



STATE OF VERMONT
Agency of Natural Resources

Aboveground Storage Tank Rules

Effective date: 07/15/2017



Waste Management and Prevention Division
Department of Environmental Conservation
One National Life Drive, Davis 1
Montpelier, VT 05620-3704
(802) 828-1138

Copies of these rules and other information are available
at the Vermont Storage Tank Program website at:

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

**ABOVEGROUND STORAGE TANK RULES
TABLE OF CONTENTS**

SUBCHAPTER 1: GENERAL PROVISIONS

9-101. Authority 1
9-102. Purpose and Applicability 1
9-103. Release Prohibition; Reporting; Emergency Response 1
9-104. Severability 3
9-105. Incorporation by Reference 3

SUBCHAPTER 2: DEFINITIONS 4

**SUBCHAPTER 3: DESIGN, INSTALLATION, AND INSPECTION STANDARDS
FOR TANK SYSTEMS USED TO STORE PETROLEUM**

9-301. Applicability 8
9-302. General Requirements 8
9-303. Tank and Piping Design Standards..... 8
9-304. Tank System Installation and Alteration Standards..... 9
9-305. Installation of Tank Systems in Flood Prone Areas 13
9-306. Inspection of Tank Systems 15
9-307. Proper Removal of Tank Systems 18
9-308. Additional Requirements for Bulk Storage Facilities 20

Subchapter 1: GENERAL PROVISIONS

§ 9-101 AUTHORITY

These rules are adopted by the Secretary of the Agency of Natural Resources pursuant to the authority granted by **10 V.S.A. Chapter 59 Section 1929a** and **10 V.S.A. Chapter 159**.

§ 9-102 PURPOSE AND APPLICABILITY

These rules are intended to protect public health and the environment by:

- (1) Establishing standards for the design, installation, and inspection of all aboveground storage tank systems; and
- (2) Establishing standards for the design, installation, and inspection of all bulk storage tank systems.

§ 9-103 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) Releases and suspected releases. Any person required by **10 V.S.A. § 6617** shall immediately report a release or suspected release that meets any of the following criteria to the Secretary:
 - (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 loss of product from the aboveground storage tank;
 - (ii) Strong petroleum vapors present in the vicinity of the aboveground storage tank; or
 - (iii) Other environmental conditions present in the vicinity of the tank, the facility, or off the facility site that indicate that a

release may have occurred (e.g., dead vegetation around the tank system).

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: Division of Emergency Management and
Homeland Security 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) 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** and any other regulations and procedures adopted by the Agency for the investigation and clean-up of contaminated properties.
- (d) Emergency response.
 - (1) Notwithstanding the requirements of **subsection (c) 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 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.

§ 9-104 SEVERABILITY

The provisions of these rules shall be 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.

§ 9-105 INCORPORATION BY REFERENCE

When reference is made herein 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.

Subchapter 2: DEFINITIONS

All terms not defined herein shall have the meaning given them in **10 V.S.A. chapter 59**:

“Aboveground storage tank” means any tank, other than an underground storage tank, used to store any of the following petroleum products: gasoline, diesel, kerosene, used oil, or heating oil.

“Aboveground storage tank system” means the above-ground storage tank and all associated piping, vent and fill pipes, vent alarm and whistle, fuel filter and shut-off valves.

“Agency” means the Vermont Agency of Natural Resources.

“Biodiesel” means a fuel comprised of mono-alkyl esters of long chain fatty acids derived from vegetable oils or animal fats, designated B100, or a fuel manufactured to ASTM International D6751 specifications.

“Bulk storage tank facility” means any facility:

- (1) that stores heating fuel or motor fuel in an aboveground tank and the principle purpose of the storage is:
 - (A) in the case of heating fuel, for distribution to consumer homes, and
 - (B) in the case of motor fuel, for distribution to a person for sale to consumers;
- (2) with a total storage capacity of greater than 1,320 gallons; and
- (3) that is stationary and located at a fixed location.

“Bulk storage tank” means any aboveground storage tank at a bulk storage tank facility.

“Carrier” means a person who transports and transfers heating fuel, motor fuel, or used oil from a bulk liquid transport vehicle to an aboveground storage tank.

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

“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 aboveground storage tank system for the design life of that system.

“Facility” means all contiguous land, structures, other appurtenances, and improvements on the land where an aboveground storage tank system is located.

“Hazardous material” means all petroleum and toxic, corrosive, or other chemicals and related sludge included in any of the following:

- (a) Any substance defined in **CERCLA § 101(14)**;
- (b) Petroleum, including crude oil or any fraction thereof; or
- (c) Hazardous waste, as defined in 10 V.S.A. chapter 159 and the Vermont Hazardous Waste Management Regulations.

Note: “Hazardous material” does not include herbicides and pesticides when applied consistent with good practice conducted in conformity with federal, state and local laws and regulations and according to manufacturers’ instructions. Nothing in this subsection shall affect the authority granted and the limitations imposed by **10 V.S.A. § 6608a**.

“Heating fuel” means heating oil, kerosene, or other dyed diesel fuel that is not used to propel a motor vehicle and which is typically used to heat a structure. “Heating fuel” includes any blend of petroleum and biodiesel used to heat a structure.

“In Service” means a condition in which an aboveground storage tank system remains connected to a heating source and stores heating fuel that is required by the heating unit, or remains connected to a distribution system for a motor fuel tank. This definition applies to systems that use an alternative fuel (e.g., wood) as a primary heat source, and utilize heating fuel as a backup heating source. This definition also applies to aboveground storage tanks at bulk storage tank facilities that store fuel for distribution.

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

“Liquid-tight” means impervious to the passage of water and/or regulated liquid substance.

“Marina” means a shoreline property that:

- (1) contains a dock or basin to provide secure moorings for pleasure or commercial boats; and
- (2) that has an associated fueling dock or aboveground storage tank.

“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. “Motor fuel” includes any blend of petroleum and biodiesel used to propel a vehicle.

“New installation” means the installation of a tank or tank system on or after the effective date of these rules. This term shall include the installation of a tank that is reused or used to replace an existing tank.

“NFPA” means the National Fire Protection Association.

“NORA” means the National Oilheat Research Alliance.

“Out-of-service” means a condition in which an aboveground storage tank system is disconnected from a heating source or distribution system or is not in service, and the liquid level in the tank has been lowered to the extent that no more than 1 inch of residue, or 0.3 percent by weight of the total capacity of the aboveground storage tank, remains in the tank.

“Owner” means any person who owns an aboveground storage tank.

“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 conduit made of a petroleum-compatible material used to convey petroleum to and from an aboveground storage tank 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.

“Release” means any spilling, leaking, emitting, discharging, escaping, leaching, or disposing of heating fuel, motor fuel, or used oil from an aboveground storage tank into groundwater, surface water, unconsolidated soils or bedrock.

“Secondary containment system” means a liquid-tight physical barrier that is either:

- (a) a double-walled tank that is designed to:
 - (i) contain any regulated substance that leaks from the primary containment barrier of an aboveground storage tank system; and
 - (ii) allows access to the interstitial space for monitoring and maintenance; or
- (b) a single-walled tank system or enclosure that is designed to contain at least 110 percent of the storage capacity of the tank.

“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 public or potable water supplies, surface waters, wetlands, sensitive ecological areas, outdoor and indoor air, and enclosed spaces such as basements, sewers, and utility corridors.

“Structure” means any assembly of materials that is intended for occupancy or use by a person and that has at least three walls and a roof.

“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).

***Subchapter 3: DESIGN, INSTALLATION, AND INSPECTION
STANDARDS FOR ABOVEGROUND STORAGE TANK SYSTEMS***

§ 9-301 APPLICABILITY

This subchapter applies to all aboveground storage tanks and tank systems.

§ 9-302 GENERAL REQUIREMENTS

All aboveground storage tanks shall be made of or lined with materials that are compatible with the substance(s) stored in them and shall be constructed as per one of the following designs:

- (1) Single-walled tank not less than 12-gauge in thickness in its entirety in accordance with NFPA 7.2.7 Design Standards;
- (2) Double-bottom steel tanks with end-cover protection and interstitial space monitoring;
- (3) Double-wall non-metallic tank; or
- (4) Single-walled non-metallic tank for inside use only.

Note: All tanks at public buildings (as defined in 20 V.S.A., § 2730), including aboveground LP Gas tanks; over 2,000 gallons water capacity; or with an aggregate capacity over 4,000 gallons; and aboveground flammable and combustible liquid tanks, must have a permit from the Vermont Division of Fire Safety. Tank permit applications are available online at www.firesafety.vermont.gov, or can be obtained by contacting any office of the Vermont Division of Fire Safety.

§ 9-303 TANK AND PIPING DESIGN STANDARDS

- (a) All new installations shall be designed and constructed in accordance with Section 7.2.7 Design Standards of NFPA 31, effective December 4, 2015, as amended. For new installations, all tank fill and vent piping shall be designed and constructed in accordance with Section 8.2.1.1, effective December 4, 2015, as amended.
- (b) Tanks with legs longer than 12 inches are prohibited unless such tank is approved by the Secretary in writing prior to the tank's installation.
- (c) Unused openings in all tanks shall be fully and permanently closed or plugged. Threaded pipe plugs may be used to close openings to comply with this provision.

§ 9-304 TANK SYSTEM INSTALLATION AND ALTERATION STANDARDS

- (a) Specifications. Installation and alteration of all aboveground storage tank systems shall be performed in accordance with one of the following methods:
 - (1) NFPA 1 Uniform Fire Code (IFC); or
 - (2) NFPA 30 & 31; or
 - (3) A similar method approved in writing by the Secretary.
- (b) Tank systems in a structure. All tank systems located inside a structure shall comply with the provisions of this subsection, as follows:
 - (1) The tank shall be located on the lowest floor of the structure unless the installation meets an exception recognized by a method in **§ 9-304(a) of this section**.
 - (2) The tanks shall be equipped with an accessible shutoff valve located within 12 inches of the fuel outlet of the tank. The valve shall be a positive shutoff valve designed solely for the purpose of shutting off the supply of heating fuel, motor fuel, or used oil.
 - (3) The tank shall be equipped with a vent line that terminates outside the structure.
 - (4) The tank shall be equipped with a vent alarm or “whistle” that terminates near the fill pipe. Vent pipes shall terminate not more than 12 feet from the fill pipe and at a point visible from the fill port.
 - (5) The fill pipe and the vent pipe shall be sized at least 1-1/4 inches in diameter and terminate outside the structure. All new installations shall also be equipped with fill and vent piping constructed in accordance with **§ 9-303(a) of these rules**. The fill pipe shall have a liquid-tight cap and the vent pipe shall have a weatherproof and insect-proof cap.
 - (6) The tank vent pipe shall be sized in accordance with the corresponding NFPA minimum diameter of tank vent opening.
 - (7) The tank shall be equipped with a device to gauge fuel volume.

- (8) All piping installed below grade shall be installed with a plastic coating or a continuous protective sleeve made of a non-corrodible material to prevent corrosion. The protective sleeve shall start and terminate aboveground. For all new installations, all piping below grade shall be installed with a plastic coating and a continuous protective sleeve made of non-corrodible material. Fittings shall not be installed below grade in any piping, coating, or sleeve. Directly burying unprotected piping into the ground is prohibited.
- (9) All tanks shall be installed on a stable foundation, such as a concrete pad, that is adequate to prevent the tank from tipping over. For all new installations, the foundation shall be made of concrete, be at least 4 inches in depth, and be sized to have a footprint that exceeds the length and width dimensions of the tank by a factor of 10 percent (see Note below for example). A foundation of alternative material and/or size may be utilized with prior written approval by the Secretary.

Note: For a 275-gallon tank with dimensions of 44 inches (height) by 27 inches (width) by 60 inches (length), the foundation footprint shall measure at least 4 inches deep and 30 inches (width) by 66 inches (length).

- (10) A tank system that includes more than one storage tank shall have, for each individual tank, a separate fill pipe, a separate fuel volume gauge, a separate vent pipe, and a separate vent alarm, each of which comply with the requirements of this section. The separate vents may be plumbed or manifolded together inside the building and tied into one outlet vent pipe that goes to the outside of the structure, provided that:
 - (A) the outlet pipe is at least one pipe size larger than the largest individual vent pipe connected thereto; and
 - (B) the point of connection between two or more vent pipes shall not be lower than the top of the fill pipe opening.
- (c) Tank systems outside a structure. All tank system located outside of a structure shall comply with the provisions of this subsection, as follows:
 - (1) The tank system shall be protected from physical damage caused by snow or ice. Compliance with this subsection shall require location of a tank system:

- (A) on the gable end of a structure;
 - (B) in a secondary containment structure that is installed in accordance with **subsection (f) of this section**;
 - (C) in or under a shelter or enclosure with a roof; or
 - (D) in accordance with another method approved by the Secretary.
- (2) All tanks shall be installed on a stable foundation, such as a concrete pad, that is adequate to prevent the tank from tipping over. For all new installations, the foundation shall be made of concrete, be at least 4 inches in depth, and be sized to have a footprint that exceeds the length and width dimensions of the tank by a factor of 10 percent (see Note below for example). A foundation of alternative material and/or size may be utilized with prior written approval by the Secretary.
- Note:** For a 275-gallon tank with dimensions of 44 inches (height) by 27 inches (width) by 60 inches (length), the foundation footprint shall measure at least 4 inches deep and 30 inches (width) by 66 inches (length).
- (3) The tank shall be equipped with an accessible shutoff valve located within 12 inches of the fuel outlet of the tank. The valve shall be a positive shutoff valve designed solely for the purpose of shutting off the supply of heating fuel, motor fuel, or used oil.
- (4) All piping installed below grade shall be installed with a plastic coating or a continuous protective sleeve made of a non-corrodible material to prevent corrosion. The protective sleeve shall start and terminate aboveground. For all new installations, all piping below grade shall be installed with a plastic coating and a continuous protective sleeve made of non-corrodible material. Fittings shall not be installed below grade in any piping, coating, or a sleeve. Directly burying unprotected piping into the ground is prohibited.
- (5) A tank system that includes more than one storage tank shall have, for each individual tank, a separate fill pipe, separate fuel volume gauge, separate vent pipe, and a separate alarm, each of which comply with the requirements of this section. The separate vents may be plumbed or manifolded together outside the building and tied into to a common outlet vent pipe, provided that:

- (A) the outlet pipe is at least one pipe size larger than the largest individual vent pipe connected thereto; and
 - (B) the point of connection between two or more vent pipes shall not be lower than the top of the fill pipe opening.
- (6) The tank shall be equipped with a vent alarm or “whistle” that terminates near the fill pipe. Vent pipes shall terminate not more than 12 feet from the fill pipe and at a point visible from the fill port.
- (7) The fill pipe and the vent pipe shall be sized at least 1-1/4 inches in diameter and terminate outside the structure. All new installations shall also be equipped with fill and vent piping constructed in accordance with **§ 9-303(a) of these rules**. The fill pipe shall have a liquid-tight cap and the vent pipe shall have a weatherproof and insect-proof cap.
- (8) The tank vent pipe shall be sized in accordance with the corresponding NFPA minimum diameter of tank vent opening.
- (9) The tank shall be equipped with a device to gauge fuel volume.
- (d) Date of installation. All new installations (tanks and tank systems installed on or after the effective date of these rules) shall be visibly identified with the date of tank installation. The visible identification shall be in the form of a tag, sticker, or other marker that is permanently affixed to the tank and that clearly identifies the date of installation of the tank system. The tag or sticker shall be located on the tank such that it is clearly visible and unobstructed from view.
- (e) Tank systems at marinas. All aboveground storage tank systems located at marinas shall be installed and shall be operated in accordance with the Petroleum Equipment Institute’s Publication PEI/RP 1000-09: “**Recommended Practices for the Installation of Marina Fueling Systems.**” All new installations at marinas shall also employ secondary containment consistent with **subdivision (f) of this section**.
- (f) Secondary containment systems.
 - (1) Applicability. Secondary containment systems shall be required for all new installations at marinas. Secondary containment systems may also be utilized as a method of compliance with **subdivision (c)(1) of this section**.

- (2) Requirements for installation and construction. Secondary containment systems shall be installed and constructed in accordance with manufacturer instructions and specifications.
- (g) As of July 1, 2030, all tanks that are existing as of the effective date of these rules shall be located on a stable foundation that is adequate to prevent the tank from tipping over. The foundation shall be made of concrete, and be constructed to be at least 4 inches in depth, and sized to have a footprint that exceeds the length and width dimensions of the tank by a factor of 10 percent. A foundation of alternative material and/or size may be utilized with prior written approval by the Secretary.

§ 9-305 INSTALLATION OF TANK SYSTEMS IN FLOOD PRONE AREAS

- (a) In addition to meeting the requirements of **§§ 9-302, 9-303, and 9-304 of these rules**, all new installations located in a flood hazard area as defined in **10 V.S.A. § 752** shall meet the following to prevent tank floating and to prevent releases in high water or flooding conditions:
 - (1) Tanks located inside a structure:
 - (A) The tank vent pipe shall be of sufficient length to extend above the level of a projected flood.
 - (B) The tank shall be anchored to the concrete pad or alternative foundation that has been approved by the Secretary through the use of one of the following methods:
 - (i) Foot flanges. For tanks with pipe legs on a foundation, foot flanges with threaded ends shall be connected to mating pipe ends. Each foot flange shall be secured to the supporting surface with concrete bolts or screws;
 - (ii) Concrete anchors. For tanks with saddles or pipe legs for new surfaces in combination with hold-down straps, concrete anchors with a means for attaching the strap end shall be cast into the supporting surface. The anchors shall be positioned at +/-4" of the tank support centerline and +/-4" of the tank width or diameter centerline;

- (iii) Earth augers. For tanks with saddles or pipe legs for undersized pads in combination with hold-down straps, earth augers with a means for attaching the strap end shall be installed under the concrete slab. The augers shall be positioned at +/- 4" of the tank support centerline and +/- 4" of the tank width or diameter centerline; or
 - (iv) Any other method recommended by the tank manufacturer or tank installer that is based on the tank installation type, supporting surface, and other appropriate considerations.
- (C) Hold-down straps used with a concrete anchor or earth auger methods in subsections **(B)(ii) or (B)(iii) of this subsection** shall have a means at each end to connect to fixed attachment points and shall have a means to tighten the strap (e.g., a turnbuckle). Straps shall be positioned over the tank at the anchor points, but shall not interfere with used openings.
- (2) Tanks located outside a structure. Where possible, new installations located outside a structure shall comply with the criteria for tanks systems located inside a structure listed above in **subsection (a)(1)(A) through (a)(1)(C)** to prevent product loss and damage to the tank system.

Note: Information pertaining to flood hazard areas and projected flood levels can be found at the FEMA Map Service Center (Flood Insurance Rate Maps) – <https://msc.fema.gov>. These maps can also be found on the ANR Natural Resources Atlas.

Note: Where applicable, the Agency encourages contractors and other parties to refer to the **National Oilheat Research Alliance (NORA) Recommended Practice for Home Heating Oil Tank Flood Resistance** for guidance on the construction of anchoring systems and other work to tank systems located within a flood hazard area.

§ 9-306 INSPECTION OF TANK SYSTEMS

- (a) Applicability. As of the effective date of these rules, all storage tank systems shall be inspected at least once during every three-year period in accordance with the requirements of this section.
- (b) Frequency of inspections. A tank system shall be inspected at the following times, where applicable:
 - (1) Immediately after tank system installation;
 - (2) Immediately after initial delivery of fuel to the tank system;
 - (3) Prior to the initial delivery of fuel to the tank system when the tank owner switches fuel carriers;
 - (4) If not otherwise required under **subdivisions (1), (2), or (3) of this subsection**, the tank system shall be inspected once every three years; and
 - (5) Upon removal of a tank system under **§ 9-307 of these rules**.
- (c) Inspection standards. Tank systems shall be visibly inspected for compliance with the following standards:
 - (1) All applicable tank foundation requirements of **§ 9-304(b)(9)** for tanks located in a structure, and of **§ 9-304(c)(2)** for tanks located outside a structure. A tank foundation shall be determined to be stable under these provisions if all the following conditions are present:
 - (A) the tank is free-standing;
 - (B) measurements taken on the tank's length and width dimensions show the absence of the tank tilting, taking into account any industry-accepted design or installation specifications; and
 - (C) there is no evidence of tank subsidence (i.e., no contact between the tank or tank legs and the ground surface).
 - (2) All applicable below-grade piping requirements of **§ 9-304(b)(8)** for tanks located in a structure, and of **§ 9-304(c)(4)** for tanks located outside a structure.

- (3) The vent alarm or whistle requirements of **§ 9-304(b)(4)** for tanks located in a structure, and of **§ 9-304(c)(6)** for tanks located outside a structure.
 - (4) All applicable tank vent and fill pipe size, design, and capping requirements of **§ 9-304(b)(5)** and **§ 9-304(b)(6)** for tanks located in a structure, and of **§ 9-304(c)(7)** and **§ 9-304(c)(8)** for tanks located outside a structure;
 - (5) The tank and tank legs are free of any cracks and of significant corrosion or pitting, rust, and spores; dents or bulges; and all tank fuel filter, fittings, and valves are free of drips or leaks and any other sign of an actual or suspected release of hazardous material.
 - (6) The shutoff valve requirements of **§ 9-304(b)(2)** for tanks located in a structure, and of **§ 9-304(c)(3)** for tanks located outside a structure.
 - (7) There are no unused openings in the tanks (all unused openings are fully and permanently closed or plugged).
 - (8) The requirements of **§ 9-303(b)** for tank leg length.
 - (9) The tank is equipped with a device to gauge fuel volume in accordance with **§ 9-304(c)(9)**.
 - (10) For tanks located outside a structure: the requirements of **§ 9-304(c)(1)** (for protection from damage from snow and ice).
- (d) Inspectors. Inspections of aboveground storage tank systems shall be conducted by an inspector that maintains one of the following:
- (1) a NORA Gold, Bronze, or Silver certification;
 - (2) a Vermont Oilheat Certificate of Fitness; or
 - (3) a certificate of completion from an Oilheat Tank Seminar, which has been approved by NORA.

- (e) Inspection checklist. Inspectors shall utilize an inspection checklist for performing each tank system inspection. The checklist shall be on a form provided by the Secretary or pre-approved by the Secretary and shall be used by the inspector to document the age and condition of the aboveground storage tank system as of the time of the inspection. The checklist shall also document any issues identified in the inspection which indicate an actual or suspected release of fuel and any noncompliance with the requirements and standards of **§ 9-306(c) of these rules**.

- (f) Non-compliant tanks. If a tank system is determined to be non-compliant with the standards of **§§ 9-306(c)(1) through (c)(5) of these rules**, the inspector shall include such results in the inspection checklist and take the following measures:
 - (1) The inspector shall immediately affix a red tag or other visible designation onto the tank system to indicate that the tank system is noncompliant with the requirements and standards of **§§ 9-306(c)(1) through (c)(5) of these rules** and shall not be filled. A tag or other visible designation shall be affixed to the tank and the tank fill port, and shall be clearly visible and unobstructed from view.

 - (2) Within two working days of the date of the inspection, the inspector shall provide the results of the inspection to the tank owner, and shall enter the following information into the Secretary's database for tracking aboveground storage tank compliance:
 - (A) Name of the tank owner;
 - (B) Location of the tank system (physical address and city);
 - (C) Capacity of tank inspected;
 - (D) Name, company, and contact information of technician that performed the inspection of the tank system;
 - (E) The date of inspection and date of application of the red tag or other visible designation;
 - (F) Reason for non-compliance; and
 - (G) Measures recommended by inspector to address noncompliance.

Note: The Secretary's database for aboveground storage tanks is located at: <https://anrweb.vt.gov/DEC/ERT/AST.aspx>

- (g) A red tag or other visible designation required to be affixed to a tank under this section may be removed if the results of a follow-up inspection demonstrate that the measures taken to address the identified noncompliance are sufficient to bring the tank and tank system into compliance with **§§ 9-306(c)(1) through (c)(5) of these rules.**
- (h) No person shall deliver fuel to an aboveground storage tank which has been visibly designated as noncompliant with the requirements of this rule.

§ 9-307 PROPER REMOVAL OF TANK SYSTEMS

- (a) During the installation of an aboveground storage tank system, the installer shall ensure that the existing system is taken out of service and removed in accordance with one of the following methods:
 - (1) NFPA 1 Uniform Fire Code (IFC);
 - (2) NFPA 30 & 31; or,
 - (3) A similar method approved in writing by the Secretary.
- (b) Removal of out-of-service tank systems.
 - (1) Any aboveground storage tank system that is out-of-service for more than one year shall be removed by the owner and the owner shall remove all piping at the same time. For tank systems located in a structure, the fill pipe to the tank system shall be fully and permanently removed from the structure to prevent delivery to a disconnected system. The removed tank and piping shall be properly disposed of unless reused in accordance with **subsection (c) of this section.**
 - (2) During the removal of an aboveground storage tank system, the facility shall be inspected for an actual or suspected release of the substance stored in the tank system. The inspection shall include any aboveground, subsurface or other areas where contamination is likely to exist. If an actual release or suspected release is discovered, the owner or carrier shall comply with the requirements of **§ 9-103 of these rules.**

- (3) If the owner of any aboveground storage tank that serves a structure converts the type of fuel used for the structure from fuel oil or kerosene to natural gas so that the structure is no longer served for any purpose by the aboveground storage tank, the owner shall have the aboveground storage tank used to store fuel oil or kerosene and any fill pipes removed at the same time as the conversion in accordance with this section.
- (c) Reuse of tank systems. Any tank system taken out of service shall be rendered unusable unless the tank system is inspected pursuant to **§ 9-306 of these rules** and is found to be in sound condition and otherwise compliant with these rules, in which case, the tank system may be put back in service.
- (d) Upon written request, the Secretary may allow an aboveground storage tank system that meets the standards of **§ 9-302, § 9-303, § 9-304**, and with **§ 9-305** (when a tank is located in a flood prone area), and the inspection requirements of **§ 9-306**, to remain out-of-service for more than one year. The Secretary may condition approval under this section.
- (e) When installing a replacement tank system, the fuel in the tank being replaced shall not be pumped into the replacement tank unless the tank being replaced is leaking or is likely to cause a release in the near future. The fuel in the tank being replaced shall either be burned by the heating system prior to tank replacement or, if pumped into the replacement tank, shall be treated with a fuel conditioner that contains the following components: stabilizer (to keep fuel fresh during summer storage), dispersant (to arrest moisture and pre-existing sedimentation), corrosion inhibitor (to protect storage tank and remainder of the fuel system) and metal deactivator (to protect against fuel blackening from contact with yellow metals).

Note: Unused fuel in tanks that are replaced that is not burned prior to new tank installation or is not treated by a fuel conditioner shall be managed in accordance with the Vermont Hazardous Waste Management Regulations.

§ 9-308 ADDITIONAL REQUIREMENTS FOR BULK STORAGE FACILITIES

- (a) Prior to a new installation of an aboveground storage tank system at a bulk storage tank facility, the installer shall submit a **Vermont Aboveground Storage Tank Registration Form** (provided by the Secretary) completed in accordance with the form's instructions. Installers of aboveground storage tank systems at more than one bulk storage facility location shall file a separate form for each location.

Note: An installer may register several aboveground storage tank systems at one location using one form.

- (b) At the time a tank is taken out of service at a bulk storage tank facility, the owner shall conduct a site investigation consistent with the requirements of § 9-301(c) of these rules.
- (c) No aboveground bulk storage facility 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 aboveground 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.