Effective September 1, 2013, Env-Or 400 (originally Env-Wm 1401) reads as follows:

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 AND APPLICABILITY

Env-Or 401.01 Purpose. The purpose of these rules 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.

Env-Or 401.02 Applicability. Subject to the exclusions listed in Env-Or 401.03, these rules 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.

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 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 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) or at oil and gas production facilities;

(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; 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.

PART Env-Or 402 DEFINITIONS

Env-Or 402.01 "Annually" means at least once in each calendar year, but not later than 12 months after the prior annual event.

Env-Or 402.02 "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.

Env-Or 402.03 "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.

Env-Or 402.04 "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.

Env-Or 402.05 "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.

Env-Or 402.06 "Certified tank installer" means an individual who is certified by:

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

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

Env-Or 402.07 "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.

Env-Or 402.08 "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.

Env-Or 402.09 "Connected piping" means the entirety of a piping system that is attached to a tank or storage system through which regulated substances can flow.

Env-Or 402.10 "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.

Env-Or 402.11 "Department" means the department of environmental services.

Env-Or 402.12 "Excavation zone" means the empty volume remaining after a UST system and surrounding material are removed.

Env-Or 402.13 "Existing facility" means "existing facility" as defined in RSA 146-C:1, IV, as reprinted in Appendix C.

Env-Or 402.14 "Facility" means "facility" as defined in RSA 146-C:1, V, as reprinted in Appendix C.

Env-Or 402.15 "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.

Env-Or 402.16 "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.

Env-Or 402.17 "Hydrostatic tightness test" means a test designed to evaluate the tightness of a UST system component that uses pressure of liquid.

Env-Or 402.18 "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.

Env-Or 402.19 "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.

Env-Or 402.20 "Lining" means a coating of non-corrosive material bonded to the interior surface of a tank.

Env-Or 402.21 "Liquid-tight" means no liquid can enter or be released.

Env-Or 402.22 "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.

Env-Or 402.23 "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.

Env-Or 402.24 "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.

Env-Or 402.25 "Monthly" means once every calendar month, but not sooner than 23 days after and not later than 37 days after the date in the prior month on which the event in question occurred.

Env-Or 402.26 "Motor fuel" means petroleum or a petroleum-based substance that is motor gasoline, aviation gasoline, jet fuel, diesel fuel, or any grade of gasohol, and which typically is used to fuel a motor engine.

Env-Or 402.27 "New facility" means "new facility" as defined in RSA 146-C:1, X, as reprinted in Appendix C.

Env-Or 402.28 "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.

Env-Or 402.29 "Oil" means "oil" as defined in RSA 146-A:2, III, as reprinted in Appendix C.

Env-Or 402.30 "On-premise use" means use only to heat the structures at the facility at which the UST system is located.

Env-Or 402.31 "Operate" means to manage a UST system in which a regulated substance is or is intended to be stored.

Env-Or 402.32 "Operating day" means a 24-hour period in which any regulated substance has been put into, stored in, or removed from a UST system.

Env-Or 402.33 "Operator" means "operator" as defined in RSA 146-C:1, XIII, as reprinted in Appendix C.

Env-Or 402.34 "Owner" means "owner" as defined in RSA 146-C:1, XIV, as reprinted in Appendix C.

Env-Or 402.35 "Person" means "person" as defined in RSA 146-C:1, XIV-a, as reprinted in Appendix C.

Env-Or 402.36 "Pipe" 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.

Env-Or 402.37 "Piping system" means pipes and all connected fittings, pumps, monitors, secondary containment, auxiliary tanks, 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 402.38 "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 402.39 "Public water system" means "public water system" as defined by RSA 485:1-a, XV, as reprinted in Appendix C.

Env-Or 402.40 "Regulated substance" means:

(a) Oil; or

(b) A hazardous substance as defined in RSA 146-C:1, VII-a, as reprinted in Appendix C.

Env-Or 402.41 "Release" means "discharge" as defined in RSA 146-C:1, II, as reprinted in Appendix C.

Env-Or 402.42 "Release detection" means the process and equipment used to determine whether a release of a regulated substance has occurred.

Env-Or 402.43 "Repair" means to restore a tank, pipe, spill prevention equipment, overfill prevention equipment, corrosion protection equipment, release detection equipment or other UST system component to its original design function.

Env-Or 402.44 "Residential building" means "residential building" as defined in RSA 146-C:1, XV, as reprinted in Appendix C.

Env-Or 402.45 "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.

Env-Or 402.46 "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.

Env-Or 402.47 "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.

Env-Or 402.48 "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.

Env-Or 402.49 "Storage system" means one or more tanks with all connected piping in which any regulated substance is or is intended to be stored.

Env-Or 402.50 "Substantial modification" means "substantial modification" as defined in RSA 146-C:1, XVI, as reprinted in Appendix C.

Env-Or 402.51 "Substantially modified facility" means a UST facility that has undergone a substantial modification.

Env-Or 402.52 "Surface waters of the state" means "surface waters of the state" as defined by RSA 485-A:2, XIV, as reprinted in Appendix C.

Env-Or 402.53 "Tank" means a stationary device constructed of impermeable material(s) that is designed to, or that actually does, contain regulated substances.

Env-Or 402.54 "Transfer operator" means the individual who is controlling the flow of a regulated substance to or from a UST system.

Env-Or 402.55 "Triennially" means at least once in each 3-calendar-year period, but not later than 36 months after the prior triennial event.

Env-Or 402.56 "Underground storage tank (UST)" means a tank that is a component of an underground storage tank system.

Env-Or 402.57 "Underground storage tank facility (UST facility)" means "underground storage tank facility" as defined in RSA 146-C:1, XVIII, as reprinted in Appendix C.

Env-Or 402.58 "Underground storage tank system (UST system)" means one or more USTs and all connected piping that is used or is intended to be used to contain a regulated substance or vapors of the regulated substance.

Env-Or 402.59 "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 406.10(b).

Env-Or 402.60 "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.

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 A.

(c) In the event that any of the applicable reference standards conflict with these rules or with each other, the most stringent requirement 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, shall apply if and as applicable, as summarized in Appendix A:

(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

(e) STD 2015, "Requirements for Safe Entry and Cleaning of Petroleum Storage Tanks," 2001 edition (API STD 2015).

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, shall apply if and as applicable, as summarized in Appendix A:

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

(b) ASME B31.4, "Pipeline Transportation Systems for Liquid Hydrocarbons and Other Liquids," 2009 edition (ASME B31.4).

Env-Or 403.05 Fiberglass Tank and Pipe Institute. The following standards from the Fiberglass Tank and Pipe Institute (FTPI), 11150 South Wilcrest Drive, Suite 101, Houston, TX 77099-4343, (281) 568-4100, http://www.fiberglasstankandpipe.com, shall apply if and as applicable, as summarized in Appendix A:

(a) Recommended Practice T-95-02, "Remanufacturing of Fiberglass Reinforced Plastic (FRP) Underground Storage Tanks," 1995 edition (FTPI T-95-02).

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, shall apply if and as applicable, as summarized in Appendix A:

(a) Standard Number SP-0285-2011 (formerly RP0285-2002), "Corrosion Control of Underground Storage Tank Systems by Cathodic Protection," 2011 edition (NACE SP0285).

Env-Or 403.06 National Fire Protection Association. The following standards from the National Fire Protection Association (NFPA), 1 Batterymarch Park, Quincy, MA 02169-7471, (800) 344-3555, http://www.nfpa.org, shall apply if and as applicable, as summarized in Appendix A:

(a) NFPA 30, "Flammable and Combustible Liquids Code," 2012 edition (NPFA 30);

(b) NFPA 30A, "Motor Fuel Dispensing Facilities and Repair Garages," 2012 edition (NPFA 30A);

(c) NFPA 31, "Standard for the Installation of Oil-Burning Equipment," 2011 edition (NPFA 31); and

(d) NFPA 329, "Recommended Practice for Handling Releases of Flammable and Combustible Liquids and Gases," 1999 Edition (NPFA 329).

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, shall apply if and as applicable, as summarized in Appendix A:

(a) RP 100, "Recommended Practices for Installation of Underground Liquid Storage Systems," 2011 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 800, "Recommended Practices for Installation of Bulk Storage Plants, " 2008 edition (PEI RP 800); and

(d) 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).

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, as reprinted in Appendix D, on forms provided by the department.

(b) The owner of a UST facility also shall provide the information required by Env-Or 404.03 with the information submitted pursuant to (a), above, on the registration form obtained from the department.

(c) The owner shall sign the registration form as specified in Env-Or 404.04.

(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 form to the department as specified in Env-Or 404.09.

(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 form, respectively, shall be filed with the department at the time of final inspection of the system.

Env-Or 404.02 Change in Use. The owner of any facility that would become subject to regulation under Env-Or 400 due to a change in the use of any storage system at the facility shall:

(a) Register the 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.

Env-Or 404.03 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 or residential, or other;

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

(d) The name, mailing address, and daytime telephone number 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 certification of compliance as specified in Env-Or 404.04(b);

(h) Proof of financial responsibility as specified in Env-Or 404.11; and

(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.

Env-Or 404.04 Signature Required.

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

(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 form;

(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 specified in RSA 641:3 for making unsworn false statements.

Env-Or 404.05 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.

Env-Or 404.06 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); and

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

(b) When a registration and stage I/stage II notification and system test report is received, the department shall determine whether the facility is in compliance with Env-Or 400, Env-Or 500, and any applicable requirements of Env-Or 600 or Env-Or 700 relative to corrective action and release response.

(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 600 and Env-Or 700.

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

Env-Or 404.07 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 404.10.

Env-Or 404.08 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:

(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 404.11; and

(14) Any other records required to be maintained by these rules.

(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 copies in lieu of the originals.

Env-Or 404.09 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. Such notification shall be in the form of an amended registration form that is filed with the department within 10 days of the transfer.

(b) 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 these rules.

(c) 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 404.08.

Env-Or 404.10 Suspension or Revocation of Permit to Operate.

(a) If the department receives information which 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, as reprinted in Appendix D.

Env-Or 404.11 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 the amount equal to or greater than $1,000,000 per occurrence.

(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, RSA 146-E, or RSA 146-F.

(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 forms:

(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 responsible party 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 responsible party shall also 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 responsible party and the department by certified mail, return receipt requested, at least 120 days before the effective date of cancellation.

Env-Or 404.12 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.

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), as 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 l44 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) If a UST does not bear the label required by (f), above, 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 that allows for at least 4 and less than 6 inches of clearance from the tank bottom to the highest point of the submerged fill tube cut.

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), as 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 minimum of 1/8 inch per foot to direct any leakage from the primary piping to a liquid-tight piping sump with a piping sump sensor that is installed at each tank.

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

Env-Or 405.03 Secondary Containment for Tanks. The secondary containment required under 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.

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

(a) Subject to (b), below, secondary containment shall be provided for all 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.

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, as 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;

(2) Be installed to prevent regulated substance from entering the backfill surrounding the spill containment equipment;

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

(4) For any UST system installed on or after the 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, the secondary containment sump shall be equipped with a sump sensor.

(e) Spill containment equipment having drain valves on UST systems that store gasoline shall have the valve replaced annually or permanently sealed.

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, as reprinted in Appendix E.

(b) A primary overfill protection device shall be installed to restrict or stop the flow of a regulated substance or alert the transfer operator during a delivery before the tank reaches full capacity so that none of the fittings located on the top of the tank are exposed to the regulated substance due to overfilling.

(c) The primary overfill protection device on a UST system shall:

(1) Alert the transfer operator when the tank is no more than 90% full 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

(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 2013 effective date of these rules.

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

(f) 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.

(g) Subject to (h) and (m), 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.

(h) UST systems installed prior to the 2013 effective date of these rules that have a high level alarm as the primary overfill device shall comply with (g)(2), above, within one year of the 2013 effective date of these rules.

(i) All high level alarms shall:

(1) Have both visual and audible alarms;

(2) Be clearly labeled as a tank overfill alarm; and

(3) Be clearly visible and audible to the transfer operator.

(j) 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.

(k) 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.

(l) 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.

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

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 for each dispenser; and

(2) Extend beyond the reach of all dispensing nozzles.

(b) Each dispenser installed on or after April 24, 1997 shall have a liquid-tight dispenser sump directly beneath it to contain discharges.

(c) Dispenser sumps shall be:

(1) Provided with continuous leak detection monitoring by the piping sump sensor; or

(2) Equipped with a sump sensor.

(d) Any dispenser sump that is part of a UST system installed on or after the 2013 effective date of these rules shall be equipped with a sump sensor.

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.

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; and

(2) Each piping system not included in (1), above, exclusive of vent piping, installed on or after April 24, 1997.

(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.

Env-Or 405.10 Release Detection for Tanks Without Secondary Containment and Leak Monitoring.

(a) With the exception of on-premise-use heating oil tanks that are otherwise subject to these rules, USTs without secondary containment and leak monitoring shall be:

(1) Equipped with listed release detection equipment; and

(2) Monitored for releases.

(b) Groundwater or soil gas vapor monitoring shall not be installed as a release detection mechanism.

(c) Owners of USTs without secondary containment and leak monitoring shall conduct automatic tank gauging for release detection in accordance with Env-Or 406.15.

(d) The automatic tank gauge shall:

(1) Be capable of detecting at least a 0.2 gallon per hour leak rate from any portion of the tank that routinely contains product; and

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

(e) Owners of system(s) with no release detection shall:

(1) Perform a full system tightness test in accordance with Env-Or 406.11 through Env-Or 406.14; and.

(2) Submit to the department results of the tightness test and assessment within 15 days of the completed work.

(f) When automatic tank gauging is used for release detection, the gauge shall:

(1) Provide at least one passing test in a 30 day period for tank leakage; and

(2) Operate daily in a leak detection mode in accordance with the manufacturer's requirements.

(g) All release detection monitoring consoles shall be conspicuously marked or labeled as being monitoring devices.

Env-Or 405.11 Release Detection for Piping Systems.

(a) With the exception of on-premise-use heating oil systems that are otherwise subject to these rules, all pressurized piping without secondary containment and leak monitoring shall be monitored for releases with listed release detection equipment.

(b) Owners of pressurized piping without secondary containment and leak monitoring shall conduct annual tightness testing for release detection.

(c) Release detection for systems with suction or atmospheric piping shall be one of the following:

(1) Performance of a line tightness test in accordance with Env-Or 406.11 through Env-Or 406.14 not less than once every 3 years; or

(2) Existing groundwater monitoring and soil vapor monitoring in accordance with (f) and (g), below.

(d) Groundwater or soil gas vapor monitoring wells shall not be installed as a release detection mechanism.

(e) Existing monitoring wells shall be clearly marked and secured to avoid unauthorized access and tampering.

(f) If existing groundwater monitoring wells are used as a release detection mechanism, the owner shall monitor the wells in accordance with one of the following:

(1) By the use of a continuous monitoring device that detects the presence of regulated substance or sheen on top of the groundwater in the monitoring wells; or

(2) By manual methods that detect regulated substance or sheen on top of the groundwater in the monitoring wells.

(g) If manual monitoring is used, the owner shall:

(1) Sample each existing monitoring well monthly;

(2) Submit the collected groundwater samples to a laboratory accredited under Env-C 300 for analysis for the presence of regulated substance; and

(3) Subject to (h), below, submit the test results to the department within 30 days of the test.

(h) The owner shall notify the department within 24 hours whenever a regulated substance is detected by observation, a continuous detection device, or laboratory analysis of groundwater well samples.

(i) Existing monitoring wells shall not be used as a release detection method at facilities where releases have previously occurred or groundwater is contaminated with a regulated substance.

(j) Release detection shall not be required for suction or atmospheric piping that is demonstrated, by plans submitted by the owner and confirmed by department inspection, to be designed and constructed to meet the following standards:

(1) The piping operates at atmospheric pressure or at less than atmospheric pressure;

(2) The piping is continuously sloped so that the contents of the piping drain back into the storage tank if the suction is released;

(3) No more than one check valve is included in each suction line; and

(4) The check valve is located directly below and as close as practical to the suction pump.

Env-Or 405.12 Cathodic Protection Systems.

(a) Each cathodic protection system shall be equipped with an accessible test connection or monitor.

(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 405.13; 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.

Env-Or 405.13 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 406.17; and

(2) Submit to the department a report prepared and signed by a corrosion 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 406.17; and

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

PART Env-Or 406 OPERATION, MAINTENANCE, AND TESTING

Env-Or 406.01 Inventory Monitoring and Leak Detection Required.

(a) Subject to (c), below, the owner of a UST facility shall conduct inventory monitoring and leak detection for each UST system at the facility in accordance with the applicable provisions of this part.

(b) The owner shall maintain separate records of the activities required by (a), above, for each tank and interconnected system.

(c) A UST system shall be exempt from inventory monitoring only if:

(1) The secondary containment of the UST is continuously monitored for both regulated substance and water; or

(2) The UST contains Bunker C, no. 4, no. 5, or no. 6 fuel oil.

Env-Or 406.02 On-Premise Use Facilities (OPUF).

(a) Subject to (d), below, the owner of an on-premise use heating oil UST system that has suction, return, or pressurized piping without secondary containment and leak monitoring shall:

(1) Conduct a piping tightness test once every 3 years in accordance with Env-Or 406.11 through Env-Or 406.14; and

(2) Submit the results of the test to the department within 30 days of the date of the test.

(b) If the piping fails a piping tightness test, the owner shall:

(1) Permanently close the piping in accordance with Env-Or 408.06 through Env-Or 408.10; or

(2) Repair or replace the piping in accordance with Env-Or 408.03.

(c) If the cause of the piping test failure is unknown or a release might have occurred, the owner shall notify the department within 24 hours of the occurrence.

(d) A piping test shall not be required for on-premise-use heating oil tanks having suction or atmospheric piping without secondary containment and leak monitoring if the plans submitted by the owner and confirmed by department inspection show that the piping has been designed and constructed to meet the following standards:

(1) The piping operates at atmospheric pressure or at less than atmospheric pressure;

(2) The piping is continuously sloped so that the contents of the piping will drain back into the storage tank if the suction is released;

(3) No more than one check valve is included in each suction line; and

(4) The check valve is located directly below and as close as practical to the suction pump.

Env-Or 406.03 Single-Wall USTs Containing Motor Fuel or Bulk Storage Fuel Oil. The owner of a single wall UST system that contains motor fuel or bulk storage fuel oil shall:

(a) Reconcile inventory data daily and monthly as follows:

(1) The volume of regulated substance in the UST system at the beginning of the inventory period shall be increased by the volume of regulated substance added during the inventory period, as reflected by receipts or other records that reflect additions;

(2) The adjusted volume shall be decreased by the volume of regulated substance removed from the UST system during the inventory period, as reflected by sales records or other records that reflect removals; and

(3) The final adjusted volume shall be compared with the volume of regulated substance actually contained in the UST system at the end of the inventory period to determine whether there is any gain or loss of regulated substance that is not accounted for;

(b) Measure the liquid stored once each day using:

(1) A gauge stick which shall be capable of measuring the level of liquid in the tank to the nearest 1/8 inch; or

(2) An automatic tank gauging device of equivalent or better measuring accuracy;

(c) Notify the department within 24 hours and perform a tightness test in accordance with Env-Or 406.11 through Env-Or 406.14 if any of the following occurs:

(1) The depth of the water in the tank changes by 2 inches or more over one month or any shorter period;

(2) Any tank contains a total water depth of 3 inches or more; or

(3) The monthly reconciled inventory records show an unexplained gain or loss of regulated substance greater than 1.0 percent of the pump meter reading plus 130 gallons;

(d) Maintain all records relating to inventory monitoring, including sales receipts, for a period of 3 years;

(e) Record inventory data on:

(1) A motor fuel and bulk storage fuel oil inventory form obtained from the department or another representative motor fuel and bulk storage fuel oil inventory form that meets the requirements of (f) and (g), below; or

(2) The form provided by the manufacturer, for systems using an automatic tank gauge (ATG) monitor and computer software;

(f) Provide the following information on the motor fuel and bulk storage fuel oil inventory form obtained from the department or another representative motor fuel and bulk storage fuel oil inventory form:

(1) DES Facility ID registration number;

(2) The name and location of the facility, by street and municipality;

(3) UST system number and capacity;

(4) The type of regulated substance being stored;

(5) The date the measurements were taken;

(6) Volume of regulated substance in the UST system at the opening of business;

(7) Measurement of the UST contents in gallons before each delivery;

(8) Measurement of the UST contents in gallons after each delivery;

(9) Delivery amount in gallons;

(10) Volume of regulated substance in the UST system at the close of business;

(11) Total liquid gallons of sales or uses for each operating day, determined by subtracting the volume at the close of business from the volume at the opening of business;

(12) Metered withdrawals;

(13) Daily Variance between quantities in item 11 and item 12;

(14) Monthly measurement in inches of water level;

(15) Daily loss or gain of regulated substance in gallons for each operating day;

(16) Total monthly gallons of loss or gain of regulated substance; and

(17) Monthly maximum gain or loss in regulated substance allowed by the department before notification is required; and

(g) Sign the monthly inventory records to certify the accuracy of the records.

Env-Or 406.04 Inventory Monitoring for OPUFs and Emergency Generator Single-Wall USTs.

(a) The owner of an on-premise-use heating oil single wall UST system that is not exempt under Env-Or 406.02(d) or of an emergency generator single-wall UST system shall:

(1) Perform inventory monitoring by annual tank gauging as specified in (b), below;

(2) Use release detection methods as specified in Env-Or 405.10 and Env-Or 405.11, as applicable; or

(3) Perform an annual tightness test as specified in Env-Or 406.11 through Env-Or 406.14.

(b) Inventory monitoring by annual tank gauging shall be performed as follows:

(1) The tank shall be filled to the maximum level allowed by the primary overfill prevention device;

(2) Tank oil and water level measurements shall be recorded at the beginning and end of an idle period of at least 30 days, during which no oil shall be added to or removed from the tank;

(3) All measurements shall be based on an average of at least 2 consecutive readings; and

(4) The measurement equipment used shall be capable of measuring the level of oil over the full range of the tank's height to the nearest 1/8 of an inch.

(c) The owner shall notify the department within 24 hours and perform a tightness test in accordance with Env-Or 406.11 through Env-Or 406.14 if the results of annual tank gauging indicate:

(1) A change of water level of 2 inches or more;

(2) Any loss or gain of oil; or

(3) A total water depth of 3 inches.

(d) The owner of a UST system that is subject to this section who uses annual tank gauging shall record inventory data on an on-premise-use heating oil and emergency generator inventory form obtained from the department, or on another representative on-premise-use heating oil emergency generator inventory form that meets the requirements of (f) and (g), below.

(e) The owner of a UST system that is subject to this section who uses annual tank gauging shall provide the following information on an on-premise-use heating oil and emergency generator inventory form obtained from the department or another representative on-premise-use heating oil and emergency generator inventory form:

(1) Facility registration number;

(2) Tank system number and volume;

(3) The type of substance being stored; and

(4) Measurement in inches of water and regulated substance with the date taken.

(f) The owner shall sign the inventory records to certify the accuracy of the annual tank gauging records.

(g) The owner of a UST system that is subject to this section who uses release detection or tightness testing as specified in (a)(2) or (3), above, shall record inventory data on forms meeting the requirements of Env-Or 406.13 and Env-Or 406.15, as applicable.

(h) The owner shall maintain all records relating to on-premise-use heating oil and emergency generator inventory monitoring for a period of 3 years.

Env-Or 406.05 Inventory Monitoring for Used Oil Single-Wall USTs.

(a) The owner of an used oil single wall UST system shall:

(1) Perform inventory monitoring by monthly tank gauging as specified in (b), below;

(2) Use release detection methods as specified in Env-Or 405.10 and Env-Or 405.11, as applicable; or

(3) Perform an annual tightness test as specified in Env-Or 406.11 through Env-Or 406.14.

(b) Inventory monitoring by monthly tank gauging shall be performed as follows:

(1) Tank oil and water level measurements shall be recorded at the beginning and end of an idle period of at least 36 hours, during which no oil shall be added to or removed from the tank;

(2) All measurements shall be based on an average of at least 2 consecutive readings; and

(3) The measurement equipment used shall be capable of measuring the level of oil over the full range of the tank's height to the nearest 1/8 of an inch.

(c) The owner shall notify the department within 24 hours and perform a tightness test in accordance with Env-Or 406.11 through Env-Or 406.14 if the results of the monthly tank gauging indicate a change in water level or a loss or gain of oil.

(d) The owner of a UST system that is subject to this section who uses monthly tank gauging shall record inventory data on an used oil inventory form obtained from the department or another representative used oil inventory form that meets the requirements of (e) and (f), below.

(e) The owner of a UST system that is subject to this section who uses monthly tank gauging shall provide the following information on a used oil inventory form obtained from the department or another representative used oil inventory form shall include the following:

(1) Facility registration number;

(2) Tank system number and volume;

(3) The type of substance being stored; and

(4) Measurement in inches of water and regulated substance with the date and time taken.

(f) The owner shall sign the monthly tank gauging inventory records to certify the accuracy of the records.

(g) The owner of a UST system that is subject to this section who uses release detection or tightness testing as specified in (a)(2) or (3), above, shall record inventory data on forms meeting the requirements of Env-Or 406.13 and Env-Or 406.15, as applicable.

(h) The owner shall maintain all records relating to used oil inventory monitoring for a period of 3 years.

Env-Or 406.06 On-going Maintenance Required.

(a) All piping and dispenser containment sumps shall be maintained free of liquid and debris.

(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.

(c) Automatic tank gauging equipment and devices shall be maintained in good working order at all times to continuously perform their original design function.

(d) 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.

Env-Or 406.07 Operation of Automatic Tank Gauge Devices.

(a) Automatic tank gauging equipment and devices shall be inspected and tested as specified in Env-Or 406.15 not less than annually in accordance with the manufacturer's requirements for proper operation.

(b) When automatic tank gauging is used for release detection, the automatic tank gauge shall operate daily in a leak detection mode in accordance with the manufacturer's requirements.

(c) Automatic tank gauge devices shall not be turned off or deactivated for more than 2 hours without prior notification by the operator to the department.

(d) The owner shall repair any malfunction in any automatic tank gauge device within 30 working days.

(e) If the malfunctioning automatic tank gauge device(s) cannot be repaired within 30 days, the affected UST system(s) shall be temporarily closed until the affected UST system(s) have automatic tank gauge device(s) that are performing their original design function.

Env-Or 406.08 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 406.10.

Env-Or 406.09 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 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.

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

Env-Or 406.10 Unusual Operating Conditions.

(a) The owner shall report any unusual operating condition(s) to the department within 24 hours, unless:

(1) The cause is immediately determined and corrected; and

(2) The owner determines that the unusual operating condition did not result in a release of a regulated substance.

(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 gain or loss in a tank, sump, or system component that might indicate a problem with system tightness;

(3) A monitoring system indicates that a leak 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) 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.

(d) If a release has occurred, the owner shall notify the department in accordance with Env-Or 604 and implement the preliminary response action in accordance with Env-Or 605.

(e) Upon receiving a report pursuant to (c)(3), above, the department shall review the report to determine whether a tightness test is needed to verify the report's conclusions.

(f) If the department determines that a tightness test is required, the owner shall conduct a tightness test in accordance with Env-Or 406.11 through Env-Or 406.14 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.

Env-Or 406.11 Requirements for 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.

(b) Subject to (c) and (d), below, the tightness testing method shall be 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 406.12.

(c) If a listed test method 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 406.12.

(d) If a listed test method for the component does not exist and the component's manufacturer has not specified any testing requirements, the tightness test shall conform to the requirements for:

(1) PEI RP 1200 for tightness testing or an applicable test from the reference standards specified in the section that is specific to the component being tested;

(2) An applicable test from the reference standards specified in Env-Or 403 that is certified to meet the leak rate detection criteria specified in Env-Or 406.12;

(3) A hydrostatic tightness test as specified in Env-Or 406.22; or

(4) A pneumatic tightness test as specified in Env-Or 406.23.

(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.

Env-Or 406.12 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 product, 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.

Env-Or 406.13 Requirements for Test Reports.

(a) When a tightness test or automatic tank gauge test is performed, the owner shall submit the results on a form obtained from the department or another representative test form that meets the requirements of (c) through (e), below.

(b) The owner shall submit the report form to the department no later than 30 days after the date of the test.

(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 of the UST system owner;

(4) The date of the test;

(5) The tester's name, company address, and telephone number;

(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 performing 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 these rules; 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.

Env-Or 406.14 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) An automatic tank gauging leak, release or test failure shall be indicated by a test result of greater than 0.2 gallons per hour or an inconclusive test result .

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

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

(e) Upon being notified of a tightness test failure, the UST system owner shall:

(1) Investigate the cause of the failure and determine if 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.

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

(g) 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.

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

(i) Any single wall UST system that fails a second tightness test shall be:

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

(2) Permanently closed in accordance with Env-Or 408.06 through Env-Or 408.10 within 30 days.

(j) 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.

Env-Or 406.15 Automatic Tank Gauging Testing.

(a) Automatic tank gauge testing shall be performed as specified in Env-Or 406.11.

(b) The owner of a UST system shall report any automatic tank gauging failure to the department immediately.

(c) In the event of an automatic tank gauging test failure, the owner shall:

(1) Perform an investigation in accordance with Env-Or 406.10 into the cause of the failure to determine if a release has occurred; and

(2) If a possible release of regulated substance from the system has occurred, comply with all applicable requirements of Env-Or 600.

(d) The owner shall submit the automatic tank gauging test results as specified in Env-Or 406.13

(e) The results of an automatic tank gauging test shall include the following:

(1) The information required by Env-Or 406.13(c)(1)-(6);

(2) Automatic tank gauging model number and manufacturer's name;

(3) Test results;

(4) Verification that the automatic tank gauging equipment is correctly programmed to notify the operator of an alarm; and

(5) Verification that the automatic tank gauging equipment is programmed to perform in accordance with Env-Or 405.10(d) and (f).

(f) The tester who has conducted the test shall sign the test report in accordance with Env-Or 406.13(e).

Env-Or 406.16 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 automatic line leak detector test report shall be recorded on a form obtained from the department or another representative form, and include:

(1) The information required by Env-Or 406.13(c)(1)-(5);

(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 406.13(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.

Env-Or 406.17 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 report of the cathodic protection test shall be on a form obtained from the department or another representative form and include the following:

(1) The information required by Env-Or 406.13(c)(1)-(5);

(2) A description of the equipment used to conduct the test;

(3) Test locations;

(4) Test results; and

(5) 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 406.13(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.

Env-Or 406.18 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 do not vote to approve funding for the testing required by (a), above, shall be exempt from the requirement unless and until the requirement is adopted as a federal regulation.

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

(d) The owner shall submit the information required by (e), below, on a form obtained from the department or another representative form. The form shall be submitted to the department no later than 30 days after the date of the test.

(e) The results of the triennial overfill prevention device test shall include the following:

(1) The information required by Env-Or 406.13(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 manufacture'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.

(f) The tester who has conducted the test shall sign the test report in accordance with Env-Or 406.13(e).

(g) 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.

Env-Or 406.19 Spill Containment Integrity Testing.

(a) Subject to (b), below, no later than December 22, 2017 and triennially thereafter, all spill containment equipment without secondary containment and leak monitoring shall be tested for tightness as specified in Env-Or 406.11 through Env-Or 406.14.

(b) Political subdivisions who do not vote to approve funding for the testing required by (a), above, shall be exempt from the requirement unless and until the requirement is adopted as a federal regulation.

(c) The owner shall submit the information required by (d), below, on a form obtained from the department or another representative form. The form shall be submitted to the department no later than 30 days after the date of the test.

(d) The results of the spill containment test shall include the following:

(1) The information required by Env-Or 406.13(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.

(e) The tester who has conducted the test shall sign the test report in accordance with Env-Or 406.13(e).

Env-Or 406.20 Leak Monitoring Equipment Testing.

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

(b) The owner shall submit the information required by (c), below, on a form obtained from the department or another representative form no later than 30 days after the date of the test.

(c) The results of the leak monitor test shall include the following:

(1) The information required by Env-Or 406.13(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; and

(11) Verification that all secondary containment is continuously monitored.

(d) The testing technician who conducts the test shall sign the test report in accordance with Env-Or 406.13(e).

(e) The testing technician shall attach to the form the information necessary to verify that this information is correct.

Env-Or 406.21 Testing of Sumps. The owner shall test each new sump for tightness at installation, in accordance with Env-Or 406.11 through Env-Or 406.14.

Env-Or 406.22 Hydrostatic Tightness Test.

(a) If a hydrostatic tightness test is performed pursuant to Env-Or 406.11(d)(3), 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 sump;

(3) By recording the liquid level measurements at the beginning and end of the test;

(4) For a minimum of 3 hours; and

(5) With no addition of liquid to the sump.

(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.

Env-Or 406.23 Pneumatic Tightness Test.

(a) If a pneumatic tightness test is performed pursuant to Env-Or 406.11(d)(4), 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) The certified tank installer shall remove all testing equipment after the test is completed.

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

Env-Or 406.24 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 406.11; and

(3) Owners of UST systems storing diesel fuel shall use a test method as specified in Env-Or 406.11.

(b) Test reports shall be completed and submitted as specified in Env-Or 406.13.

(c) Test failures shall be addressed as specified in Env-Or 406.14.

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 on a form obtained from the department, 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 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 form.

(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 specified in RSA 641:3 for making unsworn false statements.

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 product 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;

(6) For each sump serving a tank, dispenser, or other UST system component:

a. The manufacturer, model number, and material of the sump;

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 a ball float, 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 a the site or facility prior to February 3, 2005;

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

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

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.

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 the requirements of these rules.

(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 obtain approval as specified in Env-Or 407.01 through Env-Or 407.04.

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, the certified tank installer shall install the component in accordance with the following, as applicable:

(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 800, Recommended Practices for Installation for Installation of Bulk Storage Plants;

(4) API RP 1615, Installation of Underground Petroleum Storage Systems; and

(5) API RP 1632, Cathodic Protection of Underground Petroleum Storage Tanks and Piping Systems.

(d) The 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.

Env-Or 407.06 UST System Design Requirements.

(a) All UST system components shall meet the requirements for new facilities specified in Env-Or 405.

(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 the PWS owner agrees to the work in writing.

(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 407-1: Minimum Distance from UST System to Water Supply Wells

Contents of UST	Public Water Supply Well	Non-Public Water Supply Well
Gasoline	at least 500 feet	at least 250 feet
Regulated substances except gasoline	at least 400 feet	at least 75 feet

(f) At any UST facility existing prior to the 2013 effective date of this chapter, whenever a UST system is added, substantially modified, or replaced, the existing separation distance shall not be decreased.

(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; or

(2) Discharged below the ground surface.

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

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

Env-Or 407.07 Notification and Inspection.

(a) 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 backfilling the tank top and/or piping.

(b) 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.

(c) 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.

(d) The department shall inspect the system prior to backfilling. If the department's inspection reveals any discrepancies between the system as installed and the approved plans and specifications, the owner shall:

(1) Submit as-built record drawings prepared and stamped by a New Hampshire licensed PE to the department within 30 days of the department's inspection; and

(2) Notify the department to arrange a follow-up inspection.

(e) The new system shall not be backfilled or placed into service until 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.

Env-Or 407.08 Installation Testing Requirements.

(a) The certified tank installer shall perform a pressure test of the primary piping, secondary containment piping, vent piping, and all spill containment equipment after installation and prior to backfill to determine tightness in accordance with Env-Or 406.11 through Env-Or 406.14.

(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 backfill inspection of the system.

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

(e) The certified tank installer shall:

(1) Certify that all line leak detectors passed a functionality test; and

(2) Submit the certified test results to the department before any regulated substance is dispensed or used for consumption, as applicable..

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.

(d) Whenever existing piping is replaced or extended, the entire piping system shall be upgraded as necessary to meet the requirements of Env-Or 405.02 and Env-Or 405.04.

Env-Or 407.10 Installation of Fueling Systems over Surface Waters.

(a) UST systems at fueling facilities at which fuel is dispensed over water shall comply with the following:

(1) NFPA 30, Flammable and Combustible Liquids Code; and

(2) NFPA 30A, Motor Fuel Dispensing Facilities and Repair Garages.

(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) Piping systems shall have continuous secondary containment or be equipped with liquid-tight sumps at locations where continuous secondary containment is not possible.

(d) All sumps shall be liquid-tight and have a sump sensor.

(e) Piping systems shall be equipped with flexible secondarily contained piping between any floating structure and the shore.

(f) Piping systems shall be equipped with the readily accessible shutoff valve located on the shore, and as close to the shoreline as possible. The valve shall be installed adjacent to and upstream from the location employing flexible piping from a floating structure and the shore.

(g) Piping systems shall be protected from physical damage.

(h) Dispensing nozzles shall be automatic closing type without a device that allows the dispensing nozzle to remain open.

(i) Piping shall not be in contact with surface water.

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) A UST that discharges, leaks, spills, or 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.

(c) 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 406.11 through Env-Or 406.14 or the UST manufacturer's recommendations 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 may cause leaks or releases;

(d) If the UST is determined to be repairable pursuant to (c)(1) or (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, and certification number and expiration date of the certified tank installer who will perform the repair.

(e) Repairs shall be conducted and tested in accordance with:

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

(2) PEI RP 100, "Recommended Practices for Installation of Underground Liquid Storage Systems."

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

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

(h) 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.

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 including:

(1) The cause and location of the failure;

(2) Procedure to return the interstitial space to its original operating condition;

(3) Documentation from the tank manufacturer certifying the repair; and

(4) The name and telephone number of the certified tank installer that 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 406.11 through Env-Or 406.14 or the tank manufacturer's recommendation for testing the primary tank and interstitial space.

(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.

Env-Or 408.03 Repair and Replacement of Piping Systems.

(a) With the exception of vent piping, single wall systems that release a regulated substance to the environment shall be permanently closed in accordance with Env-Or 408.06 through Env-Or 408.10.

(b) When a tank is replaced, the entire piping system also shall be replaced, unless it meets the requirements of Env-Or 405.02 and Env-Or 405.04 for piping systems.

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

(d) Prior to repairing a piping system, the owner shall submit the following to the department:

(1) The name and telephone number of the certified tank installer to perform the repair;

(2) The results of testing performed in accordance with Env-Or 406.11 through Env-Or 406.14; and

(3) Written approval from the piping manufacturer allowing the repair.

(e) As soon as the repairs are made, the certified tank installer shall test the piping, including all connections to the system, in accordance with Env-Or 406.11 through Env-Or 406.14.

(f) No later than 30 days after the date of the repair to the piping system, 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 system back to original condition;

(2) The name and telephone number of the certified tank installer who performed the repair;

(3) The date of the repair; and

(4) The results of the tightness test performed to confirm the effectiveness of the repair.

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 406.17.

(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 form to the department in accordance with Env-Or 404.01.

(e) Any UST system without secondary containment and leak monitoring that has been temporarily closed for 12 months shall be permanently closed in accordance with Env-Or 408.06 through Env-Or 408.10 within 30 days.

(f) Subject to (g), below, 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 (h), below;

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

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

(g) Any portion of a UST system with secondary containment and leak monitoring that has been temporarily closed for 2 years or more as of the 2013 effective date of this chapter shall, within one year of the 2013 effective date of this chapter, be:

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

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

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

(h) 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 404.05 relative to permit to operate;

(3) Env-Or 404.11 relative to financial responsibility;

(4) Env-Or 405.05, Env-Or 405.06, Env-Or 406.18, and Env-Or 406.19 relative to spill containment and overfill prevention;

(5) Env-Or 405.08, Env-Or 405.09, Env-Or 406.11 through Env-Or 406.14, Env-Or 406.16, and Env-Or 406.20 relative to leak monitoring systems and tightness testing;

(6) Env-Or 405.12, Env-Or 405.13, and Env-Or 406.17 relative to cathodic protection; and

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

(i) A UST system that has been temporarily closed as specified in (f) or (g), 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 404.05 relative to permit to operate;

(3) Env-Or 404.11 relative to financial responsibility;

(4) Env-Or 405.05, Env-Or 405.06, Env-Or 406.18, and Env-Or 406.19 relative to spill containment and overfill prevention;

(5) Env-Or 405.08, Env-Or 405.09, Env-Or 406.11 through Env-Or 406.14, and Env-Or 406.20 relative to leak monitoring systems and tightness testing;

(6) Env-Or 405.12, Env-Or 405.13, and Env-Or 406.17 relative to cathodic protection; and

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

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.

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

(a) The owner shall notify the department at least 30 days prior to any UST system permanent closure.

(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:

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.

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; or

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

(e) If the piping fails the tightness test required by (d)(2), above, conduct a site assessment in accordance with Env-Or 408.08;

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

(g) 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; or

(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;

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

(i) Perform an assessment as specified in Env-Or 408.08 to determine whether any contamination is present.

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

(a) Test pits shall be excavated in the immediate vicinity of the system to a depth as close to the bottom of the UST system 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, for USTs that are removed;

(3) Representative locations from beneath the UST and around all system piping for any UST that will be closed in place; and

(4) Locations adjacent to the system's piping, unless the piping passes a tightness test pursuant to Env-Or 408.07(d)(2);

(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 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) 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

(f) If soil or groundwater contamination from a regulated substance is detected by observation or analysis during closure of a UST system, any responsible party or other individual shall immediately notify the department as required by RSA 146-A:5.

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 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.

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 all closure activities; and

(2) All laboratory test results.

(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 3 years.

(d) If the owner transfers the facility during the 3-year document retention period, the documents shall be transferred to the new owner at the time of transfer.

Env-Or 408.11 Limitations on Re-Use of Tanks.

(a) As specified in RSA 146-C:8:

(1) USTs that have been removed and do not meet the requirements of Env-Or 405.01 shall not be reinstalled for the purpose of storing regulated substances; and

(2) Any tank that has been used for any regulated substance shall not be reused to store food products.

(b) A tank that has been used to store any regulated substance also shall not be reused to store water.

(c) A tank shall be reinstalled for regulated substance storage only if:

(1) As specified in RSA 146-C:8, it is:

a. Thoroughly cleaned and inspected, both internally and externally;

b. As a result of such cleaning and inspecting, found to be structurally sound and free of pinholes, cracks, structural damage, or corrosion; and

c. Reinstalled in accordance with all applicable requirements of this chapter; and

(2) Recertified by the tank manufacturer as meeting tank standards for new UST systems.

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.

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 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 any waiver granted based on false, incomplete, or misleading information shall be subject to revocation.

(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.

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.

(d) For waivers of Env-Or 405.05(d), the department shall grant a waiver if the owner demonstrates that there is not enough room for either option.

Env-Or 409.04 Decision on Waiver Requests; Conditions.

(a) The department shall notify the requestor of the decision in writing within 60 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.

Appendix A: Incorporation by Reference Information

Rule	Title/ Date	Obtain at:
Env-Or 403.02(a) Env-Or 408.06(c)(2)a	RP 1604 “Closure of Underground Petroleum Storage Tanks” 1996	American Petroleum Institute 1220 L Street, NW Washington, DC 20005-4070 (202) 682-8000 http://www.api.org
Env-Or 403.02(b) Env-Or 407.05(c)(4) Env-Or 407.08(b)	RP 1615 “Installation of Underground Petroleum Storage Systems” 2011	
Env-Or 403.02(c) Env-Or 408.06(c)(2)b	RP 1631 “Interior Lining and Periodic Inspection of Underground Storage Tanks” 2001	
Env-Or 403.02(d) Env-Or 407.05(c)(5)	RP 1632 “Cathodic Protection of Underground Petroleum Storage Tanks and Piping Systems” 1996	
Env-Or 403.02(e) Env-Or 408.06(c)(2)c	STD 2015 “Requirements for Safe Entry and Cleaning of Petroleum Storage Tanks” 2001	

Rule	Title/ Date	Obtain at:
Env-Or 403.03(a) Env-Or 405.02(h)(1)	ASME B31.3 "Process Piping" 2008	ASME International 22 Law Drive P.O. Box 2900 Fairfield, NJ 07007-2900 (800) 843-2763 http://www.asme.org
Env-Or 403.03(b) Env-Or 405.02(h)(2)	ASME B31.4 "Pipeline Transportation Systems for Liquid Hydrocarbons and Other Liquids" 2006	
Env-Or 403.04(a) Env-Or 408.01(e)(1)	Recommended Practice T-95-02 "Remanufacturing of Fiberglass Reinforced Plastic (FRP) Underground Storage Tanks" 1995	Fiberglass Tank and Pipe Institute 11150 South Wilcrest Drive, Suite 101 Houston, TX 77099-4343 (281) 568-4100 http://www.fiberglasstankandpipe.com
Env-Or 403.05(a) Env-Or 405.12(b)(3)	SP0285-2011 "Corrosion Control of Underground Storage Tank Systems by Cathodic Protection" 2011	NACE International 1440 South Creek Drive Houston, TX 77084-4906 (281) 228-6223 http://www.nace.org
Env-Or 403.06(a) Env-Or 407.05(d)(1) Env-Or 407.10(a)(1)	NFPA 30 "Flammable and Combustible Liquids Code" 2012	National Fire Protection Association 1 Batterymarch Park Quincy, MA 02169-7471 (800) 344-3555 http://www.nfpa.org
Env-Or 403.06(b) Env-Or 407.05(d)(2) Env-Or 407.10(a)(2)	NFPA 30A "Motor Fuel Dispensing Facilities and Repair Garages" 2012	
Env-Or 403.06(c) Env-Or 407.05(d)(3)	NFPA 31 "Standard for the Installation of Oil-Burning Equipment" 2011	
Env-Or 403.06(d) Env-Or 407.05(d)(4)	NFPA 329 "Recommended Practice for Handling Releases of Flammable and Combustible Liquids and Gases" 1999	
Env-Or 403.07(a) Env-Or 407.05(c)(1)	RP 100 "Recommended Practices for Installation of Underground Liquid Storage Systems" 2011	Petroleum Equipment Institute P.O. Box 2380 Tulsa, OK 74101-2380 (918) 494-9696 http://pei.org
Env-Or 403.07(b) Env-Or 407.05(c)(2)	RP 300, "Recommended Practices for Installation and Testing of Vapor-Recovery Systems at Vehicle-Fueling Sites"2009	
Env-Or 403.07(c) Env-Or 407.05(c)(3)	RP 800, "Recommended Practices for Installation of Bulk Storage Plants" 2008	
Env-Or 403.07(d) Env-Or 406.11(d)(1)	RP 1200 "Recommended Practices for the Testing and Verification of Spill, Overfill, Leak Detection and Secondary Containment Equipment at UST Facilities" 2012	

Appendix B: State Statutes and Federal Statutes/Regulations Implemented

Rule Section(s)	State Statute(s) Implemented	Federal Statutes and Regulations Implemented
Env-Or 400 (see also specific parts/sections listed below)	RSA 146-C	42 U.S.C. Chapter 82, Subchapter IX; 40 CFR 280
Env-Or 404.01 - Env-Or 404.04	RSA 146-C:3	42 U.S.C. 6991a(c); 40 CFR 280.22
Env-Or 404.05 - Env-Or 404.07	RSA 146-C:4, I	
Env-Or 404.08	RSA 146-C:5, I & II	40 CFR 280.34; 40 CFR 280.45
Env-Or 404.09	RSA 146-C:6	
Env-Or 404.10	RSA 146-C:4, I	
Env-Or 404.11	RSA 146-C:3, I(e); RSA 146-C:7, III	42 U.S.C. 6991b(d); 40 CFR 280, Subpart H
Env-Or 404.12	RSA 146-C:11, I	42 U.S.C. 6991b(h)(6)(C)i
Env-Or 405.01 - Env-Or 405.04	RSA 146-C:2	40 CFR 280.20(a) - (b)
Env-Or 405.05 - Env-Or 405.11	RSA 146-C:2	40 CFR 280.30
Env-Or 405.12 - Env-Or 405.13	RSA 146-C:2	40 CFR 280.31
Env-Or 406.01 - Env-Or 406.07	RSA 146-C:2	40 CFR 280 Subpart D
Env-Or 406.08	RSA 146-C:2	40 CFR 280.43(g)
Env-Or 406.09	RSA 146-C:2; RSA 146-C:3; RSA 146-C:4, I	40 CFR 280.30
Env-Or 406.10	RSA 146-C:2	40 CFR 280.50
Env-Or 406.11 - Env-Or 406.13	RSA 146-C:2	40 CFR 280 Subpart D
Env-Or 406.14 - Env-Or 406.23	RSA 146-C:2	40 CFR 280.40, .41, .43-.45, .50
Env-Or 407.01 - Env-Or 407.10	RSA 146-C:7, I	42 U.S.C. 6991a(i)(2)(B); 40 CFR 280.20, 21, .22
Env-Or 408.01 - Env-Or 408.03	RSA 146-C:7, I	40 CFR 280.33
Env-Or 408.04 - Env-Or 408.10	RSA 146-C:2	42 U.S.C. 6991a(c)(5); 40 CFR 280.70; 71
Env-Or 408.11	RSA 146-C:8	
Env-Or 409	RSA 541-A:22, IV	

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 and 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 21-O:14. 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 280.20(a)(1)-(3), (5); 40 CFR 280.20(b)(1), (2), (4) ; 40 CFR 280.20(c)(1)

§ 280.20

(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: The following industry codes may be used to comply with paragraph (a)(1) of this section: Underwriters Laboratories Standard 1316, “Standard for Glass- Fiber-Reinforced Plastic Underground Storage Tanks for Petroleum Products”; Underwriter's Laboratories of Canada CAN4-S615-M83, “Standard for Reinforced Plastic Underground Tanks for Petroleum Products”; or American Society of Testing and Materials Standard D4021-86, “Standard Specification for Glass-Fiber-Reinforced Polyester Underground Petroleum Storage Tanks.”

(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: The following codes and standards may be used to comply with paragraph (a)(2) of this section:

(A) Steel Tank Institute “Specification for STI-P3 System of External Corrosion Protection of Underground Steel Storage Tanks”;

(B) Underwriters Laboratories Standard 1746, “Corrosion Protection Systems for Underground Storage Tanks”;

(C) Underwriters Laboratories of Canada CAN4-S603-M85, “Standard for Steel Underground Tanks for Flammable and Combustible Liquids,” and CAN4-G03.1-M85, “Standard for Galvanic Corrosion Protection Systems for Underground Tanks for Flammable and Combustible Liquids,” and CAN4-S631-M84, “Isolating Bushings for Steel Underground Tanks Protected with Coatings and Galvanic Systems”; or

(D) National Association of Corrosion Engineers Standard RP-02-85, “Control of External Corrosion on Metallic Buried, Partially Buried, or Submerged Liquid Storage Systems,” and Underwriters Laboratories Standard 58, “Standard for Steel Underground Tanks for Flammable and Combustible Liquids.”

(3) The tank is constructed of a steel-fiberglass-reinforced-plastic composite; or

Note: The following industry codes may be used to comply with paragraph (a)(3) of this section:

Underwriters Laboratories Standard 1746, “Corrosion Protection Systems for Underground Storage Tanks,” or the Association for Composite Tanks ACT-100, “Specification for the Fabrication of FRP Clad Underground Storage Tanks.”

(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 fiberglass-reinforced plastic; or

Note: The following codes and standards may be used to comply with paragraph (b)(1) of this section:

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

(B) Underwriters Laboratories Standard 567, "Pipe Connectors for Flammable and Combustible and LP Gas";

(C) Underwriters Laboratories of Canada Guide ULC-107, "Glass Fiber Reinforced Plastic Pipe and Fittings for Flammable Liquids"; and

(D) Underwriters Laboratories of Canada Standard CAN 4-S633-M81, "Flexible Underground Hose Connectors."

(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: The following codes and standards may be used to comply with paragraph (b)(2) of this section:

(A) National Fire Protection Association Standard 30, "Flammable and Combustible Liquids Code";

(B) American Petroleum Institute Publication 1615, "Installation of Underground Petroleum Storage Systems";

(C) American Petroleum Institute Publication 1632, "Cathodic Protection of Underground Petroleum Storage Tanks and Piping Systems"; and

(D) National Association of Corrosion Engineers Standard RP-01-69, "Control of External Corrosion on Submerged Metallic Piping Systems."

(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 paragraph (c)(2) 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 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.