee or tank owner shall maintain a copy of the line test report within the state.

(6) Within 120 days of completing a repair of any cathodically protected piping, the permittee or tank owner shall test the cathodic protection system in accordance with **§ 8-504(a)** (systems using galvanic anodes) **or § 8-504(b)** (systems using impressed current), as applicable.

(e) Repair or replacement of cathodic protection systems

(1) Any repair or replacement of a cathodic protection system shall be performed in accordance with NACE International Standard RP0285-2002: "Corrosion Control of Underground Storage Tank Systems by Cathodic Protection."

(2) Any repair or replacement of a cathodic protection system shall be designed and supervised by a person certified by NACE International as a Cathodic Protection Specialist, or by a licensed professional engineer who has licensing or certification that includes education and experience in corrosion control of buried or submerged metal piping systems and metal tanks.

(3) Before using an underground storage tank system with a cathodic protection system that has been repaired or replaced, the permittee or tank owner shall test the cathodic protection system in accordance with **§ 8-504(a) or (b)**, as applicable.

(f) All permittees or tank owners shall maintain a record of all underground storage tank system repairs in accordance with **§ 8-502(d).** This record shall document:

(1) The reason why the repair was necessary;

(2) The work performed and materials used; and

(3) Whether a release of regulated substance was discovered at the time of repair.

(g) Any time a vent riser is exposed for maintenance or repair, any Stage II vapor recovery piping connected to that vent riser shall be disconnected and capped securely.

**§ 8-509.** PERIODIC INSPECTIONS AND SELF-CERTIFICATIONS

(a) Monthly Inspections. Except for unstaffed facilities, certain components of the underground storage tank system shall be inspected monthly for any deficiencies or flaws in accordance with the provisions of this section. Unstaffed facilities shall be inspected on a weekly basis, in accordance with **§ 8-510.**

(1) Monthly inspections shall be conducted by, or under the direction of, a class A or B operator, as established by **§ 8-307**.

(2) The results of each inspection shall be recorded in an inspection report which shall be maintained at the facility or a facility corporate office within the State of Vermont for a period of at least three years.

(3) The monthly inspection shall include the following:

(A) Spill containment devices shall be inspected visually to determine the condition of the device, and if necessary, shall be repaired or replaced in accordance with **§ 8-406(a) and §8-508(a)**. Any regulated substance, water, or debris which may be present in the device shall be removed and disposed of in accordance with all applicable federal, state, and local requirements. Lids and fill pipes shall be inspected visually to ensure that they are labeled in accordance with the requirements of **§ 8-406(d).**

(B) The tank pad shall be visually examined for stains or other indications of a spill or leak in a sump or other tank-top appurtenance. Any indication of a leak or spill shall be investigated, cleaned up, and reported (if necessary) in accordance with § 8-103.

(C) Dispensers, dispensing islands, and fueling pads shall be visually examined for stains or other indications of a spill or leak in a dispenser. Any indication of a leak or spill shall be investigated, cleaned up, and reported (if necessary) in accordance with **§8-103**.

(D) Release detection systems shall be inspected to ensure they are working properly and that no alarm conditions are present. If applicable, the

automatic tank gauging system shall be checked to ensure it is functioning properly, the printer has paper (if applicable), and all functions are normal.

(b) Annual Inspections and Self-Certifications.

(1) The permittee shall annually inspect each category one underground storage tank system for compliance with these rules and shall report the results of that inspection to the Secretary no later than December 31 of each year.

(2) Annual inspections shall include visual inspection of containment sumps and spill containment devices, and dispensers, and shall include inspection and testing of release detection equipment, shear valves, and automatic line leak detectors to ensure they are functioning as designed.

(3) Annual inspections shall be conducted in accordance with the provisions contained within the Petroleum Equipment Institute's publication RP1200, Recommended Practices for the Testing and Verification of Spill, Overfill, Leak Detection, and Secondary Containment Equipment at UST Facilities, or another practice that has been approved by the Secretary.

(4) Permittees shall report the results of the annual inspections section by:

(i) Completing the on-line self-certification available through the Secretary's Internet site; or

(ii) Completing the Compliance Certification Forms provided by the Secretary, signing the form in accordance with the requirements of **§ 8-104**, and submitting the form to the Secretary by an established date.

(c) Any component that does not meet the requirements of these rules based on the results of a monthly or annual inspection shall be repaired or replaced in accordance with **§8-508**.

(d) If an inspection of a tank system under **subsection (b)** reveals that one or more underground storage tank systems are not in compliance with these rules, the permittee shall bring the tank system into compliance before the submission deadline. If the permittee is unable to do so, the permittee shall complete a "Return to Compliance" form. At a minimum, the form shall require a description of the steps proposed to correct any deficiencies that were not corrected immediately, and a proposed schedule for completing those steps. The "Return to Compliance" form shall be submitted to the Secretary with the "Inspection Report" form.

(e) Upon review of a "Return to Compliance" form, the Secretary will either accept or reject the proposed corrective steps and schedule. If the proposed steps or schedule are rejected, the Secretary will contact the permittee and explain the reasons why the

steps or schedule were rejected. The permittee shall submit a revised "Return to Compliance" form within a time frame specified by the Secretary.

(f) Within five business days of correcting any deficiencies, the permittee shall notify the Secretary in writing that compliance has been achieved.

### **§ 8-510.** UNSTAFFED FACILITIES

In addition to all applicable requirements of these rules, the permittee of any unstaffed facility shall ensure that the following requirements are met:

(a) An emergency telephone number shall be prominently posted such that it is easily visible from all dispenser locations. The permittee shall ensure that the emergency number is to a service that is staffed at all times, and that an emergency responder is capable of responding to a spill or leak.

(b) Inspections. Walk-through inspections shall be conducted weekly. Inspections shall be conducted in accordance with the provisions of § 8-509(a), except that the inner workings of dispensers may be examined monthly (i.e. the dispenser door or skirt may be removed and the inner workings of the dispenser may be checked for leaks on a monthly basis).

(c) Spill response materials, including sorbent and containment materials, shall be stored on site and shall be accessible to emergency responders.

(d) No later than September 1, 2020, all tank interstitial spaces, piping sumps, and dispenser sumps shall be equipped with electronic interstitial sensors, and shall be connected to an electronic monitor, which shall be in electronic communication with a central office operated by the permittee such that an alarm condition is communicated to the office immediately.

### **§ 8-511.** TESTING OF SUMPS, SPILL CONTAINMENT, & OVERFILL PREVENTION DEVICES

(a) Sump and spill containment device inspections.

(1) No later than September 1, 2020, permittees shall ensure that dispenser sumps, sumps in pressurized piping systems, and spill containment devices are liquid-tight and will prevent releases to the environment by meeting at least one of the following requirements:

(A) The sump or spill containment device is of double-walled construction and the interstitial space is monitored with an electronic sensor, vacuum gauge, or other method specified by the equipment manufacturer.

(B) The spill containment equipment and containment sumps are tested at least once every three years to ensure the equipment is liquid tight by using vacuum, pressure, or hydrostatic testing in accordance with one of the following procedures:

(i) Testing procedures developed by the manufacturer, if the manufacturer has developed such requirements;

(ii) Procedures specified in the Petroleum Equipment Institute's publication RP1200-12: *Recommended Practices for the Testing and Verification of Spill, Overfill, Leak Detection and Secondary Containment Equipment at UST Facilities*;

(iii) Low-level testing with positive shutdown of the submersible pump or dispenser, whichever applies, provided that the shutdown wiring and the test procedures are done in strict accordance with procedures specified by the US EPA Office of Underground Storage Tanks; or

(iv) Another procedure approved by the Secretary.

(b) Overfill protection inspections.

(1) Not later than September 1, 2020, overfill prevention equipment shall be tested at least once every three years. to ensure that overfill prevention equipment is set to activate at the correct level specified in **§ 8-406(b)(1) of these Rules** and will activate when regulated substance reaches that level. Inspections and tests must be conducted in accordance with standards established in Petroleum Equipment Institute Publication RP1200, *Recommended Practices for the Testing and Verification of Spill, Overfill, Leak Detection and Secondary Containment Equipment at UST Facilities*, or with another procedure approved by the Secretary.

(c) Any waste liquids produced by the testing procedures required above shall be managed in accordance with procedures established by the Secretary.

(d) Replacement of equipment and devices. Permittees shall repair or replace any sump, spill prevention device, or overfill prevention device that is found to leak or not to function correctly.

(e) Permittees shall immediately report any failed test to the Secretary in accordance with **§ 8-103.** Permittees shall submit to the Secretary passing test results and a summary of any actions taken within 30 days of the completion of the tests.

(f) Permittees shall maintain records of testing or inspection in accordance with **§ 8-502**.

**§ 8-512.** FIELD CONSTRUCTED TANKS AND AIRPORT HYDRANT SYSTEMS

Field-constructed tanks and airport hydrant systems shall be maintained and operated in accordance with all applicable requirements of **40 CFR § 280, Subpart K**.

## END OF SUBCHAPTER FIVE

## *Subchapter 6: OUT-OF-SERVICE, CONTINUED USE, AND CLOSURE STANDARDS FOR UNDERGROUND STORAGE TANK SYSTEMS*

### **§ 8-601.** APPLICABILITY

(a) The owner of any category one underground storage tank system shall comply with:

(1) The out-of-service requirements of **§ 8-602**;

(2) The continued use requirements of **§ 8-603**;

(3) The closure requirements of **§ 8-604**;

(4) The release assessment requirements of **§ 8-605;**

(5) The recordkeeping requirements of **§ 8-606**.

(b) The owner of any category two underground storage tank system shall comply with:

(1) The out-of-service requirements of **§ 8-602**;

(2) The continued use requirements of **§ 8-603**;

(3) The closure requirements of **§ 8-604**;

(4) The release assessment requirements of **§ 8-605;**

(5) The recordkeeping requirements of **§ 8-606**.

(c) The owner of any category three underground storage tank system shall comply with:

(1) The closure requirements of **§ 8-604**;

(2) The release assessment requirements of **§ 8-605;**

(3) The recordkeeping requirements of **§ 8-606**.

(d) The owner of any category four underground storage tank system shall comply with the permanent closure requirements of **§ 8-604,** except for the notice requirement in **§ 8-604(a)** and the recording requirement in **§ 8-604(h)**.

**Note**: Although a release assessment is not required upon closure of a category four underground storage tank system, many banks and insurance companies require that a release assessment be performed prior to any transfer of real estate where an underground storage tank is located.

## **§ 8-602.** OUT-OF-SERVICE UNDERGROUND STORAGE TANK SYSTEMS

(a) Any underground storage tank system that is taken out-of-service shall be managed in accordance with these rules (e.g., corrosion protection, release detection), except that systems which are empty are not subject to the release detection requirements of **§§8-505**, **8-506**, and **8-507**.

(b) If an underground storage tank system is out-of-service for 90 days or less, the owner or permittee shall:

(1) Notify the Secretary that the tank system is out-of-service;

(2) Ensure that the liquid level in the tank has been lowered to or below the lowest draw-off point;

(3) Ensure that the vent line(s) is left open and functioning;

(4) Ensure that all other lines, gauge openings, manways, pumps and other ancillary equipment are capped or otherwise secured to prevent unauthorized use or access;

(5) Post signage or otherwise mark the above-ground system components to notify customers and suppliers that the system is out-of-service; and

(6) Secure the fill pipe(s) to prevent a carrier from adding regulated substance to the tank system.

(c) If an underground storage tank system is taken out-of-service for more than 90 days, the owner of or permittee shall:

(1) Comply with the requirements of **subsection (b) of this section**; and

(2) Ensure that the tank is empty.

(d) Except as allowed in **subsection (e) of this section**, any underground storage tank system which is out-of-service for more than one year shall be closed in accordance with **§8-604**.

(e) Upon written request, the Secretary may allow an underground storage tank system that meets the new construction standards of **subchapter 4** to remain out-of-service for more than one year provided all other applicable requirements of this section are met.

**Note**: **10 V.S.A. §1926** establishes who is responsible for closure of abandoned and unused underground storage tank systems.

(f) Prior to returning an out-of-service underground storage tank system into service, the owner shall obtain a permit from the Secretary in accordance with the procedures established in **§ 8-303**. Before issuing the permit, the Secretary may require inspection, testing, repair, maintenance, and/or verification of certain components by a qualified underground storage tank contractor.

(g) If the Secretary determines that an underground storage tank system that was closed or taken out of service before December 22, 1988, may pose a current or potential threat to human health and the environment, the owner or operator of the underground storage tank system shall, upon notice from the secretary, permanently close the underground storage tank system and conduct a release assessment in accordance with **§8-605** of these rules.

### **§ 8-603.** CONTINUED USE OF UNDERGROUND STORAGE TANK SYSTEMS

Prior to the continued use of an underground storage tank system, the owner or permittee shall comply with the closure requirements of **subsections (a), (b), (g), and (h) of § 8-604**.

### **§ 8-604.** CLOSURE OF UNDERGROUND STORAGE TANK SYSTEMS

(a) Notice of closure

(1) The owner or permittee shall notify the Secretary of the anticipated closure of an underground storage tank system at least five business days prior to the anticipated date of the commencement of closure. Upon request, the Secretary may allow closure to commence sooner than five business days after notice is provided.

(2) Upon being notified of the anticipated closure of an underground storage tank system, the Secretary may require that specific steps of the closure process be scheduled to allow inspection by the Secretary.

(3) If the closure of an underground storage tank system or a specific step of the closure process will not take place on the scheduled date, the owner or permittee shall notify the Secretary at least 24 hours prior to the originally scheduled date.

(b) Upon commencement of closure of an underground storage tank system, all residual materials (e.g., liquid, tank bottom residue) shall be cleaned from the tank system in accordance with procedures adopted by the Secretary prior to removing any component of the system from the ground or closing the system in place. All waste material shall be managed in accordance with applicable state and federal requirements.

**Note**: The person responsible for closure of an underground storage tank system is also responsible for evaluating all wastes resulting from that closure to determine if those wastes are subject to regulation as hazardous waste under the Vermont Hazardous Waste Management Regulations.

(c) Prior to removing an underground storage tank from the ground, or closing the tank in place, any tank that contained a Class I liquid shall be rendered non-explosive using one of the following methods, or another method approved in writing by the Secretary:

(1) Inerting

(A) With only the vent line connected to the tank, and with the vent line open and extending at least 12 feet above ground surface, nitrogen gas or dry ice (carbon dioxide) shall be introduced into the tank to displace any oxygen contained in the tank.

(B) If dry ice is used to render an underground storage tank inert, the dry ice shall be evenly distributed over the greatest possible area within the tank in an amount of at least 1.5 pounds per 100 gallons of tank capacity.

(C) Throughout the inerting process, the oxygen concentration within the tank shall be monitored using an intrinsically safe oxygen meter calibrated and operated according to the manufacturer's specifications.

(D) The inerting process shall continue until the concentration of oxygen within the tank is less than 10% when measured one foot from the bottom of the tank at its lowest end, at the middle of the tank's diameter, and just inside the tank's opening.

(2) Purging

(A) With only the vent line connected to the tank and with the vent line open and extending at least 12 feet above ground surface, the tank shall be ventilated with air, using a small, explosion-proof gas exhauster, or an air eductor operated with compressed air. The flow of air shall be directed through the length of the tank.

(B) Throughout the purging process, the concentration of combustible gas within the tank shall be monitored using a intrinsically safe combustible gas indicator calibrated and operated according to the manufacturer's specifications.

(C) The purging process shall continue until the concentration of combustible gas in the tank is no more than 10% of the Lower Explosive Limit (LEL)

when measured one foot from the bottom of the tank at its lowest end, at the middle of the tank's diameter, and just inside the tank's opening.

(D) Immediately upon removing an underground storage tank from the ground, the tank shall be rechecked for an accumulation of explosive vapors.

(d) When closing an underground storage tank system, the tank shall be removed from the ground unless the Secretary allows the tank to be closed-in-place or designated for continued use. Any tank or piping that is not removed from the ground shall be closed-in-place in accordance with procedures prescribed by the Secretary at the time of closure.

(e) Except as allowed under **§ 8-402(c)**, any tank that is removed from the ground shall be destroyed or disabled to the extent that it cannot be reused for the purpose of containing a regulated substance. On a case-by-case basis, the Secretary may require that destruction of a tank be delayed to allow inspection of the tank by the Secretary.

(f) The Secretary may require that piping be removed from the ground during the closure process if a release is suspected, or removal is deemed necessary by the Secretary to facilitate a release assessment, site investigation or corrective action.

(g) The owner of any category one, two or three underground storage tank system that is undergoing closure shall comply with the release assessment requirements of **§ 8-605**.

(h) Recording of closure

(1) Upon receipt of the release assessment report required in **§8-605**, the Secretary shall send to the owner either:

(A) An amended Notification Form, if any underground storage tanks remain at the facility; or

(B) An underground storage tank Closure Form, if no underground storage tanks remain at the facility.

(2) Within 30 days of receipt of one of the forms specified in **subsection (1) of this section**, the tank owner shall complete and sign that form in accordance with the requirements of **§8-104**, and return the completed form to the Secretary along with the municipal recording fee required by **32 V.S.A. § 1671**.

(3) Payment of the recording fee required in **subsection (2) of this section** shall be made by check payable to the municipality in which the underground storage tank system is or was located.

**Note:** The Secretary will forward the recording fee to the appropriate town or city clerk upon entering information about the tank system into the Secretary's records.

(i) The Secretary will issue an amended permit pursuant to **§ 8-303(g)** for any category one underground storage tank systems that remain in-service at a facility where an underground storage tank system has been closed.

**Note:** For more information about the closure of underground storage tanks, including closure-in-place, refer to the guidance document "Underground Storage Tank Closure and Release Assessment Requirements" which is available on-line at (link updated June 2023):

https://dec.vermont.gov/waste-management/storage-tanks/underground/removal
Printed copies are available from the Secretary upon request.

**Note**: Transportation of excavated tanks may be subject to regulation by the U.S. Department of Transportation and/or the Vermont Agency of Transportation.

### **§ 8-605.** RELEASE ASSESSMENT AT THE TIME OF CLOSURE OR A CHANGE-IN-SERVICE

(a) When closing an underground storage tank system, or at the time of a change-in-service, the site shall be assessed for the presence of a release wherever contamination is likely to exist.

(b) The person conducting a release assessment shall be present at the time of excavation and for all assessment activities. A release assessment may be conducted by:

(1) An independent hydrogeologist or professional consultant who can demonstrate experience in conducting environmental site and release assessments following procedures approved by the Secretary; or

(2) The Secretary.

(c) In the event that a release is discovered, the owner or permittee shall comply with the reporting and corrective action requirements of **§ 8-103**.

(d) Within 30 days of the commencement of closure or a change-in-service, the owner or permittee shall submit a report to the Secretary summarizing the results of the release assessment required under this section. The owner or permittee shall maintain a copy of the report at the facility or at a central business office.

**Note:** For more information about conducting release assessments, refer to the guidance document "UST Closure and Release Assessment Requirements" which is available on-line at (link updated June 2023):

https://dec.vermont.gov/waste-management/storage-tanks/underground/removal
Printed copies are available from the Secretary upon request.

**§ 8-606.** CLOSURE RECORDS

Owners and operators shall maintain records that demonstrate compliance with the closure requirements of this subchapter. The results of the release assessment required in **§ 8-605** shall be maintained for at least three years after submitting the release assessment report to the Secretary.

## END OF SUBCHAPTER SIX