# NEW HAMPSHIRE CODE OF ADMINISTRATIVE RULES

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REVISION NOTE #1:
Document #10393, effective 9-1-13, readopted with amendments and redesignated former Part Env-Wm 1401 titled “Underground Storage Tank Facilities” as Chapter Env-Or 400 pursuant to a rules reorganization plan for Department rules approved by the Director of the Office of Legislative Services on 9-7-05.

The prior filings affecting the former Env-Wm 1401 included the following documents:

#6499, eff 4-24-97
#8281, eff 2-3-05

REVISION NOTE #2:
Document #12643, effective 10-10-18, effectively readopted with amendments the entire Chapter Env-Or 400, including the adoption or addition of new rules and the repeal or deletion of existing rules.

The following new rules were adopted or otherwise added to Chapter Env-Or 400:

Env-Or 401.04  Date of Incorporated Federal Regulations.
Env-Or 402.01  defining  “Airport hydrant fuel distribution system”.
Env-Or 402.04  defining  “Auxiliary tank”.
Env-Or 402.12  defining  “Containment sump”.
Env-Or 402.14  defining  “Day tank.”
Env-Or 402.16  defining  “Discharge”
Env-Or 402.21  defining  “Field-erected tank.”
Env-Or 402.23  defining  “Hydrant pit.”
Env-Or 402.36  defining  “Non-public water system.”
Env-Or 402.38  defining  “Oil-water separator.”
Env-Or 402.53  defining  “Replace.”
Env-Or 402.57  defining  “Sensor.”
Env-Or 402.58  defining  “Spill containment.”
Env-Or 404.03  Change in Product.
Env-Or 405.12  Day Tank Markings Required.
Env-Or 406.18  Monthly, Bi-Monthly, and Annual Visual Inspections.
Env-Or 406.19  Reports of Visual Inspections.

The following rules were repealed or otherwise deleted from the former Chapter Env-Or 400:

Env-Or 405.10  Release Detection for Tanks Without Secondary Containment and Leak Monitoring.
Env-Or 405.11  Release Detection for Piping Systems.
Env-Or 406.01  Inventory Monitoring and Leak Detection Required.
Env-Or 406.02  On-Premise Use Facilities (OPUF).
Env-Or 406.03  Single Wall USTs Containing Motor Fuel or Bulk Storage Fuel Oil.
Env-Or 406.04 Inventory Monitoring for OPUFs and Emergency Generator Single Wall USTs.
Env-Or 406.05 Inventory Monitoring for Used Oil Single Wall USTs.
Env-Or 406.07 Operation of Automatic Tank Gauge Devices.
Env-Or 406.15 Automatic Tank Gauging Testing.

The changes in Chapter Env-Or 400 required renumbering of various existing rules in Parts Env-Or 402, 404, 405, and 406. The former existing rule numbers are indicated in the source notes for those rules.

Document #12643 replaces all prior filings for rules in Chapter Env-Or 400. The prior filings for the former rules after the filing of Document #10393 included the following documents, which affected only Env-Or 406.24 titled “Primary Containment System Testing”, readopted with amendments and renumbered by Document #12643 as Env-Or 406.17:

#12160, eff 4-17-17, EMERGENCY
#12365, eff 8-19-17
CHAPTER Env-Or 400 UNDERGROUND STORAGE TANK FACILITIES

Statutory Authority: RSA 146-C:9; RSA 146-A:11-c, III, IV, V-a, & VIII

PART Env-Or 401 PURPOSE; APPLICABILITY; FEDERAL REGULATIONS

Env-Or 401.01 Purpose. The purpose of this chapter is to prevent and minimize contamination of the land and waters of the state due to the improper storage and handling of regulated substances, including motor fuels, heating oils, lubricating oils, other fluids containing or contaminated by petroleum, and hazardous substances, by establishing criteria and procedures for the registration and permitting required by RSA 146-C and standards for the design, installation, operation, maintenance, and monitoring of underground storage tank facilities.

Source. (See Revision Note #1 (RN1) at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (See Revision Note #2 (RN2) at pp. iv-v)

Env-Or 401.02 Applicability. Subject to the exclusions listed in Env-Or 401.03, this chapter shall apply to any underground storage tank (UST) facility at which any individual tank has a capacity of greater than 110 gallons, or is of unknown capacity, that stores or has stored any regulated substance.

Source. (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (See RN2 at pp. iv-v)

Env-Or 401.03 Exclusions. The following shall not be subject to regulation under this chapter:

(a) Any UST facility that is used solely for heating a residential building;

(b) Any UST facility at which:
   (1) No tank has a storage capacity of more than 1,100 gallons; and
   (2) All tanks are used solely for the storage of heating oil for on-premise heating use;

(c) Any storage system where less than 10% of the total volume of the tank(s) and associated piping is below the surface of the ground;

(d) Any storage system that is located in an underground room or vault if:
   (1) Each tank and all associated piping are totally above or upon the surface of the floor;
   (2) No portion of any tank is covered, surrounded, or buried with soil, stone, or other material; and
   (3) All components can be visually inspected;

(e) Any tank or oil water separator that is used in an emergency spill or overflow containment system, provided the tank is emptied at or otherwise taken to a facility that is legally authorized to receive such oil within 48 hours after the emergency use has ended;

(f) Equipment or machinery that contains regulated substances for operational purposes, such as hydraulic lift tanks and electrical equipment tanks;

(g) Oil-transmission pipelines subject to the Natural Gas Pipeline Safety Act of 1968 or the Hazardous Liquid Pipeline Safety Act of 1979;

(h) Oil/water separators at wastewater treatment facilities regulated under the Clean Water Act Section 402 or 307(b);

(i) Septic tank systems or floor drain collection tank systems that collect waste for the purpose of segregating the collected wastes from septic systems;
(j) Any flow-through process system that is integral to the operation of equipment, such as manufacturing process equipment, elevators, trash compactors, and vehicle lifts, through which there is a steady, variable, recurring, or intermittent flow of one or more regulated substances during the operation of the equipment, exclusive of any tank(s) or tank system(s) used for the storage of regulated substances prior to their introduction into the production process or for the storage of finished products or by-products from the production process;

(k) Any facility that is regulated under the Atomic Energy Act of 1954 because it contains radioactive material, provided that the UST system meets the installation requirements of 40 CFR 280.11; and

(l) Any UST facility that stores products containing one or more regulated substances in concentrations that are below the applicable allowable drinking water standard for the regulated substance.

Source. (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (See RN2 at pp. iv-v)

Env-Or 401.04 Date of Incorporated Federal Regulations. Unless otherwise specified, references to 40 CFR within this chapter shall be to the 07-01-17 edition.

Source. #12643, eff 10-10-18 (See RN2 at pp. iv-v)

PART Env-Or 402 DEFINITIONS

Env-Or 402.01 “Airport hydrant fuel distribution system” means a UST system that fuels aircraft and operates under high pressure with large diameter piping that begins where fuel enters one or more tanks from an external source such as a pipeline, barge, rail car, or other motor fuel carrier, and terminates at one or more hydrants, also known as fill stands.

Source. #12643, eff 10-10-18 (See RN2 at pp. iv-v)

Env-Or 402.02 “Annually” means at least once in each calendar year, but not later than 12 months after the prior annual event.

Source. (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (formerly Env-Or 402.02) (See RN2 at pp. iv-v)

Env-Or 402.03 “As-built record drawing” means one or more plans that clearly depict the actual location of all components and the specifications of all components of a new UST facility or a substantially modified UST facility.

Source. (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (formerly Env-Or 402.03) (See RN2 at pp. iv-v)

Env-Or 402.04 “Auxiliary tank” means a day tank installed in the supply piping between a heating oil burning device and the UST that supplies it, is an integral component of the piping system, and is a UL 443 tank not exceeding 60 gallons in capacity.

Source. #12643, eff 10-10-18 (See RN2 at pp. iv-v)

Env-Or 402.05 “Backfilling” means the process of surrounding and covering tanks, piping, and associated components after they have been installed with the type of material, such as sand or crushed stone, required by the specifications of the manufacturer of the installed equipment or, if none, the specifications shown on the approved plans.

Source. (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (formerly Env-Or 402.05) (See RN2 at pp. iv-v)

Env-Or 402.06 “Cathodic protection system” means the totality of components used to reduce the corrosion of a metal surface by making that surface the cathode of an electrochemical cell, using either a sacrificial anode or impressed current system.

Source. (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (formerly Env-Or 402.04) (See RN2 at pp. iv-v)
Env-Or 402.07 “Cathodic protection tester” means an individual who is certified by NACE International, the Steel Tank Institute, or the International Code Council as being qualified to evaluate the effectiveness of cathodic protection of buried metal tanks and piping systems.

Source. (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (formerly Env-Or 402.05) (See RN2 at pp. iv-v)

Env-Or 402.08 “Certified tank installer” means an individual who is certified by:

(a) The International Code Council in UST system installation/retrofitting; and

(b) The equipment manufacturer as being qualified in the installation of the manufacturer’s equipment or individual system components.

Source. (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (formerly Env-Or 402.06) (See RN2 at pp. iv-v)

Env-Or 402.09 “Certified tank remover” means an individual who is certified by the International Code Council in UST system decommissioning and who has knowledge of federal UST regulations and industry standards.

Source. (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (formerly Env-Or 402.07) (See RN2 at pp. iv-v)

Env-Or 402.10 “Compatible” means the ability of 2 or more substances to maintain their respective physical and chemical properties upon contact with one another for the design life of the UST system in which they come in contact, under conditions likely to be encountered in the UST system.

Source. (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (formerly Env-Or 402.08) (See RN2 at pp. iv-v)

Env-Or 402.11 “Connected piping” means the entirety of a piping system that is attached to a tank or storage system through which regulated substances can flow.

Source. (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (formerly Env-Or 402.09) (See RN2 at pp. iv-v)

Env-Or 402.12 “Containment sump” means a liquid-tight container, with or without secondary containment, that protects the environment by containing leaks and spills of regulated substances from piping, dispensers, pumps, and related components in the containment area. The term includes containment sumps located:

(a) At the top of the tank, known as tank top or submersible turbine pump sumps;

(b) Underneath the dispenser, known as under-dispenser containment sumps, dispenser sumps, and under-dispenser sumps; and

(c) At other points in the piping run, known as piping sumps, transition sumps, intermediate sumps, low-point sumps, and piping vaults.

Source. #12643, eff 10-10-18 (See RN2 at pp. iv-v)

Env-Or 402.13 “Corrosion expert” means an individual who is:

(a) Accredited or certified by NACE International as a corrosion specialist or cathodic protection specialist; or

(b) A registered professional engineer with certification or licensing that includes education and experience in corrosion control of buried metal piping systems and metal tanks.

Source. (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (formerly Env-Or 402.10) (See RN2 at pp. iv-v)
Env-Or 402.14 “Day tank” means a tank installed in the supply piping between a heating oil or motor fuel burning device and the UST that supplies it, that is an integral component of the piping system.

Source. #12643, eff 10-10-18 (See RN2 at pp. iv-v)

Env-Or 402.15 “Department” means the department of environmental services.

Source. (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (formerly Env-Or 402.11) (See RN2 at pp. iv-v)

Env-Or 402.16 “Discharge” means “discharge” as defined in RSA 146-C:1, II, reprinted in Appendix C.

Source. #12643, eff 10-10-18 (See RN2 at pp. iv-v)

Env-Or 402.17 “Excavation zone” means the empty volume remaining after a UST system and surrounding material are removed.

Source. (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (formerly Env-Or 402.12) (See RN2 at pp. iv-v)

Env-Or 402.18 “Existing facility” means “existing facility” as defined in RSA 146-C:1, IV, reprinted in Appendix C.

Source. (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (formerly Env-Or 402.13) (See RN2 at pp. iv-v)

Env-Or 402.19 “Facility” means “facility” as defined in RSA 146-C:1, V, reprinted in Appendix C.

Source. (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (formerly Env-Or 402.14) (See RN2 at pp. iv-v)

Env-Or 402.20 “Fittings” means all components and materials used to connect pipes to each other or to a tank or dispenser, including but not limited to valves, elbows, joints, flanges, flexible connectors, gaskets, and sealants.

Source. (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (formerly Env-Or 402.15) (See RN2 at pp. iv-v)

Env-Or 402.21 “Field-erected tank” means a UST that is built on-site by joining separate components and is not pre-fabricated. The term includes field-constructed tanks.

Source. #12643, eff 10-10-18 (See RN2 at pp. iv-v)

Env-Or 402.22 “Heating oil” means oil, other than used oil, that is:

(a) No. 1, No. 2, No. 4-light, No. 4-heavy, No. 5-light, No. 5-heavy, or No. 6-technical grade of fuel oil;

(b) Any other residual fuel oil, such as Navy Special Fuel Oil or Bunker C oil; or

(c) Used as a substitute for any of the fuels listed in (a) or (b), above.

Source. (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (formerly Env-Or 402.16) (See RN2 at pp. iv-v)

Env-Or 402.23 “Hydrant pit” means a liquid-tight container that protects the environment in the containment area for fueling aircraft at an airport hydrant fuel distribution system by containing leaks and spills of regulated substances from piping, dispensers, dispensing connections, pumps, and related components, that can serve as both a containment sump for underground piping and spill containment for fuel transfers to aircraft.

Source. #12643, eff 10-10-18 (See RN2 at pp. iv-v)
Env-Or 402.24 “Hydrostatic tightness test” means a test designed to evaluate the tightness of a UST system component that uses pressure of liquid.

Source. (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (formerly Env-Or 402.17) (See RN2 at pp. iv-v)

Env-Or 402.25 “Impressed current system” means a type of cathodic protection system that uses a power source called a rectifier connected to buried metal anodes that are connected to the metal being protected by a wire.

Source. (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (formerly Env-Or 402.18) (See RN2 at pp. iv-v)

Env-Or 402.26 “Leak monitoring system” means all of the equipment installed to detect any escape of a regulated substance from a UST system before the regulated substance can reach the ambient environment, including but not limited to sensors, consoles, and all associated connections.

Source. (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (formerly Env-Or 402.19) (See RN2 at pp. iv-v)

Env-Or 402.27 “Lining” means a coating of non-corrosive material bonded to the interior surface of a tank.

Source. (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (formerly Env-Or 402.20) (See RN2 at pp. iv-v)

Env-Or 402.28 “Liquid-tight” means no liquid can enter or be released.

Source. (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (formerly Env-Or 402.21) (See RN2 at pp. iv-v)

Env-Or 402.29 “Listed release detection equipment” means release detection equipment that has been evaluated in accordance with a nationally-approved protocol by an independent testing laboratory and demonstrated to meet the specified evaluation criteria at the specified probability of detection and probability of false alarm.

Source. (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (formerly Env-Or 402.22) (See RN2 at pp. iv-v)

Env-Or 402.30 “Listed test method” means a test method that has been evaluated in accordance with a nationally-approved protocol by an independent testing laboratory and demonstrated to meet the specified detection criteria at the specified probability of detection and probability of false alarm.

Source. (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (formerly Env-Or 402.23) (See RN2 at pp. iv-v)

Env-Or 402.31 “Marina” means a waterfront facility whose principal purpose is to provide watercraft-related services such as the securing, launching, storing, fueling, servicing, and repairing of watercraft.

Source. (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (formerly Env-Or 402.24) (See RN2 at pp. iv-v)

Env-Or 402.32 “Monthly” means once every calendar month, but not sooner than 23 days after and not later than 31 days after the date in the prior month on which the event in question occurred.

Source. (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (formerly Env-Or 402.25) (See RN2 at pp. iv-v)

Env-Or 402.33 “Motor fuel” means oil that is used to fuel an internal combustion engine. The term includes, but is not limited to, motor gasoline, aviation gasoline, jet fuel, number 1 or 2 diesel fuel, or any blend containing one or more of these substances.

Source. (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (formerly Env-Or 402.26) (See RN2 at pp. iv-v)
Env-Or 402.34  “New facility” means “new facility” as defined in RSA 146-C:1, X, reprinted in Appendix C.

Source. (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (formerly Env-Or 402.27) (See RN2 at pp. iv-v)

Env-Or 402.35  “New UST site” means a parcel of land where no regulated UST system has existed and on which the installation of a UST system is proposed.

Source. (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (formerly Env-Or 402.28) (See RN2 at pp. iv-v)

Env-Or 402.36  “Non-public water system” means a water system that is not a public water system as defined in RSA 485:1-a, XV, reprinted in Appendix C. The term includes all systems designed and intended to provide piped water, regardless of whether the water is used for human consumption, irrigation, or any other purpose. The term does not include a system that provides piped water in a closed loop or that otherwise is configured such that it is impossible for the water to be used on crops or consumed by humans or domestic animals.

Source. (See RN1 at p. iv) #10393, eff 9-1-13

Env-Or 402.37  “Oil” means “oil” as defined in RSA 146-A:2, III, reprinted in Appendix C.

Source. (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (formerly Env-Or 402.29) (See RN2 at pp. iv-v)

Env-Or 402.38  “Oil-water separator” means a tank system designed to separate oil from mixtures of oil and water.

Source. (See RN1 at p. iv) #10393, eff 9-1-13

Env-Or 402.39  “On-premise use” with respect to heating oil means oil used only to heat the structures at the facility at which the UST system is located.

Source. (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (formerly Env-Or 402.31) (See RN2 at pp. iv-v)

Env-Or 402.40  “Operate” means to manage a UST system in which a regulated substance is or is intended to be stored.

Source. (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (formerly Env-Or 402.31) (See RN2 at pp. iv-v)

Env-Or 402.41  “Operating day” means a 24-hour period in which any regulated substance has been put into, stored in, or removed from a UST system.

Source. (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (formerly Env-Or 402.32) (See RN2 at pp. iv-v)

Env-Or 402.42  “Operator” means “operator” as defined in RSA 146-C:1, XIII, reprinted in Appendix C.

Source. (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (formerly Env-Or 402.33) (See RN2 at pp. iv-v)

Env-Or 402.43  “Owner” means “owner” as defined in RSA 146-C:1, XIV, reprinted in Appendix C.

Source. (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (formerly Env-Or 402.34) (See RN2 at pp. iv-v)

Env-Or 402.44  “Person” means “person” as defined in RSA 146-C:1, XIV-a, reprinted in Appendix C.

Source. (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (formerly Env-Or 402.35) (See RN2 at pp. iv-v)
Env-Or 402.45 “Piping” means an impermeable hollow cylinder or tubular conduit that conveys or transports liquids or vapors, or that is used for venting, filling, or removing liquids or vapors from a tank. The term includes pipe.

Env-Or 402.46 “Piping system” means pipes and all connected fittings, pumps, monitors, secondary containment, auxiliary tanks, day tanks, dispensing equipment, and any other components associated with the conveying, venting, filling, or dispensing of a stored substance or vapors of the stored substance in a UST or UST system.

Env-Or 402.47 “Pneumatic tightness test” means a test designed to evaluate the tightness of a UST system or component that uses positive or negative gauge pressure of air.

Env-Or 402.48 “Public water system” means “public water system” as defined in RSA 485:1-a, XV, reprinted in Appendix C.

Env-Or 402.49 “Regulated substance” means, as applicable:
(a) Oil;
(b) A hazardous substance as defined in RSA 146-C:1, VII-a, reprinted in Appendix C; or
(c) A regulated substance as defined in 40 CFR § 280.12, reprinted in Appendix E.

Env-Or 402.50 “Release” means, as applicable:
(a) “Discharge” as defined in RSA 146-C:1, II, reprinted in Appendix C;
(b) A leak from any primary containment into secondary containment; or
(c) A spill into containment during tank filling or dispensing.

Env-Or 402.51 “Release detection” means the process and equipment used to determine whether a release of a regulated substance has occurred.

Env-Or 402.52 “Repair” means to restore a component of a UST system, including but not limited to a tank, piping, spill prevention equipment, overfill prevention equipment, corrosion protection equipment, containment sump, or release detection equipment, to its original design function.
Env-Or 402.53  “Replace” means to remove a component of an existing UST system, including but not limited to a tank, piping, sump, spill containment equipment, overfill prevention equipment, corrosion protection equipment, containment sump, or release detection equipment, and then install a component to serve the same design function as the removed component.

Source.  #12643, eff 10-10-18 (See RN2 at pp. iv-v)

Env-Or 402.54  “Residential building” means “residential building” as defined in RSA 146-C:1, XV, reprinted in Appendix C.

Source.  (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (formerly Env-Or 402.44) (See RN2 at pp. iv-v)

Env-Or 402.55  “Sacrificial anode system” means a type of cathodic protection system that uses zinc or magnesium anodes buried in the ground close to the metal surface that are connected to the surface being protected by a wire.

Source.  (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (formerly Env-Or 402.45) (See RN2 at pp. iv-v)

Env-Or 402.56  “Secondary containment” means a release prevention and leak monitoring system for a tank or piping that prevents a regulated substance that has escaped from the primary containment system from reaching the ambient environment.

Source.  (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (formerly Env-Or 402.46) (See RN2 at pp. iv-v)

Env-Or 402.57  “Sensor” means a device that is intended to be activated by contact with a liquid such as water, a regulated substance, or product, as applicable. The term includes discriminating sensor.

Source.  #12643, eff 10-10-18 (See RN2 at pp. iv-v)

Env-Or 402.58  “Spill containment” means a liquid-tight container, with or without secondary containment, that protects the environment by containing leaks and spills of regulated substances during the transfer or delivery of regulated substances to or from any UST, which can be located at the top of the tank or at a remote fill or stage I connection point. The term includes spill bucket and vapor bucket.

Source.  #12643, eff 10-10-18 (See RN2 at pp. iv-v)

Env-Or 402.59  “Stage I system” means the equipment installed to recover gasoline vapors displaced from a gasoline storage tank during gasoline delivery and feed the vapors back into the cargo truck.

Source.  (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (formerly Env-Or 402.47) (See RN2 at pp. iv-v)

Env-Or 402.60  “Stage II system” means the equipment installed at a gasoline dispensing facility to recover gasoline vapors displaced from a motor vehicle fuel tank during refueling of the motor vehicle and feed the vapors to the facility’s gasoline storage tank.

Source.  (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (formerly Env-Or 402.48) (See RN2 at pp. iv-v)

Env-Or 402.61  “Storage system” means one or more tanks with the connected piping system in which any regulated substance is or is intended to be stored.

Source.  (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (formerly Env-Or 402.49) (See RN2 at pp. iv-v)

Env-Or 402.62  “Substantial modification” means “substantial modification” as defined in RSA 146-C:1, XVI, reprinted in Appendix C.

Source.  (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (formerly Env-Or 402.49) (See RN2 at pp. iv-v)
Env-Or 402.63 “Substantially modified facility” means a UST facility that has undergone a substantial modification.

Source. (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (formerly Env-Or 402.51) (See RN2 at pp. iv-v)

Env-Or 402.64 “Surface waters of the state” means “surface waters of the state” as defined by RSA 485-A:2, XIV, reprinted in Appendix C.

Source. (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (formerly Env-Or 402.52) (See RN2 at pp. iv-v)

Env-Or 402.65 “Tank” means a stationary device constructed of impermeable material(s) that is designed to, or that actually does, contain regulated substances.

Source. (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (formerly Env-Or 402.53) (See RN2 at pp. iv-v)

Env-Or 402.66 “Transfer operator” means the individual who is controlling the flow of a regulated substance to or from a UST system.

Source. (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (formerly Env-Or 402.54) (See RN2 at pp. iv-v)

Env-Or 402.67 “Triennially” means at least once in each 3-calendar-year period, but not later than 36 months after the prior triennial event.

Source. (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (formerly Env-Or 402.55) (See RN2 at pp. iv-v)

Env-Or 402.68 “Underground storage tank (UST)” means a tank that is a component of an underground storage tank system.

Source. (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (formerly Env-Or 402.56) (See RN2 at pp. iv-v)

Env-Or 402.69 “Underground storage tank facility (UST facility)” means “underground storage facility” as defined in RSA 146-C:1, XVIII, reprinted in Appendix C.

Source. (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (formerly Env-Or 402.57) (See RN2 at pp. iv-v)

Env-Or 402.70 “Underground storage tank system (UST system)” means one or more USTs and the connected piping system, that is used or is intended to be used to contain a regulated substance or vapors of the regulated substance.

Source. (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (formerly Env-Or 402.58) (See RN2 at pp. iv-v)

Env-Or 402.71 “Unusual operating condition” means any condition, equipment deficiency, or occurrence that results in a release of a regulated substance, indicates the possibility of a system leak, or creates a reasonable expectation that a system leak is imminent. Examples of unusual operating conditions are listed in Env-Or 406.04(b).

Source. (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (formerly Env-Or 402.59) (See RN2 at pp. iv-v)

Env-Or 402.72 “Used oil” means an oil that, through use or handling, has become unsuitable for its original purpose due to the presence of physical or chemical impurities or loss of original properties.

Source. (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (formerly Env-Or 402.60) (See RN2 at pp. iv-v)
PART Env-Or 403  REFERENCE STANDARDS

Env-Or 403.01  Availability and Applicability of Reference Standards.

(a) The department shall have at least one copy of each reference standard identified in this part available for inspection by the public at its offices at 29 Hazen Drive, Concord, New Hampshire.

(b) The reference standards also may be obtained directly from the source, as listed in Env-Or 403.02 through Env-Or 403.07 and in Appendix B.

(c) In the event that any of the applicable reference standards conflict with this chapter or with each other, the requirement that is more protective of the environment shall apply.

Env-Or 403.02  American Petroleum Institute. The following standards from the American Petroleum Institute (API), 1220 L Street, NW, Washington, DC 20005-4070, (202) 682-8000, http://www.api.org, which are available as noted in Appendix B, shall apply if and as applicable:

(a) RP 1604, “Closure of Underground Petroleum Storage Tanks,” 1996 edition (API RP 1604);

(b) RP 1615, “Installation of Underground Petroleum Storage Systems,” 2011 edition (API RP 1615);

(c) RP 1631, “Interior Lining and Periodic Inspection of Underground Storage Tanks,” 2001 edition (API RP 1631);

(d) RP 1632, “Cathodic Protection of Underground Petroleum Storage Tanks and Piping Systems,” 1996 edition (API RP 1632); and


Env-Or 403.03  ASME International. The following standards from ASME International (ASME), 22 Law Drive, P.O. Box 2900, Fairfield, NJ, 07007-2900, (800) 843-2763, http://www.asme.org, which are available as noted in Appendix B, shall apply if and as applicable:

(a) ASME B31.3, “Process Piping,” 2010 edition (ASME B31.3); and


Env-Or 403.04  Fiberglass Tank and Pipe Institute. The following standards from the Fiberglass Tank and Pipe Institute (FTPI), 8252 S. Harvard Avenue, Suite 102, Tulsa, OK 74137, (918) 809-6292, http://www.fiberglasstankandpipe.com, which is available as noted in Appendix B, shall apply if and as applicable:

Env-Or 403.05  NACE International.  The following standards from NACE International, 1440 South Creek Drive, Houston, TX 77084-4906, (281) 228-6223, [http://www.nace.org](http://www.nace.org), which is available as noted in Appendix B, shall apply if and as applicable:


Source.  (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (See RN2 at pp. iv-v)

Env-Or 403.06  National Fire Protection Association.

(a) Subject to (b), below, the following standards from the National Fire Protection Association (NFPA), 1 Batterymarch Park, Quincy, MA 02169-7471, (800) 344-3555, [http://www.nfpa.org](http://www.nfpa.org), which are available as noted in Appendix B, shall apply if and as applicable:

1. NFPA 30, “Flammable and Combustible Liquids Code” (NPFA 30);
2. NFPA 30A, “Motor Fuel Dispensing Facilities and Repair Garages” (NPFA 30A);
3. NFPA 31, “Standard for the Installation of Oil-Burning Equipment” (NPFA 31);
4. NFPA 37, “Standard for the Installation and Use of Stationary Combustion Engines and Gas Turbines”;
5. NFPA 70, “National Electrical Code”;
7. NFPA 303, “Marinas and Boatyards”; and

(b) Unless otherwise specified above, the edition referenced by the state fire code as defined by RSA 153:1,VI-a shall apply.

Source.  (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (See RN2 at pp. iv-v)

Env-Or 403.07  Petroleum Equipment Institute.  The following standards from the Petroleum Equipment Institute (PEI), P.O. Box 2380, Tulsa, OK 74101-2380, (918) 494-9696, [http://pei.org](http://pei.org), which are available as noted in Appendix B, shall apply if and as applicable:

(a) RP 100, “Recommended Practices for Installation of Underground Liquid Storage Systems,” 2017 edition (PEI RP 100);

(b) RP 300, “Recommended Practices for Installation and Testing of Vapor-Recovery Systems at Vehicle-Fueling Sites,” 2009 edition (PEI RP 300);

(c) RP 500, Recommended Practices for Inspection and Maintenance of Motor Fuel Dispensing Equipment, 2011 (PEI RP 500);


(e) RP 800, “Recommended Practices for Installation of Bulk Storage Plants,” 2008 edition (PEI RP 800);

(g) RP 1000, “Recommended Practices for the Installation of Marina Fueling Systems”, 2014 edition (PEI RP 1000);

(h) RP 1200, “Recommended Practices for the Testing and Verification of Spill, Overfill, Leak Detection and Secondary Containment Equipment at UST Facilities”, 2012 edition (PEI RP 1200);

(i) RP 1300, “Recommended Practices for the Design, Installation, Service, Repair and Maintenance of Aviation Fueling Systems,” 2013 edition (PEI RP 1300); and


Source. (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (See RN2 at pp. iv-v)

PART Env-Or 404 REGISTRATION; PERMIT TO OPERATE; REQUIRED NOTIFICATIONS AND RECORDS; FINANCIAL RESPONSIBILITY

Env-Or 404.01 Registration.

(a) As required by RSA 146-C:3, the owner of a UST facility shall register the facility with the department by providing the information required by RSA 146-C:3, I and II, reprinted in Appendix D, in a report generated by the owner, on a form available from the department, or on any other document containing the required information.

(b) The owner of a UST facility also shall provide the information required by Env-Or 404.04 with the information submitted pursuant to (a), above.

(c) The owner shall sign the registration as specified in Env-Or 404.05.

(d) As required by RSA 146-C:3, III, the owner of a registered UST facility shall submit in writing to the department any change in the information required by RSA 146-C:3, I or II within 10 days of the change, provided that if the ownership of the facility changes, the new owner shall submit a new registration to the department as specified in Env-Or 404.10.

(e) If facility ownership is disputed, the owner of the property on which the facility is located shall:

   (1) Be deemed to be the facility owner; and

   (2) Register the facility by providing the information required by (a) and (b), above.

(f) For new systems or substantial modifications of existing systems, a new or amended registration, respectively, shall be filed with the department at the time of final inspection of the system.

Source. (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (See RN2 at pp. iv-v)

Env-Or 404.02 Change from Use Not Previously Covered to Covered Use. The owner of any location that would become subject to regulation under Env-Or 400 due to a change in the use of any structures that are equivalent to a storage system at the location shall:

(a) Register the location as a facility at least 30 days prior to changing the use of the system; and

(b) Comply with all applicable requirements before instituting the changed use.

Source. (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (See RN2 at pp. iv-v)
Env-Or 404.03 Change in Product. The owner of any facility at which the product stored in any storage system at the facility is intended to be changed from a regulated substance having a Reid vapor pressure of less than 4.0 pounds per square inch (psi) to one having a Reid vapor pressure greater than 4.0 psi, or vice versa, or to any regulated substance having greater than 10% ethanol or greater than 20% but less than 100% biodiesel, shall:

(a) Register the facility at least 30 days prior to changing the product stored in the system; and

(b) Comply with all applicable requirements of this chapter, RSA 146-C, and Env-Or 500 before changing the product stored.

Source. #12643, eff 10-10-18 (See RN2 at pp. iv-v)

Env-Or 404.04 Additional Information Required for Registration. In addition to the information required by RSA 146-C:3, the following shall be submitted to register each UST facility:

(a) The type of owner, such as federal government, state government, local government, commercial, or private;

(b) The type of facility, such as gas station, petroleum distributor, air taxi, aircraft owner, auto dealership, railroad, local government, state government, federal non-military, federal-military, commercial, industrial, contractor, trucking/transportation, utilities, farm, school, hospital, marina, residential, or other;

(c) The name, email address if any, mailing address, and daytime telephone number including area code of the owner of the property on which the facility is located, if other than the owner of the facility;

(d) The name, email address if any, mailing address, and daytime telephone number including area code of the owner of the regulated substance(s) stored in the UST system(s), if other than the owner of the facility;

(e) The number of tanks permanently closed, and the date of such closure for each tank;

(f) The number of tanks temporarily closed, and the date of such closure for each tank;

(g) The owner’s certification as specified in Env-Or 404.05(b);

(h) Proof of financial responsibility as specified in Env-Or 404.12;

(i) For installations subject to Env-Or 407.01, final certification by a New Hampshire licensed professional engineer or the certified tank installer that the installation has been completed and is in accordance with the department’s approved plans or as-built record drawings and all terms and conditions of the department’s approval; and

(j) The type of regulated substance stored, and if the regulated substance:

(1) Includes ethanol, the percentage of ethanol if greater than 10%; and

(2) Includes biodiesel, the percentage of biodiesel if greater than 20% but less than 100%.

Source. (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (formerly Env-Or 404.03) (See RN2 at pp. iv-v)

Env-Or 404.05 Signature Required.

(a) The UST facility owner shall sign and date the registration.

(b) The owner’s signature shall constitute certification that:

(1) The owner has personally examined and is familiar with the information submitted in or with the registration;
(2) Based on the owner’s inquiry of those individuals immediately responsible for obtaining the information, the owner believes that the submitted information is true, accurate and complete; and

(3) The owner understands that he or she is subject to the penalties for falsification in official matters, currently established in RSA 641.

Source.  (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (formerly Env-Or 404.04) (See RN2 at pp. iv-v)

Env-Or 404.06  Permit to Operate Required.  As specified in RSA 146-C:4, I, no person shall operate a UST facility without a permit issued by the department.

Source.  (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (formerly Env-Or 404.05) (See RN2 at pp. iv-v)

Env-Or 404.07  Obtaining a Permit to Operate.

(a) The owner of a UST facility shall apply to the department for a permit to operate by providing the following:

(1) All information required for registration specified in Env-Or 404.01(a) and (b);

(2) A stage I/stage II notification and system test report as required by Env-Or 500; and

(3) As required by RSA 146-C:17, II(b), the identity of each class A and class B operator.

(b) When a registration that contains everything required by (a), above, is received, the department shall determine whether the facility is in compliance with the applicable requirements in Env-Or 400, Env-Or 500, Env-Or 600, Env-Or 700, and RSA 146-C.

(c) As required by RSA 146-C:4, II, the department shall issue or deny a permit to all facilities registered under RSA 146-C:3 within 90 days of the receipt of the complete registration information.

(d) The department shall issue a permit to operate unless the facility is not in compliance with all applicable requirements of Env-Or 400, Env-Or 500, Env-Or 600, Env-Or 700, and RSA 146-C.

(e) If the department determines that the facility is not in compliance with Env-Or 400, Env-Or 500, Env-Or 600, Env-Or 700, and RSA 146-C, it shall notify the applicant of its decision in a written notice that specifies the reason(s) why the permit has been denied.

Source.  (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (formerly Env-Or 404.06) (See RN2 at pp. iv-v)

Env-Or 404.08  Display, Applicability, and Validity of Permit to Operate.

(a) As required by RSA 146-C:4, II, a permit issued under this part shall be displayed on the premises of the UST facility at all times. The permit shall be permanently affixed on the premises in a location that is visible to a department inspector during a routine inspection.

(b) The permit to operate shall apply to all UST systems at the facility.

(c) The permit to operate shall be valid unless suspended or revoked as specified in Env-Or 404.11.

Source.  (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (formerly Env-Or 404.07) (See RN2 at pp. iv-v)

Env-Or 404.09  Records to be Maintained.

(a) The owner shall retain all documents describing or otherwise related to each UST system at the facility, including but not limited to:
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(1) Manufacturer's warranties;

(2) Inventory;

(3) Installations of all systems, including date and identification of the contractor;

(4) Test reports;

(5) Closure or removal of a system, including date, identification of the contractor, and reports of all tests and site evaluations conducted in conjunction with the closure or removal such as the report required by Env-Or 408.10;

(6) Any tank lining done subsequent to installation;

(7) A description of all monitoring procedures, including frequency;

(8) Reports of all groundwater sampling and analysis performed at the facility;

(9) Reports of all site assessments;

(10) Equipment maintenance, including frequency, procedure performed, and identification of who performed the maintenance;

(11) Repairs or other modifications, including a description of the repair or modification, the date, and identification of the contractor;

(12) Compliance history, including copies of all compliance-related correspondence from or to the department;

(13) Financial responsibility as required by Env-Or 404.12;

(14) Compatibility of UST systems and system components as required by Env-Or 404.02(b), Env-Or 405.01(h)-(i), and Env-Or 405.02(j); and

(15) Any other records required to be maintained or posted by this chapter or RSA 146-C.

(b) The documents required by (a), above, shall be maintained so as to be available to a department inspector during a routine inspection.

(c) The owner may retain legible paper or electronic copies in lieu of the originals.

Source.  (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (formerly Env-Or 404.08) (See RN2 at pp. iv-v)

Env-Or 404.10 Transfer of Facility Ownership.

(a) As required by RSA 146-C:6, when ownership of a UST facility is transferred, the new owner shall notify the department of the transfer and assume the permit issued to the previous owner.

(b) The notification required by (a), above, shall:

(1) Be filed with the department within 10 days of the transfer; and

(2) Consist of:

   a. An amended registration; and

   b. A statement identifying each class A and class B operator, as required by RSA 146-C:17.

(c) As also required by RSA 146-C:6, when ownership of a UST facility is transferred, the owner who is transferring ownership shall notify the new owner of whether the facility is in compliance with this chapter.
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(d) The prior owner also shall deliver to the new owner all documents and information related to the facility that are required to be maintained by Env-Or 404.09.

Source. (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (formerly Env-Or 404.09) (See RN2 at pp. iv-v)

Env-Or 404.11 Suspension or Revocation of Permit to Operate.

(a) If the department receives information that supports a determination that a permit to operate should be suspended or revoked, the department shall initiate a proceeding under RSA 541-A:30 and the provisions of Env-C 200 that apply to adjudicative proceedings.

(b) The notice issued to initiate the proceeding shall state with specificity:

(1) The violations that the department believes exist at or relating to the facility;

(2) The action the department proposes to take, such as suspending or revoking the facility’s permit to operate;

(3) That the owner has an opportunity for a hearing prior to a final decision being made; and

(4) That the owner may seek an informal disposition of the matter through discussions with the department.

(c) If the matter goes to a hearing and the facility owner is aggrieved by the final decision of the matter, the owner may appeal to the waste management council as provided in RSA 146-C:4, I, reprinted in Appendix D.

Source. (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (formerly Env-Or 404.10) (See RN2 at pp. iv-v)

Env-Or 404.12 Financial Responsibility.

(a) Owners of UST facilities shall maintain financial responsibility for costs associated with the cleanup of releases from UST systems, the implementation of corrective measures, and compensation for third party damages in an amount equal to or greater than:

(1) $1,000,000 per occurrence; and

(2) An annual aggregate of:

   a. $1,000,000 if one to 100 UST systems are owned; or

   b. $2,000,000 if 101 or more UST systems are owned.

(b) The amount of financial responsibility required shall not limit the liability of an owner or operator for damages caused by a release.

(c) The requirement for financial responsibility shall be satisfied if the owner of a facility is eligible for reimbursement of costs associated with cleanup of releases from systems under RSA 146-D.

(d) If the requirement for financial responsibility is not satisfied as specified in (c), above, the owner shall provide financial assurance in one, or any combination, of the following formats:

(1) An irrevocable letter of credit issued for a period of at least one year from an institution whose operations are regulated and examined by a federal or New Hampshire state agency;

(2) An insurance policy from an unrelated third-party insurance company;

(3) A surety bond issued by a surety company listed as an acceptable surety on federal bonds in Circular 570 of the U.S. Department of the Treasury;
(4) A trust fund established in accordance with the laws of the state of New Hampshire; or

(5) An alternate mechanism agreed to by the owner and the department that will ensure that the funds necessary to meet the remediation costs are available when they are needed.

(e) If using a surety bond, insurance policy, or letter of credit, the owner also shall establish a standby trust to receive the proceeds of the surety bond, insurance policy, or letter of credit.

(f) Each financial assurance instrument specified in (d) and (e), above, shall specifically identify the state of New Hampshire as the beneficiary.

(g) Funds held in trust accounts may be invested, but shall provide for the preservation of principal.

(h) Financial assurance documents shall be as described in 40 CFR 264.151, as applicable.

(i) Letters of credit shall include a provision to automatically extend the expiration date by at least one year unless the issuing institution notifies the responsible party and the department by certified mail, return receipt requested, of a decision to not extend the expiration date at least 120 days before the current expiration date.

(j) Insurance policies and surety bonds shall include a provision to prohibit any cancellation without prior notice of cancellation being sent to the owner and the department by certified mail, return receipt requested, at least 120 days before the effective date of cancellation.

(k) Within 10 days after commencement of a voluntary or involuntary bankruptcy proceeding under title 11 of the U.S. Code that names an owner as debtor, the owner shall comply with 40 CFR 280.114(a).

(l) An owner who obtains financial assistance by a mechanism other than that provided in (c), above, whose provider of the owner’s financial assurance files for or is named as a debtor in a bankruptcy proceeding, or has its authority to issue a guarantee, insurance policy, risk retention group coverage policy, surety bond, letter of credit, or other mechanism, as applicable, suspended or revoked, shall:

(1) Be deemed to be without the requisite financial assurance;

(2) Obtain alternative financial assurance as specified in this section within 30 days after receiving notice of such notification; and

(3) Notify the department within 30 days of the replacement financial assurance.

(m) Within 30 days after receipt of notification that a state fund or other state assurance has become incapable of paying for assured corrective action or third-party compensation costs, the owner shall obtain alternative financial assurance.

(n) An owner shall no longer be required to maintain financial assurance under this chapter for a UST after the tank has been permanently closed if:

(1) Contamination was not detected on the property on which the facility was or is located; or

(2) Corrective action has been completed.

Source. (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (formerly Env-Or 404.11) (See RN2 at pp. iv-v)

Env-Or 404.13 Owner Liability. The owner of a UST facility may delegate responsibilities imposed by Env-Or 400 to an operator, but any such delegation shall not relieve the owner from liability for non-compliance with the requirements in this chapter.

Source. (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (formerly Env-Or 404.13) (See RN2 at pp. iv-v)
PART Env-Or 405  EQUIPMENT STANDARDS

Env-Or 405.01  Tank Standards for UST Systems.

(a) Each tank in a UST system shall meet the requirements of 40 CFR 280.20(a)(1), (2), (3), or (5), reprinted in Appendix E.

(b) Each UST at a new facility shall have secondary containment that encloses 360 degrees of the tank that is designed to come into contact with the regulated substance to be contained in the tank.

(c) The secondary containment wall or envelope required by (b), above, shall not be in contact with the inner wall such that a leak of the inner tank would not be detected by the leak monitoring system.

(d) No alterations of any kind shall be made to the tank without the tank manufacturer’s written approval and a waiver obtained pursuant to Env-Or 409.

(e) Each UST shall have a wear plate under each tank opening to protect the tank bottom from abrasion or puncture that:

   (1) Is constructed of steel or glass-fiber-reinforced plastic; and
   (2) Covers an area of at least 144 square inches, centered under the opening.

(f) Subject to (g), below, each UST shall bear a permanent label such as a stencil or engraved plate that provides the following information:

   (1) The standard of design by which the tank was manufactured;
   (2) The year in which the tank was manufactured;
   (3) The dimensions and capacity of the tank; and
   (4) The name of the manufacturer.

(g) The owner shall maintain a certificate at the facility that:

   (1) Shows all of the information required by (f), above, the date of installation, and the regulated substances and percentages by volume of any additives that might be stored permanently and compatibly within; and
   (2) Is permanently affixed in such a way as to be visible to a department inspector during a routine inspection.

(h) No tank shall be used to store a regulated substance unless the manufacturer of each component of the UST system that will be in contact with the stored substance, including but not limited to the interior lining or wall of the tank and all gaskets and sealants, has listed the regulated substance as being compatible with the component.

(i) The owner shall not change the regulated substance being stored in a UST system to a regulated substance that is not listed by each manufacturer as a substance that is compatible with the UST system components, unless the owner obtains a written confirmation from each manufacturer that certifies the compatibility of the liquid with the system prior to implementing the change.

(j) All UST systems shall be equipped with a submerged fill tube installed with a clearance of at least 4 but less than 6 inches between the bottom of the tank and the point at which the regulated substance can first exit the submerged fill tube.

Source.  (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (See RN2 at pp. iv-v)
Env-Or 405.02  Piping Standards for UST Systems.

(a) All piping systems at new facilities shall meet the applicable requirements of this section and 40 CFR 280.20(b)(1), (2), or (4), reprinted in Appendix E, as applicable.

(b) Flexible metal piping shall be certified by Underwriters Laboratories Inc. (UL) to meet UL 971A, Outline of Investigation for Metallic Underground Fuel Pipe.

(c) Steel primary piping shall be Schedule 40 or heavier.

(d) Except when cathodic protection is provided by impressed current, metal piping systems shall have di-electric bushings installed to electrically isolate the piping system from the tank and the dispenser, or other end-use point, and at any change in the metal type, such as at flexible connectors.

(e) The department shall approve the use of metal pipe without cathodic protection under 40 CFR 280.20(b)(4) only if the pipe is completely isolated from water and soil or other backfill material using secondary containment that is non-metallic, non-porous, and non-biodegradable.

(f) Piping systems shall provide flexibility for movement at the tank end, dispenser end, and at piping direction changes to relieve stress.

(g) All piping systems shall have access and isolation points to permit independent pressure testing of the tank and piping without the need for excavation.

(h) Piping system pressure and temperature limitations shall meet:

   (1) ASME B31.3 relative to Process Piping;

   (2) ASME B31.4 relative to Pipeline Transportation Systems for Liquid Hydrocarbons and Other Liquids; or

   (3) The manufacturer’s requirements and recommendations.

(i) All piping systems shall:

   (1) Be laid out to minimize crossovers; and

   (2) Run the pipes together in a compact trench from the UST to the point of use to the extent possible.

(j) No part of a piping system that will be in contact with the stored regulated substance shall be used unless the manufacturer of the component has listed the regulated substance as being compatible with the component.

(k) Piping systems shall slope uniformly at a slope of 1/8 inch per foot or steeper without sags or low points in the pipe to direct any leakage from the primary piping to a liquid-tight containment sump with a sump sensor that is located at the lowest outlet point of the pipe.

(l) All remote fill pipes installed on or after April 24, 1997 shall comply with (k), above, and Env-Or 405.04(a), Env-Or 405.05, Env-Or 405.06, and Env-Or 405.09(a) and (d).

(m) Piping systems installed for the purpose of siphoning regulated substances shall be equipped with a liquid-tight piping sump and piping sump sensor at all interconnected tanks.

(n) Bollards shall be installed around free-standing vents to prevent damage from vehicles.

(o) Bollards required by (n), above, shall be:

   (1) Spaced no more than 4 feet apart to span any area exposed to potential vehicle access;

   (2) Painted with reflective paint or striped with reflective tape or paint;
(3) Constructed of steel tubing having a minimum diameter of 4 inches and filled with concrete; and

(4) Terminate not less than 3 feet above the ground.

(p) Swivel adaptors shall be installed on all fill riser pipes.

Source. (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (See RN2 at pp. iv-v)

Env-Or 405.03 Secondary Containment for Tanks. The secondary containment required by Env-Or 405.01(b) shall have access ports that:

(a) Allow access without the need for excavation; and

(b) Are protected against unauthorized access and tampering.

Source. (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (See RN2 at pp. iv-v)

Env-Or 405.04 Secondary Containment and Sumps for Piping Systems.

(a) Subject to (b), below, secondary containment shall be provided for all underground piping systems that routinely contain regulated substances or their vapors by using double-wall piping.

(b) Vent piping shall be exempt from (a), above.

(c) All piping and dispenser sumps shall be:

(1) Liquid-tight to contain liquids;

(2) Installed to prevent the intrusion of groundwater or surface water runoff; and

(3) Equipped with liquid-tight penetration fittings for all sump entries.

(d) All piping and dispenser sump sensors shall be installed:

(1) To respond to small accumulations of liquids within the sumps;

(2) In the lowest portion of the sump; and

(3) In accordance with the manufacturer’s requirements for installation.

(e) Subject to (f), below, all piping that is inside a building and part of the interior piping system shall have secondary containment and leak monitoring that meets the requirements of (a) through (d), above.

(f) For piping that is inside a building, an engineered pipe trench system may be used as secondary containment in lieu of double-wall piping.

Source. (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (See RN2 at pp. iv-v)

Env-Or 405.05 Spill Containment.

(a) Each UST system shall be equipped with spill containment devices that meet the requirements of 40 CFR 280.20(c)(1)i, reprinted in Appendix E.

(b) The owner shall use liquid-tight spill containment equipment to prevent the release of regulated substance to the environment when a transfer hose is detached from a fill or transfer pipe.

(c) All spill containment equipment for a UST system shall:

(1) Have a liquid capacity of 5 gallons or more;
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(2) Be installed in or surrounded by impervious material so that if the volume of regulated substance exceeds that of the spill containment, the substance does not enter the UST system backfill;

(3) Be installed in accordance with the manufacturer’s requirements; and

(4) For any UST system installed on or after the September 1, 2013 effective date of this chapter, be installed within a liquid-tight sump or be of double-walled construction.

(d) When spill containment is installed within a secondary containment sump pursuant to (c)(4), above, the secondary containment sump shall be equipped with a sump sensor.

(e) Each drain valve on spill containment equipment on a UST system shall either be replaced annually or permanently sealed.

(f) For any UST system installed prior to April 22, 1997 or that otherwise does not have existing spill containment at stage I system connections, the owner shall install spill containment meeting the requirements of (c), above, at stage I system connections no later than October 13, 2021.

(g) Tank pads installed after the 2018 effective date this chapter shall:

(1) Have liquid-tight sealed joints at all expansion, contraction, cold, and crack control joints within 3 feet of spill containment; and

(2) Be sealed and maintained with a fuel-product-compatible joint sealant installed per manufacturer’s instruction.

Source. (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (See RN2 at pp. iv-v)

Env-Or 405.06 Overfill Protection.

(a) Each UST system shall be equipped with overfill protection devices that meet the requirements of 40 CFR 280.20(c)(1)ii, reprinted in Appendix E.

(b) A primary overfill protection device shall be installed to prevent the fittings located on the top of the tank from being exposed to the regulated substance due to overfilling.

(c) The primary overfill protection device required by (b), above, shall:

(1) Alert the transfer operator when the tank is no more than 90% full by:
   a. Using a flow restrictor in the UST system fill drop tube that restricts flow into the tank or by triggering a high level visual and audible alarm; or
   b. For UST systems installed prior to September 1, 2013 only, using a flow restrictor in the UST system vent line that restricts flow into the tank; or

(2) Automatically and completely shut off flow into the tank when the tank is no more than 95% full.

(d) Flow-restricting overfill devices in vent lines shall not be installed as part of any UST system installed on or after the September 1, 2013 effective date of this chapter.

(e) Existing flow-restricting overfill devices in vent lines that fail after October 13, 2021 shall be removed and replaced with overfill protection that meets the requirements of (c)(1)a. or (c)(2), above.

(f) Each overfill protection device shall allow access for inspection of proper operation.

(g) Any UST system using suction piping and an air eliminator shall be equipped with:

(1) A high level visual and audible alarm; or
(2) A device that automatically and completely shuts off flow into the tank, as specified in (c)(2), above.

(h) Subject to (i) and (n), below, each tank or tank compartment having a high level alarm as the primary overfill device shall have:

(1) Separate visual and audible tank overfill alarm sensors; and
(2) Separate visual and audible tank overfill alarm enunciators if 2 or more compartments are filled concurrently.

(i) UST systems installed prior to September 1, 2013 that have a high level alarm as the primary overfill device shall comply with (h)(2), above, by September 1, 2014.

(j) All high level alarms shall:

(1) Have both visual and audible alarms;
(2) Be clearly labeled as a tank overfill alarm; and
(3) Be located as close as practicable to the fill point so as to be clearly visible and audible to the transfer operator.

(k) When triggered, the visual component of a high level alarm shall remain in alarm mode until manually reset but the audible component may automatically shut off after not less than 10 seconds.

(l) Any UST system that receives pressure deliveries or deliveries without a tight fill connection, or both, shall:

(1) Be equipped with a high level visual and audible overfill alarm; and
(2) Not be equipped with any flow restrictor or flow shut off device.

(m) All gauges, alarms, or automatic or mechanical devices associated with overfill protection shall be:

(1) Compatible with the delivery procedures used at the facility; and
(2) Installed in accordance with the manufacturer’s requirements.

(n) Political subdivisions that do not vote to approve funding for the requirement in (i), above, shall be exempt from the requirement unless and until the requirement is adopted as a federal regulation.

Source.  (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (See RN2 at pp. iv-v)

Env-Or 405.07 Dispensing Areas.

(a) Each dispensing area installed on or after February 3, 2005 shall have a concrete pad with positive limiting barriers that:

(1) Are constructed and maintained to contain a volume of at least 5 gallons regardless of which dispenser releases the regulated substance; and
(2) Extend beyond the reach of all dispensing nozzles.

(b) Each dispensing area installed or replaced on or after the 2018 effective date of this chapter shall have a concrete pad with positive limiting barriers (PLBs) that:

(1) Is constructed of reinforced Portland cement concrete that meets the requirements of NHDOT Standard Specifications for Road and Bridge Construction dated 2016;
(2) Has liquid-tight joints at all expansion, contraction, crack control, and cold joints in all components of the dispensing area, including but not limited to dispensing islands, bollards, canopy supports, canopy drainage pipes, and utility sleeves, that have been sealed and maintained with a sealant that is compatible with the regulated substance and has been installed as provided in its manufacturer’s instructions;

(3) Is provided with control joints that are:
   a. Spaced at a minimum of 24 times the pad thickness, for example every 12 feet for a 6-inch thick pad, to control shrinkage and undirected cracking, but not located directly in front of a dispenser;
   b. Cut or formed into the pad surface to a depth of 25% of the pad thickness; and
   c. Sealed per (b)(2), above;

(4) Does not contain any manways, spill containment, other such tank pad appurtenances, drains, or other avenues that could allow spilled regulated substances to seep into the ground, provided, however, that design plans may show such appurtenances as part of an island that is raised above the tank pad;

(5) Is constructed with:
   a. A minimum slope of 1/8 inch per foot starting at the dispensing islands and extending downward and radially outward to PLBs at a level perimeter; or
   b. If site conditions prevent a level perimeter, downgradient PLBs that have been constructed to ensure containment per (6), below;

(6) Is constructed and maintained to contain a volume of at least 5 gallons regardless of which dispenser releases the regulated substance; and

(7) Fully extends beyond the reach of all dispensing nozzles as measured with the nozzle 3 feet above the dispensing pad.

(c) For a facility undergoing a substantial modification of an existing dispensing area on or after the 2018 effective date of this chapter, if more than 50% of the pad area will be removed during construction or is cracked, chipped, or otherwise damaged to the extent that the ability of the pad to prevent product from passing through it has been compromised, the owner shall replace the entire pad per (b), above, as existing spacing allows.

(d) Each dispenser shall have a liquid-tight dispenser sump directly beneath it to contain discharges.

(e) Dispenser sumps shall be:
   (1) Provided with continuous leak detection monitoring by the piping sump sensor; or
   (2) Equipped with a sump sensor.

(f) Any dispenser sump that is part of a UST system installed on or after September 1, 2013 shall be equipped with a sump sensor in the lowest point of the sump.

(g) For any UST system installed prior to February 3, 2005 that does not have an existing concrete dispensing pad, the owner shall install a dispensing pad meeting the requirements of (a) and (b), above, no later than October 13, 2021.

(h) For any UST system at a marina that does not have an existing concrete dispensing pad for onshore dispensers, the owner shall install a dispensing pad meeting the requirements of Env-Or 407.10(g) and (h), as applicable, no later than October 13, 2021.

Source.  (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (See RN2 at pp. iv-v)
Env-Or 405.08 Leak Monitoring Systems for Tanks.

(a) All tanks installed on or after September 17, 1985 shall have a leak monitoring system that is continuously operated.

(b) All double-wall tanks installed on or after September 17, 1985 shall have continuous monitoring of the interstitial space for both the regulated substance being stored and water.

(c) All tanks not included in (a) or (b), above, shall have continuous monitored secondary containment as required by Env-Or 408.05(c).

Source. (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (See RN2 at pp. iv-v)

Env-Or 405.09 Leak Monitoring Systems for Piping Systems.

(a) A leak monitoring system shall be installed for:

(1) Each pressure piping system, exclusive of vent piping, installed on or after November 2, 1990;

(2) Each piping system not included in (1), above, exclusive of vent piping and vertical tank risers, installed on or after April 24, 1997; and

(3) Each piping system not included in (1) or (2), above, exclusive of vent piping and vertical tank risers, as required by Env-Or 408.05(c).

(b) All pressurized piping shall be equipped with a UL-listed automatic line leak detector that:

(1) Restricts or stops the flow of the stored substance and triggers an audible or visual alarm upon detecting a leak at a rate equivalent to 3 gallons per hour at a pressure of 10 pounds per square inch line pressure; and

(2) Meets the requirements of 40 CFR 280.40(a)(3).

(c) The interstitial space of the double wall piping or the annular space between the primary piping and the secondary containment system shall be continuously monitored to detect both water and the regulated substance.

(d) The piping sump shall have a leak monitor sensor to detect both water and the regulated substance.

Source. (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (See RN2 at pp. iv-v)

Env-Or 405.10 Cathodic Protection Systems.

(a) Each cathodic protection system shall be equipped with an accessible test connection or monitor that will allow system testing without excavation.

(b) A tank or piping system shall be considered cathodically protected when:

(1) The tank or piping system has a negative cathodic potential of at least 850 mV with the cathodic protection applied, measured with respect to a saturated copper/copper sulfate reference electrode contacting the electrolyte;

(2) The tank or piping system has a minimum of 100 mV of cathodic polarization; or

(3) The requirements specified in NACE SP0285, Corrosion Control of Underground Storage Tank Systems by Cathodic Protection are met.
(c) Subject to (d), below, when a cathodic protection system does not meet the requirements of (b), above, the owner shall:

(1) Repair or replace the system as specified in Env-Or 405.11; or

(2) If the failed cathodic protection system is not repaired within 90 days, permanently close the UST system in accordance with Env-Or 408.06 through Env-Or 408.10.

(d) For any system at a facility that is subject to 42 U.S.C. 4321-4347 or 36 CFR Part 800, the time in (c)(2), above, shall be increased to 150 days.

Source. (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (formerly Env-Or 405.12) (See RN2 at pp. iv-v)

Env-Or 405.11 Changes to Cathodic Protection Systems.

(a) Any alterations to an existing cathodic protection system shall be made as specified in this section.

(b) If the existing cathodic protection system is to be changed to an alternate method of cathodic protection, the owner shall obtain approval in accordance with Env-Or 407.01 through Env-Or 407.04.

(c) The plan submitted with the application shall be a corrosion protection plan prepared by a corrosion protection expert that includes:

(1) The alternate proposed corrosion protection system to be installed; and

(2) All structures to be corrosion protected.

(d) If an existing cathodic protection system is repaired or replaced with the same method of cathodic protection, the owner shall:

(1) No later than 30 days after the date of the corrosion protection test, submit to the department the test results as required by Env-Or 406.10; and

(2) Submit to the department a report prepared and signed by a corrosion protection expert identifying the cause of the failure and the procedures required to repair the cathodic protection system.

(e) No later than 30 days following the repair to the cathodic protection system, the owner shall submit to the department the following:

(1) A record drawing of the repair;

(2) The information required by Env-Or 406.10; and

(3) A report prepared and signed by a corrosion protection expert certifying the cathodic protection system repair was conducted under the direction of a corrosion protection expert and the repaired UST system has adequate cathodic protection.

(f) The owner shall maintain a certificate at the facility that:

(1) Shows all of the information required by (f), above, the date of installation, and the regulated substances and percentages by volume of any additives that might be stored permanently and compatibly within; and

(2) Is permanently affixed in such a way as to be visible to a department inspector during a routine inspection.

(g) No tank shall be used to store a regulated substance unless the manufacturer of each component of the UST system that will be in contact with the stored substance, including but not limited to the interior lining or wall of the tank and all gaskets and sealants, has listed the regulated substance as being compatible with the component.
(h) The owner shall not change the regulated substance being stored in a UST system to a regulated substance that is not listed by each manufacturer as a substance that is compatible with the UST system.

Source. (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (formerly Env-Or 405.13) (See RN2 at pp. iv-v)

Env-Or 405.12 Day Tank Markings Required.

(a) Any day tank that is connected by piping to a UST that is subject to this chapter shall be marked with the following information:

1. The type of product stored;
2. The registered tank number corresponding to the UST that automatically supplies product to the day tank; and
3. The appropriate emergency response system symbol(s) that meet(s) the requirements of section 21.7.2.1 of NFPA 30, available as noted in Appendix B, to identify the hazards posed by the product stored.

(b) All information required by (a), above, shall be in lettering that is at least 2 inches high in a color that contrasts with the color of the tank, so as to be readily discernable from the distance at which the lettering will typically be viewed.

Source. #12643, eff 10-10-18 (See RN2 at pp. iv-v)

PART Env-Or 406 OPERATION, MAINTENANCE, AND TESTING

Env-Or 406.01 On-going Maintenance Required.

(a) All piping and dispenser containment sumps shall be maintained:

1. Free of liquid and debris;
2. In good working order to perform their original design function; and
3. Liquid-tight at their sides and bottom.

(b) Spill containment equipment shall be maintained:

1. Free of liquid and debris;
2. In good working order to perform its original design function; and
3. Liquid tight at its sides and bottom.

(c) All gauges, alarms, and automatic or mechanical devices associated with overfill protection shall be maintained in good working order to perform their original design function.

Source. (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (formerly Env-Or 406.06) (See RN2 at pp. iv-v)

Env-Or 406.02 Operation and Maintenance of Leak Monitoring Systems.

(a) The UST system owner shall:

1. Maintain leak monitoring systems in good working order so they can continuously perform their original design function; and
2. Maintain the interstitial space or annular space for both tanks and piping to be free of debris and water.
(b) No owner or operator shall turn off or otherwise deactivate any leak monitoring system for more than 2 hours without prior notification by the owner to the department.

(c) If a leak monitoring system malfunctions, the owner shall repair the system and clear and reset any alarm condition normal operating mode within 15 working days. If the system(s) cannot be repaired and the alarm condition cleared and reset to normal operating mode within 15 days, the affected UST system(s) shall be temporarily closed until satisfactory repairs are made.

(d) Each leak monitoring system shall:

1. Have an audible alarm and visual indicator;
2. Be located where the audible alarm and visual indicator can be readily heard and seen by the operator or other personnel during normal working hours;
3. Be clearly and conspicuously marked or labeled as being a leak monitoring system; and
4. Be secured against vandalism and incidental damage.

(e) Each leak monitoring console shall identify the specific location of all leak monitoring sensors connected to that console. A complete list of all the specified leak monitoring sensors shall be permanently affixed on the facility premises in a location that is visible to a department inspector during a routine inspection.

(f) When a leak monitor indicates a possible leak, the owner shall investigate the cause of the indication to determine if a leak has occurred, in accordance with Env-Or 406.04.

Source. (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (formerly Env-Or 406.08) (See RN2 at pp. iv-v)

Env-Or 406.03 Delivery or Transfer of Regulated Substances.

(a) No person shall allow the transfer or delivery of regulated substances to any UST facility that is not registered or that does not have a valid permit to operate.

(b) Immediately prior to transferring any regulated substance into a UST system, the owner and the transfer operator shall determine that the tank has sufficient receiving capacity to hold the volume to be transferred.

(c) No transfer shall be made to a UST system that is not equipped with spill containment and overfill protection devices as required by Env-Or 405.05 and Env-Or 405.06, respectively.

(d) No transfer shall be made to a UST system that is not equipped with a stage I system, if required by Env-Or 500.

Source. (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (formerly Env-Or 406.09) (See RN2 at pp. iv-v)

Env-Or 406.04 Unusual Operating Conditions.

(a) Subject to (c), below, the owner shall report any unusual operating condition(s) to the department within 24 hours.

(b) Unusual operating conditions shall include, but are not limited to:

1. Erratic behavior of dispensing equipment, the stage I system or stage II system, or overfill protection equipment;
2. Water or regulated substance gain or loss in a tank, sump, or system component, including water or regulated substance in the interstitial space of a secondarily contained system, that might indicate a problem with system tightness;
(3) A visual or auditory alarm of the leak monitoring system indicates that a release might have occurred;
(4) Petroleum vapors or vapors of a hazardous substance are detected near the UST system;
(5) The UST vent stack is bent or angled from the vertical position;
(6) Visual evidence of system component deterioration is present;
(7) The UST system is overfilled; and
(8) Any other evidence that a UST system is not liquid or vapor tight.

(c) Owners shall not be required to report unusual operating conditions if, within 24 hours of discovering the unusual operating condition:

(1) The cause of the condition is determined;
(2) The condition is corrected or the potential for a release is removed by taking the equipment out of service; and
(3) The owner determines through investigation that the unusual operating condition did not result in a release of a regulated substance from primary containment or into the environment.

(d) The presence of regulated substance in a dispenser pan, sump, tank interstitial, or piping interstitial, or in a holding tank or oil-water separator, shall constitute a release and shall:

(1) Not be exempted under (b), above; and
(2) Be reported immediately if the discharge meets any of the criteria for immediate notification pursuant to Env-Or 604.06, and otherwise within 24 hours.

(e) The owner shall:

(1) Investigate the cause of any unusual operating condition within 24 hours of becoming aware of the condition;
(2) Implement measures to prevent or minimize a release, eliminate the leak, or otherwise correct the deficiency; and
(3) Submit a written report to the department within 7 days that describes the investigation and its conclusions.

(f) If a discharge to the ambient environment has occurred, the owner also shall notify the department in accordance with Env-Or 604 and implement the preliminary response action in accordance with Env-Or 605.

(g) Upon receiving notification pursuant to (a), above, or a report pursuant to (e)(3), above, the department shall evaluate the notification or review the report to determine whether an additional tightness test is needed to verify the report’s conclusions.

(h) If the department determines that an additional tightness test is required, the owner shall conduct a tightness test in accordance with Env-Or 406.05 through Env-Or 406.08 and Env-Or 500, if applicable, to determine the tightness of the system within 7 days of being notified by the department that the test is required.

Source: (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (formerly Env-Or 406.10) (See RN2 at pp. iv-v)
Env-Or 406.05 Requirements for Tightness Testers and Test Methods.

(a) Any individual who conducts tightness tests on the whole or any part of a UST system shall:
   (1) Understand the variables that affect the test;
   (2) Be trained in the performance of the test; and
   (3) Be certified as qualified by the manufacturer of the equipment used in the testing method if such certification exists.

(b) Subject to (c) and (d), below, the tightness testing method shall be:
   (1) A listed test method for the system or component being tested that is certified to meet the leak rate detection criteria specified in Env-Or 406.06; or
   (2) A specific component tightness test method established in Env-Or 406.15 or Env-Or 406.16.

(c) If a test method meeting the requirements of (b), above, for the component being tested does not exist, the tightness test shall conform to the component manufacturer’s testing requirements that are certified by the manufacturer to meet the leak rate detection criteria specified in Env-Or 406.06.

(d) If a test method meeting the requirements of (b) or (c), above, for the component being tested does not exist, the tightness test shall conform to the testing requirements of:
   (1) PEI RP 1200; or
   (2) An applicable test from the reference standards specified in Env-Or 403.

(e) The test technician shall provide a complete description of the test method used and, if applicable, a copy of the manufacturer’s training certification, to the owner.

(f) The owner shall retain the description and certification provided pursuant to (e), above, for the life of the facility.

Source. (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (formerly Env-Or 406.11) (See RN2 at pp. iv-v)

Env-Or 406.06 Leak Rate Detection Criteria.

(a) The tightness test for a UST system or system component shall be capable of detecting a system leak rate of 0.10 gallon per hour with a probability of detection of 0.95 and a probability of false alarm of 0.05, accounting for all variables including vapor pockets, thermal expansion of regulated substance, temperature stratification, evaporation, pressure, end deflection, water table, and tidal action.

(b) When line tightness testing is used for suction or atmospheric piping, the pipe pressure tightness test shall have a detection limit equivalent to 0.1 gallon per hour at 1.5 times operating pressure.

Source. (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (formerly Env-Or 406.12) (See RN2 at pp. iv-v)

Env-Or 406.07 Requirements for Test Reports.

(a) When a tightness test is performed, the owner shall submit a report of the tightness test that meets the requirements of (c) through (e), below. The report may be generated by the owner or may be submitted on a form available from the department or on any other document containing the required information.

(b) The owner shall submit the tightness test report to the department no later than 30 days after the date of the test.
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(c) The test report submitted pursuant to (a), above, shall include:

1. The UST facility registration number;
2. The UST facility location, by street address and municipality;
3. The name, address, and daytime telephone number including area code of the UST system owner;
4. The date of the test;
5. The tester’s name, company address, and daytime telephone number including area code;
6. The number and expiration date, if any, of the tester’s certification, if a certified tester is required for the test being performed; and
7. The information required by (d), below.

(d) The test report submitted pursuant to (a), above, shall include the following information for each UST system or component tested:

1. The capacity of the UST system;
2. The age of the UST system;
3. The regulated substance stored in the UST system;
4. The location of the UST system on the UST facility’s property;
5. Any other information necessary to accurately identify the UST system;
6. A copy of the field technician’s testing records;
7. A list of each system component tested;
8. A description of any piping, fittings, or connections that were tightened or repaired;
9. The length of any waiting periods after regulated substance delivery, topping, or vapor space disturbances;
10. A description of the temperature measurement equipment and method used for the tightness test;
11. A description of the re-leveling procedure used;
12. The type of testing equipment used for the test, by manufacturer name and model number, together with the date of last calibration and maintenance of the testing equipment;
13. Test duration time; and
14. A description of the vapor pocket measurement and elimination procedure used.

(e) The technician who performed the test shall sign the test report to certify:

1. The validity, method, and accuracy of the test;
2. That the test complies with requirements of this chapter; and
3. That he or she is qualified to perform the test.

(f) The owner shall keep the test report and any other documents describing the type of test, contractor, date, materials, all technician testing data, and any other information pertinent to the tightness testing performed for the life of the system.
(g) If information submitted to the department causes the department to question the accuracy of the test or test report, the person who conducted the tank tightness tests shall provide the department with information on all testing equipment and protocols that have the potential to affect the accuracy of the test within 10 days of the department requesting the information.

Source. (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (formerly Env-Or 406.13) (See RN2 at pp. iv-v)

Env-Or 406.08 Test Failures.

(a) A UST leak or test failure shall be indicated by a system leak rate of 0.10 gallon per hour or greater or an inconclusive test result.

(b) The individual conducting the test shall notify the department and the UST facility owner and operator immediately of a test failure.

(c) The owner of a UST system shall report any failure to the department within 24 hours of receiving notice of the failure.

(d) Upon being notified of a tank or piping tightness test failure, the UST system owner shall:

(1) Investigate the cause of the failure and determine whether the system is leaking within 7 days of the initial test failure; or

(2) Temporarily close the system within 7 days of the initial failure and permanently close the system in accordance with Env-Or 408.06 through Env-Or 408.10 within 30 days of the original test failure.

(e) The investigation into the cause of the initial test failure shall include a second tightness test.

(f) The owner shall submit a written report to the department within 30 days of the initial test failure that describes the work performed, the repairs made, and any other actions taken in response to the test failure.

(g) Any system that has been repaired shall be retested for tightness to confirm the effectiveness of the repairs.

(h) Any double wall UST system in which the outer wall fails a second tightness test shall be:

(1) Completely emptied of regulated substance within 24 hours of the second failure; and

(2) Repaired in accordance with Env-Or 408.01 through Env-Or 408.03, as applicable, or permanently closed in accordance with Env-Or 408.06 through Env-Or 408.10, within 30 days of the second test.

(i) Upon being notified of a containment sump or spill containment tightness test failure, the UST system owner shall:

(1) Investigate the cause of the failure and determine if the system has leaked within 30 days of the initial test failure; and

(2) Either:

a. Repair or replace the containment sump or spill containment in accordance with Env-Or 408.03; or

b. Temporarily close the UST system within 30 days of the initial failure.

Source. (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (formerly Env-Or 406.14) (See RN2 at pp. iv-v)
Env-Or 406.09 Automatic Line Leak Detector Testing.

(a) Automatic line leak detectors shall be tested annually in accordance with the manufacturer’s requirements to confirm that they are operating in accordance with their designed function.

(b) The owner shall submit the following information in an automatic line leak detector test report generated by the owner, on a form made available by the department, or on any other document

1. The information required by Env-Or 406.07(c)(1)-(6);
2. Test locations; and
3. Test results.

(c) The line leak detection tester who conducted the test shall sign the test report in accordance with Env-Or 406.07(e).

(d) When an automatic line leak detector test is performed, the owner shall send the line leak detector test report to the department no later than 30 days after the date of the test.

(e) An automatic line leak detector failure shall be indicated by a leak rate of greater than 3 gallons per hour at a pressure of 10 pounds per square inch line pressure within one hour.

(f) If any line leak detector fails the test, the owner shall remove the affected piping system(s) from service until the line leak detector is repaired or replaced and passes the line leak detector test.

Source. (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (formerly Env-Or 406.16) (See RN2 at pp. iv-v)

Env-Or 406.10 Cathodic Protection System Testing.

(a) The owner shall test:

1. Sacrificial anode systems within 6 months of installation and every 3 years thereafter; and
2. Impressed current systems within 6 months of installation and every 3 years thereafter.

(b) The individual conducting the testing shall be a cathodic protection tester.

(c) The owner shall submit the following information in a report of the cathodic protection test generated by the owner, on a form made available by the department, or any other document:

1. The information required by Env-Or 406.07(c)(1)-(6);
2. A description of the equipment used to conduct the test;
3. Test locations;
4. Test results;
5. For impressed current systems, the specified rectifier DC output range in volts and amps; and
6. The tester’s International Code Council, Steel Tank Institute, or NACE certification number.

(d) The cathodic protection tester who has conducted the test shall sign the test report in accordance with Env-Or 406.07(e).

(e) When a cathodic protection test is performed, the owner shall send the test report to the department no later than 30 days after the date of the test.

Source. (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (formerly Env-Or 406.17) (See RN2 at pp. iv-v)
Env-Or 406.11 Overfill Prevention Device Testing.

(a) Subject to (b), below, no later than December 22, 2017 and triennially thereafter, the owner of a UST system shall test the primary overfill protection system.

(b) Political subdivisions that did not vote to approve funding for the testing required by (a), above, shall test the primary overfill protection system no later than October 13, 2021 and triennially thereafter.

(c) The owner of a UST system that includes a day tank that is automatically filled from the UST shall test the day tank’s high level alarm and overfill prevention system no later than October 12, 2021 and annually thereafter.

(d) The testing shall be done by removing the sensors/devices from the tank and activating them.

(e) The owner shall report any test failure to the department within 24 hours of receiving notice of the failure.

(f) The owner shall submit to the department no later than 30 days after the date of the test the overfill prevention device test information specified in (g), below, in a report generated by the owner, on a form available from the department, or on any other document containing the required information.

(g) The overfill prevention device test report shall include the following:

(1) The information required by Env-Or 406.07(c)(1)-(6);

(2) Overfill model number and manufacturer’s name;

(3) Test results;

(4) Verification that the overfill console if equipped is correctly programmed and labeled;

(5) Verification that the overfill device tank sensor is positioned in accordance with the activation height requirements of Env-Or 405.06(c) and manufacturer’s requirements;

(6) Verification that the overfill device sensor was visually inspected and confirmed operational by manually simulating an overfill condition per state’s and manufacturer’s requirements;

(7) Verification that the audible alarm, if equipped, is operational and can be heard by delivery person; and

(8) Verification that the visual alarm, if equipped, is operational and can be seen by delivery person.

(h) The tester who has conducted the test shall sign the test report in accordance with Env-Or 406.07(e).

(i) Any malfunctioning spill or overfill device shall be repaired within 30 working days. If the device(s) cannot be repaired or replaced within 30 days, the affected system(s) shall be prohibited from taking a delivery until satisfactory repairs are made.

(j) Any repaired or replaced overfill prevention device shall be immediately tested and reported as specified in (d) through (h), above.

Env-Or 406.12 Spill Containment Integrity Testing.

(a) Subject to (b), (d), and (e), below, no later than December 22, 2017 and triennially thereafter, all spill containment equipment shall be tested for tightness as specified in Env-Or 406.05 through Env-Or 406.08.
(b) Subject to (d) and (e), below, any political subdivision that did not vote to approve funding for the testing required by (a), above, shall test all spill containment equipment no later than October 13, 2021 and triennially thereafter.

(c) Subject to (d) and (e), below, no later than October 13, 2021 and triennially thereafter, all stage I system connection spill containment equipment that otherwise was not tested pursuant to (a), above, shall be tested for tightness as specified in Env-Or 406.05 through Env-Or 406.08.

(d) Spill containment equipment installed within a liquid-tight sump or of double-walled construction having electronic or mechanical interstitial monitoring that is inspected monthly pursuant to the requirements of Env-Or 406.18(a)(1) shall not be subject to the triennial integrity testing requirement of this part.

(e) Spill containment equipment installed within a secondary containment sump equipped with a sump sensor and leak monitoring in which the sump is inspected annually pursuant to Env-Or 406.18(a)(1) shall not be subject to the triennial integrity testing requirement of this part.

(f) The owner of a UST system shall report any spill containment tightness test failure to the department within 24 hours of receiving notice of the failure.

(g) The owner shall submit the following information to the department within 30 days of the closure of a failed spill containment device:

1. A summary of closure activity, including, but not limited to, measurements from a photoionization detector; and
2. The information required by (i), below.

(h) The owner shall submit to the department no later than 30 days after the date of the test the spill containment test information specified in (i), below, in a report generated by the owner, on a form available from the department, or on any other document containing the required information.

(i) The spill containment test report shall include the following:

1. The information required by Env-Or 406.07(c)(1)-(6);
2. Containment model number and manufacturer’s name;
3. Test method;
4. Test results;
5. Verification that the test passed or failed;
6. Verification that the primary and secondary containment if applicable is free of debris, water, and regulated substance.

(j) The tester who has conducted the test shall sign the test report in accordance with Env-Or 406.07(e).

Source. (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (formerly Env-Or 406.19) (See RN2 at pp. iv-v)

Env-Or 406.13  Leak Monitoring Equipment Testing.

(a) The owner of a UST system shall test all leak monitoring equipment annually for proper operation.

(b) The owner of a UST system containment sump having a sensor or discriminating sensor system which automatically de-energizes the specific dispensing pump or submersible tank pump when regulated substance is detected and that is not being tightness tested triennially pursuant to the requirements of Env-Or 406.14(b) shall test each system for proper operation no later than October 12, 2021 and annually thereafter.
(c) The owner of a UST system that includes a day tank that is automatically filled from the UST shall test the rupture basin or secondary containment leak monitoring equipment no later than October 12, 2021 and annually thereafter.

(d) The owner shall submit to the department no later than 30 days after the date of the test the leak monitor test information specified in (e), below, in a report generated by the owner, on a form available from the department, or on any other document containing the required information.

(e) The leak monitor test report shall include the following:

1. The information required by Env-Or 406.07(c)(1)-(6);
2. Leak monitor model number and manufacturer’s name;
3. Verification that the leak monitor console assignments are correctly programmed and labeled for all sensors;
4. Verification that the tank and piping sensors for the secondary containment is positioned in accordance with the manufacturer’s requirements;
5. Verification that the brine level of the tank interstitial space is within the manufacturer’s operating range;
6. Verification that the secondary containment is free of debris, water, and regulated substance;
7. Verification that all sensors were visually inspected and confirmed operational by manually simulating an alarm condition;
8. Verification that all leak monitor console audible alarms are operational;
9. Verification that all leak monitor console visual alarms are operational;
10. Verification that the communication system, such as a modem, is operational for leak monitoring systems and will relay alarms to a remote station;
11. Verification that all secondary containment is continuously monitored; and
12. Verification that all associated product pump circuits have been de-energized, if applicable pursuant to the requirements of (b), above.

(f) The testing technician who conducts the test shall sign the test report in accordance with Env-Or 406.07(e).

(g) The testing technician shall attach to the submitted test report the information necessary to verify that this information is correct.

Source. (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (formerly Env-Or 406.20) (See RN2 at pp. iv-v)

Env-Or 406.14 Containment Sump Integrity Testing.

(a) The owner shall test each new sump for tightness at installation, in accordance with Env-Or 406.05 through Env-Or 406.08.

(b) With the exception of UST systems containing heating oil for on-premise heating use, and subject to (c) and (d), below, all containment sumps shall be tested for tightness as specified in Env-Or 406.05 through Env-Or 406.08 no later than October 13, 2021 and triennially thereafter.

(c) Containment sumps having secondary containment and leak monitoring that is inspected annually pursuant to the requirements of Env-Or 406.18(a)(1) shall not be subject to the triennial integrity testing requirement of this part.
(d) Containment sumps having leak monitoring sensors positioned at the lowest point of the sump or discriminating sensors covering the entirety of the sump which automatically de-energize the specific dispensing pump or submersible tank pump when regulated substance is detected and which are tested annually pursuant to Env-Or 406.13(b) shall not be subject to the triennial integrity testing requirement of this part unless the department has determined that the system has been disabled and then the testing requirements of this part shall be due within 30 days.

(e) The owner shall submit to the department no later than 30 days after the date of the test the containment sump integrity test information specified in (f), below, in a report generated by the owner, on a form available from the department, or on any other document containing the required information.

(f) The containment sump integrity test report shall include the following:

1. The information required by Env-Or 406.07(c)(1)-(7);
2. Containment model number and manufacturer’s name, if known;
3. Test method;
4. Test results;
5. Verification that the test passed or failed; and
6. Verification that the primary and secondary containment if applicable is free of debris, water, and regulated substance.

(g) The tester who has conducted the test shall sign the test report in accordance with Env-Or 406.07(e).

(h) The owner shall submit the following information to the department within 30 days of the closure of a failed sump containment device:

1. A summary of closure activity, including, but not limited to, measurements from a photoionization detector; and
2. The information required by (f), above.

Source. (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (formerly Env-Or 406.21) (See RN2 at pp. iv-v)

Env-Or 406.15 Hydrostatic Tightness Test for Sumps and Spill Containment.

(a) If a hydrostatic tightness test is performed on sumps or spill containment, or both, pursuant to Env-Or 406.05(b)(2), the test shall be conducted:

1. After all seams and fittings have been completed and all piping and conduits have been installed;
2. At a level that is within one inch of the top of the containment sump or spill containment, or 10 inches above the top of the highest containment sump penetration fitting, whichever is lower;
3. By recording the liquid level measurements at the beginning and end of the test;
4. For a minimum of 3 hours for containment sumps and one hour for spill containment; and
5. With no addition of liquid to the containment sump or spill containment after the start of the test.

(b) A passing hydrostatic test, when conducted in accordance with (a), above, shall have no loss of liquid or observed leaks after the complete duration of the test.

Source. (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (formerly Env-Or 406.22) (See RN2 at pp. iv-v)
Env-Or 406.16 Pneumatic Tightness Test for Piping.

(a) If a pneumatic tightness test is performed on piping pursuant to Env-Or 406.05(b)(2), the test shall be conducted as follows:

1. Pressurize flexible secondary containment piping at 5 psi and maintain the pressure for a minimum of 10 minutes;
2. Pressurize nonflexible secondary containment piping at 10 psi and maintain the pressure for a minimum of 10 minutes;
3. Apply soap solution to all piping joints and other connections; and
4. Observe the joints and connections for leaks for the duration of the test.

(b) The piping shall be backfilled only if no leaks are observed for the duration of the test.

(c) All installed secondary containment piping shall be pressurized for a minimum period of 2 hours after the backfill process has been completed.

(d) Test results shall be provided to the department at the final site inspection required by Env-Or 407.07(e).

(e) The certified tank installer shall remove all testing equipment after the test is completed.

(f) Each test gauge used for pneumatic tightness testing shall have an operating range that conforms to the requirements of the test method being used.

Source: (See RN1 at p. iv) #10393, eff 9-1-13; ss by #12643, eff 10-10-18 (formerly Env-Or 406.23) (See RN2 at pp. iv-v)

Env-Or 406.17 Primary Containment System Testing.

(a) For purposes of this section, “primary containment system” means any portion of a UST system that contains a regulated substance or oil, or vapors thereof, that is intended to be in contact with the substance being stored, or its vapors, under normal operating conditions, exclusive of pressure piping that is isolated from the tank by a submersible pump.

(b) The owner of a motor fuel dispensing UST system shall test the primary containment system for tightness no later than December 22, 2017 and triennially thereafter using the following test methods as applicable:

1. Owners of UST systems storing gasoline who are required by Env-Or 500 to perform periodic pressure decay testing shall comply with those requirements;
2. Owners of UST systems storing gasoline who are not required by Env-Or 500 to perform periodic pressure decay testing shall perform the pressure decay test as specified in Env-Or 504.10(a)(2) and Env-Or 504.10(b) or use a test method as specified in Env-Or 406.05; and
3. Owners of UST systems storing diesel fuel shall use:
   a. A test method as specified in Env-Or 406.05; or
   b. The pressure decay testing method as specified in Env-Or 504.10(a)(2) and Env-Or 504.10(b), provided soap checks of accessible tank top fittings and risers are conducted during the test and repairs are made as leaks are encountered.

(c) The owner of a motor fuel dispensing UST system installed or substantially modified after December 22, 2017 shall test the primary containment system for tightness prior to operation and triennially thereafter using the test methods listed in (b)(1)-(3), above, as applicable.
(d) Any owner of a motor fuel dispensing UST system storing diesel fuel who conducted tightness testing on the primary containment system using the method specified in (b)(3)b., above, on or after April 15, 2016, may rely on the results of that test to meet the requirement for initial testing.

(e) Test reports shall be completed and submitted as specified in Env-Or 406.07.

(f) Test failures shall be addressed as specified in Env-Or 406.08.

Source. (See RN1 at p. iv) #10393, eff 9-1-13; amd by #12160, EMERGENCY RULE, eff 4-17-17, EXP: 10-14-17; ss by #12365, eff 8-19-17; ss by #12643, eff 10-10-18 (formerly Env-Or 406.24) (See RN2 at pp. iv-v)

Env-Or 406.18 Monthly, Bi-Monthly, and Annual Visual Inspections. In addition to the visual inspection requirements listed in RSA 146-C:19, II(c), the following items shall be inspected on the frequency noted by the facility’s class A or class B operator or under the direction of the class A or class B operator:

(a) The following shall be completed monthly:

(1) For spill containment equipment having secondary containment and leak monitoring that is not being tightness tested triennially pursuant to Env-Or 406.12, inspect the interstitial space for the presence of any oil or water, remove and dispose of any oil or water in accordance with all applicable federal, state, and local requirements, and repair the spill containment as necessary;

(2) Inspect each hydrant pit at an airport hydrant fuel distribution system for the presence of oil, water, or debris, and:
   a. Remove and dispose of any oil, water, or debris in accordance with all applicable federal, state, and local requirements; and
   b. Repair each hydrant pit as necessary;

(3) Inspect each oil transfer and dispensing pad area for conditions of open joints, cracking, spalling, nozzles extending beyond the pad, or defects of any kind and correct or repair per Env-Or 405.07(b) or Env-Or 407.10, as applicable; and

(4) Inspect and remove any obstruction in the fill pipe;

(b) For impressed current cathodic protection systems, once every 2 months:

(1) Inspect each rectifier output monitor to ensure that the rectifier is on, that the output voltage and amps are within the range specified in the test report filed with the department pursuant to Env-Or 406.10(c)(5); and

(2) Immediately contact a corrosion expert if the rectifier is not operating or is not operating within the specified voltage and amp output range; and

(c) Annually:

(1) Inspect each containment sump for leaking components and the presence of oil, water, or debris, and:
   a. Remove and dispose of any oil, water, or debris in accordance with all applicable federal, state, and local requirements; and
   b. Repair each component as necessary with the results reported in the associated monthly inspection report;
(2) For containment sumps having secondary containment and leak monitoring that are not being tightness tested triennially pursuant to Env-Or 406.14(b), inspect the interstitial space for any oil or water; and

(3) If the interstitial space is equipped with a liquid-indicating gauge and the gauge is used in lieu of conducting a monthly interstitial space inspection, remove and inspect the gauge annually for proper function, repair as necessary, and report the results in the associated monthly inspection report.

Source. #12643, eff 10-10-18 (See RN2 at pp. iv-v)

Env-Or 406.19 Reports of Visual Inspections.

(a) Results of the inspections required by Env-Or 406.18 shall be reported as “no defect” or “defect”.

(b) If a defect is noted, the report shall:

   (1) Include an explanation of how the defect was resolved; and

   (2) Be submitted with the results of the monthly visual inspections required by RSA 146:19, II(b).

(b) Results of the bimonthly visual inspections required by Env-Or 406.18(b) and the annual visual inspections required by Env-Or 406.18(c) shall be reported in the month in which the inspection occurred with the results of the monthly visual inspections required by RSA 146:19, II(b).

Source. #12643, eff 10-10-18 (See RN2 at pp. iv-v)

PART Env-Or 407 INSTALLATION REQUIREMENTS

Env-Or 407.01 Application for Approval of UST Systems.

(a) As specified in RSA 146-C:7, I, prior to commencing construction or installation of a new facility or making one or more substantial modifications at an existing facility, including any changes to a cathodic protection system, the owner shall:

   (1) As required by RSA 146-C:7, I, submit plans and specifications to the department; and

   (2) Provide the information required by Env-Or 407.02 together with the fee, if any, required by RSA 146-C:7, I-a.

(b) The approval of the plans by an engineer licensed to practice in New Hampshire that is required by RSA 146-C:7, I shall be demonstrated by the engineer signing and affixing his or her stamp to the plans.

(c) Subject to (d), below, construction shall not commence until the sooner of 90 days after submitting a complete application or the department issues an approval.

(d) If the department issues a denial within 90 days, the facility shall not be constructed.

(e) The owner shall sign and date the application.

(f) The signature shall constitute certification that:

   (1) The information provided is true, complete, and not misleading to the knowledge and belief of the signer;

   (2) The signer understands that any permit issued based on false, incomplete, or misleading information shall be subject to revocation; and
(3) The signer understands that he or she is subject to the penalties for falsification in official matters currently specified in RSA 641.

Source. (See RN1 at p. iv) #10393, eff 9-1-18; ss by #12643, eff 10-10-18 (See RN2 at pp. iv-v)

Env-Or 407.02 Information Required for Application. The information required by Env-Or 407.01(a)(2) shall be as follows:

(a) Information on the facility and system owner as specified in RSA 146-C:3, I(a) - (c);

(b) Whether the application is for piping only;

(c) Whether any existing USTs are being closed;

(d) For each new UST, the following information:
   (1) The nominal and actual volume of the UST;
   (2) The diameter and length of the UST;
   (3) The regulated substance stored in the UST;
   (4) The UST’s manufacturer and material of construction;
   (5) If a double-walled UST, the degree of wrap;
   (6) If a steel UST, the gauge of the outer wall; and
   (7) The design standard of the UST;

(e) If leak monitoring is proposed, the manufacturer and model number for the sensor, gauge, and monitor or line leak detector, as applicable;

(f) For piping and secondary containment, the following:
   (1) Whether the primary piping is a pressure or suction system;
   (2) For the primary piping, secondary piping, and duct or chase, the manufacturer, model number, pipe material and schedule, pipe size(s), and minimum bend radius, as applicable;
   (3) Whether the system uses a siphon or return;
   (4) For the primary, secondary, and duct or chase, the manufacturer, model number, pipe material and schedule, pipe size(s), and minimum bend radius, as applicable;
   (5) For vapor piping components including the vent, vapor recovery, and stack, the manufacturer, model number, pipe material and schedule, pipe size(s), and minimum bend radius, as applicable; and
   (6) For each sump serving a tank, dispenser, or other UST system component:
      a. The manufacturer, model number, and material of the sump; and
      b. The manufacturer and model number of each sump sensor and sump entry fitting;

(g) For spill containment, the manufacturer and model number of each fill spill container and stage I spill container, as applicable;

(h) Whether the overfill protection is an audible alarm level sensor, overfill flow shut-off valve, or another type of protection;
(i) The manufacturer and model number of all other UST system appurtenances, including as applicable fill pipe swivel adaptors and caps, submerged fill drop tubes, stage I adaptors and caps, vent or vapor extractor fittings, vent stack caps, and flex connectors;

(j) The closest distance from any UST system component to a public water supply well, non-public water supply well, and surface waters of the state as defined in RSA 485-A:2, XIV;

(k) If any of the required setbacks are not met, whether a UST system existed at the site or facility prior to February 3, 2005;

(l) The name, company, mailing address, daytime telephone number including area code, email address, and N.H. P.E. number and expiration date of the New Hampshire-licensed professional engineer responsible for the plans and specifications;

(m) The name, company, mailing address, daytime telephone number including area code, email address, and ICC certification number and expiration date of the certified UST installer who will perform the work; and

(n) Any additional information needed to demonstrate that the installation will meet:

1. The applicable reference standards identified in Env-Or 403; and

2. The testing and system requirements of Env-Or 405 and Env-Or 406.

Source. (See RN1 at p. iv) #10393, eff 9-1-18; ss by #12643, eff 10-10-18 (See RN2 at pp. iv-v)

Env-Or 407.03 Application Processing.

(a) Upon receipt of an application, the department shall determine whether the application is complete, namely whether the application meets the requirements of Env-Or 407.01.

(b) If the application is complete, the department shall process the application in accordance with Env-Or 407.04.

(c) Except as provided in (f), below, if the application is not complete, the department shall notify the applicant in writing of:

1. What is missing; and

2. The deadline for submitting the missing components, established based on the type and volume of the missing component(s).

(d) Upon notifying an applicant that the application does not contain everything required by Env-Or 407.01, the department shall suspend further processing of the application pending receipt of the information missing from the application.

(e) No portion of the time between the date a notice is provided pursuant to (c), above, or (f), below, and the date the applicant responds shall be included in computing the time limit specified in RSA 146-C:7, I, relative to automatic approval.

(f) The department shall notify the applicant by telephone in lieu of providing a written notice pursuant to (c), above, if:

1. The anticipated time required of the applicant to supply the missing information is less than the anticipated time required of the department to notify the applicant in writing; and

2. The department is able to contact the applicant by telephone.
(g) If the department provides notice pursuant to (f), above, the department shall specify in the verbal notice the same information required by (c)(1)-(2), above.

Source.  (See RN1 at p. iv) #10393, eff 9-1-18; ss by #12643, eff 10-10-18 (See RN2 at pp. iv-v)

Env-Or 407.04  Decision on Application.

(a) After initiating the technical review of a complete application, if the department has questions about any information submitted as part of the application the department shall contact the individual identified by the owner in the application as the contact person using the procedures listed in Env-Or 407.03(c)-(f) and suspend processing of the application until such questions are answered. No portion of the time between the date a notice is provided and the date the applicant responds shall be included in computing the time limit specified in RSA 146-C:7, I, relative to automatic approval.

(b) As specified in RSA 146-C:7, I, within 90 days of receipt of a complete application, the department shall send the owner written notice of approval or disapproval.

(c) The department shall approve plans that demonstrate compliance with this chapter.

(d) The department shall include such terms and conditions in the approval as are necessary to ensure compliance with applicable requirements.

(e) As specified in RSA 146-C:7, II, an owner shall not cause or allow any construction or other activity that is not in accordance with the approved plans and all terms and conditions of the department’s approval.

(f) An approval granted for construction or installation of a corrosion prevention system, or a new or replacement UST system, or a substantial modification of a UST system shall be valid for one year from the date of issuance.

(g) If construction pursuant to the approval has not commenced within one year, the approval shall be void.

(h) If construction pursuant to the approval has commenced but is not completed within one year, the owner shall notify the department and request an extension to the approval. The department shall grant a one-year extension if:

(1) Any tank(s) and underground piping already installed have been installed in accordance with the approved plan; and

(2) For any tank(s) and underground piping not yet installed, the approved plans conform to all then-current applicable requirements.

(i) If the owner does not qualify for an extension under (g), above, but still wishes to pursue the project, the owner shall reapply for approval as specified in Env-Or 407.01 through Env-Or 407.04.

Source.  (See RN1 at p. iv) #10393, eff 9-1-18; ss by #12643, eff 10-10-18 (See RN2 at pp. iv-v)

Env-Or 407.05  Requirements for UST System Installers.

(a) A UST or UST system component shall be installed only by a certified tank installer.

(b) The certified tank installer also shall:

(1) Be qualified by the manufacturer of the equipment being installed for every component of the system; and

(2) Have an understanding of federal UST regulations and industry codes of practice.
(c) For any component for which requirements are not specified by the manufacturer that is not otherwise specified in the approved plans, including but not limited to aboveground piping system components, the owner and certified tank installer shall install the component in accordance with the following, as applicable, all of which are available as noted in Appendix B:

1. PEI RP 100, Recommended Practices for Installation of Underground Liquid Storage Systems;
2. PEI RP 300, Recommended Practices for Installation and Testing of Vapor-Recovery Systems at Vehicle-Fueling Sites;
3. PEI RP 500, Recommended Practices for Inspection and Maintenance of Motor Fuel Dispensing Equipment;
4. PEI RP 800, Recommended Practices for Installation for Installation of Bulk Storage Plants;
5. PEI RP 1000, “Recommended Practices for the Installation of Marina Fueling Systems”;
7. API RP 1615, Installation of Underground Petroleum Storage Systems; and

(d) Unless the owner obtains a specific exception or variance from the state fire marshall as provided in RSA 153:4-a, I and any applicable rules adopted pursuant to RSA 153:5, the owner and certified installer shall comply with all applicable safety and testing requirements specified in:

1. NFPA 30, Flammable and Combustible Liquids Code;
2. NFPA 30A, Motor Fuel Dispensing Facilities and Repair Garages;
3. NFPA 31, Standard for the Installation of Oil-Burning Equipment; and
4. NFPA 329, Recommended Practice for Handling Releases of Flammable and Combustible Liquids and Gases.

Source. (See RN1 at p. iv) #10393, eff 9-1-18; ss by #12643, eff 10-10-18 (See RN2 at pp. iv-v)

Env-Or 407.06 UST System Design Requirements.

(a) All UST systems shall meet the requirements for new facilities specified in Env-Or 405 and the applicable reference standards listed in Env-Or 403.

(b) A UST system shall not be installed within the sanitary protective area of a public water system (PWS) well.

(c) A UST system that already exists within the sanitary protective area of a PWS well shall not be substantially modified or replaced unless:

1. The PWS owner agrees to the work in writing; or
2. The department determines that the modified UST system:
   a. Would not create any additional threat to the PWS well; or
   b. Would be more protective of groundwater from which the PWS well draws than the existing UST system.
(d) A UST system shall not be installed in any area where flooding over the top of the tank is reasonably likely or the ground surface is below the 100-year flood elevation, unless the plans include specific requirements designed to ensure that the tank will not float and its contents will not escape during a flood.

(e) At any new UST site at which installation of a UST system is proposed on or after February 2, 2005, no UST system shall be installed closer than the applicable distance specified in Table 407-1:

<table>
<thead>
<tr>
<th>Contents of UST</th>
<th>Public Water Supply Well</th>
<th>Non-Public Water Supply Well</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gasoline</td>
<td>at least 500 feet</td>
<td>at least 250 feet</td>
</tr>
<tr>
<td>All other regulated substances</td>
<td>at least 400 feet</td>
<td>at least 75 feet</td>
</tr>
</tbody>
</table>

(f) At any UST facility existing prior to September 1, 2013, if:

1. A UST system that will have the same contents is added, substantially modified, or replaced, the existing separation distance shall not be decreased below the separation distance specified in table 407-1; and

2. If a UST system installed on or after the 2018 effective date of this chapter will contain a regulated substance not previously stored at the facility, the UST system shall not be installed closer than the applicable distance specified in table 407-1.

(g) With the exception of marinas and construction that is subject to Env-Or 407.10 relative to installation of fueling systems over surface waters, no UST system at any new site shall be located closer than 75 feet from surface waters of the state.

(h) Storm water runoff from UST facilities shall not be:

1. Directly discharged to surface water unless a permit for the discharge is obtained under applicable state or federal law; or

2. Discharged below the ground surface unless a permit is obtained under RSA 485-A:13, I(a) and Env-Wq 402.

(i) Storm water shall not be directed to flow over any tank pad or dispensing pad.

(j) A UST shall be installed such that it has a buoyancy safety factor of at least 1.2 during high groundwater conditions.

(k) Regulated substance shall not be used as ballast for new tank installations.

Source.  (See RN1 at p. iv) #10393, eff 9-1-18; ss by #12643, eff 10-10-18 (See RN2 at pp. iv-v)

Env-Or 407.07 Notification and Inspection; Backfill.

(a) The owner shall not backfill or place into service, and shall not authorize any other person to backfill or place into service, a new or substantially modified UST system until after the department has performed an inspection and determined that the system as installed conforms to the approved plans and specifications or as-built record drawings, as applicable, as specified in this section.

(b) To request authorization to place a new or substantially modified UST into service, the owner shall contact the department to arrange for an inspection of the new or substantially modified system at least 5 department business days prior to the estimated date the tank top or piping, or both, will be backfilled.

(c) At least 8 department working hours prior to an inspection by the department, the owner shall submit to the department a letter prepared and stamped by a New Hampshire licensed professional engineer
(NH PE), stating that the installed UST system has been inspected by a NH PE to verify that the system was constructed in accordance with the department’s approved plans and specifications.

(d) If the NH PE’s inspection reveals any discrepancies between the system as installed and the approved plans and specifications, the owner shall submit to the department as-built record drawings prepared and stamped by a NH PE prior to the backfill inspection conducted by the department.

(e) If the department determines, as a result of its inspection, that the system as installed does not conform to the approved plans and specifications, the owner shall:

1. Submit as-built record drawings prepared and stamped by a NH PE to the department within 30 days of the department’s inspection; and
2. Notify the department to arrange a follow-up inspection.

(f) After the department determines that the system as installed conforms to the approved plans and specifications or as-built plans, as applicable, the system may be backfilled but shall not be placed into service until the owner has submitted:

1. All information required for registration specified in Env-Or 404.01(a) and (b);
2. A stage I/stage II notification and system test report if and as required by Env-Or 500; and
3. A statement identifying the class A and class B operators, as required by RSA 146-C:17.

Source. (See RN1 at p. iv) #10393, eff 9-1-18; ss by #12643, eff 10-10-18 (See RN2 at pp. iv-v)

Env-Or 407.08 Installation Testing Requirements.

(a) The certified tank installer shall perform a tightness test of the primary piping, secondary containment piping, vent piping, containment sumps, and all spill containment equipment after installation and prior to backfill to determine tightness in accordance with Env-Or 406.05 through Env-Or 406.08.

(b) If no manufacturer’s test requirements are specified for the primary piping or vent piping, the certified tank installer shall perform the piping pressure test in accordance with API RP 1615.

(c) Prior to backfilling the system, the certified tank installer shall:

1. Certify the results of all tightness testing performed; and
2. Provide the certified results to the department and the owner at the time of the inspection of the system as specified in Env-Or 407.07.

(d) All line leak detectors shall be tested in accordance with the manufacturer’s requirements.

(e) The certified tank installer shall:

1. Certify that:
   a. All line leak detectors passed a functionality test;
   b. All overfill devices passed a functionality test;
   c. All spill containment passed integrity testing;
   d. All containment sumps passed integrity testing;
   e. All leak monitoring system components pass a functionality test; and
   f. All motor fuel dispensing tank systems passed primary containment testing; and
(2) Submit the certified test results to the department before any regulated substance is dispensed or used for consumption, as applicable.

**Source.** (See RN1 at p. iv) #10393, eff 9-1-18; ss by #12643, eff 10-10-18 (See RN2 at pp. iv-v)

Env-Or 407.09 Requirements For Replacement of UST System Components.

(a) Whenever an existing UST is removed, all applicable requirements of Env-Or 408.06 through Env-Or 408.10 shall be met prior to the installation of a new UST.

(b) For steel USTs, the owner shall:

   (1) Thoroughly inspect the tank coating; and
   
   (2) Repair any scratches, gouges, voids, or other discontinuities found in the coating according to the manufacturer’s requirements prior to installation.

(c) Whenever an existing tank is removed prior to the installation of a new tank, all system piping that does not meet the standards specified in Env-Or 405.02 and Env-Or 405.04 shall be closed in accordance with Env-Or 408.06 through Env-Or 408.10.

**Source.** (See RN1 at p. iv) #10393, eff 9-1-18; ss by #12643, eff 10-10-18 (See RN2 at pp. iv-v)

Env-Or 407.10 Installation of Fueling Systems over Surface Waters. The following shall apply to UST systems, including but not limited to all associated piping systems, for fueling facilities at which fuel is dispensed over surface waters:

(a) All UST systems shall comply with the following, available as noted in Appendix B:

   (1) NFPA 30, Flammable and Combustible Liquids Code;
   
   (2) NFPA 30A, Motor Fuel Dispensing Facilities and Repair Garages; and
   
   (3) NFPA 303, Marinas and Boatyards;

(b) Piping systems where tanks are at an elevation that produces a pressure due to gravity at the dispenser shall:

   (1) Be equipped with an anti-siphon device installed adjacent to and downstream from a manually-operated shutoff valve; and
   
   (2) Have the anti-siphon device and manual shutoff valve located inside a liquid-tight collection sump at the tank;

(c) All sumps shall be liquid-tight and have a sump sensor;

(d) Piping systems shall:

   (1) Have continuous secondary containment and be equipped with liquid-tight intermediate sumps with sensors at locations where runs of continuous secondary containment are joined;
   
   (2) Be equipped with flexible piping with secondary containment between any floating structure and the shore;
   
   (3) Be equipped with a readily-accessible shutoff valve that is:

      a. Located on the shore, as close to the shoreline as possible; and
      
      b. Installed adjacent to and upstream from the flexible piping required by (2), above; and
   
   (4) Be protected from physical damage;
(e) Dispensing nozzles shall be automatic closing type without a device that allows the dispensing nozzle to remain open;

(f) Piping shall not be in contact with surface water;

(g) Onshore marina dispensers installed on or after the 2018 effective date of this chapter that are designated for filling portable containers only shall have a level reinforced-concrete dispensing pad that:
   (1) Is not less than 5 feet wide by 5 feet long; and
   (2) Has positive limiting barriers that:
      a. Have a volume of at least one gallon; and
      b. Are installed as specified in Env-Or 405.07(b)(1) and (2); and

(h) Onshore marina dispensers that are designated to fuel boated trailers and other land-based equipment shall be constructed in accordance with Env-Or 405.07(b).

Source.  (See RN1 at p. iv) #10393, eff 9-1-18; ss by #12643, eff 10-10-18 (See RN2 at pp. iv-v)

PART Env-Or 408 REPAIR; CLOSURE; REMOVAL

Env-Or 408.01 Repair of Tanks: Pre-Repair Considerations and Requirements.

(a) A liner shall not be installed to repair a UST.

(b) If a tank is to be lined following a repair, the owner shall:
   (1) Cause a tightness test to be completed on the tank prior to lining the tank to confirm the success of the repair; and
   (2) Not line the tank or use the tank unless the tank passes the tightness test.

(c) A UST that releases a regulated substance to the environment shall not be repaired but rather permanently closed in accordance with Env-Or 408.06 through Env-Or 408.10.

(d) Within 30 days prior to a proposed repair to a UST, the owner shall:
   (1) Conduct a tightness test on the UST’s primary and secondary walls in accordance with Env-Or 406.05 through Env-Or 406.08 to ensure that the UST is sound and free of holes or fractures that may cause leaks or releases; or
   (2) Conduct an assessment in accordance with Env-Or 408.08 to ensure that the tank is sound and free of corrosion and other holes or fractures that potentially could cause leaks or releases.

(e) If the UST is determined to be repairable pursuant to (d)(1) or (d)(2), above, prior to undertaking the repair the owner shall:
   (1) Provide a report to the department regarding the procedures on how the repair will be accomplished;
   (2) Provide documentation from the tank manufacturer authorizing the repair; and
   (3) Provide the name, daytime telephone number including area code, and certification number and expiration date of the certified tank installer who will perform the repair.
(f) Repairs shall be conducted and tested in accordance with applicable provisions of the following, available as noted in Appendix B:

1. FTPI RP T-95-02, “Remanufacturing of Fiberglass Reinforced Plastic (FRP) Underground Storage Tanks;” and

(g) Repairs to composite tanks shall be conducted in accordance with industry codes of practice developed by a nationally-recognized association.

(h) Repairs to steel tanks shall be conducted in accordance with industry codes of practice developed by a nationally-recognized association.

(i) The owner shall obtain approval as specified in Env-Or 407.01 through Env-Or 407.04 prior to installing a manway on a UST system.

Source. (See RN1 at p. iv) #10393, eff 9-1-18; ss by #12643, eff 10-10-18 (See RN2 at pp. iv-v)

Env-Or 408.02 Repair of Tanks: Post-Repair Requirements.

(a) Following repairs to the tank and prior to adding regulated substance, the owner shall submit to the department a report that includes:

1. An explanation of the cause and location of the failure;
2. A description of the procedure that was followed to return the interstitial space to its original operating condition;
3. Documentation from the tank manufacturer certifying the repair; and
4. The name and daytime telephone number including area code of the certified tank installer who performed the repair.

(b) Within 30 days of the repair and prior to adding regulated substance, the tank shall be tightness tested in accordance with Env-Or 406.05 through Env-Or 406.08.

(c) The owner shall submit all reports and documents describing the types of the tests, contractor, date, materials, all technical testing data and any other information pertinent to the work performed, as required by (b), above, to the department no later than 30 day after the test.

Source. (See RN1 at p. iv) #10393, eff 9-1-18; ss by #12643, eff 10-10-18 (See RN2 at pp. iv-v)

Env-Or 408.03 Repair and Replacement of Underground Piping, Containment Sumps, and Spill Containment.

(a) Prior to replacing underground piping or containment sumps, the owner shall obtain an approval in accordance with Env-Or 407.01 through Env-Or 407.04.

(b) Prior to repairing underground piping or containment sumps, the owner shall submit the following to the department:

1. The name and daytime telephone number including area code of the certified tank installer who will perform the repair;
2. The results of testing performed in accordance with Env-Or 406.05 through Env-Or 406.08; and
(3) One of the following, as applicable:
   a. Written approval from the piping or piping system component manufacturer allowing the repair; or
   b. The aftermarket repair product manufacturer’s information legitimizing the product use.

(c) As soon as the repairs are made to piping or containment sumps, the certified tank installer shall test the piping or containment sump, including all connections to the piping or sumps, as applicable, in accordance with Env-Or 406.05 through Env-Or 406.08.

(d) The owner may replace spill containment without first obtaining approval in accordance with Env-Or 407.01 through Env-Or 407.04, but shall comply with (e) through (g), below.

(e) The excavation zone where the spill containment being replaced was located shall be screened in the field for the presence of contamination by:
   (1) Visual and olfactory observation; or
   (2) Headspace analysis performed with equipment such as a portable organic vapor meter (OVM) or portable gas chromatograph (GC).

(f) As soon as any spill containment equipment is replaced and prior to filling the tank, the spill containment shall be tested in accordance with Env-Or 406.05 through Env-Or 406.08.

(g) No later than 30 days after the date of the repair to the piping or containment sump, and no later than 30 days after the replacement of spill containment, the owner shall submit to the department a written report that contains the following:
   (1) A narrative description of the cause of the failure, the work performed, and any other procedures used to repair the piping or containment sumps back to original condition or to replace the spill containment;
   (2) The name, certification number, and daytime telephone number including area code of the certified tank installer who performed the repair or replacement, as applicable;
   (3) The date of the repair or replacement, as applicable; and
   (4) The results of the tightness test performed to confirm the effectiveness of the repair or replacement, as applicable.

Source. (See RN1 at p. iv) #10393, eff 9-1-18; ss by #12643, eff 10-10-18 (See RN2 at pp. iv-v)

Env-Or 408.04 Temporary Closure.

(a) Temporary closure of a UST system shall be accomplished by:
   (1) Removing all regulated substances from the system so that no more than one inch of residue remains in the tank; and
   (2) Equipping each opening or access point, such as fill risers, with a lock to secure against unauthorized use or tampering.

(b) All removed substances shall be handled and disposed of in accordance with applicable local, state, and federal requirements.

(c) The owner of a temporarily closed system shall comply with the cathodic protection requirements specified in Env-Or 405.12, Env-Or 405.13, and Env-Or 406.10.
(d) Within 30 days of meeting the above requirements for temporary closure of a UST system, the owner shall report the change in operational status by submitting an amended registration to the department in accordance with Env-Or 404.01.

(e) Any portion of a UST system with secondary containment and leak monitoring that has been temporarily closed for 3 years shall, within 30 days, be:

(1) Reactivated as specified in (f), below;

(2) Allowed to remain in temporary closure provided the conditions specified in (g), below, are met; or

(3) Permanently closed in accordance with Env-Or 408.06 through Env-Or 408.10.

(f) A UST system that has been temporarily closed shall not be placed back into service, nor shall a regulated substance be introduced into the system, unless and until the owner complies with and certifies to the department in writing that the system is in compliance with:

(1) Env-Or 404.01 relative to registration;

(2) Env-Or 404.06 relative to permit to operate;

(3) Env-Or 404.12 relative to financial responsibility;

(4) Env-Or 405.05, Env-Or 405.06, Env-Or 406.11, and Env-Or 406.12 relative to spill containment and overfill prevention;

(5) Env-Or 405.08, Env-Or 405.09, Env-Or 406.05 through Env-Or 406.08, Env-Or 406.09, and Env-Or 406.13 relative to leak monitoring systems and tightness testing;

(6) Env-Or 405.12, Env-Or 405.13, and Env-Or 406.10 relative to cathodic protection;

(7) Env-Or 500 relative to stage I/stage II system requirements; and

(8) Env-Or 406.17 relative to primary containment testing.

(g) A UST system that has been temporarily closed as specified in (e), above, may remain in temporary closure only if the owner certifies to the department in writing, once every 3 years that the system remains in temporary closure, that the system is in compliance with:

(1) Env-Or 404.01 relative to registration;

(2) Env-Or 404.06 relative to permit to operate;

(3) Env-Or 404.12 relative to financial responsibility;

(4) Env-Or 405.05, Env-Or 405.06, Env-Or 406.11, and Env-Or 406.12 relative to spill containment and overfill prevention;

(5) Env-Or 405.08, Env-Or 405.09, Env-Or 406.05 through Env-Or 406.08, and Env-Or 406.13 relative to leak monitoring systems and tightness testing;

(6) Env-Or 405.12, Env-Or 405.13, and Env-Or 406.10 relative to cathodic protection; and

(7) Env-Or 500 relative to stage I/stage II system requirements, except that regulated substance need not be added in order to conduct a pressure decay test otherwise required by Env-Or 504 or Env-Or 505.

Source. (See RN1 at p. iv) #10393, eff 9-1-18; ss by #12643, eff 10-10-18 (See RN2 at pp. iv-v)
Env-Or 408.05 Permanent Closure Required.

(a) With the exception of vent piping, all regulated metal UST systems without corrosion protection shall be permanently closed.

(b) All hazardous substance UST systems without secondary containment and leak monitoring shall be permanently closed.

(c) With the exception of vent piping, any part of an existing single wall UST system that routinely contains regulated substance without secondary containment and leak monitoring shall be permanently closed by December 22, 2015.

(d) When an existing, previously unknown, UST system that is subject to this chapter is discovered, the owner shall:
   
   (1) Register the facility in accordance with Env-Or 404.01 within 30 days of discovering the facility; and
   
   (2) Close the tank system in accordance with Env-Or 408.06 through Env-Or 408.10 within 60 days of registration.

(e) When an existing, previously registered UST system that is subject to this chapter but is not covered by (a) through (d), above, and has not been permanently closed in accordance with Env-Or 408.06 through Env-Or 408.10, the owner shall close the tank system in accordance with Env-Or 408.06 through Env-Or 408.10 within 60 days of determining that the system has not been closed.

(f) The owner of any UST system that has been red-tagged in accordance with RSA 146-C:15 shall bring the system into compliance with all applicable requirements or permanently close the system within one year of the date the red tag was placed.

Source. (See RN1 at p. iv) #10393, eff 9-1-18; ss by #12643, eff 10-10-18 (See RN2 at pp. iv-v)

Env-Or 408.06 Permanent Closure: Notification and Supervision Required.

(a) The owner shall notify the department at least 14 days prior to any UST system or piping system permanent closure by providing the following information:

   (1) The name, mailing address, daytime telephone number including area code, and email address, if any, of the individual submitting the notification;
   
   (2) Information about the facility where the closure is to occur, as follows:
      
      a. Department site number;
      b. Facility identification number; and
      c. Facility name and physical address, including town or city;
   
   (3) The name, mailing address, daytime telephone number including area code, and email address, if any, of the owner of the facility; and
   
   (4) For each tank affected by the closure, the following information:
      
      a. Tank number;
      b. Tank size;
      c. Regulated substance contained by tank;
      d. Whether the tank or piping is suspected of leaking;
      e. Whether only the piping is being closed;
f. Whether the tank will be removed or filled in place; and

g. Whether the tank will be replaced underground;

(5) The name and certificate number of the certified tank remover;

(6) The date the local fire department was notified of the closure; and

(7) The scheduled closure date.

(b) The closure of any part of a UST system shall be supervised by a certified tank remover.

c) The certified tank remover shall:

(1) Be present on site during all removal activities; and

(2) Comply with applicable safety, testing, sampling, and reporting requirements such as described in the following American Petroleum Institute publications, available as noted in Appendix B:

   a. API RP 1604, Closure of Underground Petroleum Storage Tanks;

   b. API RP 1631, Interior Lining and Periodic Inspection of Underground Storage Tanks;

   and

   c. API STD 2015, Requirements for Safe Entry and Cleaning of Petroleum Storage Tanks.

Source. (See RN1 at p. iv) #10393, eff 9-1-18; ss by #12643, eff 10-10-18 (See RN2 at pp. iv-v)

Env-Or 408.07 Procedures for Permanent Closure. To permanently close a UST system, the owner shall:

(a) Remove all liquid and sludge from the system;

(b) Clean the system;

(c) Dispose of all liquid, sludge, and used cleaning materials in accordance with applicable state and federal rules;

(d) After all regulated substances have been removed from the system:

   (1) Disconnect and remove all piping system components, including secondary piping; or

   (2) If all piping system components cannot be completely removed, remove the piping system components to the greatest extent possible, test the remaining portions for tightness, and permanently cap or plug the piping;

(e) Test the tank for hazardous or explosive vapor, and remove or render such vapors inert;

(f) Remove the UST system unless:

   (1) Removing the system would undermine the integrity of any overlying structure or compromise the structural integrity of an adjacent UST system;

   (2) Plans have been approved pursuant to Env-Or 407.01 through Env-Or 407.04 to install a field-erected tank within the permanently-closed tank; or

   (3) For piping secondary containment, plans have been approved pursuant to Env-Or 407.01 through Env-Or 407.04 to install replacement piping within the existing secondary piping and the secondary piping passes a tightness test;
NEW HAMPSHIRE CODE OF ADMINISTRATIVE RULES

(g) Perform a site assessment in the area of the tank and piping as specified in Env-Or 408.08 to determine whether any contamination is present; and

(h) For any UST system that is closed in place based on (f)(1), above, completely fill each tank with a solid inert material such that no voids remain in the tank.

Source. (See RN1 at p. iv) #10393, eff 9-1-18; ss by #12643, eff 10-10-18 (See RN2 at pp. iv-v)

Env-Or 408.08 Permanent Closure: Site Assessment. The site assessment required by Env-Or 408.07(g) shall be conducted in accordance with Env-Or 600 and the following:

(a) Test pits shall be excavated in the immediate vicinity of the tank and piping to a depth as close to the bottom of the tank and piping as possible;

(b) Representative samples of soil and, when encountered, groundwater, shall be obtained from:

(1) The test pits;

(2) The excavation zone resulting from the removal of the UST and the piping, for USTs and piping that are removed;

(3) Representative locations adjacent to and beneath the UST, including access points through the tank wall, for any UST that will be closed in place; and

(4) Locations adjacent to the system’s piping that could not be removed, unless the piping passes a tightness test pursuant to Env-Or 408.07(d)(2), including:

a. At multiple locations along the piping run, separated by no more than 10 feet; and

b. At piping connections, bends, and joints.

(c) If soil that normally would remain in or be returned to the excavation is removed from the site by the owner as a presumptive remedy during tank closure activities, additional samples shall be taken from beneath the excavated area;

(d) The excavation zone where the UST system or UST system component was located shall be screened in the field for the presence of contamination by visual and olfactory observation and headspace analysis performed with equipment such as a portable organic vapor meter (OVM) or portable gas chromatograph (GC);

(e) Soil samples shall be collected for laboratory analysis as follows:

(1) If field screening does not indicate a release, a minimum of one composite soil sample comprised of at least 5 discrete grab samples shall be collected from representative locations immediately beneath and adjacent to each tank and piping system; and

(2) If field screening or physical observations, or both, indicate a potential release, a minimum of 2 discrete soil samples shall be collected from representative locations immediately beneath and adjacent to each closed tank or piping system with the highest observed contamination;

(f) If field screening or physical observations, or both, indicate a potential release and the facility is served by a water supply well, a water supply well sample shall be collected prior to any treatment system for laboratory analysis.

(g) Each sample taken shall be analyzed for constituents of the regulated substance stored in the system by a laboratory certified under Env-C 300 for those constituents; and
(h) If soil or groundwater contamination from a regulated substance is detected by observation or analysis during closure of a UST system, any owner or operator or other individual shall immediately notify the department as required by RSA 146-A:5.

Source. (See RN1 at p. iv) #10393, eff 9-1-18; ss by #12643, eff 10-10-18 (See RN2 at pp. iv-v)

Env-Or 408.09 Permanent Closure: Inspection Required.

(a) The owner shall not backfill the excavation zone or remove the UST from the site until the department has inspected:

(1) The soil and groundwater in the vicinity of the UST and piping for evidence of contamination; and
(2) The UST for evidence of corrosion and leakage.

(b) If the department has been notified of the closure date and is unable to inspect the site within 7 department business days of that date, the department shall grant permission for a consultant or other person knowledgeable in site assessments for contamination to inspect the site.

(c) If permission is granted pursuant to (b), above, the individual inspecting the site shall:

(1) Conduct the inspection specified in (a)(1) and (2), above; and
(2) Submit a report to the department within 30 days of such inspection.

(d) The report required by (c), above, shall contain a detailed account of the inspection, specifically including whether any evidence of soil and groundwater contamination or corrosion and leakage was observed.

Source. (See RN1 at p. iv) #10393, eff 9-1-18; ss by #12643, eff 10-10-18 (See RN2 at pp. iv-v)

Env-Or 408.10 Permanent Closure: Closure Report; Recordkeeping.

(a) The owner shall submit a closure report to the department within 30 days of the samples being taken.

(b) The report required by (a), above, shall include:

(1) A narrative description of the site and personnel involved, as follows:
   a. The department site number and UST facility number;
   b. The name, mailing address, daytime telephone number including area code, and email address of the site owner and of a contact person for the facility; and
   c. The name and affiliation of each individual on-site during the closure activities, and, for each certified closure contractor who performed the work, the certification number and certification expiration date;
(2) The closure notification as required by Env-Or 408.06;
(3) A summary of field screening sampling results;
(4) A detailed description of the visual inspection of each removed or closed-in-place tank and associated piping, leak detection, and containment systems;
(5) Subsurface information obtained during excavation activities, including soil descriptions, sample locations, and depth of groundwater and bedrock, if encountered;
(6) Representative color photographs of closure activities that are labeled to identify what each photo shows;
(7) One or more tables that summarize laboratory analytical data for chemicals that exceed regulatory limits defined by Env-Or 606.19, Soil Remediation Criteria, and, if applicable, Env-Or 603.03, Ambient Groundwater Quality Standards;

(8) Analytical laboratory data, including test results, chain of custody forms, holding times, and any other information needed to explain the results and any anomalies in the data;

(9) Manifests and disposal records for all materials generated and disposed of in accordance with Env-Or 408.07(c);

(10) A plan or sketch of the site that includes the following:
    a. A title, a legend, and a true North arrow;
    b. A graphic scale bar or site measurements;
    c. The location of prominent site features, including but not limited to site buildings, discharge locations, property boundaries, tank system components, and piping locations;
    d. Field screening sample collection locations and laboratory sample collection locations with a unique identifier for each;
    e. Locations of any water supply wells, monitoring wells, drainage swales, surface water bodies, or wetlands adjacent to the property; and
    f. The limits of the tank and piping excavated areas; and

(11) A summary of findings.

(c) The owner shall retain all documents pertaining to the closure of the UST system, including contractor’s invoices, manifests for disposal of materials, testing and analytical reports, and any other documents generated from the closure for not less than 3 years, provided that the documents shall be retained beyond that period if any legal proceedings involving the site are on-going.

(d) If the owner transfers ownership of the facility during the 3-year document retention period, whether by sale, gift, or any other mechanism, the transferor shall provide all retained documents to the transferee at the time of transfer.

Source. (See RN1 at p. iv) #10393, eff 9-1-18; ss by #12643, eff 10-10-18 (See RN2 at pp. iv-v)
(2) Recertified by the tank manufacturer as meeting tank standards for new UST systems.

(d) A tank shall not be reused as an aboveground storage tank.

Source. (See RN1 at p. iv) #10393, eff 9-1-18; ss by #12643, eff 10-10-18 (See RN2 at pp. iv-v)

PART Env-Or 409 WAIVERS

Env-Or 409.01 Applicability. An owner who wishes to obtain a waiver from any rule in this chapter shall request a waiver as specified in Env-Or 409.02.

Source. (See RN1 at p. iv) #10393, eff 9-1-18; ss by #12643, eff 10-10-18 (See RN2 at pp. iv-v)

Env-Or 409.02 Waiver Requests.

(a) To request a waiver, the owner shall submit the following in writing to the department:

(1) The name, mailing address, and daytime telephone number including area code of the owner and, if available, a fax number and e-mail address for the owner;

(2) The name, physical address, and registration number of the facility;

(3) The specific rule, by section and paragraph, for which a waiver is being sought;

(4) A full explanation of why a waiver is being requested, including an explanation of the economic and operational consequences of complying with the rule as written;

(5) Whether the need for the waiver is temporary, and if so, the estimated length of time that the waiver will be needed;

(6) If applicable, a complete explanation of the alternative that is proposed to be substituted for the requirement in the rule, including written documentation or data, or both, to support the alternative; and

(7) A complete explanation of why the requestor believes that having the waiver granted will meet the criteria in Env-Or 409.03.

(b) The owner shall sign and date the request.

(c) The owner’s signature shall constitute certification that:

(1) The information provided is true, complete, and not misleading to the knowledge and belief of the signer; and

(2) The signer understands that:

   a. The submission of false, incomplete, or misleading information constitutes grounds for the department to:

      1. Deny the request;

      2. Revoke any waiver that is granted based on the information;

      3. If the signer is a professional engineer, refer the matter to the board of professional engineers established by RSA 310-A:3; or

      4. Undertake any combination of 1. through 3., above; and

   b. The signer is subject to the penalties specified in New Hampshire law for falsification in official matters, currently RSA 641.
(d) The department shall transmit a copy of each waiver request filed in compliance with (a) and (b), above, to EPA within 5 working days of its receipt.

Source. (See RN1 at p. iv) #10393, eff 9-1-18; ss by #12643, eff 10-10-18 (See RN2 at pp. iv-v)

Env-Or 409.03 Waiver Criteria.

(a) Subject to (b) through (d), below, the department shall grant a waiver if:

(1) Granting a waiver will not result in an adverse impact on the environment, public health, or public safety that is more significant than that which would result from complying with the rule; and

(2) One or more of the following conditions is satisfied:
   a. Granting a waiver is consistent with the intent and purpose of the rule being waived; or
   b. Any benefit to the public or the environment is outweighed by the economic and operational consequences of strict compliance with the rule.

(b) No waiver shall be granted if the effect of the waiver would be to waive or modify any state statute, unless a waiver is expressly allowed by the statute that would be waived.

(c) No waiver shall be granted if the effect of the waiver would be to waive or modify any federal requirement, unless the federal statute or regulation that establishes the requirement allows for waivers and EPA does not object to the waiver being granted.

Source. (See RN1 at p. iv) #10393, eff 9-1-18; ss by #12643, eff 10-10-18 (See RN2 at pp. iv-v)

Env-Or 409.04 Decision on Waiver Requests; Conditions.

(a) The department shall notify the requestor of the decision in writing within 30 days of receipt of a request that meets the requirements of Env-Or 409.02.

(b) If the request is denied, the department shall identify the specific reason(s) for the denial.

(c) The department shall include such conditions in a waiver as are necessary to ensure that the criteria of Env-Or 409.03 will be met.

(d) If the need for a waiver is temporary, the waiver shall specify the date on which it will expire.

Source. (See RN1 at p. iv) #10393, eff 9-1-18; ss by #12643, eff 10-10-18 (See RN2 at pp. iv-v)
### APPENDIX A: STATE STATUTES AND FEDERAL STATUTES/REGULATIONS IMPLEMENTED

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<td>RSA 146-C:3</td>
<td>42 U.S.C. 6991a(c); 40 CFR 280.22</td>
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<tr>
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## Appendix B: Incorporation by Reference Information

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<td>Env-Or 403.02(a)</td>
<td>RP 1604, Closure of Underground Petroleum Storage Tanks (1996)</td>
<td>American Petroleum Institute</td>
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<tr>
<td>Env-Or 403.02(b)</td>
<td>RP 1631, Interior Lining and Periodic Inspection of Underground Storage Tanks (2001)</td>
<td><a href="http://www.api.org">http://www.api.org</a></td>
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<td>Env-Or 407.08(b)</td>
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<tr>
<td>Env-Or 403.03(a)</td>
<td>ASME B31.3, Process Piping (2010)</td>
<td>ASME International</td>
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<tr>
<td>Env-Or 405.02(h)(1)</td>
<td>ASME B31.4, Pipeline Transportation Systems for Liquid Hydrocarbons and Other Liquids (2009)</td>
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<tr>
<td>Env-Or 403.03(b)</td>
<td>Recommended Practice T-95-02, Remanufacturing of Fiberglass Reinforced Plastic (FRP) Underground Storage Tanks (1995)</td>
<td>Fiberglass Tank and Pipe Institute</td>
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<td>SP0285-2011, Corrosion Control of Underground Storage Tank Systems by Cathodic Protection (2011)</td>
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<td>NFPA 30, Flammable and Combustible Liquids Code (As specified in State Fire Code)</td>
<td>National Fire Protection Association</td>
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<td>Env-Or 405.12(a)(3)</td>
<td>NFPA 30A, Motor Fuel Dispensing Facilities and Repair Garages (As specified in State Fire Code)</td>
<td>1 Batterymarch Park Quincy, MA 02169-7471 (800) 344-3555</td>
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<td>Env-Or 407.05(d)(1)</td>
<td>NFPA 31, Standard for the Installation of Oil-Burning Equipment (As specified in State Fire Code)</td>
<td><a href="http://www.nfpa.org">http://www.nfpa.org</a></td>
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<td>Env-Or 407.05(d)(2)</td>
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<td>Env-Or 403.06(a)(8)</td>
<td>RP 100, Recommended Practices for Installation of Underground Liquid Storage Systems (2017)</td>
<td>Petroleum Equipment Institute P.O. Box 2380 Tulsa, OK 74101-2380 (918) 494-9696 <a href="http://pei.org">http://pei.org</a></td>
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**APPENDIX C: STATUTORY DEFINITIONS**

**RSA 146-A:2:**

III. “Oil” means petroleum products and their by-products of any kind, and in any form including, but not limited to, petroleum, fuel, sludge, crude, oil refuse or oil mixed with wastes and all other liquid hydrocarbons regardless of specific gravity which are used as motor fuel, lubricating oil, or any oil used for heating or processing. The term "oil" shall not include natural gas, liquified petroleum gas or synthetic natural gas regardless of derivation or source;

**RSA 146-C:1:**

II. “Discharge” means the release or addition of any oil or hazardous substance to land, groundwater or surface water.
IV. “Existing facility” means a facility the construction or installation of which began prior to September 17, 1985.

V. “Facility” means an assemblage of tanks, pipes, pumps, vaults, fixed containers, and appurtenant structures, singly or in any combination, which are used or designed to be used for the storage, transmission, or dispensing of oil or a hazardous substance, and which are within the size, capacity, and other specifications prescribed by rules adopted by the department pursuant to RSA 146-C:9, VI.

VII-a. “Hazardous substance” means material defined as a regulated substance under 42 U.S.C. 6991(2)(A) in addition to any material designated as a hazardous substance pursuant to RSA 146-C:9, VI-a.

X. “New facility” means a facility the construction or installation of which begins on or after September 17, 1985, including, but not limited to, facilities which replace existing facilities, facilities which are moved from one location to another, and facilities which are substantially modified after September 17, 1985.

XII. “Oil” means “oil” as defined in RSA 146-A:2.

XIII. “Operator” means the person who has responsibility for the care, custody, and control of the daily operation of a facility.

XIII-a. “Class A operator” means the individual or individuals designated by the owner to have primary statutory and regulatory responsibility for the operation and maintenance of the facility. The “class A operator” may hold more than one class of operator position.

XIII-b. “Class B operator” means the individual or individuals designated by the owner to implement applicable regulatory requirements and implement the daily aspects of the operation, maintenance, and recordkeeping for the facility. The "class B operator" may hold more than one class of operator position.

XIII-c. “Class C operator” means the individual or individuals designated by the owner to have primary responsibility for responding to alarms, emergencies presented by spills or releases, and other problems associated with the operation of the facility. The "class C operator" may hold more than one class of operator position.

XIV. “Owner” means the person in possession of or having legal ownership of a facility. In addition, for facilities no longer in use, "owner" includes the person having had legal ownership of such facility immediately prior to discontinuance of its use.

XIV-a. “Person” means any individual, trust, firm, joint stock company, corporation (including a government corporation), partnership, association, state and agencies thereof, municipality, commission, political subdivision of a state, interstate body, consortium, joint venture, commercial entity, the United States government and agencies thereof, and any other legal entity.

XV. “Residential building” means any house, apartment, trailer, manufactured housing, or other structure occupied by individuals as a domicile.

XVI. “Substantial modification” means the construction or installation of any addition to a facility or any restoration or renovation of a facility which: increases or decreases the on-site storage capacity of the facility; significantly alters the physical configuration of the facility; or impairs or improves the physical integrity of the facility or its monitoring systems. On-site abandonment is specifically excluded as a “substantial modification” of a facility.

XVIII. “Underground storage facility” means a facility or facility component that is 10 percent or more below the surface of the ground and is not fully visible for inspection.

RSA 485:1-a:

XV. “Public water system” means a system for the provision to the public of piped water for human consumption, if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year. Such term includes (1) any collection, treatment, storage, and distribution facilities under control of the operator of such system and used primarily in connection with such system, and (2) any collection or pretreatment storage facilities not under such control which are used primarily in connection with such system. Any water system which meets all of the following conditions is not a public water system: (a) Consists only of distribution and storage facilities (and does not have any collection and treatment facilities); (b) Obtains all of its water from, but is not owned or operated by, a public water system; and (c) Does not sell water to any person.
RSA 485-A:2: XIV. “Surface waters of the state” means perennial and seasonal streams, lakes, ponds, and tidal waters within the jurisdiction of the state, including all streams, lakes, or ponds bordering on the state, marshes, water courses, and other bodies of water, natural or artificial.

APPENDIX D: EXCERPTS FROM RSA 146-C

RSA 146-C:3 Registration of Underground Storage Facilities. –

I. The owner of each existing underground storage facility shall register the facility with the department on forms provided by the department and shall provide the following information:
   (a) Facility name, location, and mailing address.
   (b) Owner's name, mailing address, and telephone number.
   (c) Contact person for this facility.
   (d) Tank information: the size, age, type of tank material, location (on-site), and product stored.
   (e) Demonstration of financial responsibility pursuant to rules adopted under RSA 146-C:9, VII. Proof of eligibility for financial assistance under RSA 146-D shall satisfy the requirement of demonstration of financial responsibility under this subparagraph.

II. The owner of each existing underground storage facility shall register the facility with the department on forms provided by the department, and shall provide the following information to the extent that it may reasonably be available to the owner:
   (a) Results of previous tank testings conducted in accordance with department rules, including documentation of test results.
   (b) All previous owners and lessees with names and current addresses.
   (c) A detailed description of the facility; the size of tanks (physical dimensions), number of fill boxes, number and type of fittings attached to tanks, complete description of underground piping system, type of cathodic protection, date each tank was manufactured, installed, relined, and inspected, and tank manufacturer, and the date and results of the latest tightness test of all underground tanks.
   (d) The estimated life expectancy of all inground tanks and appurtenances.
   (e) Description and date of past discharges or disposal, remedial actions, ground and surface water monitoring results, and closure plans.
   (f) Detailed site plan and layout.
   (g) Existing groundwater protection monitoring programs, if any.

III. The owner of a registered underground storage facility shall report any changes in the information provided under paragraph I or II within 10 days of the change.

IV. The registration required under this section shall be maintained for the life of the facility. A registration need not be maintained if the department has received written notice that the registered underground storage facility has been closed by approved procedures according to rules adopted pursuant to RSA 146-C:9, II(i). Any notice of closure shall include the date of such closure.

V. The department shall forward information compiled under this section to the federal Environmental Protection Agency pursuant to 42 U.S.C. 6991a(c).

RSA 146-C:4 Underground Storage Facility Permit Required. –

I. No person shall own or operate an underground storage facility in this state without a permit issued by the department. The permit to operate may be revoked in accordance with RSA 541-A:30 for just cause, including, but not limited to, the operation or ownership of an underground storage facility in violation of the department's rules. The revocation shall not take effect until the owner or operator has had an opportunity to be heard by the council, provided such request is made within 20 days of the issuance of the department's decision to revoke the permit. Appeal of a decision revoking a permit to operate shall be governed by RSA
Any appeal brought pursuant to RSA 541 shall not stay a decision by the council which affirms the department's revocation of a permit.

II. The department shall issue or deny a permit to all facilities registered under RSA 146-C:3 within 90 days of the receipt of the complete registration information. A permit issued under this section shall be displayed on the premises of the underground storage facility at all times.

III. [Repealed.]

APPENDIX E: 40 CFR PROVISIONS REFERENCED

§280.12 Definitions.

Regulated substance means:

(1) Any substance defined in section 101(14) of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) of 1980 (but not including any substance regulated as a hazardous waste under subtitle C); and

(2) Petroleum, including crude oil or any fraction thereof that is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute). The term regulated substance includes but is not limited to petroleum and petroleum-based substances comprised of a complex blend of hydrocarbons, such as motor fuels, jet fuels, distillate fuel oils, residual fuel oils, lubricants, petroleum solvents, and used oils.

§280.20 Performance standards for new UST systems.

In order to prevent releases due to structural failure, corrosion, or spills and overfills for as long as the UST system is used to store regulated substances, all owners and operators of new UST systems must meet the following requirements. In addition, except for suction piping that meets the requirements of §280.41(b)(1)(ii)(A) through (E), tanks and piping installed or replaced after April 11, 2016 must be secondarily contained and use interstitial monitoring in accordance with §280.43(g). Secondary containment must be able to contain regulated substances leaked from the primary containment until they are detected and removed and prevent the release of regulated substances to the environment at any time during the operational life of the UST system. For cases where the piping is considered to be replaced, the entire piping run must be secondarily contained.

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

(1) The tank is constructed of fiberglass-reinforced plastic; or

Note to paragraph (a)(1). The following codes of practice may be used to comply with paragraph (a)(1) of this section:

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


(2) The tank is constructed of steel and cathodically protected in the following manner:

(i) The tank is coated with a suitable dielectric material;

(ii) Field-installed cathodic protection systems are designed by a corrosion expert;

(iii) Impressed current systems are designed to allow determination of current operating status as required in §280.31(c); and

(iv) Cathodic protection systems are operated and maintained in accordance with §280.31 or according to guidelines established by the implementing agency; or

Note to paragraph (a)(2). The following codes of practice may be used to comply with paragraph (a)(2) of this section:

(A) Steel Tank Institute “Specification STI-P3® Specification and Manual for External Corrosion Protection of Underground Steel Storage Tanks”;
(B) Underwriters Laboratories Standard 1746, “External Corrosion Protection Systems for Steel Underground Storage Tanks”;
(D) Steel Tank Institute Standard F841, “Standard for Dual Wall Underground Steel Storage Tanks”; or

(3) The tank is constructed of steel and clad or jacketed with a non-corrodible material; or

Note to paragraph (a)(3). The following codes of practice may be used to comply with paragraph (a)(3) of this section:
(A) Underwriters Laboratories Standard 1746, “External Corrosion Protection Systems for Steel Underground Storage Tanks”;
(B) Steel Tank Institute ACT-100® Specification F894, “Specification for External Corrosion Protection of FRP Composite Steel Underground Storage Tanks”;
(C) Steel Tank Institute ACT-100-U® Specification F961, “Specification for External Corrosion Protection of Composite Steel Underground Storage Tanks”; or
(D) Steel Tank Institute Specification F922, “Steel Tank Institute Specification for Permatank®”.

(4) The tank is constructed of metal without additional corrosion protection measures provided that:

(i) The tank is installed at a site that is determined by a corrosion expert not to be corrosive enough to cause it to have a release due to corrosion during its operating life; and
(ii) Owners and operators maintain records that demonstrate compliance with the requirements of paragraph (a)(4)(i) of this section for the remaining life of the tank; or

(5) The tank construction and corrosion protection are determined by the implementing agency to be designed to prevent the release or threatened release of any stored regulated substance in a manner that is no less protective of human health and the environment than paragraphs (a)(1) through (4) of this section.

(b) Piping. The piping that routinely contains regulated substances and is in contact with the ground must be properly designed, constructed, and protected from corrosion in accordance with a code of practice developed by a nationally recognized association or independent testing laboratory as specified below.

(1) The piping is constructed of a non-corrodible material; or

Note to paragraph (b)(1). The following codes of practice may be used to comply with paragraph (b)(1) of this section:
(A) Underwriters Laboratories Standard 971, “Nonmetallic Underground Piping for Flammable Liquids”; or

(2) The piping is constructed of steel and cathodically protected in the following manner:

(i) The piping is coated with a suitable dielectric material;
(ii) Field-installed cathodic protection systems are designed by a corrosion expert;
(iii) Impressed current systems are designed to allow determination of current operating status as required in §280.31(c); and
(iv) Cathodic protection systems are operated and maintained in accordance with §280.31 or guidelines established by the implementing agency; or

Note to paragraph (b)(2). The following codes of practice may be used to comply with paragraph (b)(2) of this section:

(A) American Petroleum Institute Recommended Practice 1632, “Cathodic Protection of Underground Petroleum Storage Tanks and Piping Systems”;

(B) Underwriters Laboratories Subject 971A, “Outline of Investigation for Metallic Underground Fuel Pipe”;

(C) Steel Tank Institute Recommended Practice R892, “Recommended Practice for Corrosion Protection of Underground Piping Networks Associated with Liquid Storage and Dispensing Systems”;

(D) NACE International Standard Practice SP 0169, “Control of External Corrosion on Underground or Submerged Metallic Piping Systems”; or

(E) NACE International Standard Practice SP 0285, “External Corrosion Control of Underground Storage Tank Systems by Cathodic Protection”.

(3) The piping is constructed of metal without additional corrosion protection measures provided that:

(i) The piping is installed at a site that is determined by a corrosion expert to not be corrosive enough to cause it to have a release due to corrosion during its operating life; and

(ii) Owners and operators maintain records that demonstrate compliance with the requirements of paragraph (b)(3)(i) of this section for the remaining life of the piping; or

(4) The piping construction and corrosion protection are determined by the implementing agency to be designed to prevent the release or threatened release of any stored regulated substance in a manner that is no less protective of human health and the environment than the requirements in paragraphs (b)(1) through (3) of this section.

(c) Spill and overfill prevention equipment. (1) Except as provided in paragraphs (c)(2) and (3) of this section, to prevent spilling and overfilling associated with product transfer to the UST system, owners and operators must use the following spill and overfill prevention equipment:

(i) Spill prevention equipment that will prevent release of product to the environment when the transfer hose is detached from the fill pipe (for example, a spill catchment basin); and

(ii) Overfill prevention equipment that will:

(A) Automatically shut off flow into the tank when the tank is no more than 95 percent full; or

(B) Alert the transfer operator when the tank is no more than 90 percent full by restricting the flow into the tank or triggering a high-level alarm; or

(C) Restrict flow 30 minutes prior to overfilling, alert the transfer operator with a high level alarm one minute before overfilling, or automatically shut off flow into the tank so that none of the fittings located on top of the tank are exposed to product due to overfilling.

(2) Owners and operators are not required to use the spill and overfill prevention equipment specified in paragraph (c)(1) of this section if:

(i) Alternative equipment is used that is determined by the implementing agency to be no less protective of human health and the environment than the equipment specified in paragraph (c)(1)(i) or (ii) of this section; or

(ii) The UST system is filled by transfers of no more than 25 gallons at one time.

(3) Flow restrictors used in vent lines may not be used to comply with paragraph (c)(1)(ii) of this section when overfill prevention is installed or replaced after October 13, 2015.

(4) Spill and overfill prevention equipment must be periodically tested or inspected in accordance with §280.35.
(d) Installation. The UST system must be properly installed in accordance with a code of practice developed by a nationally recognized association or independent testing laboratory and in accordance with the manufacturer's instructions.

Note to paragraph (d). Tank and piping system installation practices and procedures described in the following codes of practice may be used to comply with the requirements of paragraph (d) of this section:

(A) American Petroleum Institute Publication 1615, “Installation of Underground Petroleum Storage System”;

(B) Petroleum Equipment Institute Publication RP100, “Recommended Practices for Installation of Underground Liquid Storage Systems”; or


(e) Certification of installation. All owners and operators must ensure that one or more of the following methods of certification, testing, or inspection is used to demonstrate compliance with paragraph (d) of this section by providing a certification of compliance on the UST notification form in accordance with §280.22.

(1) The installer has been certified by the tank and piping manufacturers; or

(2) The installer has been certified or licensed by the implementing agency; or

(3) The installation has been inspected and certified by a registered professional engineer with education and experience in UST system installation; or

(4) The installation has been inspected and approved by the implementing agency; or

(5) All work listed in the manufacturer's installation checklists has been completed; or

(6) The owner and operator have complied with another method for ensuring compliance with paragraph (d) of this section that is determined by the implementing agency to be no less protective of human health and the environment.

(f) Dispenser systems. Each UST system must be equipped with under-dispenser containment for any new dispenser system installed after April 11, 2016.

(1) A dispenser system is considered new when both the dispenser and the equipment needed to connect the dispenser to the underground storage tank system are installed at an UST facility. The equipment necessary to connect the dispenser to the underground storage tank system includes check valves, shear valves, unburied risers or flexible connectors, or other transitional components that are underneath the dispenser and connect the dispenser to the underground piping.

(2) Under-dispenser containment must be liquid-tight on its sides, bottom, and at any penetrations. Under-dispenser containment must allow for visual inspection and access to the components in the containment system or be periodically monitored for leaks from the dispenser system.