STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
Division of Waste Management

NOTICE OF PROPOSED REGULATIONS & PUBLIC HEARING

The Director of the Rhode Island Department of Environmental Management (DEM) proposes the adoption of/amendments to/repeal of **Rules and Regulations For Underground Storage Facilities Used For Petroleum Products and Hazardous Materials** and gives notice of intent to hold a public hearing to receive public comment on the proposed regulations and to afford interested parties an opportunity to submit data, views, or arguments orally and/or in writing on the proposed regulations. The public hearing will be held on **Friday, March 4, 2011** at **1:00** pm at the Department of Environmental Management, 235 Promenade Street, Providence, RI, room 300. The hearing room is accessible to the handicapped. A stenographic record of the hearing will be made. The DEM will provide interpreter services for the hearing impaired, provided such a request is made at least 48 hours prior to the hearing date. A request for interpreter service and for TDD can be made in writing or by calling (401) 222-4462.

- The proposed regulations were created to add section 8.22 as federally mandated by the Operator Training Section XV, Ethanol and Motor Fuels, Section 1524 of the Federal Energy Act of 2005 which outlines and mandates that an operator training program be implemented by each state for all federally regulated underground storage tank owners and operators.

Copies of the proposed regulations in either clear text or with additions and deletions marked can be obtained at the Division or by calling 222-2797 (7104) weekdays from 8:30 A.M. to 4:00 P.M. or by writing to:

Department of Environmental Management
Division of Waste Management
235 Promenade Street
Providence, RI 02908
ATTN: Tracee Lewis

DEM has complied with the requirements of R.I. Gen. Laws Section 42-35-3 by considering alternative approaches to the proposed regulations and has determined that there is no alternative approach that would be as effective and less burdensome. DEM has also determined that the proposed regulations do not overlap or duplicate any other state regulation. DEM has complied with the requirements of R.I. Gen. Laws Section 42-35-3.3 by submitting copies of the proposed regulations to the Governor's Office and the Economic Development Corporation (EDC).

DEM encourages the submission of written comments. Written comments may be submitted by mail prior to the date of the public hearing at the address indicated above, or by hand-delivery during the public hearing. The public record will be kept open until 4:00 pm Monday, March 7, 2011.

Signed this thirty-first day of January, 2011.

Leo Hellested, PE, Chief
Division of Waste Management

FACT SUMMARY SHEET

For Revisions to the

UNDERGROUND STORAGE TANK REGULATIONS

01/2011

The Office of Waste Management is proposing the following amendments to the **Rules and Regulations for Underground Storage Facilities Used for Petroleum Products and Hazardous Materials**, dated December 2008.

AMENDMENTS TO REGULATIONS

Changes made to the UST Regulations were made as described by Rule as:

NO CHANGES
FORMAT CHANGES – Changes made for conformance with guidance or for continuity
CLARIFICATION CHANGES – No substantive change
MINOR CHANGES – Changes are not expected to significantly affect the regulated body
SIGNIFICANT CHANGES – Changes are expected to significantly affect the regulated body.

Rule 1 Purpose
NO CHANGES

Rule 2 Authority
NO CHANGES

Rule 3 Applicability
Clarification Change
§3.03 (B)

Rule 4 Administrative Findings
NO CHANGES

Rule 5 Definitions
Significant Change
§5.07, 5.08, and 5.09 add definitions for Class A, B and C operators

Rule 6 Facility registration and Notification
NO CHANGES

Rule 7 Financial Responsibility
NO CHANGES

Rule 8 Minimum UST Operation and Maintenance Requirements
Minor Changes
§8.01 adds provisions for the recently and newly added section 8.21 and 8.22
§8.03 changes the time frame for submission of ERP from two to three years which is in keeping with the inspection schedule
§8.08 (A)(3) (j) creates an exemption for tank tightness testing for continuously monitored brine-filled interstitial space USTs
§8.08(D)(1) and (E)(1) require double-walled diesel generator USTs and waste oil/motor oil USTs, respectively, to have a test for tightness performed on the interstitial space when the tanks are 20 years old and every 2 years thereafter.
§8.09 (B) (5) discusses how single wall piping systems with electronic line leak detectors may satisfy their line tightness test
§8.08(B)(2), (C)(2), (D)(2)(b), (E)(2)(a)(2), and (E)(3)(b) allow a monthly leak test for manifolded single-walled USTs to be performed using a certified continuous statistical leak detection system
§8.21 B(5) adds that failure to have a Class A, Class B and/or Class C certified operator could lead to a red tag on the USTs.

Significant Change

- §8.22 was added as required by the operator training provision cited in Section 1524 of the Federal Energy Policy Act of 2005, and outlines and mandates that an operator training program be implemented by each state for all federally regulated underground storage tank owners and operators

Rule 9 New and Replacement Tank System Requirements
Minor Changes
§9.15 clarifies the continuous monitoring requirement for double wall brine-filled interstitial space USTs

Rule 10 Facility Modifications or repairs
Clarification Changes

Rule 11 Maintaining Records
NO CHANGES

Rule 12 Leak and Spill response
NO CHANGES

Rule 13 Closure
NO CHANGES

Rule 14 Approval of Tank and/or Line Tightness tests, Leak Detection Methods and Tightness Tester Licensing requirements
NO CHANGES

Rule 15 Signatories to Registration and Closure Applications
NO CHANGES

Rule 16 Transfer of Certificates of Registration or Closure
NO CHANGES

Rule 17 Holding Tanks
NO CHANGES

Rule 18 Variances
NO CHANGES

Rule 19 Appeals
NO CHANGES

Rule 20 Penalties
NO CHANGES

Rule 21 Severability
NO CHANGES

Rule 22 Superseded Rules and Regulations
NO CHANGES

Rule 23 Effective Date
Clarification Changes

APPENDIX A - Definition **of Hazardous Substance**
Clarification Changes

APPENDIX B – Applicable National Codes of Practice -
Clarification Changes

APPENDIX C – Financial Responsibility Required 40 CFR 280 Subpart H
NO CHANGES

Statement for reasons behind reg changes

The Office of Waste Management is proposed amendments to the **Rules and Regulations for Underground Storage Facilities Used for Petroleum Products and Hazardous Materials**, dated December 2008 specifically to add §8.22 as required by the operator training provision cited in Section 1524 of the Federal Energy Policy Act of 2005, and outlines and mandates that an operator training program be implemented by each state for all federally regulated underground storage tank owners and operators.

State of Rhode Island and Providence Plantations
Department of Administration
Budget Office

Fiscal Note for Proposed Administrative Rules (R.I.G.L. 22-12-1.1)

Name of Administrative Rule: Rules and Regulations for Underground Storage Facilities Used for Petroleum Products and Hazardous Materials

Date of Notice: _____ Date of Hearing:_____

RIGL : These regulations are adopted pursuant to Chapters 42-17.1.2(ee), 42-17.1.2(dd), Environmental Management, and Chapter 46-12, including but not limited to 2(e), 3(18), 3(21), 15, 38, Chapter 42-35-2,42-35-3, and in accordance with 42-35, Administrative Procedures, of the Rhode Island General Laws 1956, as amended.

FISCAL IMPACT

Revenues		***General Revenue Expenditures***		***All Funds Expenditures***	
FY 2010	$	FY 2010	$	FY 2010	$
FY 2011	$	FY 2011	$	FY 2011	$
FY 2012	$	FY 2012	$	FY 2012	$

- **Summary of Policy Change: §8.22 was added to create Operator Training as Section XV, Ethanol and Motor Fuels, Section 1524 of the Federal Energy Act of 2005, outlines and mandates that an operator training program be implemented by each state for all federally regulated underground storage tank owners and operators**

Summary of Fiscal Impact: The changes to these regulations will result in a negative minor impact to all businesses that own and/or operate underground storage tanks. The exam cost is currently at $75.00 and every Class A and B operator will be required to take the exam. Once passed; however, the certification lasts for five years. The exam is offered by a third party, therefore the test fee is not revenue to the state.

City or Town Impact: There will be no economic impact on the cities or towns.

Approved**:**

_____

Thomas Mullaney *Date*
State Budget Officer

RHODE ISLAND
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
235 Promenade Street, Providence, RI 02908-5767 TDD 401-831-5508

December 3, 2010

Economic Impact & Regulatory Flexibility Memo:

"Rules and Regulations for Underground Storage Facilities Used for Petroleum Products and Hazardous Materials"

To: Peter Dennehy, RI Department of Administration
Sherry Lynn Carrera, RI Economic Development Corporation

Pursuant to: These regulations are authorized pursuant to the Operator Training as Section XV, Ethanol and Motor Fuels, Section 1524 of the Federal Energy Act of 2005.

The Federal Energy Act outlines and mandates that an operator training program be implemented by each state for all federally regulated underground storage tank owners and operators. Section 8.22 of the regulations state that facilities shall have operators that are trained and certified according to the rules as of August 1, 2012. Section 8.22 outlines the three classes of operators; A, B and C and the ways in which they are to be certified.

Economic Impact:

1. It is estimated that 700 owners/operators will be required by these regulations to be trained and certified therefore business will experience a minor negative economic impact as the test is expected to cost $75.00 (seventy-five dollars). The certification from passing this test will last five years.
2. It is unlikely that there would be an increase in administrative costs for these owners/operators as the certification, once given, is sufficient for five years.
3. These regulations will result in a negligible negative effect on any business.
4. There is no less burdensome means of achieving the goal of these regulations

Regulatory Flexibility:

Per RIGL 42-35.1-4:

1. Less stringent compliance and reporting requirements for all businesses have been considered but would not be effective in achieving the goal of these regulations. Specifically, public education was considered as well as a certification test given by the Department, but due to the large amount of owners/operators needed to be certified, a standardized test already established, seemed the most economically feasible.
2. These regulations will be effective August 1, 2012, therefore all owners and operators in any given class will need to have their certification on hand.
3. No additional reporting requirements will be necessary for any business effected by these regulations. The facility will be inspected as part of our current regulatory process and inspectors will ask to see the certification.
4. This exam and certification process will create a minimum performance standard for all business.
5. There are currently no exemptions for any business proposed within these regulations.

Leo Hellested

Chief, Office of Waste Management
RI Department of Environmental Management

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
Office of Waste Management

Rules and Regulations For Underground Storage Facilities Used For Petroleum Products and Hazardous Materials

March 2011
Regulation # DEM-OWM-UST03-11

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AUTHORITY: These regulations are adopted pursuant to Chapters 42-17.1.2(ee), 42-17.1.2(dd), Environmental Management, and Chapter 46-12, including but not limited to 2(e), 3(18), 3(21), 15, 38, Chapter 42-35-2,42-35-3, and in accordance with 42-35, Administrative Procedures, of the Rhode Island General Laws 1956, as amended.

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
Office of Waste Management

RULES AND REGULATIONS FOR UNDERGROUND STORAGE FACILITIES
USED FOR PETROLEUM PRODUCTS AND HAZARDOUS MATERIALS

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1.00 RULE 1 PURPOSE

The purposes of these rules and regulations are to:

(A) Protect the waters of the state, including groundwater, from pollution resulting from the underground storage of petroleum products and hazardous materials;

(B) Establish procedures and requirements for the assessment and remediation of sites contaminated due to releases associated with the underground storage of petroleum products or hazardous materials;

(C) Implement a system of registration of underground storage tank facilities;

(D) Prevent releases from underground storage tanks of petroleum products or hazardous materials by establishing siting, design, installation and operating requirements for underground storage tank (UST) systems;

(E) Establish facility leak detection and monitoring requirements, and schedules, for the early detection of releases from underground storage tanks;

(F) Require facility owners/operators to guarantee the availability of sufficient resources to respond to and rectify releases from underground storage tanks systems;

(G) Establish fees and a schedule of payment for such fees; and

(H) Establish UST closure procedures that provide for protection of human health and the environment.

2.00 RULE 2 AUTHORITY

These rules and regulations are promulgated pursuant to Chapter 42-17.1.2(ee) and 42-17.1.2(dd), Environmental Management, and Chapter 46-12, including but not limited to 2(e), 3(18), 3(21), 15, 38, Chapter 42-35-2, 42-35-3, and, in accordance with 42-35, Administrative Procedures, of the Rhode Island General Laws 1956, as amended.

3.00 RULE 3 APPLICABILITY

The terms and provisions of these rules and regulations shall be liberally construed to permit the Department to effectuate the purposes of state law, goals, and policies.

3.01 General Applicability: Unless otherwise noted, these regulations apply to all proposed, new and existing underground storage tank facilities, at which petroleum product(s) and/or hazardous material(s) are or have been stored underground in a tank or tank system; whether such facilities serve institutional, industrial, commercial, educational, agricultural, governmental, residential or other purposes; and whether such facilities or USTs located there upon, have been abandoned; and to persons who owned or operated such facilities after May, 1985.

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3.02 Leak & Spill Response: Rule 12 Leak and Spill Response, shall apply to all facilities and the owners/operators thereof, and any person having actual knowledge of a confirmed leak, spill or other release. There are no exemptions to the responsibility to report a suspected or confirmed leak or spill.

3.03 Exempted Tanks:

(A) These regulations do not apply to:

(1) Hydraulic Lift tanks;

(2) Storage tanks located entirely within structures, such as a basement or cellar provided that:

(a) The structure allows for physical access to the storage tank;
(b) The structure is not part of a secondary enclosure; and
(c) The tank is situated upon or above the surface of a concrete floor;

(3) Septic Tanks;

(4) Pipeline facilities regulated under the Natural Gas Pipeline Safety Act of 1968 or the Hazardous Liquid Pipeline Safety Act of 1979;

(5) Flow through process tanks;

(6) Underground storage tanks storing propane or liquefied natural gas;

(7) Underground storage tanks used for the temporary storage of raw materials or products by industry (so called "intermittent" or "fill and draw" tanks);

(8) Emergency Spill Protection and Overflow tanks;

(9) USTs connected to floor drains or other piping outlets which serve residential structures of a one, two or three family dwelling;

(10) Oil Water Separators with a planned discharge required to be regulated under the Clean Water Act.

(B) Except as provided for in Rule 9.02(A,B,C,D), pertaining to prohibition of new installations, Rule 12 Leak and Spill Response, and Rule 13.02(A), pertaining to prohibition of abandonment of any UST, these regulations do not apply to:

(1) **Residential Tank:** Tanks less than or equal to 1,100 gallons in capacity used for storing heating oil of any grade and serving a one, two or three family dwelling;

(2) **Farm Tank:** Tanks less than or equal to 1,100 gallons in capacity and storing heating oil of any grade for non-commercial purposes.

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3.04 UST systems used to contain discharges of non-sanitary wastewaters (holding tanks): All existing and proposed UST systems which are used to contain discharges, both intermittent and continuous, of non-sanitary wastewaters or other pollutants from floor drains or other piping

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outlets, shall be subject to Rule 6 Facility Registration and Notification, Rule 8.05 Mandatory Corrosion Protection Requirements for Tank Systems, Rule 13.02, pertaining to prohibition of abandonment of any UST, Rule 12 Leak and Spill Response, Rule 13 Closure, Rule 15 Signatories to Registration and Closure Applications, Rule 16 Transfer of Certificates of Registration or Closure, Rule 17 Holding Tanks, Rule 18 Variances, Rule 19 Appeals, and Rule 20 Penalties.

3.05 Applicable National Codes of Practice – Appendix B: Appendix B of these regulations adopt by reference certain national codes of practice to be applied by DEM in its administration of these regulations. As these national codes of practice are updated and amended over time, DEM may issue written policy documents adopting the updated codes for application with these regulations. Any such policy documents shall be issued in accordance with the provisions of the RI Administrative Procedures Act, including notice and hearing, and shall be filed with the RI Secretary of State's Office.

3.06 Applicability of Delivery Prohibition: Rule 8.21 shall apply to all UST systems and persons identified under rule 3.01 and all product deliverers.

NOTE: Certain USTs subject to these regulations are exempt from portions of the specific requirements that follow in the rules. Exemptions are identified in each applicable section.

4.00 RULE 4 ADMINISTRATIVE FINDINGS

(A) Approximately 25% of the population of Rhode Island depend upon groundwater as a sole or principal source of water supply.

(B) The principal groundwater resources of the State are located in relatively thin, glacial deposits of stratified sand and gravel that underlie about one-third of the State. These aquifers lie close to the surface and are extremely vulnerable to contamination.

(C) A number of small public and private water users obtain water from till-covered, fractured bedrock aquifers throughout the state. These aquifers are especially difficult to monitor and to reclaim once contaminated.

(D) A large portion of the State's future water supplies will likely be developed from groundwater sources due to the limited number of suitable sites for the construction of surface water reservoirs.

(E) The effective protection of drinking water supplies requires a recognition that groundwater and surface water systems are hydrogeologically interconnected and contaminants may be transferred between such systems.

(F) The growing number of groundwater contamination incidents resulting from releases of petroleum products and hazardous materials from UST systems poses a serious threat to the environment and public health.

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(G) As a release from an UST poses a high risk to groundwater quality, the establishment of new tank facilities in the state's most valuable aquifer areas, those being designated wellhead protection areas pursuant to R.I.G.L. 46-13.1, should be restricted.

5.00 RULE 5 DEFINITIONS

For the purposes of these regulations, the following terms shall have the following meanings:

5.01 **"ABANDONMENT"** means the relinquishment or termination of possession, ownership or control of underground storage tanks, by vacating or by disposition, without meeting the closure requirements listed in Rule 13 of these regulations; or the action of taking a UST or UST system out of operation for a period of greater than 180 consecutive days without the prior permission of the Director pursuant to Rule 13 Closure.

5.02 **"AQUIFER"** means a geologic formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield quantities of water to wells and springs in quantities which in the aggregate are sufficient to supply the daily requirements of one or more persons.

5.03 **"AUTOMATIC TANK GAUGING SYSTEM"** is equipment used for automatic gauging that tests for the gain or loss of liquid contents of a UST. The automatic product level monitor test must be able to detect a 0.2 gallon per hour or less leak rate at 95% probability of detection from any portion of the tank that routinely contains product. It must also be capable of measuring water in the bottom of the tank to the nearest 1/8 inch. Inventory leak reporting requirements are stated in Rule 11.03.

5.04 **"CATHODIC PROTECTION"** is a technique to prevent the corrosion of metal surfaces by making that surface the cathode of an electrochemical cell.

5.05 **"CATHODIC PROTECTION TESTER"** means a person who can demonstrate an understanding of the principles and measurements of all common types of cathodic protection systems as applied to buried or submerged metal piping and tank systems. At a minimum, such persons must have education and experience in soil resistivity, stray current, structure-to-soil potential, and component electrical isolation measurements of buried metal piping and tank systems. Any person who has been certified by NACE International (the National Association of Corrosion Engineers) as a Corrosion Specialist or Cathodic Protection Specialist is recognized as meeting these requirements. In addition, a person who has been NACE International certified as a Corrosion Technician can serve as a Cathodic Protection tester, with the stipulation that the technician perform system testing under the direct oversight of a Corrosion Specialist, Cathodic Protection Specialist, Senior Corrosion Technologist, or Corrosion Technologist, as required by NACE International.

5.06 **"CLOSURE"** means the removal from service of any underground storage tank in accordance with the provisions of Rule 13 Closure.

5.07 "**CLASS A OPERATOR"** means the individual or individuals designated by the owner to have primary responsibility for the overall operation and maintenance of an UST system. This person must have an understanding of the statutory and regulatory requirements that relate to the permitting of the facility.

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Deleted: "**CLASS A OPERATOR"** is an individual having primary responsibility for the overall operation and maintenance of an UST system. This person must have an understanding of the statutory and regulatory requirements that relate to the permitting of the facility; financial responsibility; spill prevention; overfill protection; release detection; corrosion protection; emergency response; product compatibility; notification requirements; release and suspected release reporting; temporary and permanent closure requirements; reporting and recordkeeping requirements; and operator training requirements.¶

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5.08 "**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 of the UST system(s).

5.09 "**CLASS C OPERATOR**" means the individual or individuals designated by the owner whose primary responsibility is to respond to alarms, or emergencies caused by spills or releases from a UST system at the facility.

5.10 **"COMMENCED CONSTRUCTION"** means that the owner/operator has obtained all governmental approvals or permits required to begin physical construction and has either (1) begun a continuous on-site physical construction program; or (2) entered into contractual obligations which cannot be canceled or modified without substantial loss and are payable upon physical construction of the facility.

5.11 **"COMMERCIAL TANK"** means any underground storage tank used in the furtherance of trade, traffic, business or commerce including, without limitation, tanks used to store heating oil for residential structures containing four or more or living units.

5.12 **"COMMUNITY WATER SYSTEM"** means a public water system which serves at least fifteen service connections used by year-round residents or regularly serves at least 25 year-round residents.

5.13 **"COMPATIBLE"** means ability of two or more substances to maintain their respective physical and chemical properties upon contact with one another for the design life of the tank system under conditions likely to be encountered in the UST.

5.14 **"CONTAMINANT"** means any physical, chemical, biological or radiological substance in soil, water, air or any other environmental media which renders or is likely to render such soil, water, air or any other environmental media unfit for its intended use or for any feasible use.

5.15 **"CONTINUOUS MONITORING SYSTEM"** means an automatic, continuous leak detection and alarm system that operates independent of human assistance and meets industry standards such as those of Underwriters Laboratories (UL), and which is approved by the Director.

5.16 **"CORROSION EXPERT"** means a person who, by reason of thorough knowledge of the physical sciences and the principles of engineering and mathematics acquired by education and practical experience, is qualified to engage in the practice of corrosion control on buried or submerged metal tanks. Such a person must be accredited or certified by the National Association of Corrosion Engineers as either a Corrosion Specialist or Cathodic Protection Specialist or be a registered professional engineer with certification or licensing that includes education and experience in corrosion control of buried or submerged metal piping systems and metal tanks.

5.17 **"DEM"** or the **"Department of Environmental Management"** or the **"Department"** means the Rhode Island Department of Environmental Management and/or any office thereof.

5.18 **"DIESEL FUEL"** means any grade of distillate oil, commonly referred to as "diesel", that is manufactured and sold for use, or is used, as fuel in an internal combustion engine; including petroleum products substituted for use as a diesel fuel.

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Deleted: "**CLASS B OPERATOR**" is an individual having responsibility and direct control over daily on-site operation and maintenance of a UST system. This person must have a practical and regulatory understanding of the components of an USTsystem and its proper operation, including; spill prevention; overfill protection; release detection; corrosion protection; emergency response; and product compatibility

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"**CLASS C OPERATOR**" is an on-site individual whos primary responsibility is to respond to alarms, or emergencies caused by spills or releases from a UST system at the facility.

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5.19 **"DIESEL GENERATOR"** means a machine that converts mechanical energy into electrical energy and is driven by an internal combustion energy, which consumes diesel fuel or a petroleum product substituted for use as a diesel fuel.

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5.20 **"DIRECTOR"** means the Director of the Department of Environmental Management or his/her designee. Any documents or reports required to be submitted to the Director by these regulations should be sent to: UST Management Program, RI Department of Environmental Management, 235 Promenade Street, Providence, Rhode Island 02908.

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5.21 **"DOUBLE-WALLED TANK"** means a container with two complete shells providing both primary and secondary containment. The container shall have a continuous 360° interstitial space between the primary and secondary shell. The interstitial space shall be designed so that an approved interstitial space monitor is able to continuously monitor this space. All double-walled tanks shall be UL-listed.

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5.22 **"DRY SEASON"** means that the time period during which the groundwater tables are at their lowest elevation at which they occur, usually falling during the months of May-December. Specific dates for the dry season will be determined on a yearly basis by the Director.

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5.23 **"DUAL-USAGE TANK"** means a UST whose contents serve more than one use. (For example, the contents of the UST serves both a boiler and an emergency generator.) Such tanks are treated under the usage, which is more stringently regulated.

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5.24 **"EMERGENCY SPILL PROTECTION TANK"** means a tank used for temporary storage of substances in response to a leak, spill or other unplanned occurrence. This tank must be emptied expeditiously following use.

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5.25 **"ENVIRONMENTAL CONSULTANT"** means a geologist certified by the American Institute of Professional Geologists (certified professional geologist), or a geologist registered by any state program (registered professional geologist), or a registered professional engineer, or an environmental professional working under the supervision of a registered professional engineer, or a certified professional geologist or a registered professional geologist, and who works for a firm that is independent of the owner/operator.

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5.26 **"ENVIRONMENTALLY SENSITIVE AREA**" means any area, including but not limited to, those wherein the groundwater is classified as GA or GAA in accordance with Rule 9 Groundwater Classification of the RIDEM *Rules and Regulations for Groundwater Quality* and any other area which includes sensitive receptors.

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5.27 **"EXCAVATION ZONE"** means the underground area containing the tank system and backfill material, bounded by the ground surface, walls, and floor of the pit and trenches into or from which the UST system is installed or removed.

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5.28 **"FACILITY"** means any parcel of real estate or contiguous parcels of real estate owned and/or operated by the same person(s), which together with all land, structures, facility components, improvements, fixtures and other appurtenances located therein form a distinct geographic unit and at which petroleum products or hazardous materials are or have been stored in underground storage tanks.

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5.29 **"FACILITY COMPONENT"** means any underground tanks, associated pipes, pumps, leak monitoring systems, cathodic protection systems, vaults, fixed containers or appurtenant

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structures, used or designed to be used for the storage, transmission, or dispensing of petroleum products and hazardous materials.

5.30 **"FARMER"** means an individual, partnership or corporation who operates a farm and has filed a 1040F U.S. Internal Revenue Form with the Internal Revenue Service, has a State of Rhode Island farm tax number and has earned ten thousand dollars ($10,000) gross income on farm products in each of the preceding four (4) years.

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5.31 **"FARM TANK"** means an underground storage tank located on a tract of land operated by a farmer, provided that the material stored is used on-site.

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5.32 **"FLOW THROUGH PROCESS TANK"** means any tank that is an integral part of a production process through which there is a steady, variable, recurring, or intermittent flow of materials during the operation of the process. Flow-through process tanks do not include tanks used for the storage of materials prior to their introduction into the production process or for the storage of finished products or by-products from a production process.

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5.33 **"FREE PRODUCT"** means any petroleum product or hazardous material that is present as a nonaqueous phase liquid (e.g. liquid not dissolved in water)

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5.34 **"GASOLINE"** means a petroleum distillate, or blends of petroleum distillates, having a Reid vapor pressure of 7 pounds per square inch absolute (48.3 k Pa) or greater and capable of being used as fuel for internal combustion engines.

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5.35 **"GROUNDWATER"** means water found in the saturated zone underground; which completely fills the open spaces between particles of sediment and within rock formations.

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5.36 **"HAZARDOUS MATERIALS"** means any material defined as a "hazardous substance" by section 101(14) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 USC 9605), as amended (see Appendix A). Hazardous materials shall also include any material defined as a "hazardous waste" pursuant to the Rhode Island Hazardous Waste Management Act of 1978, as well as any of the following materials:

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(A) Acetone
(B) Ethanol
(C) Ethylene Oxide
(D) Methanol
(E) Methylene Chloride
(F) Perchloroethylene

5.37 **"HEATING OIL"** means No. 1, No. 2, No. 4, No. 5, or No. 6, technical grades of fuel oil, other residual fuel oil, including bunker C and/or other fuels, except motor fuels or waste oils, when used as substitutes for any of these fuel oils used for the purpose of producing heat (e.g., burned in a furnace).

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5.38 **"HOLDING TANK"** means a UST system used to collect and contain discharges, both intermittent and continuous, of non-sanitary wastewater and other pollutants from floor drains or other piping outlets.

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5.39 **"HYDRAULIC CONDUCTIVITY"** is a measure of the ability of an aquifer to transmit a fluid, which depends on the properties of both the fluid and the medium.

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5.40 **"HYDRAULIC LIFT TANKS"** are those tanks holding hydraulic fluid for a closed-loop mechanical system using compressed air or hydraulic fluid to operate lifts, elevators, and other similar devices.

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5.41 **"LEAK"** means a loss from or gain to a UST system of a 0.05 gallon per hour or more of fluid as determined by a tank tightness test or a line tightness test, or a 0.2 gallon per hour as determined by automatic tank gauging, or loss or gain of fluid to a UST system as determined by visual inspection, an interstitial monitoring system other continuous monitoring system, inventory control, or other appropriate means.

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5.42 **"LINE LEAK DETECTOR"** means a device installed on the discharge side of a remote pump which is capable of interrupting product flow if there is a leak greater than or equal to three (3) gallons per hour at ten pounds per square inch of line pressure.

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5.43 **"LOCAL FIRE CHIEF"** means the person responsible for the administration and direction of a fire department in a fire district or municipality, including a fire administrator or chief, or that person's designee.

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5.44 **"MAINTENANCE"** means the normal operational upkeep of an underground storage tank system necessary to prevent a release of product.

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5.45 **"MODIFICATION"** means any addition, replacement, restoration, refurbishment or renovation to an existing UST system or repair of any UST system component which regularly contains product that is inconsistent with the information provided to the Director in the Registration Application. Such modifications include, but are not limited to:

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(A) Any alterations to the site plan;

(B) Any changes in design and/or specifications to a UST system's corrosion protection equipment;

(C) Any changes in the design and/or specifications to a UST system's leak detection equipment, including groundwater monitoring wells;

(D) The replacement or repair of any product piping;

(E) The installation, repair or replacement of any underground storage tank.

5.46 **"MONITORING WELL"** means a cased well with a screened interval that intercepts the water table and can be used to detect the presence of groundwater contamination.

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5.47 **"MOTOR FUELS"** means any petroleum or a petroleum-based substance, typically used in the operation of combustion (motor) engines, including but not limited to, gasoline, aviation gasoline, No. 1 or No. 2 diesel fuel, or any grade of gasohol.

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5.48 **"NFPA 30"** means the National Fire Protection Association publication number 30 entitled, "Flammable and Combustible Liquids Code," 2000 or current edition.

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5.49 **"NFPA 30(A)"** means the National Fire Protection Association Publication Number 30A entitled "Code for Motor Fuel Dispensing Facilities and Repair Garages," 2000 or current edition.

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5.50 **"NFPA 329"** means the National Fire Protection Association publication number 329 entitled, "Handling Underground Releases of Flammable and Combustible Liquids," 1999 or current edition.

5.51 **"NO. 1 FUEL OIL"** means a distillate oil, commonly referred to as kerosene, range oil, or jet propulsion fuel (JP-1).

5.52 **"NO. 1 1-D FUEL OIL"** -means a distillate oil, commonly referred to as light diesel oil.

5.53 **"NO. 2 FUEL OIL"** means a distillate oil, commonly referred to as home heating oil.

5.54 **"NO. 2 2-D FUEL OIL"** -means a distillate oil, commonly referred to as medium diesel oil.

5.55 **"NO. 4 FUEL OIL"** means a distillate oil blend of No. 2 and No. 6 fuel oil.

5.56 **"NO. 5 FUEL OIL"** means a distillate oil blend of No. 4 and No. 6 fuel oil.

5.57 **"NO. 6 FUEL OIL"** means a distillate oil, commonly referred to as Bunker-C or residual fuel.

5.58 **"NON-COMMUNITY WATER SYSTEM"** means a public water system that is not a community water system.

5.59 **"OBSERVATION WELL"** means a well other than a monitoring well that is typically located in a tank excavation or the collection sump of a secondary containment system.

5.60 **"OIL-WATER SEPARATOR"** means a UST system used typically for storm water runoff applications and intended for the separation of oil-water mixtures containing oils and greases.

5.61 **"ON-SITE"** means located on the same or geographically contiguous property, which may be divided by public or private right-of-way provided the entrance and exit between the properties is at a cross-roads intersection and access is by crossing as opposed to going along the right-of-way. Non-contiguous properties owned by the same person but connected by a right-of-way which he controls and to which the public does not have access, is also considered on-site property.

5.62 **"OPERATE A FACILITY"** means to maintain petroleum product(s) or hazardous material(s) in underground storage tanks at a facility for purposes of storage, use or sale, and to conduct Operation and Maintenance for each tank as required in Rule 8.

5.63 **"OPERATOR"** means any person in control of or having responsibility for the daily operation of a facility.

5.64 **"OVERFILL PROTECTION"** means a device that will restrict or stop the flow of fuel during a delivery or otherwise alert the transfer operator, before the tank reaches full capacity.

5.65 **"OVERFLOW TANK"** means a tank used for temporary storage of substances in response to a leak, spill or other unplanned occurrence. This tank must be emptied expeditiously following use.

5.66 **"OWNER"** means any person who holds exclusive or joint title to or lawful possession of a facility or part of a facility.

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5.67 **"OWNER/OPERATOR"** means any owner and/or operator.

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5.68 **"PERSON"** means an individual, trust, firm, joint stock company, corporation (including quasi-government corporation), partnership, or other unincorporated association, syndicate, governmental entity or subdivision thereof.

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5.69 **"PETROLEUM PRODUCT"** means crude oil or any fractions thereof that is liquid at standard conditions of temperature (60°F) and pressure (14.7 pounds per square inch absolute) and includes substances derived from crude oil including, but not limited to the following:

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(A) Gasoline
(B) Fuel Oils
(C) Diesel Oils
(D) Waste Oils
(E) Gasohol, lubricants and solvents

5.70 **"POLLUTANT"** means any material or effluent which may alter the chemical, physical, biological, or radiological characteristics and/or integrity of water, soil, air or other environmental media including, but not limited to, dredge spoils, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, cellar dirt or industrial, municipal, agricultural, or other waste, petroleum or petroleum products, including but not limited to oil.

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5.71 **"PRODUCT DELIVERER"** means any person who delivers or deposits product into an underground storage tank. This term may include major oil companies, jobbers, petroleum transportation companies, or other product delivery entities**.**

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5.72 **"PUBLIC WATER SYSTEM"** means a system for the provision to the public of water for human consumption through pipes or other constructed conveyances, if such system has at least fifteen service connections or regularly serves at least 25 individuals daily at least 60 days out of the year.

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5.73 "**RED TAG**" means a tag, device, or mechanism, approved by the Director and affixed to a UST system's fill pipe that clearly identifies a UST system as ineligible for product delivery. The tag or device must clearly state " It is unlawful to deliver to, deposit into, or accept product into this UST system". The tag or device must be of tamper resistant material in order that it cannot be removed and reattached without obvious visual evidence.

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5.74 **"RELEASE"** means any spilling, leaking, pumping, pouring, injecting, emitting, escaping, leaching, or disposing of any material stored in an underground storage tank system subject to these regulations into groundwater, surface water, soil, air or any other environmental media.

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5.75 **"REMOTE PUMPING SYSTEM"** (also known as a submerged pumping system) means a system in which one or more pumping units push petroleum product, via a pressurized piping system, to one or more points away from the tank or tanks.

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5.76 **"REMOVE FROM SERVICE"** means to cease to operate a facility component.

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5.77 **"RESIDENTIAL TANK"** means a tank containing No. 2 heating oil serving a one, two or three-family dwelling.

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5.78 **"SATURATED THICKNESS"** means the thickness of an aquifer below the water table.

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5.79 "**SEPTIC TANK**" means a watertight receptacle which receives the discharge of sewage from a building sewer, and is designed and constructed to permit the deposition of settled solids, the digestion of the matter deposited, and the discharge of the liquid portion into a leaching system.

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5.80 **"SPILL"** means a loss of petroleum product or hazardous material in a manner other than a leak, occurring on the property where a facility is in operation, and such that the product or material is likely to enter groundwater, surface water, soil, air or any other environmental media and shall be considered a release from a facility.

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5.81 **"SPILL CONTAINMENT BASIN"** means a device installed in fill pipe manholes that prevents petroleum product or hazardous material spills from leaching into the soil and groundwater.

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5.82 **"STRATIFIED DRIFT"** means the predominantly sorted sediments deposited in layers by meltwater from a glacier.

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5.83 **"SUBMERGED FILL TUBE**" or "**DROP TUBE**" means any fill pipe or tube which fits directly into the underground tank riser pipe and allows submerged filling. This pipe or tube should be located six (6) inches above the bottom of the tank and cut at a 45º angle.

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5.84 **"SUBSTANTIAL CONSTRUCTION"** means that a continuous on-site physical construction program has progressed to a point where 25% or more of the total project is completed or where 25% or more of the total cost of the project has been expended for materials which are at the site.

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5.85 **"SUCTION PUMPING SYSTEM"** means a system in which a pump at a dispensing island reduces pressure in the product line to the underground storage tank to less than atmospheric pressure, causing product from the tank to be pulled to the island via the product suction line.

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5.86 **"SURFACE WATER"** means a body of water whose top surface is exposed to the atmosphere and includes all waters of the territorial sea, tidewaters, all inland waters of any river, stream, brook, pond, lake or wetlands.

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5.87 **"TANK"** means a stationary device designed to contain petroleum products or other regulated substances and which is constructed of non-earthen materials that provide structural support and which is an underground storage tank.

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5.88 **"TIGHTNESS TEST"** means a test able to determine whether or not an underground storage tank, line or system is leaking as defined by NFPA 329, "Handling Releases of Flammable and Combustible Liquids and Gases". The test shall be capable of accurately detecting a tank or a tank and line leak of 0.1 gallons per hour, adjusted for all variables, with a probability of detection of no less than 95 percent and a probability of false detection of no more than 5 percent. Measurements recorded for each test shall be in accordance with manufacturer's protocol. The test method must be approved by the Director prior to use, and must be conducted by persons who have demonstrated the capability to properly conduct the test in accordance with Rule 14, Approval of Tank and/or Line Tightness Tests.

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5.89 **"TILL"** means the predominantly unsorted, unstratified sediments deposited directly by a glacier.

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5.90 **"TRANSMISSIVITY"** is a measure of the ability of an aquifer to transmit a fluid. It is equal to the average hydraulic conductivity multiplied by the saturated thickness.

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5.91 **"UNDERGROUND"** means 10 percent or more of the volume of the facility components (storage tanks and piping) is buried in the ground.

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5.92 **"UST"** or **"UNDERGROUND STORAGE TANK (UST) SYSTEM"** means any one or more underground tanks, whose volume is 10 percent or more beneath the surface of the ground, and their associated components, including piping, used to contain an accumulation of petroleum product or hazardous material. The system shall include piping whose volume is 10 percent or more beneath the surface of the ground.

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5.93 **"VAULT"** means a structure such as a basement or cellar which: houses an underground storage tank; is designed to contain any leaks from the tank and provide protection from corrosive soils; is not part of a secondary enclosure; and is designed such that the tank is situated upon or above the surface of a concrete floor and allows for physical access to an inspection of the storage tank and inside the vault.

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5.94 **"VENT WHISTLE"** means a device installed in the vent pipe of a UST designed to whistle when the tank is being filled but goes silent when the tank is full.

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5.95 **"WASTE OIL"** means used or spent oil of any kind, including but not limited to those oils from automotive, industrial, aviation and other sources.

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5.96 "**WEAR PLATE**" means a thick deflection plate or striker plate measuring at least 9 inches wide and at least one foot square in an area which is located on the bottom of the UST, under each tank opening.

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5.97 **"WELLHEAD PROTECTION AREA"** means the three-dimensional zone, surrounding a public well or wellfield through which water will move toward and reach such well or wellfield, as designated by the Director pursuant to 46-13.1.

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6.00 RULE 6 FACILITY REGISTRATION AND NOTIFICATION

6.01 Applicability: All owners/operators of USTs shall comply with the registration requirements of this Rule unless otherwise exempted in Rule 3.03.

6.02 Prohibition of Use of Unregistered USTs: No person subject to this rule shall operate an underground storage tank facility unless the tank(s) is/are registered with the Department.

6.03 Registration Deadlines: The owner/operator of an UST facility shall apply for and obtain a certificate of registration from the Director in accordance with the following schedule:

(A) New and Replacement Facilities: The owner/operator shall apply for a certificate of registration before commencing construction.

(B) Existing facilities: The owner/operator shall have applied for and obtained a certificate of registration in accordance with the following deadlines:

Type of Tank | Registration Deadline

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Tanks of any size storing No. 4, No. 5 or No. 6 fuel oils	January 31, 1993
Tanks with less than or equal to a capacity of 1,100 gallons storing motor fuels at residential properties	January 31, 1993
Farm tanks with less than or equal to a capacity of 1,100 gallons storing motors fuels	January 31, 1993
Tanks serving floor drains	July 1, 1994
All other tanks subject to these regulations of any size storing petroleum products or hazardous materials	April 9, 1985

(C) USTs No Longer in Service: Any UST that has been removed from service for more than 180 days without the permission of the Director is considered abandoned and shall be subject to the closure requirements contained in Rule 13 Closure.

6.04 Application for Registration: To apply for a certificate of registration, the facility owner/operator shall complete, certify and submit to DEM the application forms available from the Department, along with the applicable registration fees. Information to be included on the form shall include, but not be limited to, the following

(A) For New UST Systems and Proposed Replacement Tank Systems:

(1) A set of detailed installation plans and specifications for the tank system. All plans for new UST systems shall be stamped by a registered professional engineer. The Director reserves the authority to require that plans for replacement UST installations be stamped by a registered professional engineer at locations where the site conditions and/or installation are determined to be complex or pose engineering difficulties.

(2) A written description, including technical specifications, of the following:

(a) Proposed tank size, construction material, construction type and material to be stored;
(b) All proposed leak monitoring systems;
(c) Proposed spill/overfill protection methods;
(d) Proposed corrosion protection methods; and
(e) Operation and maintenance requirements for any of the above.

(3) A site plan including all of the information listed below:

(a) Proposed locations of all tanks, piping, and dispensing pumps;
(b) Proposed locations of on-site monitoring or observation wells; where applicable.
(c) Watertable elevation, where available;

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(d) Location of all public water supply wells or reservoirs within 400 feet of the facility site;
(e) Location of all facilities served by private wells within 200 feet of the facility site;
(f) Location of all proposed and existing building and associated structures;
(g) Boundaries of the facility site; and
(h) North Arrow.

(B) For Existing UST Systems :

(1) The results of all tightness tests and leak detection tests pertaining to all tanks and associated piping.

(2) Written description of the following:

(a) Installation date
(b) Tank size, construction material, construction type and material stored;
(c) All existing or proposed leak monitoring systems;
(d) Spill/overfill protection methods;
(e) Corrosion protection methods; and
(f) Operation and maintenance requirements for any of the above.

(3) A site plan including all of the information listed below:

(a) Location of all tanks, piping, and dispensing pumps;
(b) Location of existing or proposed on-site monitoring or observation wells; where applicable.
(c) Description of water service to the facility and properties within 200 feet of the facility site;
(d) Location of buildings and associated structures on-site;
(e) Boundaries of the facility site; and
(f) North Arrow

(4) Description of all repairs performed on the tank system.

(5) A description of all past spills and leaks associated with the tank system known to have occurred at the site in or after October, 1984.

6.05 Unknown Tank Size: Any tank of unknown size shall be assumed to be of regulated capacity unless it is determined to the satisfaction of the Director by records or measurements that the tank is not of regulated capacity.

6.06 Unknown Tank Age: Any tank of unknown age shall be assumed to be greater than twenty years of age for the purpose of these rules.

6.07 Issuance of Registration Certificates:

(A) For Existing UST Systems: The Director shall issue a certificate of registration to the owner/operator of an existing tank or existing tank facility upon review and approval of an application and receipt of fees pursuant to this Rule.

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(B) For New and Replacement UST Systems: The Director shall issue a certificate of registration to the owner/operator of a tank facility at which new or replacement tanks have been installed in accordance with an approved application, and upon receipt and approval of the following:

(1) Complete registration application form;

(2) Applicable fee payment;

(3) Installation plans; stamped by a professional engineer for new facilities;

(4) A completed installation certification form, as specified in Appendix D, signed by the installer and owner;

(5) A completed manufacturer's installation checklist, signed by the contractor; and

(6) Tightness test results for the tank(s) and piping, which indicates that the tank system, as installed, is not leaking.

(C) Receipt of a registration certificate DOES NOT necessarily indicate compliance with all applicable rules of these regulations.

6.08 Renewal of Registration Certificates: All facility owners/operators, except those listed as exempt in Rule 6.09 below, shall renew their certificate(s) of registration annually as follows:

(A) During the first quarter of each fiscal year (July 1 to September 30), the Department shall send renewal notices and invoices for the payment of registration fees to each owner/operator of registered underground storage tanks. Each owner/operator shall return the invoice with payment of fees set forth in this section no later than forty-five (45) days from the date of said notices and invoices.

(B) Certificates of registration shall be valid for one year expiring on September 30th annually,: or through 45 days after the date of invoice for the subsequent fiscal year.

6.09 Exempted Tanks: The following owners/operators of underground storage tank facilities, while required to meet the obligations of these regulations, are exempt from annual registration fees:

(A) Federal, state and local governments and any agency or department of those governments;

(B) Nonprofit fire districts;

(C) Owners/occupiers of one, two, or three family dwellings that utilize tanks, of a capacity of greater than 1,100 gallons storing heating oil that is consumed solely onsite for heating purposes;

(D) Owners/operators of farm tanks of greater than a capacity of 1,100 gallons storing fuel for heating purposes;

(E) Owners/operators of underground storage tanks that have been closed in accordance with these regulations.

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(F) Receipt of a registration certificate DOES NOT necessarily indicate compliance with all applicable sections of these regulations.

6.10 Registration Fees: All facility owners/operators shall pay to the Department an annual registration fee of seventy five dollars ($75.00) for each underground storage tank required to be registered at the facility.

6.11 Multi-compartment Tanks: The registration fee for USTs with multi-compartments will be based upon the number of compartments. (If a tank has two compartments it is considered two tanks for registration and fee purposes.)

6.12 Payment of Fees:

(A) All persons who register or renew registration of underground storage tank facilities shall submit registration fees in the form of a check made payable to: "Treasurer, State of Rhode Island," which will be placed in a restricted receipt account to be used for the UST Program.

(B) All payments must be for the full amount of the registration fee, including late fees where applicable.

(C) The Director shall deposit all monies collected pursuant to this rule into the Water and Air Protection Program as established in General Laws section 42-17.1-2(z).

6.13 Late Fees: Owners/operators who fail to pay a registration fee within the specified time frame shall be subject to a late fee charge of $35.00 per tank per year.

6.14 Acceptance of Fees: The Director's acceptance of registration fees does not indicate that the tanks are in compliance with all UST regulations.

6.15 Penalties:

(A) Failure to obtain a certificate of registration in accordance with these regulations shall constitute a violation of these regulations and may subject the owner/operator to penalties.

(B) Where an owner/operator of a Facility who fails to obtain a certificate of registration from the Department, the Director may order the owner/operator to immediately implement temporary or permanent closure procedures in accordance with Rule 13 Closure, of these regulations.

6.16 Modifications of Certificates of Registration:

(A) Changes in Ownership: Changes in ownership of a tank or tank facility are subject to Rule 16, Transfer of Certificates of Registration or Closure.

(B) Change in Registration Information: Excepting a change in ownership, which is subject to Rule 16 Transfer of Certificates of Registration or Closure, owners/operators of a UST facility shall:

(1) Report any change in information contained on the original registration form (including a change in the product stored) to the DEM in writing within (10) ten days of that change.

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(2) Maintain a continuous and accurate record of the name, address and length of time during which particular persons operated a facility. The record shall be maintained by the owner/operator until such time as the facility is closed in accordance with Rule 13 Closure, of these regulations. Upon request, the written record of operators shall be made available by the owner to the Department.

6.17 Revocation of Registration: The Director may, after (10) ten days written notice to the person or persons affected, and after a hearing, if requested by the affected person or persons, suspend, modify or revoke a certificate of registration for cause including, but not limited to:

(A) The information submitted by the application was incomplete, false or misleading;

(B) Circumstances on which the certificate was based have materially and substantially changed since the certificate was issued;

(C) Failure to pay registration fees;

(D) Noncompliance with these Regulations;

(E) Failure to comply with an order of the Director; or

(F) Failure to provide information to the Director that is required to be maintained under these regulations after receipt of written request from the Director.

6.18 Closure of Facilities with Revoked Registrations: Upon the denial or revocation of the certificate of registration by the Director, the owner/operator shall immediately implement facility closure procedures in accordance with Rule 13 of these regulations.

7.00 RULE 7 FINANCIAL RESPONSIBILITY

7.01 Applicability: This Rule shall apply to all owners/operators of petroleum underground storage tank systems required to register under these regulations with the following exceptions:

(A) USTs used solely for the storage of heating or fuel oils consumed on the facility premises;

(B) Farm or residential USTs with capacity of 1,100 gallons or less and used solely for the storage of motor fuel which is not for resale;

(C) Airport hydrant fueling systems; and

(D) UST facilities owned by the state, federal or municipal government which, consistent with EPA requirements, have been deemed to be inherently capable of meeting financial responsibility requirements.

7.02 Compliance Dates: Owners of petroleum underground storage tanks are required to comply with the requirements of this Rule in a manner consistent with 40 CFR 280, as amended, by the following dates:

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(A) By January 24, 1989: All petroleum marketing firms owning 1,000 or more USTs and all other UST owners that report a tangible net worth of $20 million or more to the U.S. Securities and Exchange Commission (SEC), Dun and Bradstreet, the Energy Information Administration, or the Rural Electrification Administration;

(B) By October 26, 1989: All petroleum marketing firms owning 100-999 USTs;

(C) By April 26, 1991: All petroleum marketing firms owning 13-99 USTs at more than one facility;

(D) By December 31, 1993: All other petroleum UST owners, including municipal governments, not described in paragraphs (A), (B), or (C) of this section.

7.03 Demonstration of Financial Responsibility:

(A) Unless otherwise exempted from these rules, the owner of any UST system shall demonstrate financial responsibility for taking corrective action and for compensating third parties for bodily injury and property damage caused by accidental releases from an underground storage tank system in a manner and in amounts consistent with 40 CFR part 280, as amended.

(B) The amount of financial assurance required in part 7.03 (A) shall exclude legal defense costs.

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

7.04 Rhode Island UST Financial Responsibility Fund: An owner/operator may satisfy the Financial Responsibility requirement by being eligible for the Rhode Island UST Financial Responsibility Fund, established by the "Rhode Island Underground Storage Tank Financial Responsibility Act", RIGL Chapter 46-12.9.

8.00 RULE 8 MINIMUM UST OPERATION AND MAINTENANCE REQUIREMENTS

8.01 Applicability: This section shall apply to all existing UST systems, with the exception that those systems storing heating oil of any grade that is consumed on-site solely for heating purposes are exempt from Rules 8.03, 8.04, 8.05, 8.06, 8.07, 8.08, 8.09, 8.10, 8.11, 8.12, 8.15, 8.17, 8.21 and 8.22.

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8.02 General Operations and Maintenance:

(A) All USTs shall be maintained and operated by trained personnel and in compliance with the applicable national codes of practice for the handling and storage of petroleum or hazardous materials as listed in Appendix B.

(B) Facilities subject to leak detection requirements shall post or provide in a location available to the operators of UST systems, written instructions pertaining to the operation of leak detection equipment, as well as spill response procedures.

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(C) Facilities subject to inventory record-keeping requirements shall comply with Rule 11.03 Inventory Record-keeping and Leak Reporting.

(D) All gasoline dispensing facilities (including retail, commercial, and municipal stations) subject to Stage I and Stage II vapor controls shall comply with the RI DEM Office of Air Resources Air Pollution Regulation No. 11: Petroleum Liquids Marketing and Storage.

(E) Compatibility: All new or replacement tank and/or piping systems shall be made of, or lined with, materials that are compatible with the substance(s) stored. The owner/operator shall not introduce, or allow to be introduced, any material into a UST system that is incompatible with the UST system. The use of ethanol motor fuel which exceeds 10% ethanol in gasoline is prohibited without prior written notification by the owner/operator to the Department along with submission of documentation that the entire UST system is compatible.

(F) Correct Filling Practices: All UST facilities shall establish procedures for determining the available storage capacity of each of its tanks and shall comply with those procedures and communicate the available capacity to delivery personnel before allowing any product to be delivered to the facility's tank(s). Facilities shall also establish procedures to monitor deliveries in order to prevent tank overfills and product spills.

8.03 Facility Compliance - Environmental Results Program: The Environmental Results Program (ERP) is a mandatory facility compliance inspection program. Owners/Operators shall ensure that their facilities comply with these regulations by conducting their own inspections and certifying their compliance by completing and submitting a *Compliance Certification Checklist & Forms Booklet* (the "ERP Certification Booklet") .

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(A) At least every three (3) years, the Department will issue an ERP Certification Booklet to all operating UST facilities. The ERP Certification Booklet will include the following:

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(1) Non-Applicability Statement
(2) Compliance Certification Checklist
(3) Certification Statement
(4) Return to Compliance Form

(B) Along with the ERP Certification Booklet, the Department will also issue an *ERP Compliance Certification Workbook* (the "ERP Workbook"). The ERP Workbook will provide guidance to owners/operators regarding the performance of their ERP inspection and instructions for completing and submitting the ERP Certification Booklet.

(C) Owners/operators shall return the completed ERP Certification Booklet to the Department within the time frame specified by the Director.

(D) Neither the ERP Certification Booklet nor the ERP Workbook shall be construed to be a substitute for, or to waive, replace or supersede the requirements of these regulations. In the event of any conflict between these regulations and the ERP Certification Booklet or the ERP Workbook, these regulations shall prevail.

(E) Neither the ERP Certification Booklet nor the ERP Workbook shall be construed to be an exhaustive compliance review. The Department reserves the right to target specific

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compliance issues through the ERP certification process without waiving any of the other requirements of these regulations.

(F) Compliance with the ERP requirements contained in this Rule shall not limit the Director's right to inspect any UST facility and its records at any reasonable time, with or without notice.

(G) Nothing in this Rule shall be construed to prohibit the Director from issuing ERP Certification Booklets more often than every three years. The Director may also issue ERP Certification Booklets to all UST facilities, individual UST facilities or targeted groups of UST facilities.

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8.04 Mandatory Deadline for Permanent Closure of Single-Walled UST Systems (Tanks and/or Piping): Except as provided in Rule 8.01, all existing tank and piping systems without secondary containment shall be permanently closed as follows:

(A) Single-walled tanks and/or piping installed prior to May 8, 1985 shall be permanently closed by December 22, 2017.

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(B) Single-walled tanks and/or piping installed between May 8, 1985 and July 20, 1992 shall be permanently closed within thirty-two (32) years of the date of installation.

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8.05 Mandatory Corrosion Protection Requirements for Tank Systems: Except as provided in Rule 8.01 above, the owners/operators of existing UST facilities shall have provided for corrosion protection of all unprotected steel tanks and metallic piping no later than December 22, 1998. Facilities shall have provided for corrosion protection by either:

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(A) Closing all tank systems which did not meet corrosion protection standards, and installing new or replacement tanks and piping which comply with Rule 9 New and Replacement Tank System Requirements.

(B) Upgrading existing tanks and piping to provide for corrosion protection through:

(1) Interior lining (see Rule 8.06); and/or

(2) Cathodic protection (see Rule 8.07).

8.06 Interior Lining: Interior lining is no longer accepted as a method of corrosion protection. However, USTs lined prior to the effective date of these regulations are required to be inspected as follows:

(A) Within 10 years after lining, and every 5 years thereafter, the lined tank shall be internally inspected in accordance with NLPA Standard 631, 1994 and found to be structurally sound with the lining still performing in accordance with original design specifications. Follow-up internal inspections of lined tanks are not required when the tank has external cathodic protection meeting the requirements of Rule 8.07.

(B) Records of all tank lining inspections are required to be permanently kept in accordance with Rule 11.02 (A) Permanent Records.

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8.07 Cathodic Protection:

(A) All cathodic protection systems must be operated and maintained to continuously provide corrosion protection to the metal components of that portion of the tank system that routinely contains regulated substances and is in contact with the ground.

(B) All UST systems equipped with cathodic protection must be inspected and tested for proper operation by a qualified cathodic protection tester in accordance with the following requirements:

(1) All impressed current cathodic protection systems must be surveyed within 6 months of installation or repair, at least every 2 years following the installation date, and whenever construction or maintenance in the area of the structure occurs. The operational survey should include the following:

(a) Measurement of anode-to-structure resistance and structure-to-electrolyte resistance;
(b) Measurement of structure-to-reference electrode potentials at all test stations (perform testing to verify structure polarization in accordance with NACE RP-0169-2002 or RP0285-2002);
(c) Verification of the accuracy of the display module readings;
(d) Adjustment of rectifier as required;
(e) Submission of written report of findings, to be kept in accordance with the permanent record keeping requirements cited in Rule 11.02(A).

(2) All sacrificial anode (galvanic or *sti*-P_3) systems must be tested within 6 months of installation or repair, at least every 3 years following the installation date, and whenever construction or maintenance in the area of the structure occurs, in order to determine that the tank-to-soil potential reading relative to copper is –850 millivolts or more negative.

(3) The criteria used to determine whether a cathodic protection system provides adequate cathodic protection must be in accordance with a nationally recognized code of practice listed in Appendix B.

(4) Failed tests or surveys must be reported to the Department by the tester within 24 hours, and the results are to be submitted within 15 days.

(C) USTs with impressed current cathodic protection systems must also be inspected every 60 days by the owner/operator or designee to ensure the equipment is running properly. The following tasks must be performed:

(1) Read and record the rectifier DC current output;

(2) Read and record the rectifier DC voltage output;

(3) Inspect the rectifier for physical damage.

(D) For UST systems using cathodic protection, records of the operation, repair and testing of the cathodic protection system must be permanently kept in accordance with Rule 11.02 (A) Permanent Records.

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(E) Cathodic protection systems shall not be shut off or deactivated at any time except for repair. Any malfunction must be reported to the Department within 24 hours and be repaired within 30 days of the first occurrence. If the device cannot be repaired within 30 days, then the affected UST system(s) shall be temporarily closed in accordance with Rule 13.03 of these Regulations until satisfactory repairs are made. Malfunctioned systems not repaired within 180 days require the UST to be permanently closed in accordance with Rule 13.05. Any deactivation or failure of a corrosion protection system shall be reported within 24 hours to the Department by the owner/operator or designee.

(F) Repairs, or replacements of existing UST cathodic system components, including the addition of supplemental anodes, require prior approval from the Department and shall be performed in accordance with NACE RP0285-2002 and/or STI R972, January 2006. A report detailing the type and extent of work shall be submitted to the Director within thirty (30) days of work completion.

8.08 Leak Detection for Existing Tanks: Except as provided in Rule 8.01 above, owners/operators of all existing facilities shall comply with the applicable leak detection requirements:

(A) Double-Walled USTs: The following requirements apply to all double-walled USTs except those used for emergency generators and waste oil/motor oil. See Rules 8.08 (D) and 8.08 (E) for requirements for emergency generators and waste oil/motor oil USTs.

(1) Install and operate a continuous interstitial space electronic monitoring system consistent with the requirements in Rules 9.15 and 9.17, and

(2) Perform daily and monthly inventory control and record keeping consistent with Rule 11.03, and maintain inventory records in accordance with Rule 11.02(B).

~~(3) Perform a test for tightness on the interstitial space between the tank's walls when the tank has been installed for a period of twenty years, and once every 2 years thereafter. Tightness tests on the interstitial space shall be consistent with the tank manufacturer's protocol or an alternative recognized method and shall be performed by persons and businesses licensed in accordance with Rules 14.04 and 14.05. Double-walled UST's with a brine solution or other inert liquid in the interstitial space are not required to have this test performed and instead shall be continuously monitored for a change in fluid level in the reservoir and interstice.~~

3) Perform a test for tightness on the interstitial space between the tank's walls as follows:

(a) A test for tightness on the interstitial space shall be performed when the tank has been installed for a period of twenty years, and once every 2 years thereafter.
(b) Interstitial space testing shall be consistent with the tank manufacturer's protocol or an alternative recognized method.
(c) Such testing shall be performed by persons and businesses licensed in accordance with Rules 14.04 and 14.05.
(d)Testing results shall be submitted to the Director within fifteen (15) calendar days of the test date and shall include the start and end vacuum readings, test duration, and water table (as referenced from the tank bottom).
(e) All suspected or confirmed leaks/releases and failed or inconclusive tests shall be immediately reported and promptly investigated in accordance with Rule 12 Leak and Spill Response.

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(f) A Release Characterization Report shall be submitted by the owner/operator within seven (7) days for test results which are fail or inconclusive.

(g) The owner/operator must have the contents of a UST system for which test results are fail or inconclusive completely removed within 24 hours, or a retest of the UST system must be arranged by the owner/operator and the retest conducted within 3 days.

(h) If the results of a UST system retest fail or are inconclusive, then the owner/operator must have the contents of the UST system completely removed within 24 hours of the retest.

(i) Test results are to be maintained as permanent records in accordance with Rule 11.02(A).

(j) Double-walled USTs with a brine solution or other inert liquid in the interstitial space are not required to have this test performed and instead shall be continuously monitored for a change in fluid level in the reservoir and interstice.

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(B) Single-Walled USTs: Leak detection requirements as follows:

(1) Install and operate an approved automatic tank gauging system that tests for loss or gain of the contents stored, and is consistent with the requirements in Rule 8.15. Single-walled USTs installed prior to October 1984 were required to have automatic tank gauging by December 22, 1998. Single-walled USTs installed between October 1984 and July 1992 were required to have automatic tank gauging upon tank installation. The installation of new single-walled USTs has been prohibited since July 1992.

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(2) Perform a leak test capable of detecting a leak rate of 0.2 gallons per hour or less at least once per month. For manifolded USTs a leak test is required for each tank separately (or a continuous statistical leak detection system certified for manifolded tank applications and meeting U.S. E.P.A. performance standards can be used). All leak test results shall be maintained in accordance with Rule 11.02(B).

(3) Perform daily and monthly inventory record keeping consistent with Rule 11.03. Inventory records are required to be maintained in accordance with Rule 11.02(B), Routine Record-keeping.

(4) Perform a tank tightness test at five-year intervals once a monitoring device has been installed, until such time as the tank has been installed for a period of twenty years; thereafter, tank tightness tests shall be conducted once every two years. Single-walled tanks that have been installed for a period of thirty (30) years shall have a tightness test performed annually beginning in 2015, and all single-walled tanks shall be permanently closed in accordance with the schedule outlined in Rule 8.04. Tank tightness tests shall be consistent with Rule 8.10.

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(C) Single-Walled USTs Upgraded with Interior Lining and/or Cathodic Protection: Leak detection requirements as follows:

(1) Install and operate an approved automatic tank gauging system that tests for loss or gain of the substance stored and is consistent with the requirements in Rule 8.15.

(2) Perform a leak test capable of detecting a leak rate of 0.2 gallons per hour or less at least once per month. For manifolded USTs a leak test is required for each tank separately (or

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a continuous statistical leak detection system certified for manifolded tank applications and meeting U.S. E.P.A. performance standards can be used). All leak test results shall be maintained in accordance with Rule 11.02(B).

(3) Perform daily and monthly inventory record-keeping consistent with Rule 11.03. Inventory records are required to be maintained in accordance with Rule 11.02(B), Routine Record-keeping.

(4) Perform a tank tightness test at five year intervals once a monitoring device has been installed, until such time as the tank has been installed for a period of twenty years; thereafter, tank tightness tests shall be conducted once every two years. Single-walled tanks that have been installed for a period of thirty (30) years shall have a tightness test performed annually beginning in 2015, and all single-walled tanks shall be permanently closed in accordance with the schedule outlined in Rule 8.04. Tank tightness tests shall be consistent with Rule 8.10.

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(5) For USTs upgraded with interior lining and/or cathodic protection in accordance with Rule 8.06 and/or Rule 8.07, annual tightness testing is required in conjunction with inventory record keeping and shall be a permissible leak detection method for a period no longer than ten (10) years after the date of the upgrade. After ten years, a leak detection method that provides for continuous monitoring must be installed consistent with Rules 8.08(C)(1) and (2) and Rule 8.15.

(D) Emergency Diesel Generator USTs: USTs serving an emergency diesel generator, and USTs whose stored substance serves both an emergency diesel generator and an on-site boiler, shall comply with leak detection requirements as follows:

(1) Double-walled USTs shall be equipped with a continuous interstitial space electronic monitoring system consistent with the requirements in Rules 9.15 and 9.17. A test for tightness on the interstitial space between the tank's walls shall be performed when the tank has been installed for a period of twenty years, and every two (2) years thereafter, in accordance with Rule 8.08 (A)(3).

(2) Single-walled UST leak detection requirements are as follows:

(a) Install and operate an approved automatic tank gauging system that tests for loss or gain of the contents stored and is consistent with the requirements in Rule 8.15. Single-walled USTs installed prior to October 1984 are required to have been equipped with automatic tank gauging by December 22, 1998. Single-walled USTs installed between October 1984 and July 1992 are required to have been equipped with automatic tank gauging upon tank installation. The installation of single-walled USTs after July 1992 is prohibited.

(b) Perform a leak test capable of detecting a leak rate of 0.2 gallons per hour or less at least once per month. For manifolded USTs a leak test is required for each tank separately (or a continuous statistical leak detection system certified for manifold tank applications and meeting U.S. E.P.A. performance standards can be used). All leak test results shall be maintained in accordance with Rule 11.02(B), Routine Record-keeping.

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(c)Perform a tank tightness test at five year intervals once a monitoring device has been installed, until such time as the tank has been installed for a period of twenty years; thereafter, tank tightness tests shall be conducted once every two years. Single-walled tanks that have been installed for a period of thirty (30) years shall have a tightness test performed annually beginning in 2015, and all single-walled tanks shall be permanently closed in accordance with the schedule outlined in Rule 8.04. Tank tightness tests shall be consistent with Rule 8.10.

(3) Diesel generator USTs used for the production of commercial electricity are regulated in accordance with Rules 8.08(A) and (B).

(E) Waste Oil USTs and Motor Oil USTs**:** UST's used to store waste oil or motor oil shall comply with leak detection requirements as follows;

(1) Double-walled USTs shall be equipped with a continuous interstitial space electronic monitoring system, consistent with the requirements in Rules 9.15 and 9.17. A test for tightness on the interstitial space between the tank's walls shall be performed when the tank has been installed for a period of twenty years and every two (2) years thereafter, in accordance with Rule 8.08 (A)(3).

(2) Single-walled USTs with a capacity of less than or equal to 2000 gallons shall comply with either (a) or (b) below:

(a) ATG and Tank Tightness Testing:

1. Install and operate an approved automatic tank gauging system that tests for loss or gain of the contents stored and is consistent with the requirements in Rule 8.15.
2. Perform a leak test capable of detecting a leak rate of 0.2 gallons per hour or less at least once per month. For manifolded USTs a leak test is required for each tank separately (or a continuous statistical leak detection system certified for manifold tank applications and meeting U.S. E.P.A. performance standards can be used). Leak test results shall be maintained in accordance with Rule 11.02(B).
3. Perform a tank tightness test at five year intervals once a monitoring device has been installed, until such time as the tank has been installed for a period of twenty years; thereafter, tank tightness tests shall be conducted once every two years. . Single-walled tanks that have been installed for a period of thirty (30) years shall have a tightness test performed annually beginning in 2015, and all single-walled tanks shall be permanently closed in accordance with the schedule outlined in Rule 8.04. Tank tightness tests shall be consistent with Rule 8.10.

(b) Manual Tank Gauging and Tank Tightness Testing

1. Perform an annual tank tightness test consistent with Rule 8.10.
2. Perform inventory record keeping and leak reporting as follows:
   a. Once a week take the tank out of service for a period of 36 hours
   b. Take liquid level measurements before and after the 36-hour shut down period.

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c. Once a month reconcile your 4 weeks of data in accordance with Appendix D.

(3) Single-walled USTs with a capacity greater than 2000 gallons shall comply with the following requirements:

(a) Install and operate an approved automatic tank gauging system that tests for loss or gain of the contents stored and is consistent with the requirements in Rule 8.15.

(b) Perform a leak test capable of detecting a leak rate of 0.2 gallons per hour or less at least once per month. For manifolded USTs a leak test is required for each tank separately (or a continuous statistical leak detection system certified for manifold tank applications and meeting U.S. E.P.A. performance standards can be used). Leak test results shall be maintained in accordance with Rule 11.02(B).

(c) (c)Perform a tank tightness test at five year intervals once a monitoring device has been installed, until such time as the tank has been installed for a period of twenty years; thereafter, tank tightness tests shall be conducted once every two years. Tank tightness tests shall be consistent with Rule 8.10

(F) Heating Oil USTs Used for Off-Site Consumption: UST systems storing heating oil of any grade that is consumed off-site shall comply with the leak detection requirements outlined in Rules 8.08(A), (B), and (C).

8.09 Leak Detection for Piping: Except as provided in Rule 8.01 above, all existing piping associated with UST facilities shall comply with one or more of the following requirements. Piping that is contained inside a trench or trough (e.g. "Fiber-Trench") shall be considered single walled.

(A) Double Walled Piping:

(1) Requires interstitial or annular space monitoring consistent with Rules 9.16 and 9.17.

~~(2) Requires a test preformed on the secondary containment pipe when the piping system has been installed for a period of twenty years, and once every 2 years thereafter. Tightness tests on the interstitial space shall be consistent with the tank piping manufacturer's protocol or an alternative recognized method and shall be performed by persons and businesses licensed in accordance with Rules 14.04 and 14.05.~~

(2) Requires a test performed on the secondary containment pipe as follows:

(a) A test for tightness on the interstitial space shall be performed when the piping system has been installed for a period of twenty years, and once every 2 years thereafter.
(b) Interstitial space testing shall be consistent with the piping manufacturer's protocol or an alternative recognized method.
(c) Such testing shall be performed by persons and businesses licensed in accordance with Rules 14.04 and 14.05.

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(d)Testing results shall be submitted to the Director within fifteen (15) calendar days of the test date and shall include the start and end pressure readings and test duration.

(e) All suspected or confirmed leaks/releases and failed or inconclusive tests shall be immediately reported and promptly investigated in accordance with Rule 12 Leak and Spill Response.

(f) A Release Characterization Report shall be submitted by the owner/operator within seven (7) days for test results which are fail or inconclusive.

(g) The owner/operator must have the carrier or primary pipe tightness tested in accordance with Rule 8.10 within 3 days of a failed or inconclusiveness interstitial space test. If the primary pipe tests as fail or inconclusive, then the line shall be taken out of service immediately. If the primary pipe tests as pass, then the secondary containment pipe shall be repaired within 30 calendar days.

(h) A repaired secondary containment pipe shall be retested prior to placing the piping system back into regular operation. If the repaired secondary pipe tests as fail or inconclusive, then the owner/operator shall have the line taken out of service immediately.

(i) Test results are to be maintained as permanent records in accordance with Rule 11.02(A).

(j) In accordance with Rule 10.04(C) of the regulations, a qualified environmental consultant is required to be on-site during all excavation activities.

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(B) Single Walled Piping: Must comply with the following:

(1) All tank systems equipped with pressurized piping shall have performed a line tightness test upon installation and annually thereafter.

(2) With the exception of "European" or "safe suction" systems (no valve at the tank) all tank systems equipped with suction piping shall have a line tightness test performed upon installation, 5, 8, 11 and 13 years following installation, and annually thereafter. All single-walled piping shall be permanently closed in accordance with the schedule outlined in Rule 8.04.

(3) "European" or "safe suction" piping systems which have the check valve located at the base of the dispensing unit or pump and have no valve at the tank shall have a line tightness test performed upon installation, 5, 8, 11 and 13 years following installation, and once every two years thereafter. When the piping system has been installed for a period of thirty (30) years, a line tightness test shall be performed annually beginning in 2015. All single-walled piping shall be permanently closed in accordance with the schedule outlined in Rule 8.04.

(4) Line tightness tests shall be consistent with Rule 8.10.

(5) Electronic line leak detectors that are third-party certified to meet U.S. E.P.A. performance standards can be used to satisfy Rule 8.09(B)(1). Such equipment shall perform an annual 0.1 gallon per hour pressure leak test. Test results are to be maintained as permanent records in accordance with Rule 11.02(A). All failed or inconclusive tests shall be immediately reported in accordance with Rule 12 Leak and Spill Response. Electronic line leak detectors shall also be tested annually for proper operation in accordance with Rule 8.11.

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(C) Alternative leak detection methods for piping that are equivalent in accuracy and reliability to the methods listed may be approved by the Director pursuant to Rule 18 Variances.

8.10 Tank and Line Tightness Testing Requirements: Tank and line tightness testing shall be consistent with the following:

(A) Tightness test results must be capable of detecting a 0.1 gallon per hour leak rate from the entire tank system, accounting for the effects of thermal expansion or contraction of product, vapor pockets, tank deformation, evaporation, condensation, and the location of the water table. The probability of detection shall be no less than 95 percent and the probability of a false alarm shall be no more than 5 percent.

(B) Each tightness test result submitted to DEM shall include at minimum the following information:

(1) Date the test was performed;

(2) Facility name and address;

(3) Facility owner name and address;

(4) Identification of the USTs tested, including volume and stored material;

(5) Brand name and type of tightness test equipment used for the test;

(6) Identification of the UST system components tested (e.g., tank and lines; tank only);

(7) Product piping type (e.g., pressurized or suction);

(8) Identification of the licensed tester who performed the test, and the names of any persons assisting in the test;

(9) Data sheets with the test readings recorded;

(10) Calculations pertaining to the test method and test results;

(11) Location of monitoring or observation well, if used in the test procedure;

(12) Description of the method used to measure the water table if required, and the result;

(13) Signature of the licensed tester attesting to the accuracy of the information submitted in the test result;

(14) DEM facility ID number; and

(15) Site plan identifying all tanks on site with tank numbers on cover sheet corresponding to tank numbers on the site plan.

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(C) Failure to provide the information specified in Rule 8.10(B) may render the test invalid.

(D) The testing company shall notify the Department of the date that the testing will be conducted at least 7 days in advance. All tightness test results required in this rule (including results of failed or inconclusive tests) shall be submitted by the owner/operator to the Director within fifteen (15) calendar days of the date of test completion. All suspected or confirmed leaks/releases and failed or inconclusive tests shall be immediately reported in accordance with Rule 12 Leak and Spill Response.

(E) All persons who conduct tightness tests on underground storage tanks located in Rhode Island are required to be licensed in accordance with Rule 14 Approval of Tank and/or Line Tightness Tests, Leak Detection Methods and Tightness Tester Licensing Requirements.

(F) Any licensed tester or testing company who offers to, or otherwise undertakes the burden of, submitting test results to the Department on behalf of the owner/operator of a UST or UST facility must submit said test results in accordance with the requirements of these Regulations and forward copies of the test results to the owner/operator who contracted for the tests. Failure of the licensed tester to comply with this section will make the tester and the company that employs the tester jointly and severally liable for any penalty assessed by the Department against the owner/operator for the late filing or failure to file the results of these tests.

(G) Tank and line tightness test results are to be maintained as permanent records in accordance with Rule 11.02(A).

8.11 Line Leak Detectors: All underground storage tanks at existing facilities that are equipped with pressurized piping are required to have been fitted with an approved line leak detection system by May 8,1987. Line leak detectors shall be tested annually in accordance with the manufacturer's requirements and procedures by trained, qualified personnel. "Failed" or defective line leak detectors shall be replaced immediately. Operation of a pressurized piping system with a defective or missing line leak detector is prohibited. Records of the annual test results shall be kept in accordance with Rule 11.02(A), Permanent Records.

8.12 Shear/Crash/Impact Valves: Remote pumping systems shall be equipped with an emergency shut-off valve designed to close automatically in the event of a severe impact or fire exposure. The automatic closing feature of this valve shall be checked at the time of installation and at least once a year thereafter by manually tripping the hold-open linkage. "Failed" or defective valves shall be replaced immediately. Testing is to be performed by the owner/operator or trained personnel. The test results, test date, and name of person performing the test shall be kept in accordance with Rule 11.02(B), Routine Record-keeping. Operation of a remote pumping system with a defective crash valve is prohibited.

8.13 Anti-Siphon Valves: Where a tank is located at an elevation that produces a gravity head on the dispensing unit. the tank outlet shall be equipped with a device (such as a solenoid valve) that will prevent gravity flow from the tank to the dispenser. This device shall be positioned, installed, and adjusted so that liquid cannot flow by gravity from the tank to the dispenser in the event of failure of the piping or hose when the system is not in use.

8.14 Check Valves: Suction piping systems shall be equipped with a functioning check valve located directly below and as close as practical to the inlet of the suction pump.

8.15 Operation of Leak Monitoring Equipment:

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(A) Leak monitoring devices shall be installed, calibrated, operated and maintained in accordance with the manufacturer's instructions, including routine maintenance and service checks for operability or running conditions. All records pertaining to the equipment manufacturer, warranties, maintenance requirements, repairs, and testing shall be maintained on-site for the life of the system or at an alternate location approved by the Director in writing.

(B) Leak monitoring devices shall not be shut off or deactivated at any time except for repair. Any malfunction shall be repaired within fifteen (15) working days of its first occurrence. If the device(s) cannot be repaired within 15 days, the affected system(s) shall be temporarily closed in accordance with Rule 13.03 until satisfactory repairs are made. The owner/operator shall perform daily manual tank gauging and inventory record keeping in the event of a monitoring system being deactivated. Any deactivation of a monitoring device shall be immediately reported to the Director by the owner/operator.

(C) Leak monitoring devices shall employ an audible alarm and a visual indicator, which shall be so located as to be readily heard and seen by the owner/operator or other personnel during normal working hours. All alarms and warnings must be responded to immediately.

(D) All monitoring devices shall be conspicuously marked or labeled as being monitoring devices and shall be secured against vandalism, incidental damage, and improper deactivation.

(E) All continuous monitoring systems and alarms shall be tested by the owner/operator on a monthly basis to ensure that they are operating effectively. Records of such tests shall be maintained in accordance with Rule 11.02(B), Routine Record-keeping.

(F) All leak-monitoring devices shall be inspected, calibrated and tested annually to ensure proper operation. Such testing must be performed by trained, qualified persons and in accordance with the manufacturer's requirements. Records of such tests shall be maintained in accordance with Rule 8.15(A) and Rule 11.02(A), Permanent Records.

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(G) Continuous monitoring systems must be designed, constructed, and installed so as to detect a 0.2 gallon per hour leak rate from any portion of tank system that routinely contains product. The probability of detection shall be no less than 95 percent and the probability of a false alarm shall be no more than 5 percent.

8.16 Spill Containment and Overfill Protection:

(A) Spill Containment Basins:

(1) All underground storage tanks at existing facilities are required to have spill containment basins around all fill pipes. Spill containment basins must be capable of holding a minimum of three gallons. Spill containment basins are required to be properly maintained, in good condition, and kept free of water, product or debris. Spill containment basins shall be inspected weekly and before and after deliveries.

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(2) USTs with aboveground fill pipes do not require spill containment basins, provided that:

(a) The ground surrounding the fill pipe is covered with a material that is impervious to the substance stored and is properly graded to contain spills of 3

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gallons; (example: concrete and asphalt are acceptable, while dirt and grass are not)

(b) The fill pipe extends a minimum of 6 inches above the finished grade;

(c) Above-ground fill pipes located in areas subject to traffic or vehicular damage shall be protected by concrete-filled bollards with a minimum diameter of 2 inches, and at least three feet high, three feet below grade, and spaced no more than four feet apart.

(B) Overfill Protection: All underground storage tanks at existing facilities required to be registered by these regulations are required to have overfill protection in accordance with 9.13(C), with the following exceptions:

(1) USTs used to store heating fuels consumed on-site solely for heating purposes and installed prior to July 21, 1992; and

(2) USTs that never receive more than 25 gallons at one time.

(C) Written verification of the installation of spill containment and overfill protection equipment must be submitted by the owner/operator to the Director within fifteen (15) calendar days of installation.

(D) Sumps: Piping collection and transition sumps, submersible pump head containment structures, and dispenser pans/sumps, where existing, shall be maintained such that all penetration fittings and entry boots are in good condition, all sensors are secured in an upright position and located at least one inch below the lowest penetration fitting or entry boot, and are kept clean and dry. Sumps shall be inspected at least annually and whenever an alarm or warning from a leak monitoring device indicates the presence of product or water.

8.17 Submerged Fill Tube: Except as provided in Rule 8.01, all USTs are required to be equipped with a submerged fill tube.

8.18 Fill Pipe Labeling: All fill pipes and/or fill box covers shall be permanently labeled or otherwise permanently marked, so that the product inside the tank is identified. The American Petroleum Institute Publication 1637, 2006 may be used to satisfy this requirement.

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8.19 Groundwater Monitoring Wells and UST Pad Observation Wells: All groundwater monitoring wells and tank pad observation wells that are finished at ground level must:

(A) Be equipped with a labeled and tamper-resistant cover. Labels shall identify them as being groundwater monitoring or observation wells.

(B) Be fitted with a locking gripper cap or plug.

(C) Cannot be screened to the top, in order to prevent surface water from infiltrating the wells.

(D) Be maintained so as to assure the prevention of pollutants from entering into the well.

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(E) Unless otherwise instructed by the Director, the water in all groundwater monitoring wells shall be bailed and evaluated for visual and olfactory evidence of free product no less than once per year and in accordance with Rule 9.18(C). Groundwater monitoring wells no longer used to gather information on geologic or groundwater properties shall be permanently

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abandoned in accordance with Appendix 1 of the RIDEM "Rules and Regulations for Groundwater Quality."

8.20 Record Keeping: Owners/operators of existing facilities shall maintain records documenting compliance with the provisions of Rule 8 Minimum UST Operation and Maintenance Facility Requirements, in accordance with Rule 11 Maintaining Records.

8.21 Delivery Prohibition

(A) The Director shall classify all USTs located at a facility as ineligible for delivery, deposit, or acceptance of petroleum or hazardous materials, after providing written notice and within (7) seven days of determining that one or more underground storage tanks at the facility has one or more of the following violations:

(1) Failure to have the required spill prevention equipment installed, per Rule 8.16
(2) Failure to have the required overfill protection equipment installed, per Rule 8.16
(3) Failure to have the required leak detection equipment installed, per Rules 8.08, 8.09, and 8.11; or
(4) Failure to have the required corrosion protection equipment installed, per Rule 8.05

(B) The Director may classify all USTs located at a facility as ineligible for delivery, deposit, or acceptance of petroleum or hazardous materials, if the owner/operator fails to complete corrective action and submit documentation within sixty (60) days following written notice from the Department of one or more of the following violations:

(1) Failure to properly operate and/or maintain leak detection equipment, perform tank or pipeline tightness testing, and/or compile inventory control records per Rules 8.08, 8.09, 8.10, 8.11, 8.15, and 11.03;
(2) Failure to properly operate and/or maintain spill prevention, overfill protection, or corrosion protection equipment per Rules 8.06, 8.07, and 8.16;
(3) Failure to maintain Financial Responsibility per Rule 7 and the Regulations promulgated under the "Rhode Island Underground Storage Tank Financial Responsibility Act", RIGL Chapter 46-12.9;
(4) Failure to register or maintain registration including payment of all required fees; or
(5) Failure to obtain or maintain required certification for Class A, Class B and/or Class C operator(s) per Rule 8.22.

(C) Upon classification of a UST system as ineligible for delivery, deposit, or acceptance of petroleum or hazardous materials, the Department shall determine and record the inventory of petroleum or hazardous materials remaining in each of the USTs located at the facility and a red tag shall be affixed by the Department to the fill pipe(s) of all USTs located at the facility. The tag or device must be:

(1) Located on the fill pipe of the UST,
(2) Affixed in a manner that it is easily and immediately visible to the product deliverer; and
(3) Affixed in manner that it cannot be removed and reattached without obvious visual evidence.

(D) No owner, operator, product deliverer or other person shall deliver, deposit, or accept petroleum or hazardous materials into a UST which has a red tag affixed to the fill pipe.

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(E) No owner, operator, product deliverer, or other person shall remove, deface, alter, or otherwise tamper with a red tag affixed to a UST fill pipe.

(F) A red tag shall remain affixed to a UST classified as ineligible for delivery, deposit, or acceptance of petroleum or hazardous materials until:

(1) The UST is returned to compliance for the violations causing classification of the UST as ineligible for delivery, deposit, or acceptance of petroleum or hazardous materials;
(2) The owner/operator submits notification to the Department that the violations causing the UST to be classified as ineligible for delivery, deposit, or acceptance of petroleum or hazardous materials have been corrected. Such notification shall be a written report detailing all actions that have been taken to return to UST to compliance and including verification such as test reports, invoices, receipts, inventory records, etc.; and
(3) As soon as practicable, and within seven (7) days after notification of the corrections, the Department will perform a review sufficient to determine compliance and reclassify, or cause to be reclassified, the UST as eligible for delivery, deposit, or acceptance of petroleum or hazardous materials. For this section, "reclassified" shall mean the physical removal of the "Red Tag" by the Department or an individual specifically authorized by the Director to remove such tags.

(G) USTs that are not brought into compliance including submission of all required notification and documentation to the Department within thirty (30) days after a red tag has been affixed, shall, be immediately placed into temporary closure in accordance with Rule 13.03.

(H) USTs that are not brought into compliance including submission of all required notification and documentation to the Department within one hundred and eighty (180) days after a red tag has been affixed, shall be immediately permanently closed in accordance with Rules 13.05 and 13.11.

(I) The Director may delay classifying a facility as ineligible for delivery, deposit or acceptance of petroleum or hazardous materials for up to one hundred and eighty (180) days if the Department determines that prohibiting deliveries to the UST(s) would jeopardize health and safety or the availability of fuel to the community.

8.22 Operator Training Requirements

(A) Effective August 1, 2012, all UST facilities shall have operators that are trained and certified according to the requirements of this Rule. All facilities shall have three classes of operators: A, B, and C.

(1) A facility may have more than one individual designated for each class of operator.
(2) An individual certified as a Class A or Class B operator may do so at more than one UST facility.
(3) The same individual may serve as Class A, Class B, and Class C operator, provided the individual is certified in each Class.

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(A) The Director shall classify all USTs located at a facility as ineligible for delivery, deposit, or acceptance of petroleum or hazardous materials, after providing written notice and within (7) seven days of determining that one or more underground storage tanks at the facility has one or more of the following violations:¶
¶
(1) Failure to have the required spill prevention equipment installed, per Rule 8.16¶
(2) Failure to have the required overfill protection equipment installed, per Rule 8.16¶
(3) Failure to have the required leak detection equipment installed, pre Rules 8.08, 8.09, and 8.11; or¶
(4) Failure to have the required corrosion protection equipment installed, per Rule 8.05¶
¶
(B) The Director may classify all USTs located at a facility as ineligible for delivery, deposit, or acceptance of petroleum or hazardous materials, if the owner/operator fails to complete corrective action and submit documentation within sixty (60) days following written notice from the Department of one or more of the following violations:¶
¶
(1) Failure to properly operate and/or maintain leak detection equipment per Rules 8.08, 8.09, 8.10 and 8.15;¶
(2) Failure to properly operate and/or maintain spill prevention, overfill protection, or corrosion protection equipment per Rules 8.06, 8.07, and 8.16;¶
(3) Failure to maintain Financial Responsibility per Rule 7 and the Regulations promulgated under the "Rhode Island Underground Storage Tank Financial Responsibility Act", RIGL Chapter 46-12.9; or¶
(4) Failure to register or maintain registration including payment of ... [1]

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(4) Prior to August 1, 2012, each facility must complete and submit the Department's certified operators form listing Class A and Class B operators, and shall immediately submit an updated form whenever there is a change in designated Class A and Class B operators.
(5) After August 1, 2012, all new Class A and Class B operators shall be trained and certified within 30 days of assuming responsibility for a UST facility.
(6) Class C operators must be trained prior to assuming the responsibilities of a Class C operator.
(7) All facilities must maintain, and revise when changes occur, a list of all its Class C operators assigned to the facility. The list shall include the latest date of training, and the name of the Class A or Class B operator that trained each Class C operator.

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(B) The Class A operator is an individual who has the primary statutory and regulatory responsibility for maintenance and operation of the UST facility. This individual shall be trained to have an understanding of the statutory and regulatory requirements that relate to the permitting of the facility, including: financial responsibility; spill containment; overfill protection; release detection; corrosion protection; emergency response; product compatibility; notification requirements; release and suspected release reporting; temporary and permanent closure requirements; reporting and recordkeeping requirements; and operator training requirements. The Class A operator shall, at a minimum:

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(1) Ensure proper operation and maintenance of the UST system.
(2) Ensure proper record keeping.
(3) Ensure a proper response to emergencies caused by releases or spills from UST systems.
(4) Make financial responsibility documents available upon request to the Department.
(5) Ensure all UST registration fees are paid to date.
(6) Ensure that the facility has a certified Class B and a trained Class C operator(s).

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(C) The Class B operator is an individual who shall implement the daily on-site operation and maintenance of a UST system(s). This individual shall be trained to have a practical and regulatory understanding of the components of an UST system and its proper operation, including: spill containment; overfill protection; release detection; corrosion protection; emergency response; and product compatibility. The Class B operator shall, at a minimum:

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(1) Ensure that all applicable sections of Rule 8 are met including, but not limited to; spill containment, overfill protection, leak detection (including inventory control), and corrosion protection.
(2) Ensure that the Class C operators are trained to respond to emergencies caused by releases or spills from the UST system.

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(D) The Class C operator is an individual who is an employee and is, generally, the first line of response to events indicating emergency conditions. This individual shall be trained to recognize and respond to emergencies caused by releases or spills from the UST system, and be familiar with the facility layout and with reading alarm enunciator panels. Except as specified in (E) below, a Class C operator shall:

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(1) Be present at the facility during all operating hours.
(2) Control or monitor the dispensing or sale of regulated substances from the UST system.
(3) Properly respond to alarms or releases.

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(4) Notify the Class A or Class B operator and appropriate emergency responders when there is a spill or other emergency.

(E) Facilities that do not normally have employees on-site (e.g., state/municipal unmanned fueling facilities) shall have a sign posted that lists both the name and telephone number of the owner or operator and local emergency responders, and advises persons to call these numbers in the event of a spill or other emergency. This sign must be posted so that if an emergency occurs the person fueling the vehicle or filling the USTs can read it. Before operating without having a Class C operator present during all operating hours, these facilities must be approved by the Department in writing. These facilities must still have trained A, B and C operators. A designated person(s) must be available to respond to emergencies when the owner or operator is contacted.

(F) The Class A or B operator shall conduct an on-site inspection at least once a month and complete a monthly inspection form that will be provided by the Department. Results of these inspections shall remain on file at the facility for three years, and be made available at the time of a Department inspection.

(G) Operator Training and Certification

(1) Operator knowledge for all A and B operators must be demonstrated by the passing of an ICC (International Code Council) exam approved by the Department. Certification as a result of passing this exam will be good for five years provided the facility remains in compliance with these regulations. A copy of this certification must be submitted to the Department to remain in compliance.

(2) Passing any other New England State approved exam administered by ICC will be an acceptable means of demonstrating knowledge and a certificate of passing must be submitted to the Department. A certificate of passing of any other New England ICC exam will be good for five years provided the facility remains in compliance with these regulations.

(3) If a new operator in RI has demonstrated knowledge from passing an exam approved by another state (not administered by ICC), that certificate is allowed as an acceptable means of demonstrating knowledge for a period of one year provided the facility remains in compliance with these regulations. A copy of the certification must be submitted to the Department. After one year, the Class A or Class B operator must pass an ICC administered exam approved by the Department and submit a copy of that certification to the Department.

(4) Class C operators must be trained every two years, by a Class A or B operator (or a Class A or B operator trained in accordance with (G)(1), (2) or (3) above may be designated as a Class C operator for the time period(s) specified in (G)(1), (2) or (3) above).

(H) Retraining and Re-Certification-If a facility is not in compliance with these regulations at the time of a Department or EPA conducted UST compliance inspection then the Class A and/or Class B operators shall be required to be retrained and re-certified as specified below:

(1) Class A operators shall be retrained and re-certified if any facility for which they provide oversight is determined by the Department to be significantly out of compliance with the requirements of these regulations for which a Class A operator is responsible as provided in Rule 8.22(B).

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(2) Class B operators shall be retrained and re-certified if any facility for which they provide oversight is determined by the Department to be significantly out of compliance with requirements of these regulations for which a Class B operator is responsible as provided in Rule 8.22(C):

(3) Class A and B operators that require retraining shall be retrained and recertified within 60 days of the date of the Department's letter of non compliance, and shall submit written documentation within 10 days of re-certification.

9.00 RULE 9 NEW AND REPLACEMENT TANK SYSTEM REQUIREMENTS

9.01 Applicability: This section shall apply to all new or replacement USTs and piping under these regulations with the exception of those tank systems to be used to store heating oil consumed on-site solely for heating purposes, which are exempt from Rules 9.06, 9.07, 9.15, 9.16 and 9.17.

9.02 Prohibitions:

(A) The installation of new USTs wherein the groundwater is designated as a wellhead protection area for a community well, pursuant to RIGL 46-13.1, is prohibited. However, USTs that have been registered prior to the effective date of these regulations and have not been abandoned or removed from the ground for more than 180 days shall be permitted to be replaced with a tank(s) of equivalent size or less, substance stored, and in accordance with the provisions of these regulations.

(B) In accordance with the RI DOH "Rules and Regulations Pertaining to Public Drinking Water" (R46-13-DWQ), the installation of a UST within 200 feet of a public dug well or bedrock well or within 400 feet of a gravel-packed or gravel-developed well is prohibited.

(C) USTs are to be installed as far away as possible from private wells, per the RI DEM "Rules and Regulations Governing the Enforcement of Chapter 46-13.2 Relating to the Drilling of Drinking Water Wells."

(D) The installation of bare steel or metal USTs for storage of petroleum products or hazardous materials is prohibited.

(E) No person shall commence construction of a new tank system or replacement tank system, and no modification (including product piping replacement) may be made to any UST facility for which an application for a certificate of registration is required, without prior written notification to and approval by the Director.

9.03 General Requirements:

(A) Before commencing construction of a new UST system, replacement UST system, or modification to an existing UST system (including product piping replacement), the owner/operator is required to submit at minimum the following:

(1) A completed *Underground Storage Tank Registration Form*;

(2) A completed *Equipment List Addendum*;

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¶
<#>Effective August 1, 2012, all UST facilities shall have operators that are trained and certified according to the requirements of this Rule. All facilities shall have three classes of operators: A, B, and C.¶
¶
<#>A facility may have more than one individual designated for each class of operator. ¶
<#>An individual certified as an A or B operator may do so at more than one UST facility.¶
<#>Prior to August 1, 2012, each facility must complete and submit the Department's certified operators form. .¶
<#>After August 1, 2012, all new Class A and Class B operators shall be trained and certified within 45 days of assuming responsibility for an UST facility.¶
<#>Class C operators must be trained prior to assuming the responsibilities of a Class C operator.¶
<#>All facilities must post a list of all its class C operators.¶
¶
¶
<#>The Class A operator is an individual who has the primary statuary and regulatory responsibility for maintenance and operation of the UST facility. They have a general knowledge of the UST systems components including spill prevention, overfillprevention, release detection, corrosion protection, product compatibility, and emergency response. The Class A operator shall:¶
¶
<#>Ensure proper operation and maintenance of the UST system.¶
<#>Ensure proper record keeping. ... [2]

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(A) The Director shall classify all USTs located at a facility as ineligible for delivery, deposit, or acceptance of petroleum or hazardous materials, after providing written notice and within (7) seven days of determining that one or more underground storage tanks at ... [3]

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(3) A completed *UST Installation/Modification/Upgrade Supplemental Information* form;

(4) A site plan including all of the information listed in Rule 6.04(A)(3) (plans for new UST systems must be stamped by a registered Professional Engineer);

(5) Specifications or a diagram indicating depth of excavation, bedding, and backfill, supports and anchorage used, distance between tanks, and dimensions (including thickness) of traffic pad.

(6) The appropriate registration fees in accordance with Rules 6.09 and 6.10.

(B) Letters of approval from the Director authorizing the installation of new/replacement UST systems or modification of an existing UST system are valid for a period of one (1) year from the date of issuance. Approvals may be extended by the Director upon written request by the owner/operator.

(C) In accordance with Rule 10.04(C), an on-site environmental consultant shall be present for all modifications involving the excavation of soils.

(D) All USTs shall be maintained and operated in compliance with all national codes of practice for handling and storing of petroleum or hazardous materials as listed in Appendix B.

(E) All USTs equipped with cathodic protection shall be maintained and operated in accordance with the requirements outlined in Rule 8.07 of these Regulations.

(F) All Secondary Containment Systems shall be designed, constructed and installed to:

(1) Contain regulated substances released from the tank system until they are detected and removed,
(2) Prevent the release of regulated substances to the environment at any time during the operational life of the underground storage tank system, and
(3) Be checked for evidence of a release at least every 30 days.

9.04 Compatibility: All new or replacement tank and/or piping systems shall be made of or lined with materials that are compatible with the substance(s) stored. The owner/operator shall not introduce, or allow to be introduced, any material into a UST system that is incompatible with the UST system.

9.05 Tanks - Design and Manufacturing Standards: All new USTs installed in Rhode Island shall provide for secondary containment of the tank and associated piping and shall be constructed in accordance with one of the national codes of practice listed in Appendix B, and the requirements listed below:

(A) All new and replacement USTs shall be of double-walled construction.

(B) All USTs constructed of fiberglass-reinforced plastic shall comply with one of the following national codes, as amended:

(1) Underwriter's Laboratories Standard 1316, April 2, 1996: "Standard for Glass-Fiber-Reinforced Plastic Underground Storage Tanks for Petroleum Products, Alcohols, and Alcohol-Gasoline Mixtures",

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(2) Underwriters Laboratories of Canada ULC-S615-1998: "Standard for Underground Reinforced Plastic Tanks. "

(C) All USTs constructed of steel shall be cathodically protected and shall comply with one of the following national codes, as amended:

(1) Underwriters Laboratories of Canada CAN/ULC-S603-1992 "Standard for Underground Steel Tanks ", CAN/ULC-S603.1-1992: "Standard for Galvanic Corrosion Protection Systems for Underground Steel Tanks," and CAN4-S631-1984(R1998): "Isolating Bushings for Steel Underground Tanks Protected with Coatings and Galvanic Systems;"

(2) National Association of Corrosion Engineers Standard RP0285-2002: "Corrosion Control of Underground Storage Tank Systems by Cathodic Protection" and Underwriters Laboratories Standard 58, December 13, 1996: "Standard for Steel Underground Tanks for Flammable and Combustible Liquids."

(3) Steel Tank Institute sti-P_3 , February 2010:"STI-P3 Specification and Manual for External Corrosion Protection of Underground Steel Storage Tanks" and Underwriters Laboratories Standard 58, December 13, 1996: "Standards for Steel Underground Storage Tanks for Flammable and Combustible Liquids."

(D) Steel-fiberglass reinforced plastic composite UST systems, steel-high density polyethylene (HDPE) UST systems, and steel-polyurethane UST systems shall comply with Underwriters Laboratories Standard 1746, January 17, 2007: "Standard for External Corrosion Protection Systems for Steel Underground Tanks," as amended, Underwriters Laboratories Standard 58, December 13, 1996: "Standard for Steel Underground Tanks for Flammable and Combustible Liquids," as amended, and one of the following codes: Steel Tank Institute STI F894, February 2010: "ACT-100 Specification for External Corrosion Protection of FRP Composite Steel USTs," as amended, Steel Tank Institute STI F922, February 2010: "Specification for Permatank," as amended, or Steel Tank Institute STI F961, February 2010: "ACT-100-U Specification for External Corrosion Protection of FRP Composite Steel Underground Storage Tanks," as amended.

9.06 Wear Plates: All new and replacement USTs shall have steel wear plates, on the inside bottom of the tanks, centered under all openings with minimum dimensions of at least 9 inches wide and at least one square foot in area and at least 1/4" thick.

9.07 Submerged Fill Tube: All new and replacement USTs shall have a submerged fill tube.

9.08 Fill Pipe Labeling: All fill pipes and/or fill box covers shall be permanently labeled , or otherwise permanently marked, so that the product inside the tank is identified. The American Petroleum Institute Publication 1637, 2007 may be used to satisfy this requirement

9.09 Manufacturer's Test: Prior to installation, all new and replacement USTs shall be factory tested and guaranteed tight by the manufacturer. This guarantee shall be filed with the Director at the time of installation

9.10 Installation Standard:

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(A) All tanks, piping, and other related facility components shall be installed in accordance with a code of practice developed by a nationally recognized association or independent testing laboratory as listed in Appendix B and in accordance with the manufacturer's instructions.

(B) The installer shall be certified or licensed as may be required by the RI Department of Labor, Division of Professional Regulation. (See RI General Laws Chapter 28-27 regarding the installation of commercial gasoline, diesel fuel, and heating oil UST systems.)

(C) The local city/town building official shall be notified prior to the commencement of installation.

9.11 Tightness Testing Upon Installation:

(A) All new and replacement tanks and piping (primary and secondary) shall be tightness tested after all paving over the tanks and piping has been completed and before commencing regular UST operation. In accordance with Rule 8.10(D), the results of this initial tightness test shall be submitted to the Director within 15 calendar days of test completion or, in the event of a leak, in accordance with Rule 12 Leak and Spill Response.

(B) Tightness tests must be capable of detecting a 0.1 gallon per hour leak rate from the entire tank system, accounting for the effects of thermal expansion or contraction of product, vapor pockets, tank deformation, evaporation, condensation, and the location of the water table. The probability of detection shall be no less than 95 percent and the probability of a false alarm shall be no more than 5 percent.

(C) All persons who conduct tightness tests and all test methods used must be licensed in accordance with Rule 14 Approval of Tank and/or Line Tightness Tests, Leak Detection Methods and Tightness Tester Licensing Requirements.

9.12 Piping – Design, Construction and Installation:

(A) All new or replacement piping that is part of an underground storage tank system and routinely contains regulated substances, including fittings and connections, shall be designed and constructed in accordance with the following:

(1) Fiberglass reinforced plastic piping and nonmetallic flexible piping shall be made of materials listed by Underwriters Laboratories (UL) and be equipped with secondary containment.

(2) All steel or metal piping which routinely contains a regulated substance shall be equipped with secondary containment, and all such piping that is in contact with the ground shall be cathodically protected with an impressed current system. All cathodic protection systems shall be designed, installed, operated and maintained in accordance with the national codes of practice cited in Rule 9.05 (C).

(3) The use of copper piping is restricted to No. 2 heating oil and to diesel fuel serving generators and must employ secondary containment. In all cases this piping shall be protected from damage.

(4) Secondary containment piping is required to be listed by UL or ULC as an underground secondary pipe for flammable liquids, with the exception that heating oil USTs used

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solely for on-site consumption may be allowed to use PVC piping for secondary containment (minimum schedule 40 thickness).

(B) Aboveground sections of all UST product piping systems also must be equipped with secondary containment, with the exception of aboveground indoor piping.

(C) All UST primary and secondary product piping, before being covered, enclosed, or placed in use, shall be hydrostatically or pneumatically tested in accordance with NFPA 30, Rule 3-8, and API Publication 1615, Rule 10.2.

(D) Siphon (manifold) piping systems are required to meet the design and construction standards given in Rules 9.12(A) and 9.14(A).

(E) Remote fill piping must meet the design and construction standards given in Rules 9.12(A) and 9.14(A) and (F).

(F) All underground portions of vent piping shall be made of either fiberglass reinforced plastic listed by UL or cathodically protected and coated steel, and shall be installed in accordance with RI DEM Office of Air Resources Air Pollution Control Regulation No. 11, "Petroleum Liquids Marketing and Storage." For USTs storing fuel oil and/or diesel generator fuel only, the use of metallic vent piping is allowed provided that the piping is protected against corrosion.

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9.13 Spill and Overfill Prevention Equipment: All new and replacement UST systems shall be provided with equipment and procedures to prevent spilling and overfilling during product transfers to the tank in accordance with the following:

(A) Spill prevention equipment that will prevent a release of regulated substance to the environment in the area of the fill pipe. A containment basin used to satisfy this requirement must have the following:

(1) The basin must be capable of holding a minimum of 3 gallons,

(2) The basin must be surrounded by an impervious surface and,

(3) If the basin is made of metal, then its exterior wall must be protected from galvanic corrosion.

(B) USTs with aboveground fill pipes do not require spill containment basins, provided that:

(1) The ground surrounding the fill pipe is covered with a material that is impervious to the substance stored and is properly graded to contain spills of 3 gallons. (*Example: concrete and asphalt are acceptable, while dirt and grass are not*.)

(2) The fill pipe extends a minimum of 6 inches above the finished grade;

(3) Above-ground fill pipes located in areas subject to traffic or vehicular damage shall be protected by concrete-filled bollards with a minimum diameter of 2 inches, and at least three feet high, three feet below grade, and spaced no more than four feet apart.

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(C) Overfill prevention equipment designed to restrict or stop the flow of fuel during a delivery before the tank reaches full capacity as follows:

(1) Alert the transfer operator when the tank is no more than 90 percent full by restricting the flow into the tank or triggering a remote high-level alarm; or

(2) Automatically shut off flow into the tank when the tank is no more than 95 percent full; or

(3) Restrict flow 30 minutes prior to overfilling, alert the operator by means of a high level alarm one minute before overfilling, or shut off flow into the tanks so that none of the fittings located on the top of the tank are exposed to product due to overfilling; or

(4) An equivalent device pre-approved by the director.

(5) Use of a flow restriction ball float vent valve is restricted to submerged pumping systems (not suction pump systems) and gravity deliveries (not pump off unloading). Ball float vent valves must be installed so as to allow annual inspection for proper operation. Check with the tank manufacturer to see if a ball float vent valve is prohibited.

(6) USTs used to store fuel oils consumed on-site solely for heating purposes, and emergency generator USTs, are allowed to be equipped with an in-line vent whistle as a method of overfill prevention. Vent whistles may be used only when tight fill, pump-off deliveries are made. The vent opening must be located adjacent to the fill (within 8 feet, or if not practical then as close as possible to be readily heard by the deliverer). The vent whistle must be installed so as to alarm (stop whistling) when the tank is 90% full. Vent whistles also must be installed so as to allow annual inspection for proper operation.

(7) USTs that never receive more than 25 gallons at one time (e.g., waste oil USTs) are not required to have overfill protection.

9.14 Tank Top Sumps, Transition Sumps, and Dispenser Sumps:

(A) All new and replacement USTs shall be equipped with a liquid-tight tank top containment sump for the purpose of providing a low-point collection area for secondary piping, siphon piping, and remote fill piping and access for periodic maintenance. All sumps shall be installed using gaskets, sealants, and fittings that are compatible with the substance stored.

(B) All new and replacement secondary piping systems shall terminate in a tank top sump or transition sump as described in Rule 9.14(A) above.

(C) All flexible underground piping runs shall be continuous whereby all connections for both the primary and secondary piping are made in accessible sumps as described in Rule 9.14(A).

(D) Facilities at which new or replacement piping for motor fuels is being installed are required to have liquid-tight containment pans or sumps under each fueling dispenser.

(E) Facilities at which new or replacement motor fuel dispensers and the equipment necessary to connect the dispenser to the UST system are being installed are required to have liquid-tight containment pans or sumps under each fueling dispenser. The equipment necessary to connect the dispenser to the UST system may include check valves, shear valves, swing joints, flexible

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connectors, or other transitional components that are beneath the dispenser and connect the dispenser to the underground piping. Such containment must allow for visual inspection and access to the components in the containment system and/or be monitored.

(F) All sumps described in (A)-(C) above shall be continuously monitored in accordance with Rule 9.16 (D).

9.15 Leak Detection for New and Replacement Underground Storage Tanks:

(A) Leak monitoring shall be installed and continuously operated for all new USTs.

(B) The interstitial space in all double-walled USTs shall be continuously monitored for the presence of both the regulated substance and water. A discriminating sensor for the regulated substance and water is not required. Double-walled USTs with a brine solution or other inert liquid in the interstitial space shall be continuously monitored for a change in fluid level in the reservoir and interstice.

(C) All leak-monitoring devices shall be able to detect the substance stored in the UST, and its vapors if the substance is a volatile organic compound or mixture with a vapor pressure greater than gasoline, as well as water.

(D) Continuous monitoring systems must be designed, constructed, and installed so as to detect a 0.2 gallon per hour leak rate from any portion of tank system that routinely contains product. The probability of detection shall be no less than 95 percent and the probability of a false alarm shall be no more than 5 percent.

9.16 Leak Detection for New and Replacement Underground Piping Systems:

(A) All new and replacement pressurized piping systems shall employ a UL-approved line leak detector capable of detecting a line leakage rate of 3 gallons per hour at 10 pounds per square inch of line pressure. If a leak is detected, said leak detection system shall shut-off or restrict product flow and otherwise notify the operator of the detection of a leak.

(B) All new or replacement suction piping systems shall be equipped with a check valve located directly below and as close as practical to the inlet of the suction pump.

(C) The interstitial space of double-walled piping or the annular space between the primary piping and secondary containment system shall be continuously monitored to detect water , the presence of the regulated substance, and its vapors if the substance is a volatile organic compound or mixture with a vapor pressure greater than gasoline. A leak sensor employed as described in Rule 9.16(D) shall also satisfy this requirement.

(D) All piping collection sumps, transition sumps, and submersible pump head containment structures shall employ a leak monitor (sensor) activated by water, the regulated substance or its vapors and secured at least 1" below the lowest penetration fitting or entry boot.

(E) All secondary piping test boots shall be disconnected so as to allow for any leakage in the piping to flow into the sump area.

(F) All dispensers of motor fuels under pressure from a remote pumping system shall be equipped with an emergency shut-off valve (shear valve) which is located in the supply line

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at the inlet of the dispenser. This valve shall be designed to close automatically in the event that the dispenser is accidentally dislodged from the inlet pipe.

(G) Anti-Siphon Valves: Where a tank is located at an elevation that produces a gravity head on the dispensing unit (or pump outlet, for heating oil USTs), the tank outlet shall be equipped with a device (such as a solenoid valve) that will prevent gravity flow from the tank to the dispenser/pump. This device shall be positioned, installed, and adjusted so that liquid cannot flow by gravity from the tank to the dispenser/pump, in the event of failure of the piping or hose when the system is not in use

9.17 Operation of Leak Monitoring Equipment

(A) Leak monitoring devices shall be installed, calibrated, operated and maintained in accordance with the manufacturer's instructions, including routine maintenance and service checks for operability or running conditions. All leak monitoring devices shall be inspected, calibrated, and tested annually to insure proper operation. Such testing shall be performed by trained, qualified persons. All records pertaining to the equipment manufacturer, warranties, maintenance requirements, repairs, maintenance, and testing shall be maintained on-site for the life of the system or at an alternate location approved by the Director in writing.

(B) Leak monitoring devices shall not be shut off or deactivated at any time except for repair. Any malfunction shall be repaired within fifteen (15) working days of its first occurrence. If the device(s) cannot be repaired within 15 days, the affected UST system(s) shall be temporarily closed in accordance with Rule 13.03 of these Regulations until satisfactory repairs are made. Any deactivation of a monitoring device shall be immediately reported to the department by the owner/operator.

(C) Leak monitoring devices shall employ an audible alarm and a visual indicator, which shall be so located as to be readily heard and seen by the owner/operator or other personnel during normal working hours.

(D) All monitoring devices shall be conspicuously marked or labeled as being monitoring devices and shall be secured against vandalism, incidental damage and improper deactivation.

(E) All continuous monitoring systems shall be tested by the owner/operator on a monthly basis to ensure that they are operating effectively. Records of such tests shall be maintained in accordance with Rule 9.17(A) and Rule 11 Maintaining Records.

(F) All leak-monitoring devices shall be inspected, calibrated and tested annually to ensure proper operation. Testing must be performed by trained, qualified persons. Records of such tests shall be maintained in accordance with Rule 8.15(A) and Rule 11.02(A), Permanent Records.

9.18 Monitoring Wells: As a condition of approval for new or replacement UST systems located in environmentally sensitive areas, the Director may require the installation of one or more groundwater monitoring wells meeting the following specifications:

(A) The well or wells shall be located so as to be likely to detect any release from the UST systems. The location of the well and/or the requirement of additional wells are subject to the approval of the Director.

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(B) Monitoring wells shall be constructed in accordance with Appendix 1 of the RIDEM "Rules and Regulations for Groundwater Quality" and as described below:

(1) The screen portion of the wells shall extend a minimum of five (5) feet below the average dry season water table elevation at the site. The screen shall be open to the water table at all times. Wells cannot be screened to the surface.

(2) The screen shall be of sufficient length to compensate for seasonal fluctuations in the water table.

(3) All wells shall have a minimum inside diameter of two (2) inches and be constructed using a minimum of schedule 40 PVC piping.

(4) All wells shall have bottom caps.

(5) All wells shall be gravel packed around the screen and grouted to the surface.

(6) All wells with casing extending aboveground shall have a mounded surface seal around the well casing and a locked, above grade protective security cover.

(7) All wells that are finished at ground level shall have a roadbox, tamper resistant identifying cover and locking gripper (cap) in order to prevent surface runoff from entering the well.

(8) Monitoring wells are required to be properly developed no earlier than 48 hours after completion and before initial water quality samples are taken.

(9) The requirement to complete monitoring wells may be waived by the Director if groundwater is not encountered within 30 feet of the ground surface.

(C) Monitoring well check: Where groundwater monitoring wells are installed, the water in the monitoring well shall be bailed and evaluated, noting any visual or olfactory evidence of free product, no less than once per year. Written records of all well check observations shall be kept in accordance with the permanent record-keeping requirements in Rule 11.02(A). All owners/operators must promptly investigate and report any evidence of free product in accordance with Rule 12 Leak and Spill Response.

(D) Access to wells: Upon request, the owner/operator shall provide access to the monitoring wells to the Director.

10.00 RULE 10 FACILITY MODIFICATIONS OR REPAIRS

10.01 Prohibition: No modification may be made to any UST facility for which an application for a certificate of registration is required, without prior written notification to and approval by the Director.

10.02 Modification Standard: Any modification to or replacement of facility components shall be made to conform with the requirements of Rule 9 New and Replacement Tank System Requirements.

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10.03 Reuse of Tanks: Used USTs meeting the specifications given in Rule 9 New and Replacement Tank System Requirements, may only be installed after:

(A) The owner/operator makes a written request for and receives written approval from the Director of the proposed modification;

(B) Documentation is provided that the used tanks have been inspected and tested by the manufacturer and found satisfactory;

(C) Documentation is provided that the used tank has been certified by the manufacturer to be reusable for the product to be stored; and

(D) Documentation is provided that the used tank is given the balance of the original warranty by the manufacturer.

10.04 Approval of Modifications or Repairs: USTs and/or their associated piping can be modified or repaired only once, provided that:

(A) The Director has approved the modification or repair;

(B) The modification or repair is properly conducted in accordance with the applicable national codes of practice as listed in Appendix B and the manufacturer's specifications;

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(C) An environmental consultant is present for any modification or repair (including piping installation or replacement) that requires the excavation of soils. The environmental consultant shall screen soils for the presence of contamination and submit a written summary of the findings to DEM within 30 days. Releases shall be reported in accordance with Rule 12 Leak and Spill Response.

(D) The tank and/or piping system (primary and secondary) passes a tightness test conducted upon completion of the modification or repair, and prior to commencing UST operation, and in accordance with Rule 8.10. Results of the tightness test must be submitted to the Director within fifteen (15) calendar days of test completion, or in the event of a leak, in accordance with Rule 12 Leak and Spill Response;

(E) The method of modification or repair is compatible with the product or material to be stored;

(F) All damaged tank system components, including but not limited to pipe sections and fittings, must be replaced immediately.

11.00 RULE 11 MAINTAINING RECORDS

11.01 Applicability: All owners/operators of UST facilities shall maintain records in accordance with the following Rule except that the provisions of 11.02(A)(3) and (8) and 11.02 (B) shall not apply to tanks used for storing fuel oils of any grade that is consumed on-site solely for heating purposes.

11.02 Records: All owners/operators of UST facilities shall maintain on the facility premises or at an alternate location approved by the Director, for the period of time specified below, records of the following:

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(A) Permanent Records: The following shall be maintained for three years beyond the operational life of the facility:

(1) All data used to complete the application for the certificate of registration;

(2) All records of modifications or repairs to pipes, fittings or other components of underground storage tank systems;

(3) Annual test results of equipment or systems used for leak detection and inventory control;

(4) Results of monitoring well checks as referenced in Rules 8.19(D) and 9.18 (C);

(5) Records of closure activities;

(6) Records of leaks, spills, releases, overfills, site investigations, and remedial response activities taken;

(7) Tank and/or line tightness test results including all of the information required in Rule 8.10;

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(8) All records pertaining to the operation and maintenance of approved corrosion protection methods as required in Rule 8.06 and 8.07;

(9) Equipment warranties and manufacturers' checklists.

(B) Routine Record-keeping: The following records shall be maintained for a minimum period of three years from the date made, or for such longer periods as required by the Director in the resolution of enforcement actions:

(1) Records of all calibration and standard maintenance performed;

(2) Records of strip charts, electronic recall device and/or manual recordings for any continuous monitoring instrumentation;

(3) Records of monthly tests of continuous monitoring systems as required in Rules 8.15 (E) and 9.17 (E).

(4) Daily and monthly inventory record keeping, as described in Rule 11.03 below.

(5) Records of annual shear valve tests.

11.03 Inventory Control, Record-keeping and Leak Reporting: All product inventory shall be managed in accordance with the following:

(A) Inventory volume for regulated substance inputs (fuel deliveries), withdrawals (amount dispensed), and the amount still remaining in the tank shall be measured and recorded each operating day;

(B) Any unusual occurrences that might affect the inflow, outflow, or volume on hand, shall be recorded each operating day, along with any adjustments that were made to the records.

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(C) All inventory gauging equipment shall be capable of measuring the level of product over the full range of the tank's height to the nearest one-eighth of an inch;

(D) All inputs of regulated substance shall be reconciled with delivery receipts by measurement of the tank inventory volume before and after delivery;

(E) All deliveries shall be made through a drop tube that extends to within six (6) inches of the tank bottom;

(F) Product dispensing shall be metered and recorded within the local standards for meter calibration or an accuracy of six (6) cubic inches for every five (5) gallons of product withdrawn, whichever is more accurate;

(G) All tanks shall be gauged for the presence of water in the bottom of the tank at least once each month and a measurement of any water present shall be recorded to the nearest one-eighth of an inch. If the water measurement exceeds 1 inch, then the water is required to be removed;

(H) Inventory records shall include a leak check to reconcile differences in the daily measurement of inflows, outflows, and volume on hand. If the leak check indicates a discrepancy of 1% or more of the flow-through plus 130 gallons on a monthly basis, then the owner/operator shall report such discrepancy in accordance with Rule 12 Leak and Spill Response.

11.04 Access to Records: The owner/operator shall make available to the Director, upon request, all records which the Director determines may be pertinent to the enforcement of these Rules and Regulations.

11.05 Change of Ownership: In the event of a change of ownership, records pertaining to the facility shall be transferred in accordance with Rule 16 Transfer of Certificates of Registration or Closure.

12.00 RULE 12 LEAK AND SPILL RESPONSE

12.01 Applicability: These regulations shall apply to all new, existing, and abandoned tank facilities at which petroleum products and/or hazardous materials are stored underground as specified in Rules 3 Applicability and Rule5 Definitions.

12.02 General Requirements: All owners/operators of underground storage tank systems storing petroleum products or hazardous materials must report, investigate, and clean up any spills, leaks, or releases in accordance with this Rule and any other applicable provisions of local, state and federal statutes, rules and regulations.

12.03 Investigation of Suspected Releases: All owners/operators must promptly investigate all suspected leaks or releases, including, but not limited to, instances where:

(A) Unusual operating conditions, release detection signals or environmental conditions at the site suggest a release may have occurred; and

(B) Investigation is required by the Director to determine the source of a release.

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(C) The Director may require a Release Characterization Report when unusual operating conditions at a facility create reasonable suspicion of a leak or release and therefore warrant further investigation. All pertinent operation and maintenance records must be included in the report.

12.04 Leak and Release Reporting Requirements:

(A) All persons shall immediately report all confirmed and suspected leaks or releases from USTs to:

(1) The Director;

(2) The appropriate local fire official;

(3) The local public water supplier, in the event a spill occurs in a public supply watershed or in a wellhead protection area for community water supply wells.

(B) Persons reporting leaks or releases to the Director shall provide the following information:

(1) Name and phone number of person reporting the release;

(2) Location of the release and name of the facility;

(3) Date and time of the release;

(4) Type, and to the extent known ,the amount of material released;

(5) Name and phone number of the potentially responsible party, if known.

(C) Tank and/or line tightness test results which are fail or inconclusive shall be reported to the Director by the tester within two (2) hours of the test. The owner/operator must submit the failed test within fifteen (15) days of the test date and submit a Release Characterization Report in accordance with Rule 12.07.

(1) The owner/operator must have the contents of the UST system completely removed within 24 hours; or

(2) The owner/operator must make arrangements for a retest of the UST system, and the retest must be conducted within 3 days. If the UST system retest results indicate a failed or inconclusive test, the owner/operator must have the contents of the UST system completely removed within 24 hours of the retest.

(3) Lines that test as failed or inconclusive shall be taken out of service immediately.

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NOTE: During normal working hours reports of releases should be made to the DEM UST Section at (401)-222-2797; fax (401)-222-3813. At all other times, reports can be made to the DEM 24-hour Emergency Response Hotline at (401)-222-3070.

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12.05 Initial Abatement Actions: Unless directed by the Director to do otherwise, when a confirmed release occurs, the owner/operator shall take the following actions:

(A) Arrange for and within 24 hours and as soon as practicable, complete removal of the contents of the UST system to prevent further release into the environment;

(B) Contain all discharged oil, oil-contaminated debris and hazardous waste. Such materials shall be handled, stored and disposed of in accordance with the state Oil Pollution Control Regulations and other applicable state and federal statutes, rules and regulations;

(C) Assess fire, health and safety hazards and take reasonable steps to mitigate any such hazards; local fire officials should be consulted, as conditions require;

(D) Inspect any exposed releases and take steps to prevent the migration of any released regulated substance into the environment, including soils, groundwater or surface waters;

(E) Investigate for the presence of free product and, if present, initiate free product removal consistent with Rule 12.06; and

(F) Carry out other actions as directed by the Director pursuant to Oil Pollution Control regulations, or other local, state and federal statutes, rules and regulations.

12.06 Free Product Removal:

(A) At sites where free product is present, the owner/operator shall remove the free product in a manner that minimizes the spread of contamination.

(B) Discharges and by-products from free product recovery and disposal operations shall be treated or disposed of in compliance with all applicable state and federal statutes, rules and regulations.

(C) Free product removal systems shall be designed to maximize the removal of free product.

(D) Documentation of all free product removal measures shall be submitted to the Director with the Release Characterization Report and Site Investigation Report as required pursuant to Rules 12.07 and 12.09 respectively, and shall contain the following information:

(1) Names of persons implementing the free product removal measures;

(2) Estimated quantity, type and thickness of free product observed or measured;

(3) Type of system used to remove free product;

(4) Locations of any discharges associated with free product recovery activities;

(5) Type of treatment applied to any water pumped for the purpose of free product removal; and

(6) Disposition of recovered free product.

12.07 Release Characterization Report:

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Within seven (7) days after confirmation of a leak or release or a failed tank and/or line tightness test, the owners/operators shall submit a Release Characterization Report to the Director summarizing the events related to the leak or release from a UST or UST system and describing the results of initial abatement steps. Such report shall include:

(A) Data on the nature and estimated quantity of the release;

(B) Data from available sources and site investigations concerning these factors:

(1) Surrounding populations;

(2) Water quality;

(3) Use and approximate locations of wells potentially affected by the release;

(4) Subsurface soil conditions;

(5) Locations of subsurface sanitary sewers and stormwater lines;

(6) Climatological conditions, where pertinent; and

(7) Land use;

(C) Names, addresses, and plat and lot numbers of the owners of all properties that abut the facility;

(D) All pertinent data obtained from actions taken as Initial Abatement Actions pursuant to Rule 12.05;

(E) Name and address of the facility.

(F) If the Release Characterization Report is related to a tightness test(s), then the report shall also include:

(1) Name and phone number of the tank owner/operator;

(2) Size of the UST(s) and material stored;

(3) Copy(ies) of the failed tightness test(s);

(4) Information on any repairs conducted;

(5) Copy(ies) of any retests conducted;

(6) The present status of the UST(s).

(7) A Release Characterization Report is not required when the release is documented in a Closure Assessment Report prepared and submitted to the Director in accordance with Rule 13.11.

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12.08 Site Investigation:

(A) Upon completion and submittal of a Release Characterization Report or Closure Assessment Report, owners/operators shall conduct a full investigation of the release and the on-site and off-site areas known or potentially affected by the release. The Director may waive the requirement to conduct a full site investigation when the initial Release Characterization Report or Closure Assessment Report establishes, to the satisfaction of the Director, that there is no present or potential groundwater or surface water adverse impact from the release. The Director may require additional information or investigation before deciding whether to waive the requirement for a full site investigation.

(B) The Director may require that a site investigation be conducted at any UST facility where one or more of the following conditions exists:

(1) The facility has closed USTs storing hazardous materials;

(2) Groundwater or surface waters adjacent to the facility have been affected by a release of petroleum product or hazardous material;

(3) An inspection of a tank closure and/or a Closure Assessment Report reveals soil or groundwater contamination;

(4) A site assessment report or information reveals soil or groundwater contamination; or

(5) Other evidence of a leak or release exists, including but not limited to failed tank or line tightness tests or perforated or highly corroded tanks or piping.

(C) The site investigation shall be conducted by, and a Site Investigation Report shall be prepared by an environmental consultant.

(D) The owner/operator shall submit the results of a site investigation to the Department within sixty (60) days of notification by the Director that a Site Investigation Report is required, or within an alternate deadline approved by the Director, in the format of a Site Investigation Report pursuant to Rule 12.09.

12.09 Site Investigation Report:

(A) The purpose of the Site Investigation Report shall be to define the nature, degree and extent of contamination and identify threats to the public health and environment.

(B) The Site Investigation Report shall include, but not be limited to, the following information:

(1) A locus map using the U.S. Geological Survey 7.5 minute quadrangle map;

(2) A description of past and present activities on the site, including a list of past owners and operators of the site and the approximate time periods of their ownership and operation;

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(3) A compliance history of the site including, but not limited to, any and all past environmental enforcement actions and documentation of any past releases, repairs and leak detection results;

(4) A site plan, drawn to scale, showing the location and the immediately surrounding area, and identifying the following items:

(a) Property boundaries;
(b) Buildings and other structures;
(c) Roads;
(d) Surface topography;
(e) Surface water courses and wetlands;
(f) Public and private water wells;
(g) Groundwater monitoring wells;
(h) Public sewer and water lines;
(i) Individual sewage disposal systems and other waste disposal areas;
(j) Present and former locations of USTs and associated piping;
(k) Dry wells; and
(l) Locations of soil borings, test pits or piezometers;

(5) A description of the site's hydrogeology, including, but not limited to:

(a) Depth to groundwater and groundwater elevations, including water table contour map, where applicable;
(b) Groundwater flow direction;
(c) Description of the unconsolidated materials (in both the unsaturated and saturated zones), including permeability, porosity, degree of stratification, and the capacity for contaminant attenuation;
(d) Depth to bedrock and bedrock characteristics;
(e) Aquifer characteristics including saturated thickness, hydraulic conductivity, and transmissivity; and
(f) The presence and effects of both natural and man-made barriers to and conduits for contaminant migration.

(6) A description of the area surrounding the site and identification of all human and environmental receptors, including, but not limited to:

(a) The location of properties served by private wells;
(b) The location of public wells;
(c) Which wells would be potential contaminant receptors; and
(d) The classification of groundwater and surface waters surrounding the site;

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(7) The nature, degree and extent of contamination, including free product, groundwater, soil, and vapor; including isopleth maps of contaminants, where applicable;

(8) The results of any analytical testing of groundwater or soil on the site, including identification of methods used and sampling protocols;

(9) A minimum of three groundwater monitoring wells located so that the groundwater flow direction and the nature, degree and extent of contamination from leaks and releases from USTs can be determined; Monitoring wells shall be installed in

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accordance with Rule 9.18 of these regulations and Appendix 1 of the Rules and Regulations for Groundwater Quality. The following information must be included:

(a) Boring logs and well completion information;
(b) Well development and sampling procedures;
(c) Results of field screening and laboratory analysis of soil and groundwater samples; and
(d) Well gauging information;

(10) Any other factors necessary for or that contribute to an adequate site characterization;

(11) Conclusions and recommendations, including;

(a) A description of the source or potential sources(s) of the contamination;
(b) A description of the current extent of contamination in the soil and groundwater, as well as in surface water, and the presence of vapors;
(c) Identification of potential receptors; and
(d) Recommendations for further investigation and corrective action or a statement that no further action is required.

(12) The Site Investigation Report shall include the following signed statements:

(a) A statement signed by the registered professional engineer, or the certified professional geologist, or the registered professional geologist, who prepared the report or who directly supervised preparation of the report, certifying the accuracy of the information contained in the report; and
(b) A statement signed by the owner/operator responsible for the preparation and submittal of the report certifying that the report is a complete and accurate representation, and that it includes all known facts about the discharge or release that has resulted, or may result, in the exceedance of a groundwater quality standard.

12.10 Additional Information:

Upon review of the Site Investigation Report for completeness and accuracy, the Director may require the collection and submission of additional information where a Site Investigation Report is found to be incomplete or deficient or does not provide sufficient data to identify the extent of a contamination plume. Any required additional information shall be submitted within a time frame specified by the Director.

12.11 No Further Action: The Director may issue a letter requiring no further action upon review of the site investigation report when:

(A) The contaminant concentrations are found to be below applicable standards;

(B) No threat to human health or the environment exists;

(C) The Site Investigation Report concludes and/or recommends that no further action is needed based on the results of the investigation; and

(D) The report is found to be complete and accurate to the satisfaction of the Director.

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12.12 Corrective Action Plan:

(A) Based upon the Site Investigation Report or other data, the Director may require owners/operators to develop and submit a Corrective Action Plan, within 60 days or within an alternate time frame approved by the Director, to address contaminated soils or groundwater or other related environmental or public health impacts. The Corrective Action Plan shall be prepared by an environmental consultant.

(B) In order to be approved, the Corrective Action Plan must protect human health and the environment in a manner acceptable to the Director.

12.13 Contents of Corrective Action Plan:

(A) A Corrective Action Plan shall, at minimum, consist of the following:

(1) A summary of findings from the Site Investigation Report, including but not limited to:

(a) Impacts and potential impacts to receptors such as groundwater, surface water, public and private wells, environmentally sensitive areas, buildings and basements;
(b) All data from testing of all environmental media including soil, water and air, site geology and hydrogeology; and
(c) Any additional information the Director may require;

(2) A description of the proposed method for remediation, including, but not limited to, the following:

(a) Justification of the ability of the chosen remedial method(s) to meet the remediation objectives within a time frame acceptable to the Director;
(b) Detailed design plans including equipment specifications, piping routes, process flow diagrams, instrumentation, and any other information necessary to fully describe the remedial system;
(i) Engineered remedial systems must be signed and stamped by a registered professional engineer.

(c) Proposed plans for the disposal of any products or by-products from the remediation activities;

(3) The results of any aquifer testing or pilot testing required to support the remedial system, or a detailed proposal to conduct such testing.

(4) A proposed schedule for implementation of the corrective action plan;

(5) A proposed groundwater monitoring program including the monitoring wells to be sampled, frequency of sampling, analyses to be conducted and well gauging, and a proposed frequency of reporting to the Director;

(6) Any other information necessary to support the proposed remedial action.

(B) The Corrective Action Plan shall include the following signed statements:

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(1) A statement signed by the registered professional engineer, or the certified professional geologist, or the registered professional geologist, who prepared the plan or who directly supervised preparation of the plan, certifying the accuracy of the information contained in the plan; and

(2) A statement signed by the facility owner/operator responsible for the preparation and submittal of the Corrective Action Plan, certifying that the plan is complete and accurate.

12.14 Approval of Corrective Action Plans:

(A) The Director shall approve, approve with conditions or reject Corrective Action Plans based upon the following criteria:

(1) The physical and chemical characteristics of the regulated substance, including its toxicity, persistence, and potential for migration;

(2) The hydrogeologic characteristics of the facility and the surrounding area;

(3) The proximity, quality, and current and future uses of nearby surface water and groundwater;

(4) The potential effects of residual contamination on nearby surface water and groundwater;

(5) Reliability and technical feasibility of the proposed corrective action technologies as to their potential to achieve contamination removal, within a time frame acceptable to the Director; and

(6) Completeness and accuracy of the information submitted in the Corrective Action Plan.

(B) Orders of Approval: Upon approval of the Corrective Action Plan, the Director may issue an Order of Approval governing the Corrective Action Plan consistent with Rule 12 Leak and Spill Response, and the Groundwater Quality Regulations. Owners/operators shall implement the plan in accordance with the provisions of the Order of Approval, and any conditions, established by the Director contained therein. The Order of Approval shall include, where applicable:

(1) Specific reference to the Corrective Action Plan;

(2) A schedule for implementation including installation and start up;

(3) Contingencies for potential additional necessary actions or other necessary modifications;

(4) A schedule for groundwater monitoring;

(5) A schedule for system inspections;

(6) A schedule for submission of status reports;

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(7) Any other reporting obligations to the Director such as system shutdown; and

(8) Any other site specific requirements.

(C) The Director, at his/her discretion, may issue an interim letter of approval to allow a specified time frame for the generation of additional information about the proposed corrective action, including, but not limited to, pilot testing or a trial period of operation of the remedial system.

(D) The Director, at his/her discretion, may approve a Corrective Action Plan in a letter of approval for proposed remedial actions that are limited in duration or complexity, including, but not limited to, soil removal, monitored natural attenuation or enhanced natural attenuation.

12.15 Corrective Action Prior to Issuance of Orders of Approval: Owners and operators may begin cleanup of soil and groundwater before the Corrective Action Plan is approved provided that they:

(A) Notify the Director of their intention to begin cleanup;

(B) Comply with any conditions imposed by the Director, including halting cleanup or mitigating adverse consequences from cleanup activities; and

(C) Incorporate these self-initiated cleanup measures in the Corrective Action Plan that is submitted to the Director for approval.

12.16 Public Notification:

(A) The Director shall provide written notice to the town or municipality of the on-going investigation of confirmed releases from UST facilities, at the time when the Director requires a Site Investigation Report.

(B) The Director shall provide written notice to the town or municipality of approved Corrective Action Plans, and may require the responsible party to provide wider notice by block advertisement, and/or legal advertisement letters to individual property owners.

(C) The Director shall provide written notice to the town or municipality of consideration to terminate an Order of Approval in the event that the Corrective Action Plan referenced in the order does not achieve the established clean up levels originally required.

(D) The public notice provided in sub-paragraphs (A), (B), and (C), above, shall be provided by letter and directed to the chief executive municipal officer or mayor, if performing similar responsibilities, and shall direct the letter to be posted in the city or town hall.

12.17 Recording of Orders of Approval: Orders of Approval relating to Corrective Action Plans shall be recorded in the municipal land evidence records by the owner/operator of the facility within 10 days of issuance by the Director and documentation of the recording shall be submitted to the Director by the owner/operator within 10 days of the recording.

12.18 No Further Action: The Director may issue a no further action letter upon completion of the remedial action where:

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(A) The monitoring reports have been submitted in accordance with the approved schedule, were found to be complete and accurate, and demonstrate that the contaminant concentrations are at or below applicable standards; or

(B) The threat to human health and the environment has been eliminated or reduced to the satisfaction of the Director.

13.00 RULE 13 CLOSURE

13.01 Applicability: This Rule shall apply to all facilities where petroleum product(s) and/or hazardous materials are or were stored as defined in Rule 3 Applicability. Rule 13.11 (A) pertaining to closure assessments, and Rule 13.09(F) pertaining to consultants, shall not apply to the following:

(A) USTs which store fuel oil consumed on-site solely for heating purposes;

(B) USTs of less than 1,100 gallons in capacity which store motor fuels at farm or residential sites, provided that the fuel is for on-site use; or

(C) Holding tanks.

13.02 Prohibitions:

(A) The abandonment of any UST or UST system is prohibited.

(B) The removal, filling, or other permanent closure of any UST or UST system that is required to be registered with the Department under Rule 3 is prohibited except as permitted by this Rule after obtaining prior approval from the Director.

(C) The removal from service or other temporary closure of any UST that is registered or required to be registered in accordance with these regulations is prohibited except as permitted by this Rule.

13.03 Temporary Closure:

(A) The owner/operator of any underground storage tank that is removed from service shall:

(1) Evacuate tank contents by pumping down to less than an inch of liquid product;

(2) Cap and secure all fill lines against tampering;

(3) Secure manways, pumps and other components;

(4) Pump out suction lines;

(5) Keep the vent lines open;

(6) Maintain records regarding:

(a) UST location and size;

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(b) The date on which USTs were taken out of operation;

(c) The procedures used to maintain the facility in a safe condition;

(7) Continue to comply with all general operating requirements, including but not limited to:

(a) Maintenance of corrosion protection,
(b) Release reporting and investigation, and
(c) Leak and spill response and corrective action requirements;

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(8) Notify the Director in writing within 15 days of any temporary closure, which USTs have been put into temporary closure and the actions taken to satisfy the requirements of Rule 13.03.

(B) The Director may require temporary closure of UST systems for which operational conditions or other information indicate a leak or release.

13.04 Extension of Temporary Closure: The Director may extend the period of temporary closure to more than 180 days upon a showing of good cause by the owner/operator. Written requests for approval of an extension extension must be submitted to the Director no later than 150 days from the date the underground storage tank(s) was/were temporarily removed from service. Owners/operators may request approval for an extension of temporary closure for a period of no greater than 6 months. Written requests for approval for an additional extension of temporary closure must be submitted to the Director more than 30 days before the approved period of temporary closure expires, must be for a period no greater than 6 months and must be accompanied by a Site Investigation Report conducted in accordance with Rules 12.08 and 12.09. Approval for any further extensions of temporary closure are at the discretion of the Director.

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13.05 Permanent Closure: All owners/operators that have removed any underground storage tank from operation for more than 180 days and have not been granted an extension of temporary closure by the Director or who have abandoned any UST or who desire to permanently close a UST shall comply with the procedures for closing underground storage tank(s) in accordance with the provisions of this Rule and appropriate national codes of practice. The Director may require permanent closure of UST systems for which there is confirmation of a leak or release.

13.06 Closure Applications: Owners/operators wishing to close one or more USTs shall submit a permanent closure application to the Director at least ten (10) days prior to the date the UST is to be permanently removed from service. Closure applications are valid for a period of one year. Such application shall be made on forms provided by the Department and shall include, but not be limited to:

(A) The date the UST is to be or was permanently removed from service;

(B) The age of the UST;

(C) The type of substance or material that was stored in the UST;

(D) The closure method to be used and contractor to perform the work;

(E) The size, type and location of the UST;

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(F) The proposed date of UST excavation if it is to be removed from the ground;

(G) Appropriate documentation demonstrating compliance with the approved closure procedures including, but not limited to:

(1) The method(s) to be used to empty the tank prior to excavation;

(2) The method to be used to remove the tank from the excavation;

(3) The method(s) to be used to comply with the closure assessment requirements of Rule 13.11, below;

(4) A description of the method(s) to be used to properly and safely vent the tank, and to properly make openings in the UST(s), including:

(a) Appropriate venting must be carried out both before any cutting of the tank, and before offsite transport of any tank which has not been completely cleaned per Rule 13.09(C), below.

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(b) A description of the instruments to be used to verify that the tanks have been properly vented.

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(5) A description of how any residues in the tank will be managed; and

(H) Appropriate documentation demonstrating notification of local fire officials.

13.07 Closure Application Fees:

(A) There shall be a fee for processing a closure application, which shall be submitted with the application forms. The closure application is valid for a period of one year, so once the year expires a new application and new processing fees must be resubmitted.

(B) The processing fee shall be $75.00 per UST to be closed.

(C) Payment of the fee, and all unpaid registration fees and late fees shall be made in the full amount. Checks or money orders shall be made payable to the "Treasurer, State of Rhode Island", to be placed in a restricted receipt account to be used for the UST Program.

13.08 Emergency Closures: The time frame requirements in Rule 13.06 may be waived by the Director in the event of an emergency UST closure.

13.09 UST Removal: Upon approval by the Director of an application to close USTs, the owner/operator may permanently close underground storage tanks by removing the USTs and related facility components provided that:

(A) All product is removed from the UST(s) and connecting lines;

(B) Local fire safety officials have been notified of the date, time, and place of removal activities;

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(C) The UST is cleaned to remove any remaining product or residual material and such product or residual material is disposed of in accordance with applicable federal, state and local statutes, ordinances, rules and regulations;

(D) The gaseous vapors are released at the site in a safe manner consistent with national codes of practice, and in accordance with the closure application submitted to and approved by the Director;

(E) The owner/operator shall make arrangements such that, the UST(s) to be closed and the excavation zone shall be made available to be viewed and inspected by DEM personnel during the scheduled closure process, at the discretion of the Director.

(F) The owner/operator is required to retain an environmental consultant to be present on the site during the tank removal process in order to ensure that an adequate closure assessment is performed, where required.

(G) Before final disposal, openings shall be made in the UST(s) to render it unfit for further use;

(H) Any excavated contaminated soil or debris is stored, handled and disposed of in accordance with appropriate state and federal statutes, rules or regulations; and

(I) The owner/operator of the facility, as well as the person responsible for transporting any residues or contaminated soil generated by the closure, must keep records indicating the final destination for all such materials, the date(s) of such shipment(s), and the person or company responsible for the transportation. In the case of material managed as a hazardous waste, the manifest required by the Department's Rules and Regulations for Hazardous Waste Management will satisfy this requirement.

13.10 UST Closure in Place: Upon approval by the Director of an application to close USTs, the owner of a facility may permanently close underground storage tanks by allowing the UST(s) and/or associated facility components to remain in the ground provided that:

(A) The owner/operator requests approval for closure in place in writing to the Director and approval is granted prior to the closure.

(1) The request must provide specific detailed information that demonstrates closure in place is necessary because the removal of the UST(s) would adversely impact the structural integrity of a building, permanent structure, sensitive/critical utilities, or other active UST(s), or the removal of the UST(s) would adversely impact an environmentally sensitive area, or the UST(s) is inaccessible to typical removal equipment.

(2) For tanks not exempted from closure assessments by Rule 13.01, the request must include a scope of work for the closure assessment that includes soil and groundwater sampling sufficient to determine whether a release has occurred. The closure assessment report must be prepared in accordance with Rule 13.11 and submitted to the Director within 30 days of the closure.

(3) For tanks exempted by Rule 13.01, the owner/operator must either conduct a closure assessment or opt to have all USTs and lines tightness tested. If all test results are not passing, a closure assessment is required and a scope of work for soil and groundwater

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sampling sufficient to determine if a release has occurred must be submitted for prior approval by the Director.

(B) All product is removed from the UST and from all connecting lines;

(C) The UST is cleaned to remove any remaining product or residual material and such product or residual material is disposed of in accordance with applicable federal, state and local statutes, ordinances, rules and regulations;

(D) All fill, gauge, pump and vent lines are disconnected and all inlets and outlets are permanently capped or plugged; and

(E) All USTs are filled completely with a slurry concrete or flowable fill and all remaining underground piping associated with the USTs are permanently capped and secured against tampering.

13.11 Closure Assessment Report:

(A) Except as otherwise provided in Rule 13.01, the owner/operator of any UST which is to be permanently closed, shall have a closure assessment performed to determine if a release has occurred. The closure assessment will also be required of those USTs exempted by Rule 13.01 when evidence of a release is discovered during closure.

(B) The closure assessment shall be conducted by and a closure assessment report prepared by an environmental consultant, in accordance with this rule and the DEM's UST Closure Assessment Guidelines. The Closure Assessment Report shall include, but not be limited to:

(1) A background description of the site including location, use of the facility, and a summary of any available tank and line leak detection results;

(2) A locus map using the U.S. Geological Survey 7.5 minute quadrangle map;

(3) A detailed site plan showing the location of all former or existing USTs, piping, dispensers, buildings, utilities, monitoring wells, drinking water wells, soil screening locations, soil sampling locations and any other pertinent site features;

(4) Descriptions of all USTs closed including size, construction type, depth to tank bottom, age and stored material;

(5) A description of the condition of the USTs and piping including extent of corrosion, identification of any holes and any other indication of leakage;

(6) Photographic documentation of the condition of each tank removed;

(7) A description of the soil conditions in the excavation zone such as soil classification, gradation, extent of compaction and any other notable physical characteristics;

(8) A description of soil contamination, including visual and olfactory observations, field screening and laboratory analytical methods used and all results;

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(9) A description of groundwater encountered in the excavation zone including depth to water and appearance with respect to the presence of any sheen or free product;

(10) A description of groundwater obtained from monitoring or observation wells, where present, including any gauging results;

(11) Identification of the DEM groundwater classification at the site and surrounding areas, the availability of public water and presence of private or public wells;

(12) Any potential receptors such as, but not limited to, surface waters, basements, storm drains, sewer lines or other utilities where contamination is identified;

(13) Description of the management of all excavated contaminated soil, including proper cover while stockpiled on-site and documentation of proper disposal;

(14) Documentation of proper disposal of the tank(s) and the residual sludge material;

(15) Any other information or documentation required to complete the closure assessment; and

(16) Conclusions as to whether a release has occurred and recommendations for further investigation and/or remediation.

(C) The closure assessment report shall include the following signed statements:

(1) A statement signed by the registered professional engineer, or the certified professional geologist, or the registered professional geologist, who prepared the report or who directly supervised preparation of the report, certifying the accuracy of the information contained in the report; and

(2) A statement signed by the facility owner/operator that the report is complete and accurate.

(D) The owner/operator shall submit the Closure Assessment Report to the Director within 30 days after the date of the UST closure; or as specified by the Director.

(E) In response to conditions identified by a representative of the Department or reported to the Department, the Director may require one or more of the following actions during the UST closure:

(1) The collection and analysis of soil samples in and around the UST excavation zone done in accordance with standard EPA methods and protocols or other methods approved by the Director;

(2) Excavation and stockpiling of contaminated soil from in and around the UST excavation for offsite disposal; and/or

(3) Free product removal or other remedial activities applicable under Rules 12.05 and 12.06 of these regulations, the Oil Pollution Control Regulations, or other state and federal statutes, rules or regulations.

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(F) When required by the Director, the owner/operator of a UST system permanently closed before December 22, 1988 shall assess the excavation zone in accordance with this section if, in the judgment of the Director, releases from the UST pose a potential threat to human health or the environment.

13.12 Certificate of Closure:

(A) Following DEM inspection of a closure or receipt of a Closure Assessment Report that satisfies the Requirement in Rule 13.11, the Director shall:

(1) Issue a Certificate of Closure; or

(2) Require that additional actions be taken in accordance with Rule 12 Leak and Spill Response if there is evidence of a release.

(B) All Certificates of Closure issued under the "Emergency Regulations for Underground Storage Facilities Used for Petroleum Products and Hazardous Materials", adopted 9 October, 1984 shall remain in full force and effect provided that the owner/operator submit a written certification in accordance with Rule 15 Signatories to Registration and Closure Applications, of these regulations.

(C) The Director shall not issue a Certificate of Closure until it is satisfied that all residues and contaminated soil generated as a result of the closure have been properly transported to an authorized facility and all investigatory and remedial actions have been completed in accordance with Rule 12 Leak and Spill Response.

14.00 RULE 14 APPROVAL OF TANK AND/OR LINE TIGHTNESS TESTS, LEAK DETECTION METHODS AND TIGHTNESS TESTER LICENSING REQUIREMENTS

14.01 Applicability: This section applies to all companies and persons who conduct tightness tests on underground storage tanks located in Rhode Island, and the manufacturer or developer of tightness test.

14.02 Prohibition:

(A) No person shall conduct tightness testing on underground storage tanks or tank components in Rhode Island except as in compliance with the licensing and other provisions of this section.

(B) A licensed tester shall not authorize any other person to conduct tightness testing under his/her license.

(C) A licensed tester can not transfer his/her license to any person.

(D) Licensed testers shall perform tightness tests in accordance with protocols provided by the developer or manufacturer of the testing equipment, and in accordance with the most current publication of the National Work Group on Leak Detection Evaluations.

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(E) All tightness testing methods must be approved by the Director prior to use.

14.03 Approval of Tank and Line Tightness Test Methods:

(A) The Department shall maintain a list of tank and line tightness test methods that have been approved for use in Rhode Island.

(B) To obtain approval of a tank and/or line tightness test method, the manufacturer or developer of the method shall submit to the Director:

(1) The protocols, operating manuals, performance data, and other pertinent information that demonstrates by clear and convincing evidence that the leak detection method satisfies the requirements of a tightness test as defined in Rule 5.85, and 40 CFR 281.33 and the method can be performed reliably and effectively;

(2) The entire third party evaluation reports conducted in accordance with the Standard Test Procedures for Evaluating Leak Detection Methods issued by the EPA. These reports must be complete and include all data, method description reports, test results, reports and other information required in the above-referenced EPA procedures;

(3) Verification that the method is included in the most current publication of the National Work Group on Leak Detection Evaluations;

(4) Verification that the method requires certification of the individual testers who perform the entire test, and a detailed description of the certification procedure;

(5) Agreement from the manufacturer or distributor to provide certified training in the approved method to DEM employees, at no cost to the Department.

14.04 Licensing Procedures for Tightness Testers:

(A) Any individual wishing to be licensed to conduct tightness tests in Rhode Island shall submit a completed application to the Director which includes, but may not be limited to, the following:

(1) A copy of a valid certificate issued by the manufacturer of the equipment of a DEM accepted tightness test method that indicates that the applicant has successfully completed all training courses pertaining to the operation of the test equipment;

(2) Identification of the owner(s) of the equipment to be used by the applicant to perform tests; and identification of who has and will maintain and calibrate the equipment;

(3) A copy of a certificate of liability insurance specifying tightness-testing activities for the entity which owns or operates the equipment which provides for coverage of bodily injury of at least $100,000 per person and an aggregate of $300,000, per occurrence, and provides for property damage of at least $50,000 per accident with an aggregate of $100,000;

(4) A description of the applicant's relevant experience; and

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(5) An initial application license fee of $100.00. Checks or money orders shall be made payable to "Treasurer, State of Rhode Island, Water and Air Protection Fund".

(B) All tightness tester licenses shall expire annually on September 30, and it shall be the responsibility of each licensed tester to renew that license in accordance with the provisions of this section.

(C) At least thirty (30) days prior to the expiration of a license, a tester shall submit a complete license renewal application on forms as provided by DEM, and a renewal fee of $100.00.

(D) An application is considered submitted if it includes all of the required information and fees. A tightness tester who fails to submit a complete application at least thirty (30) days prior to the expiration of his/her license, shall be subject to a late fee charge of $25.00. Should the processing time of an untimely renewal application extend beyond the expiration date of the previous license, the tester may not conduct any tightness tests in Rhode Island until after the license renewal is issued.

(E) Upon review and approval of a license application, either new or renewed, the Director shall issue a license.

(F) A licensee shall notify the Director of any change in his or her business address within thirty (30) days of such change.

14.05 Licensing Procedures for Tightness Testing Businesses:

(A) Any business who employs or subcontracts licensed testers to conduct tank and/or piping tightness tests in Rhode Island are required to submit a completed application for a tank tightness testing business license to the Department which includes, but is not limited to, the following:

(1) A complete list of all tank tightness testers that the business employs or subcontracts to conduct tank tightness testing in Rhode Island;

(2) Identification of who owns the testing equipment used by the testers, identification of who maintains and calibrates the testing equipment, and identification of the testing equipment by the Manufacturer, Model number, Serial number, etc.;

(3) A copy of a certificate of liability insurance specifying tank tightness activities for the entity which owns or operates the equipment which provides for coverage of bodily injury of at least $100,000 per person and an aggregate of $300,000, per occurrence, and provides for the property damage of at least $50,000 per accident with an aggregate of $100,000.

(B) All tightness testing business licenses shall expire annually on September 30, and it shall be the responsibility of each licensed testing business to renew that license in accordance with the provisions of this section.

(C) At least thirty (30) days prior to the expiration of a license, a testing business shall submit a complete license renewal application on forms as provided by DEM.

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(D) Should the processing time of an untimely renewal application extend beyond the expiration date of the previous license, testers employed by the business may not conduct any tightness tests in Rhode Island until after the license renewal is issued.

(E) A tightness testing business shall notify the Director of any change in his or her business address within thirty (30) days of such change.

14.06 Suspension or revocation of license:

(A) Whenever the Director has reasonable grounds to believe that a licensed tightness tester or testing business has not acted in compliance with these regulations or has conducted tightness tests in such a way as to violate Chapters 23-19.1, 42-17.1 or 46-12 of the General Laws of Rhode Island, the Director may suspend or revoke that person's tightness testing license. A suspension or revocation of a tightness testing license may also include, but not be limited to, the following:

(1) An assessment of penalties;

(2) An order directing the tester and/or testing business to submit documentation pertaining to his/her past UST testing activities; and

(3) An order directing the tester and/or testing business to arrange for another licensed third party tester to re-test certain named USTs or UST systems at the expense of the alleged violator.

(B) The Director shall revoke a tightness testing license whenever it is determined that the tester or testing business did not act in compliance with these regulations or conducted tightness tests in violation of Chapters 23-19.1, 42-17.1 or 46-12 of the General Laws of Rhode Island. The Director reserves the right, upon notice to the alleged violator, to upgrade any license suspension to a license revocation based upon newly discovered information.

14.07 Procedure for suspension and revocation:

(A) Upon learning of reasonable grounds to believe that a violation has occurred, the Director shall notify the tester and/or testing business, by certified mail, of the facts and/or conduct warranting the intended suspension or revocation. Such notice shall be for the purpose of allowing the tester and/or testing business an opportunity to show compliance with all lawful requirements for the retention of his/her license.

(B) If the tester and/or testing business fails to show compliance with the requirements for retaining his/her license to the satisfaction of the Director, then the Director shall issue a Notice of Suspension or Revocation enumerating the facts or conduct warranting the suspension or revocation and the statutes and/or regulations violated.

(C) All Notices of Suspension or Revocation shall be forwarded to the licensee by certified mail or served upon the licensee in accordance with the Rhode Island Superior Court Rules of Civil Procedure.

14.08 Requests for Hearings: Persons wishing to request a hearing in regard to the suspension or revocation of a tightness testing license may do so by filing a hearing request with the

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Department's Administrative Adjudication Division in accordance with the "Administrative Rules of Practice and Procedure for the Administrative Adjudication Division for Environmental Adjudication Division within ten (10) days of the licensee's receipt of the Notice of Suspension or Revocation. Whenever a hearing request is not filed in a timely fashion, the Notice of Suspension or Revocation shall automatically become a Compliance Order of the Department enforceable in Superior Court.

14.09 Upon upholding by AAD of the suspension or revocation of a license, and unless appealed to Superior Court, the Director shall notify the manufacturer of the tightness testing equipment of the suspension or revocation and request concurrent action.

15.00 RULE 15 SIGNATORIES TO REGISTRATION AND CLOSURE APPLICATIONS

15.01 Signatures: No person may sign an application for a Certificate of Registration or Closure except in the manner set forth in this Rule :

(A) For a corporation: The application shall be signed by a responsible corporate officer. For the purpose of this Rule, a responsible corporate officer means:

(1) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision making functions for the corporation; or

(2) The manager of one or more facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $21 million (in second-quarter 1980 dollars) if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

NOTE: DEM does not require specific assignments or delegations of authority to responsible corporate officers identified in Rule 15.01(A)(1). The DEM will presume that these responsible corporate officers have the requisite authority to sign permit applications unless the corporation has notified the Director to the contrary. Corporate procedures governing authority to sign permit applications may provide for assignment or delegation to applicable corporate positions under Rule 15.01(A) or(B) rather than to specific individuals.

(B) For a partnership, limited partnership or sole proprietorship; by a general partner or the proprietor, respectively;

(C) For a municipality, state, federal, or other public agency; by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a federal agency includes:

(1) The chief executive officer of the agency, or

(2) A senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).

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(D) For a military installation; by the Installation Commander of a rank of 06 or higher, if the installation employs more than 250 persons and authority to sign permit applications has been assigned or delegated to the Installation Commander in accordance with applicable Department of Defense (DOD) procedures. If an Installation Commander does not meet these requirements, the permit application must be signed by a superior officer who meets the requirements.

In addition, where a tenant is present on the installation and has authority or responsibility for any aspect of the regulated activity, the Tenant Commander (rank of 06 or higher) must also sign the application. The Tenant Commander must also employ more than 250 persons and have been assigned or delegated authority to sign permit applications in accordance with applicable DOD procedures. Again, if the Tenant Commander does not meet these requirements, the permit application must be signed by a superior officer meeting the requirements.

15.02 Reports: All reports required by these regulations and other information requested by the Director shall be signed by a person described in Rule 15.01, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

(A) The authorization is made in writing by a person described in Rule 15.01;

(B) The authorization specifies either an individual or a position having responsibility for overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, or position of equivalent responsibility. (A duly authorized representative may thus be either a named individual or any individual occupying a named position); and

(C) The written authorization is submitted to the Director.

15.03 Changes to authorization: If an authorization under Rule 15.01 or 15.02 of this Rule is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of this section must be submitted to the Director prior to or together with any reports, information, or applications to be signed by an authorized representative.

15.04 Certification: All documents required to be signed in accordance with Rule 15.01 shall contain the following certification:

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

16.00 RULE 16 TRANSFER OF CERTIFICATES OF REGISTRATION OR CLOSURE

16.01 Prohibition: No person shall transfer ownership of a UST facility or facility component without prior notification to the Director as provided in Rule 16.02.

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16.02 Transfer of Registration Certificates:

(A) An owner of a facility may only transfer a Certificate of Registration to a new owner after providing written notification of the proposed transfer to the Director by certified mail at least thirty (30) days prior to the proposed "transfer date" and shall include the following information:

(1) Name, registration number and address of the Facility;

(2) Name and address(es) of the current owner(s) and operator(s);

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(3) Names and address(es) of the proposed owners(s) and operator(s);

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(4) Names and addresses of the persons upon whom legal process can be served for both the present and proposed owners(s) and operator(s);

(5) A notarized statement, signed by a duly authorized officer or agent of the new owner/operator stating that he/she:

(a) Has read the original application for a Certificate of Registration or Closure and
(b) Believes, to the best of his or her knowledge, that there has been no substantial modification in the operations of the Facility since the Certificate was issued; and
(c) Has included a description of all the changes that have occurred since the Certificate was issued.

(6) A proposed transfer date on which the new owner will assume the Certificate and all accompanying responsibility.

(B) Accompanying the notification from the current owner shall be payment of any due or past due registration and/or late fees pertaining to the facility.

(C) The Director shall notify the existing certificate holder and the proposed new certificate holder, within thirty (30) days of receipt of notice of proposed transfer, in the event that additional information is needed or of an intent to modify, revoke or revoke and reissue the certificate. If the applicant does not receive such notice, the transfer is effective on the date specified in the notice provided to the Director pursuant to Rule 16.02 (A).

16.03 Transfer of Records: The existing Certificate holder shall deliver to the new owner or operator all documents and information related to the UST, facility or system, including, but not limited to, all records required to be maintained in Rule 11 Maintaining Records.

17.00 RULE 17 HOLDING TANKS

17.01 Applicability: Except as provided by Rule 3.03, all owners and operators of UST systems used to collect and contain the discharge of non-sanitary wastewaters and other pollutants shall be subject to this Rule.

17.02 Registration: Existing holding tanks are required to have been registered prior to July 1, 1994. The owner/operator of new and replacement holding tanks installed on or after July 1, 1994 are

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required to apply for a certificate of registration from the Director before commencing installation of the holding tank.

17.03 Application for Registration: To apply for a certificate of registration, the facility owner/operator shall complete, certify, and submit to DEM, application forms which shall be available from the Department.

17.04 Minimum Requirements for Existing Holding Tank Systems: The owner/operator of a holding tank in operation prior to the commencement of these regulations shall meet the following requirements:

(A) Verify that the holding tank and associated piping are made of or lined with materials that are compatible with the material(s) being stored.

(B) Verify that the holding tank and associated piping are solid, non-leaching, and in good operational condition.

(C) Obtain written approval from the Director prior to any upgrade of a holding tank and its associated piping.

(D) All Holding Tanks are required to be maintained in accordance with Rule 17.07

17.05 New Holding Tank System Requirements:

(A) Prohibitions:

(1) The installation of new holding tanks wherein the groundwater is designated as a wellhead protection area for a community well, pursuant to RIGL 46-13.1, is prohibited. However, facilities where the USTs have been registered prior to the effective date of these regulations and where the USTs have not been abandoned or removed from the ground for more than 180 days shall be permitted to be replaced with a tank of equivalent size and substance stored and in accordance with the provisions of these regulations.

(2) The installation of bare steel or metal holding tanks is prohibited.

(3) In accordance with the RI DOH "Rules and Regulations Pertaining to Public Drinking Water" (R46-134-DWQ), the installation of a UST within 200 feet of a public dug well or bedrock well or within 400 feet of a gravel-developed well is prohibited.

(4) No person shall commence construction of a new holding tank system or replacement holding tank system, and no modification may be made to any holding tank facility for which an application for a certificate of registration is required, without prior written notification to and approval by the Director.

(B) Compatibility: All new or replacement holding tanks and/or piping systems shall be made of or lined with materials that are compatible with the substance(s) stored. The owner/operator shall not introduce, or allow to be introduced, any material into a holding tank system that is incompatible with the holding tank system.

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(C) Tanks - Design and Manufacturing Standards: All new holding tanks installed in Rhode Island shall provide for secondary containment of the tank and associated piping, and shall be constructed in accordance with one of the national codes and requirements listed below:

(1) All new and replacement holding tanks shall be of double-walled construction.

(2) All holding tanks constructed of fiberglass-reinforced plastic shall comply with one of the following national codes, as amended:

(a) Underwriter's Laboratories Standard 1316, April 2, 1996: "Standard for Glass-Fiber-Reinforced Plastic Underground Storage Tanks for Petroleum Products, Alcohols and Alcohol-Gasoline Mixtures,"2nd Edition

(b) Underwriters Laboratories of Canada ULC-S615-1998: "Standard for Underground Reinforced Plastic Tanks.".

(3) All holding tanks constructed of steel shall be cathodically protected and shall comply with one of the following national codes, as amended:

(a) Underwriters Laboratories of Canada CAN/ULC-S603-1992: "Standard for Underground Steel Tanks," and CAN/ULC-S603.1-1992: "Standard for Galvanic Corrosion Protection Systems for Underground Steel Tanks", and CAN4-S631-1984(R1998): "Isolating Bushings for Steel Underground Tanks Protected with Coatings and Galvanic Systems;"

(b) National Association of Corrosion Engineers Standard RP0285-2002: "Corrosion Control of Underground Storage Tank Systems by Cathodic Protection" and Underwriters Laboratories Standard 58, December 13, 1996: "Standard for Steel Underground Tanks for Flammable and Combustible Liquids.".

(c) Steel Tank Institute "sti-P_3, February 2010: "STI-P3 Specification and Manual for External Corrosion Protection of Underground Steel Storage Tanks" and Underwriters Laboratories Standard 58, December 13, 1996: "Standard for Steel Underground Tanks for Flammable and Combustible Liquids."

(4) All holding tanks constructed of a steel-fiberglass-reinforced plastic composite, steel-high density polyethylene (HDPE), and steel-polyurethane systems shall comply with the Underwriters Laboratories Standard 1746, January 2007: "Standard for External Corrosion Protection Systems for Steel Underground Tanks," as amended, Underwriters Laboratories Standard 58, December 13, 1996: "Standard for Steel Underground Tanks for Flammable and Combustible Liquids," as amended, and one of the following codes: Steel Tank Institute STI F894, February 2010: "ACT-100 Specification for External Corrosion Protection of FRP Composite Steel USTs," as amended, Steel Tank Institute STI F922, February 2010: "Specification for Permatank," as amended, or Steel Tank Institute STI F961, February 2010: "ACT-100-U Specification for External Corrosion Protection of FRP Composite Steel Underground Storage Tanks," as amended.

(D) Manufacturer's Test: Prior to installation, all new and replacement holding tanks shall be factory tested at a minimum of five (5) pounds per square inch gauge and shall be guaranteed

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tight by the manufacturer. This guarantee shall be filed with the Director at the time of installation application.

(E) Installation Standard:

(1) All tanks, piping, and other related facility components shall be installed in accordance with a code of practice developed by a nationally recognized association or independent testing laboratory as listed in Appendix B and in accordance with the manufacturer's instructions.

(2) The local city/town building official shall be notified prior to the commencement of installation.

(F) Tightness Testing Upon Installation: All new and replacement tanks and/or lines shall be tightness tested upon completion of installation and in accordance with Rule 8.10. The results of this initial tightness test shall be submitted to the Director within 15 calendar days of test completion or in the event of a leak, in accordance with Rule 12 Leak and Spill Response. No further tightness testing will be required beyond installation, unless the Director has reason to believe the holding tank or its secondary containment has been breached.

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(G) Piping - Design Construction and Installation: All new or replacement underground piping that routinely contain regulated substances, including fittings and connections, shall be designed and constructed in accordance with the following:

(1) Fiberglass reinforced plastic piping and nonmetallic flexible piping shall be made of materials listed by Underwriters Laboratories (UL) or Underwriters Laboratories of Canada (ULC); and be equipped with secondary containment.

(2) All steel or metal piping which routinely contains a regulated substance shall be equipped with secondary containment, and all such piping that is in contact with the ground shall be cathodically protected with an impressed current system. All cathodic protection systems shall be designed, installed, operated and maintained in accordance with the national codes of practice sited in Rule 9.05 (C).

(H) Overfill Prevention Equipment: All new and replacement holding tank systems shall be provided with equipment to prevent overfilling during normal operation.

17.06 Facility Modification: No substantial modification may be made to any holding tank facility for which an application for a certificate of registration is required, without prior written notification to and approval by the Director.

17.07 Maintenance Requirements:

(A) All wastes shall be removed from the holding tank as necessary and in accordance with appropriate state, local, and federal rules and regulations.

(B) Records of all waste removals must be maintained on site for a minimum of five years.

(C) All tanks and associated piping must be maintained in accordance with manufacturer's standards.

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(D) On a yearly basis, the space between the secondary containment and the holding tank shall be physically monitored to verify that neither the tank nor the secondary containment have been breached. If either has been breached, the Director shall be notified in accordance with Rule 12.04 of these regulations.

(E) Upon reasonable notice, the owner/operator shall make available for inspection by the Director, any records required under this subsection.

18.00 RULE 18 VARIANCES

18.01 Variance Requests: Any owner/operator of a facility, or person subject to these regulations may submit a written request to the Director for a variance from some or all provisions of these regulations. Such request for a variance must, at the minimum, contain the following:

(A) The name and address of the facility owner/operator, and/or person requesting the variance;

(B) The name, location, and registration number of the facility for which the owner/operator seeks a variance, if applicable;

(C) Identification of the specific Rule or Rules from which a variance is requested;

(D) A statement of the reasons for which the facility owner/operator and/or person seeks a variance. This statement shall specify the reasons that the facility owner/operator and/or person is unable to comply with these Rules and Regulations, why a variance is necessary, and the reasons why hardship is alleged. The person seeking the variance should separately and by number list each reason and any other mitigating factor he/she believes the Director should consider;

(E) An explanation that the alternative procedures requested are substantially equivalent to the Rules and Regulations herein in achieving protection of the public health and the environment; and

(F) The signature of the person requesting the variance.

18.02 Variance Decisions:

(A) The owner/operator and/or person shall have the burden of proving by clear and convincing evidence that a variance should be granted because alternative design, operating standards or procedures are substantially equivalent to the regulations and will have no adverse effect on public health and the environment.

(B) If the Director determines that there is widespread public interest or that the variance request raises major issues that could affect other facilities, then the Director may schedule a public hearing to solicit public comment prior to rendering a decision on the variance request.

(C) The Director's decision to grant or deny a variance shall be in writing and may, as a condition of granting the variance, impose appropriate requirements necessary to protect the public health and environment.

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18.03 Appeal of Variance Denials: Any person affected by the grant or denial of a variance request may, in accordance with the Administrative Rules of Practice and Procedure for the Administrative Adjudication Division for Environmental Matters, file an appeal to review the initial decision. All appeals must be received by the Administrative Adjudication Division within ten (10) days of receipt of the denial of the variance.

19.00 RULE 19 APPEALS

Any person affected by a decision of the Director pursuant to these regulations may, in accordance with Administrative Rules of Practice and Procedure for the Department of Environmental Management, file a claim for an adjudicatory hearing to review the decision. The party appealing a Department decision bears the burden of proving that their application or actions comply with all requirements of the rules and regulations herein.

20.00 RULE 20 PENALTIES

The Director shall assess all penalties for violation of these regulations in accordance with the provisions of Rhode Island General Laws Chapters 46-12, 42-17.1, 42-17.6 and 23-19.1 and the "Rules and Regulations for Assessment of Administrative Penalties".

21.00 RULE 21 SEVERABILITY

If any provision of these Rules and Regulations, or the application thereof to any person or circumstances, is held invalid by a court of competent jurisdiction, the validity of the remainder of the Rules and Regulations shall not be affected thereby.

22.00 RULE 22 SUPERSEDED RULES AND REGULATIONS

On the effective date of these Rules and Regulations, all previous Rules and Regulations for Underground Storage Facilities Used for Petroleum Products and Hazardous Materials shall be superseded except for the purposes of Department enforcement actions. Any enforcement action shall be governed by the Rules and Regulations in effect at the time the alleged violations occurred.

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23.00 RULE 23 EFFECTIVE DATE

The foregoing "Rules and Regulations for Underground Storage Facilities Used for Petroleum Products and Hazardous Materials", after due notice and hearing, are hereby adopted and filed with the Secretary of State, this ____ day of_____, 2011, to become effective twenty (20) days thereafter, in accordance with the provisions of Chapter 42-35 of the General Laws of Rhode Island, 1956, as amended.

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_____ _____

Janet Coit, Director
Department of Environmental Management

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Notice Given on:

Public Hearing held:

Filing Date:

Effective Date:

I hereby certify that the enclosed is a true and accurate copy of the regulations being filed with the Secretary of State on the _____ day of _____, 2011.

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NOTARY PUBLIC

My commission expires:_____

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APPENDIX A: DEFINITION OF HAZARDOUS SUBSTANCE

Hazardous substance, as defined by section 101(14) of CERCLA, means (a) any substance designated pursuant to section 311(b)(2)(A) of the CWA; (b) any element, compound, mixture, solution, or substance designated pursuant to section 102 of CERCLA; (c) any hazardous waste having the characteristics identified under or listed pursuant to section 3001 of the Solid Waste Disposal Act (but not including any waste the regulation of which under the Solid Waste Disposal Act has been suspended by Act of Congress); (d) any toxic pollutant listed under section 307(a) of the CWA; (e) any hazardous air pollutant listed under section 112 of the Clean Air Act; and (f) any imminently hazardous chemical substance or mixture with respect to which the Administrator of EPA has taken action pursuant to section 7 of the Toxic Substances Control Act. The terms do not include petroleum, including crude oil or any fraction thereof which is not otherwise specifically listed or designated as a hazardous substance under subparagraphs (a) through (f) of this paragraph, and the term does not include natural gas, natural gas liquids, liquefied natural gas or synthetic gas usable for fuel (or mixtures of natural gas and such synthetic gas).

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APPENDIX B: APPLICABLE NATIONAL CODES OF PRACTICE

Subject to Change Through Written DEM Policy Documents Following Notice and Hearing In Accordance With RI APA, R.I.G.L. 42-35-3

Installation:

API RP Publication 1615, 1996
"Installation of Underground Petroleum Storage Systems," Recommended Practice, 5th Edition

NFPA 31, 2006
"Standard for the Installation of Oil-Burning Equipment"

PEI/RP100-2005
"Recommended Practices for Installation of Underground Liquid Storage Systems"

PEI/RP 1000-09(Draft)
"Recommended Practices for the Installation of Marina Fueling Equipment

UST Design and Manufacturing Standards:

STI sti-P3, February 2010
"STI-P3 Specification and Manual for External Corrosion Protection of Underground Steel Storage Tanks"

STI F894, February 2010
"ACT-100 Specification for External Corrosion Protection of FRP Composite Steel USTs"

STI F961, February 2010
"ACT-100-U Specification for External Corrosion Protection of Composite Steel Underground Storage Tanks"

STI F922 February 2010
"Specification for Permatank"

UL Standard 58, December 13, 1996
"Standard for Steel Underground Tanks for Flammable and Combustible Liquids." 9th Edition

UL Standard 971, July1, 2005
"Standard for Nonmetallic Underground Piping for Flammable Liquids," Revised

UL Standard 971A, October 18, 2006
"Standard for Metallic Underground Fuel Pipe"

UL Standard 1316, April 2, 1996
"Standard for Glass-Fiber-Reinforced Plastic Underground Storage Tanks for Petroleum Products, Alcohols, and Alcohol-Gasoline Mixtures." 2nd Edition

UL Standard 1746, January 17, 2007

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"Standard for External Corrosion Protection Systems for Steel Underground Storage Tanks," 3rd Edition

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Corrosion Protection:

API RP1632, 1996
"Cathodic Protection of Underground Petroleum Storage Tanks and Piping Systems," 3rd Edition

NACE RP-0169-2007
"Control of External Corrosion on Underground or Submerged Metallic Piping Systems"

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NACE RP0285-2002
"Corrosion Control of Underground Storage Tank Systems by Cathodic Protection"

STI R972, January 2006
"Recommended Practice for the Addition of Supplemental Anodes to sti-P_3 USTs"

Also UL 1746 (See Above)

Lining:

API RP 1631, 2001
"Interior Lining and Periodic Inspection of Underground Storage Tanks," 5th Edition

NLPA Standard 631, 1991
"Entry, Cleaning, Interior Inspection, Repair and Lining of Underground Storage Tanks"

General:

API RP 1621, 2001
"Bulk Liquid Stock Control at Retail Outlets" 5th Edition

API RP 1635, 1987
"Management of Underground Petroleum Storage Systems at Marketing and Distribution Facilities," 2nd Edition

API RP 1637, 2007
"Using the API Color- Symbol System to Mark Equipment and Vehicles for Product Identification at Gasoline Dispensing Facilities and Distribution Terminals," 3rd Edition

NFPA 30, 2008
"Flammable and Combustible Liquids Code"

NFPA 30A, 2008
"Code for Motor Fuel Dispensing Facilities and Repair Garages"

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NFPA 31, 2006
“Standard for the Installation or Oil-Burning Equipment”

NFPA 329, 2010
“Recommended Practice for Handling Releases of Flammable and Combustible Liquids and Gases”

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NFPA 385, 2007
"Standard for Tank Vehicles for Flammable and Combustible Liquids"

PEI/RP500-05
“Recommended Practices for Inspection and Maintenance of Motor Fuel Dispensing Equipment”

PEI/RP900-08
“Recommended Practices for the Inspection and Maintenance of UST Systems”

Closure:

API RP 1604, 1996
"Closure of Underground Petroleum Storage Tanks," 3rd Edition

API RP 2015, 2001
"Safe Entry and Cleaning of Petroleum Storage Tanks," 6th Edition

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APPENDIX C: INSTALLATION CHECKLIST AND CERTIFICATION FORM

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
Department of Environmental Management
Office of Waste Management
UNDERGROUND STORAGE TANK SECTION
235 Promenade Street
Providence, RI 02908-5767
(401) 222-2797

RI DEM UST FACILITY ID NO._____

CERTIFICATE OF INSTALLATION OR MODIFICATION OF UST

I, _____, hereby certify that on_____,___, I performed certain installation or modification work on underground storage tanks, piping, and/or other related UST facility components located at:

_____

_____

_____

I further certify that:

(1) All work was performed in accordance with: all applicable national codes of practice as listed in "Appendix B" of the Regulations for Underground Storage Facilities Used for Petroleum Products and Hazardous Materials (the "UST Regulations"); the manufacturer's instructions; and the prior written approval of DEM.

(2) All work specified in the manufacturers installation checklist has been completed. **(A copy of the installation checklist, signed by the contractor submitting this Certificate, must be attached hereto.)**

(3) I am certified or licensed as may be required by the R.I. Department of Labor, Division of Professional Regulation. (See R.I. General Laws Chapter 28-27 regarding installation of commercial gasoline or diesel UST systems.)

(4) The City/Town building official was notified prior to the commencement of the installation or modification work.

(5) Compliance with all proper installation procedures is assured by at least one of the following (check all that apply):

☐ I am certified by the appropriate equipment manufacturers.

☐ The work performed was inspected and approved by, a registered professional engineer in the State of Rhode Island having education and experience with UST equipment installation or modification.

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☐ The work was performed in compliance with the following DEM-approved method(s) for assuring proper installation or modification:

(A copy of DEM's written approval of the above methodology must be attached hereto.)

INSTALLER'S CERTIFICATION

I hereby certify and attest that the information provided herein is true and accurate. I understand that the provision of false or misleading information could subject me to civil and/or criminal penalties, loss of licensure and/or imprisonment as may be provided by statute or regulation.

_____ _____
Signature Date

Name (Print) : _____
Title : _____
Business Name : _____
Address : _____
_____
Phone Number : _____

OWNER'S CERTIFICATION

I hereby certify that I am the registered owner of the above-referenced facility and/or USTs and that the work described herein was undertaken at my direction.

_____ _____
Signature Date

Name (Print) : _____
Title : _____
Business Name : _____
Address : _____
_____
Phone Number : _____

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Appendix D: Manual Tank Gauging Record

MONTH _____ YEAR _____
TANK IDENTIFICATION: _____
PERSON COMPLETING FORM: _____
FACILITY NAME: _____
RI DEM UST FACILITY ID # _____

Circle your tank size, test duration, and weekly/monthly standards in the table below:

Tank Size	Minimum Duration Of Test	Weekly Standard (1 test)	Monthly Standard (4-test average)
up to 550 gallons	36 hours	10 gallons	5 gallons
551-1,000 gallons (also requires periodic tank tightness testing)	36 hours	13 gallons	7 gallons
1,001-2,000 gallons (also requires periodic tank tightness testing)	36 hours	26 gallons	13 gallons

Compare your weekly readings and the monthly average of the 4 weekly readings with the standards shown in the table on the left.

If the calculated change exceeds the weekly standard, the UST may be leaking. Also, the monthly average of the 4 weekly test results must be compared to the monthly standard in the same way.

If either the weekly or monthly standards have been exceeded, the UST may be leaking. As soon as possible, call RI DEM at (401) 222-2797 to report the suspected leak and get further instructions.

	Start Test (month, day, and time)	First Initial Stick Reading	Second Initial Stick Reading	Average Initial Reading	Initial Gallons (convert inches to gallons) [a]	End Test (month, day, and time)	First End Stick Readin g	Second End Stick Reading	Average End Reading	End Gallons (convert inches to gallons) [b]	Change In Tank Volume In Gallons + or (X) [aXb]	Tank Passes Test (circle YES or NO)
Date: Time:	AM/PM					Date: Time: AM/PM						Y N
Date: Time:	AM/PM					Date: Time: AM/PM						Y N
Date: Time:	AM/PM					Date: Time: AM/PM						Y N
Date: Time:	AM/PM					Date: Time: AM/PM						Y N
								To see how close you are to the monthly standard, divide the sum of the 4 weekly readings by 4 and enter result here >				Y N

KEEP THIS PIECE OF PAPER ON FILE FOR AT LEAST 3 YEARS

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(A) The Director shall classify all USTs located at a facility as ineligible for delivery, deposit, or acceptance of petroleum or hazardous materials, after providing written notice and within (7) seven days of determining that one or more underground storage tanks at the facility has one or more of the following violations:

(1) Failure to have the required spill prevention equipment installed, per Rule 8.16
(2) Failure to have the required overfill protection equipment installed, per Rule 8.16
(3) Failure to have the required leak detection equipment installed, pre Rules 8.08, 8.09, and 8.11; or
(4) Failure to have the required corrosion protection equipment installed, per Rule 8.05

(B) The Director may classify all USTs located at a facility as ineligible for delivery, deposit, or acceptance of petroleum or hazardous materials, if the owner/operator fails to complete corrective action and submit documentation within sixty (60) days following written notice from the Department of one or more of the following violations:

(1) Failure to properly operate and/or maintain leak detection equipment per Rules 8.08, 8.09, 8.10 and 8.15;
(2) Failure to properly operate and/or maintain spill prevention, overfill protection, or corrosion protection equipment per Rules 8.06, 8.07, and 8.16;
(3) Failure to maintain Financial Responsibility per Rule 7 and the Regulations promulgated under the "Rhode Island Underground Storage Tank Financial Responsibility Act", RIGL Chapter 46-12.9; or
(4) Failure to register or maintain registration including payment of all required fees.

(C) Upon classification of a UST system as ineligible for delivery, deposit, or acceptance of petroleum or hazardous materials, the Department shall determine and record the inventory of petroleum or hazardous materials remaining in each of the USTs located at the facility and a red tag shall be affixed by the Department to the fill pipe(s) of all USTs located at the facility. The tag or device must be:

(1) Located on the fill pipe of the UST,
(2) Affixed in a manner that it is easily and immediately visible to the product deliverer; and
(3) Affixed in manner that it cannot be removed and reattached without obvious visual evidence.

(D) No owner, operator, product deliverer or other person shall deliver, deposit, or accept petroleum or hazardous materials into a UST which has a red tag affixed to the fill pipe.

(E) No owner, operator, product deliverer, or other person shall remove, deface, alter, or otherwise tamper with a red tag affixed to a UST fill pipe.

A red tag shall remain affixed to a UST classified as ineligible for delivery, deposit, or acceptance of petroleum or hazardous materials until:

(1) The UST is returned to compliance for the violations causing classification of the UST as ineligible for delivery, deposit, or acceptance of petroleum or hazardous materials;
(2) The owner/operator submits notification to the Department that the violations causing the UST to be classified as ineligible for delivery, deposit, or acceptance of petroleum or hazardous materials have been corrected. Such notification shall be a written report detailing all actions that have been taken to return to UST to compliance and including verification such as test reports, invoices, receipts, inventory records, etc.; and
(3) As soon as practicable, and within seven (7) days after notification of the corrections, the Department will perform a review sufficient to determine compliance and reclassify, or cause to be reclassified, the UST as eligible for delivery, deposit, or acceptance of petroleum or hazardous materials. For this section, "reclassified" shall mean the physical removal of the "Red Tag" by the Department or an individual specifically authorized by the Director to remove such tags.

USTs that are not brought into compliance including submission of all required notification and documentation to the Department within thirty (30) days after a red tag has been affixed, shall, be immediately placed into temporary closure in accordance with Rule 13.03.

USTs that are not brought into compliance including submission of all required notification and documentation to the Department within one hundred and eighty (180) days after a red tag has been affixed, shall be immediately permanently closed in accordance with Rules 13.05 and 13.11.

The Director may delay classifying a facility as ineligible for delivery, deposit or acceptance of petroleum or hazardous materials for up to one hundred and eighty (180) days if the Department determines that prohibiting deliveries to the UST(s) would jeopardize health and safety or the availability of fuel to the community

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Operator Training Requirements

Effective August 1, 2012, all UST facilities shall have operators that are trained and certified according to the requirements of this Rule. All facilities shall have three classes of operators: A, B, and C.

A facility may have more than one individual designated for each class of operator.

An individual certified as an A or B operator may do so at more than one UST facility.

Prior to August 1, 2012, each facility must complete and submit the Department's certified operators form. .

After August 1, 2012, all new Class A and Class B operators shall be trained and certified within 45 days of assuming responsibility for an UST facility.

Class C operators must be trained prior to assuming the responsibilities of a Class C operator.

All facilities must post a list of all its class C operators.

The Class A operator is an individual who has the primary statuary and regulatory responsibility for maintenance and operation of the UST facility. They have a general knowledge of the UST systems components including spill prevention, overfillprevention, release detection, corrosion protection, product compatibility, and emergency response. The Class A operator shall:

Ensure proper operation and maintenance of the UST system.

Ensure proper record keeping.

Ensure a proper response to emergencies caused by releases or spills from UST systems.

Make financial responsibility documents available upon request by the department.

Ensure all UST registration fees are paid to date.

Ensure that the facility has a certified Class B and a trained Class C operator(s).

The Class B operator is an individual who shall implement the daily on-site operation and maintenance of a UST system(s). The Class B operator shall:

Ensure that all applicable sections of Rule 8.00 are met including but not limited to; spill prevention, overfill prevention, and corrosion protection.

Ensure that the Class C operators are trained to respond to emergencies caused by release or spills from the UST system.

Conduct an on-site inspection at least once a month and to complete the Departments monthly inspection form. Results of these inspections shall remain on file at the facility, and be able to be produced at the time of a department inspection.

The Class C operator is an individual who is an employee and is, generally, the first line of response to events indicating emergency conditions. The Class C operator shall:

Be present at the facility during all operating hours.

Control or monitor the dispensing or sale of regulated substances from the UST system.

Properly respond to alarms or releases.

Notify the Class A or Class B operator and appropriate emergency responders when necessary.

Facilities that do not normally have employees on-site shall have a sign posted that lists the name and telephone number of the owner, operator or local emergency

responders. This sign must be posted so if an emergency occurs the person fueling the vehicle or filling the UST's can read it.

Operator training and Certification

Operator knowledge for all A and B operators must be demonstrated by the passing of an ICC (International Code Council) exam approved by the department. Certification as a result of passing this exam will be good for five years. A copy of this certification must be submitted to the Department to remain in compliance.

Passing of any other New England State exam administered by ICC will be an acceptable means of demonstrating knowledge and a certificate of passing must be submitted to the Department. A certificate of passing of any other New England ICC exam will be good for five years.

If a new operator in RI has demonstrated knowledge from passing an exam approved by another state (not administered by ICC), that certificate would be allowed as an acceptable means of demonstrating knowledge for a period of one year. After one year, the Class A or Class B operator must pass an ICC administered exam approved by the department.

Facilities with only Emergency Generators UST's shall receive certification through an ICC exam approved by the department or other training and certification methods approved by the Department.

Retraining and Re-Certification-If a facility fails a department conducted UST compliance Inspection then the Class A and/or Class B operators may be required to be retrained and/or re-certified depending on the violations.

Class A operator shall be retrained and/or re-certified if any facility for which they provide over-site are significantly out of compliance with Rule 8.22(B).

Class B operator shall be retrained and/or re-certified if any facility for which they provide over-site for are significantly out of compliance with Rule 8.22(C):

Class A and B operators that require retraining shall be retrained within 60 days of the date of the departments compliance inspection, and submit documentation providing proof of retraining.

Page 37: [3] Deleted **Kevin Gillen** **7/13/2009 9:32:00 AM**

(A) The Director shall classify all USTs located at a facility as ineligible for delivery, deposit, or acceptance of petroleum or hazardous materials, after providing written notice and within (7) seven days of determining that one or more underground storage tanks at the facility has one or more of the following violations:

(1) Failure to have the required spill prevention equipment installed, per Rule 8.16
(2) Failure to have the required overfill protection equipment installed, per Rule 8.16

(3) Failure to have the required leak detection equipment installed, pre Rules 8.08, 8.09, and 8.11; or
(4) Failure to have the required corrosion protection equipment installed, per Rule 8.05

(B) The Director may classify all USTs located at a facility as ineligible for delivery, deposit, or acceptance of petroleum or hazardous materials, if the owner/operator fails to complete corrective action and submit documentation within sixty (60) days following written notice from the Department of one or more of the following violations:

(1) Failure to properly operate and/or maintain leak detection equipment per Rules 8.08, 8.09, 8.10 and 8.15;
(2) Failure to properly operate and/or maintain spill prevention, overfill protection, or corrosion protection equipment per Rules 8.06, 8.07, and 8.16;
(3) Failure to maintain Financial Responsibility per Rule 7 and the Regulations promulgated under the "Rhode Island Underground Storage Tank Financial Responsibility Act", RIGL Chapter 46-12.9; or
(4) Failure to register or maintain registration including payment of all required fees.

(C) Upon classification of a UST system as ineligible for delivery, deposit, or acceptance of petroleum or hazardous materials, the Department shall determine and record the inventory of petroleum or hazardous materials remaining in each of the USTs located at the facility and a red tag shall be affixed by the Department to the fill pipe(s) of all USTs located at the facility. The tag or device must be:

(1) Located on the fill pipe of the UST,
(2) Affixed in a manner that it is easily and immediately visible to the product deliverer; and
(3) Affixed in manner that it cannot be removed and reattached without obvious visual evidence.

(D) No owner, operator, product deliverer or other person shall deliver, deposit, or accept petroleum or hazardous materials into a UST which has a red tag affixed to the fill pipe.

(E) No owner, operator, product deliverer, or other person shall remove, deface, alter, or otherwise tamper with a red tag affixed to a UST fill pipe.

A red tag shall remain affixed to a UST classified as ineligible for delivery, deposit, or acceptance of petroleum or hazardous materials until:

(1) The UST is returned to compliance for the violations causing classification of the UST as ineligible for delivery, deposit, or acceptance of petroleum or hazardous materials;
(2) The owner/operator submits notification to the Department that the violations causing the UST to be classified as ineligible for delivery, deposit, or acceptance of petroleum or hazardous materials have been corrected. Such notification shall be a written report detailing all actions that have been taken

to return to UST to compliance and including verification such as test reports, invoices, receipts, inventory records, etc.; and

(3) As soon as practicable, and within seven (7) days after notification of the corrections, the Department will perform a review sufficient to determine compliance and reclassify, or cause to be reclassified, the UST as eligible for delivery, deposit, or acceptance of petroleum or hazardous materials. For this section, “reclassified” shall mean the physical removal of the “Red Tag” by the Department or an individual specifically authorized by the Director to remove such tags.

USTs that are not brought into compliance including submission of all required notification and documentation to the Department within thirty (30) days after a red tag has been affixed, shall, be immediately placed into temporary closure in accordance with Rule 13.03.

USTs that are not brought into compliance including submission of all required notification and documentation to the Department within one hundred and eighty (180) days after a red tag has been affixed, shall be immediately permanently closed in accordance with Rules 13.05 and 13.11.

The Director may delay classifying a facility as ineligible for delivery, deposit or acceptance of petroleum or hazardous materials for up to one hundred and eighty (180) days if the Department determines that prohibiting deliveries to the UST(s) would jeopardize health and safety or the availability of fuel to the community

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
Office of Waste Management

Rules and Regulations For Underground Storage Facilities Used For Petroleum Products and Hazardous Materials

March 2011
Regulation # DEM-OWM-UST03-11

AUTHORITY: These regulations are adopted pursuant to Chapters 42-17.1.2(ee), 42-17.1.2(dd), Environmental Management, and Chapter 46-12, including but not limited to 2(e), 3(18), 3(21), 15, 38, Chapter 42-35-2,42-35-3, and in accordance with 42-35, Administrative Procedures, of the Rhode Island General Laws 1956, as amended.

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
Office of Waste Management

RULES AND REGULATIONS FOR UNDERGROUND STORAGE FACILITIES USED FOR PETROLEUM PRODUCTS AND HAZARDOUS MATERIALS

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RULE 1 PURPOSE

The purposes of these rules and regulations are to:

(A) Protect the waters of the state, including groundwater, from pollution resulting from the underground storage of petroleum products and hazardous materials;

(B) Establish procedures and requirements for the assessment and remediation of sites contaminated due to releases associated with the underground storage of petroleum products or hazardous materials;

(C) Implement a system of registration of underground storage tank facilities;

(D) Prevent releases from underground storage tanks of petroleum products or hazardous materials by establishing siting, design, installation and operating requirements for underground storage tank (UST) systems;

(E) Establish facility leak detection and monitoring requirements, and schedules, for the early detection of releases from underground storage tanks;

(F) Require facility owners/operators to guarantee the availability of sufficient resources to respond to and rectify releases from underground storage tanks systems;

(G) Establish fees and a schedule of payment for such fees; and

(H) Establish UST closure procedures that provide for protection of human health and the environment.

2.00 RULE 2 AUTHORITY

These rules and regulations are promulgated pursuant to Chapter 42-17.1.2(ee) and 42-17.1.2(dd), Environmental Management, and Chapter 46-12, including but not limited to 2(e), 3(18), 3(21), 15, 38, Chapter 42-35-2, 42-35-3, and, in accordance with 42-35, Administrative Procedures, of the Rhode Island General Laws 1956, as amended.

3.00 RULE 3 APPLICABILITY

The terms and provisions of these rules and regulations shall be liberally construed to permit the Department to effectuate the purposes of state law, goals, and policies.

3.01 General Applicability: Unless otherwise noted, these regulations apply to all proposed, new and existing underground storage tank facilities, at which petroleum product(s) and/or hazardous material(s) are or have been stored underground in a tank or tank system; whether such facilities serve institutional, industrial, commercial, educational, agricultural, governmental, residential or other purposes; and whether such facilities or USTs located there upon, have been abandoned; and to persons who owned or operated such facilities after May, 1985.

3.02 Leak & Spill Response: Rule 12 Leak and Spill Response, shall apply to all facilities and the owners/operators thereof, and any person having actual knowledge of a confirmed leak, spill or other release. There are no exemptions to the responsibility to report a suspected or confirmed leak or spill.

3.03 Exempted Tanks:

(A) These regulations do not apply to:

(1) Hydraulic Lift tanks;

(2) Storage tanks located entirely within structures, such as a basement or cellar provided that:

(a) The structure allows for physical access to the storage tank;
(b) The structure is not part of a secondary enclosure; and
(c) The tank is situated upon or above the surface of a concrete floor;

(3) Septic Tanks;

(4) Pipeline facilities regulated under the Natural Gas Pipeline Safety Act of 1968 or the Hazardous Liquid Pipeline Safety Act of 1979;

(5) Flow through process tanks;

(6) Underground storage tanks storing propane or liquefied natural gas;

(7) Underground storage tanks used for the temporary storage of raw materials or products by industry (so called "intermittent" or "fill and draw" tanks);

(8) Emergency Spill Protection and Overflow tanks;

(9) USTs connected to floor drains or other piping outlets which serve residential structures of a one, two or three family dwelling;

(10) Oil Water Separators with a planned discharge required to be regulated under the Clean Water Act.

(B) Except as provided for in Rule 9.02(A,B,C,D), pertaining to prohibition of new installations, Rule 12 Leak and Spill Response, and Rule 13.02(A), pertaining to prohibition of abandonment of any UST, these regulations do not apply to:

(1) **Residential Tank:** Tanks less than or equal to 1,100 gallons in capacity used for storing heating oil of any grade and serving a one, two or three family dwelling;

(2) **Farm Tank:** Tanks less than or equal to 1,100 gallons in capacity and storing heating oil of any grade for non-commercial purposes.

3.04 UST systems used to contain discharges of non-sanitary wastewaters (holding tanks): All existing and proposed UST systems which are used to contain discharges, both intermittent and continuous, of non-sanitary wastewaters or other pollutants from floor drains or other piping

outlets, shall be subject to Rule 6 Facility Registration and Notification, Rule 8.05 Mandatory Corrosion Protection Requirements for Tank Systems, Rule 13.02, pertaining to prohibition of abandonment of any UST, Rule 12 Leak and Spill Response, Rule 13 Closure, Rule 15 Signatories to Registration and Closure Applications, Rule 16 Transfer of Certificates of Registration or Closure, Rule 17 Holding Tanks, Rule 18 Variances, Rule 19 Appeals, and Rule 20 Penalties.

3.05 Applicable National Codes of Practice – Appendix B: Appendix B of these regulations adopt by reference certain national codes of practice to be applied by DEM in its administration of these regulations. As these national codes of practice are updated and amended over time, DEM may issue written policy documents adopting the updated codes for application with these regulations. Any such policy documents shall be issued in accordance with the provisions of the RI Administrative Procedures Act, including notice and hearing, and shall be filed with the RI Secretary of State's Office.

3.06 Applicability of Delivery Prohibition: Rule 8.21 shall apply to all UST systems and persons identified under rule 3.01 and all product deliverers.

NOTE: Certain USTs subject to these regulations are exempt from portions of the specific requirements that follow in the rules. Exemptions are identified in each applicable section.

4.00 RULE 4 ADMINISTRATIVE FINDINGS

(A) Approximately 25% of the population of Rhode Island depend upon groundwater as a sole or principal source of water supply.

(B) The principal groundwater resources of the State are located in relatively thin, glacial deposits of stratified sand and gravel that underlie about one-third of the State. These aquifers lie close to the surface and are extremely vulnerable to contamination.

(C) A number of small public and private water users obtain water from till-covered, fractured bedrock aquifers throughout the state. These aquifers are especially difficult to monitor and to reclaim once contaminated.

(D) A large portion of the State's future water supplies will likely be developed from groundwater sources due to the limited number of suitable sites for the construction of surface water reservoirs.

(E) The effective protection of drinking water supplies requires a recognition that groundwater and surface water systems are hydrogeologically interconnected and contaminants may be transferred between such systems.

(F) The growing number of groundwater contamination incidents resulting from releases of petroleum products and hazardous materials from UST systems poses a serious threat to the environment and public health.

(G) As a release from an UST poses a high risk to groundwater quality, the establishment of new tank facilities in the state's most valuable aquifer areas, those being designated wellhead protection areas pursuant to R.I.G.L. 46-13.1, should be restricted.

5.00 RULE 5 DEFINITIONS

For the purposes of these regulations, the following terms shall have the following meanings:

5.01 **"ABANDONMENT"** means the relinquishment or termination of possession, ownership or control of underground storage tanks, by vacating or by disposition, without meeting the closure requirements listed in Rule 13 of these regulations; or the action of taking a UST or UST system out of operation for a period of greater than 180 consecutive days without the prior permission of the Director pursuant to Rule 13 Closure.

5.02 **"AQUIFER"** means a geologic formation, group of formations, or part of a formation that contains sufficient saturated permeable material to yield quantities of water to wells and springs in quantities which in the aggregate are sufficient to supply the daily requirements of one or more persons.

5.03 **"AUTOMATIC TANK GAUGING SYSTEM"** is equipment used for automatic gauging that tests for the gain or loss of liquid contents of a UST. The automatic product level monitor test must be able to detect a 0.2 gallon per hour or less leak rate at 95% probability of detection from any portion of the tank that routinely contains product. It must also be capable of measuring water in the bottom of the tank to the nearest 1/8 inch. Inventory leak reporting requirements are stated in Rule 11.03.

5.04 **"CATHODIC PROTECTION"** is a technique to prevent the corrosion of metal surfaces by making that surface the cathode of an electrochemical cell.

5.05 **"CATHODIC PROTECTION TESTER"** means a person who can demonstrate an understanding of the principles and measurements of all common types of cathodic protection systems as applied to buried or submerged metal piping and tank systems. At a minimum, such persons must have education and experience in soil resistivity, stray current, structure-to-soil potential, and component electrical isolation measurements of buried metal piping and tank systems. Any person who has been certified by NACE International (the National Association of Corrosion Engineers) as a Corrosion Specialist or Cathodic Protection Specialist is recognized as meeting these requirements. In addition, a person who has been NACE International certified as a Corrosion Technician can serve as a Cathodic Protection tester, with the stipulation that the technician perform system testing under the direct oversight of a Corrosion Specialist, Cathodic Protection Specialist, Senior Corrosion Technologist, or Corrosion Technologist, as required by NACE International.

5.06 **"CLOSURE"** means the removal from service of any underground storage tank in accordance with the provisions of Rule 13 Closure.

5.07 "**CLASS A OPERATOR"** means the individual or individuals designated by the owner to have primary responsibility for the overall operation and maintenance of an UST system. This person must have an understanding of the statutory and regulatory requirements that relate to the permitting of the facility.

5.08 "**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 of the UST system(s).

5.09 "**CLASS C OPERATOR**" means the individual or individuals designated by the owner whose primary responsibility is to respond to alarms, or emergencies caused by spills or releases from a UST system at the facility

5.10 **"COMMENCED CONSTRUCTION"** means that the owner/operator has obtained all governmental approvals or permits required to begin physical construction and has either (1) begun a continuous on-site physical construction program; or (2) entered into contractual obligations which cannot be canceled or modified without substantial loss and are payable upon physical construction of the facility.

5.11 **"COMMERCIAL TANK"** means any underground storage tank used in the furtherance of trade, traffic, business or commerce including, without limitation, tanks used to store heating oil for residential structures containing four or more or living units.

5.12 **"COMMUNITY WATER SYSTEM"** means a public water system which serves at least fifteen service connections used by year-round residents or regularly serves at least 25 year-round residents.

5.13 **"COMPATIBLE"** means ability of two or more substances to maintain their respective physical and chemical properties upon contact with one another for the design life of the tank system under conditions likely to be encountered in the UST.

5.14 **"CONTAMINANT"** means any physical, chemical, biological or radiological substance in soil, water, air or any other environmental media which renders or is likely to render such soil, water, air or any other environmental media unfit for its intended use or for any feasible use.

5.15 **"CONTINUOUS MONITORING SYSTEM"** means an automatic, continuous leak detection and alarm system that operates independent of human assistance and meets industry standards such as those of Underwriters Laboratories (UL), and which is approved by the Director.

5.16 **"CORROSION EXPERT"** means a person who, by reason of thorough knowledge of the physical sciences and the principles of engineering and mathematics acquired by education and practical experience, is qualified to engage in the practice of corrosion control on buried or submerged metal tanks. Such a person must be accredited or certified by the National Association of Corrosion Engineers as either a Corrosion Specialist or Cathodic Protection Specialist or be a registered professional engineer with certification or licensing that includes education and experience in corrosion control of buried or submerged metal piping systems and metal tanks.

5.17 **"DEM"** or the **"Department of Environmental Management"** or the **"Department"** means the Rhode Island Department of Environmental Management and/or any office thereof.

5.18 **"DIESEL FUEL"** means any grade of distillate oil, commonly referred to as "diesel", that is manufactured and sold for use, or is used, as fuel in an internal combustion engine; including petroleum products substituted for use as a diesel fuel.

5.19 **"DIESEL GENERATOR"** means a machine that converts mechanical energy into electrical energy and is driven by an internal combustion energy, which consumes diesel fuel or a petroleum product substituted for use as a diesel fuel.

5.20 **"DIRECTOR"** means the Director of the Department of Environmental Management or his/her designee. Any documents or reports required to be submitted to the Director by these regulations should be sent to: UST Management Program, RI Department of Environmental Management, 235 Promenade Street, Providence, Rhode Island 02908.

5.21 **"DOUBLE-WALLED TANK"** means a container with two complete shells providing both primary and secondary containment. The container shall have a continuous 360° interstitial space between the primary and secondary shell. The interstitial space shall be designed so that an approved interstitial space monitor is able to continuously monitor this space. All double-walled tanks shall be UL-listed.

5.22 **"DRY SEASON"** means that the time period during which the groundwater tables are at their lowest elevation at which they occur, usually falling during the months of May-December. Specific dates for the dry season will be determined on a yearly basis by the Director.

5.23 **"DUAL-USAGE TANK"** means a UST whose contents serve more than one use. (For example, the contents of the UST serves both a boiler and an emergency generator.) Such tanks are treated under the usage, which is more stringently regulated.

5.24 **"EMERGENCY SPILL PROTECTION TANK"** means a tank used for temporary storage of substances in response to a leak, spill or other unplanned occurrence. This tank must be emptied expeditiously following use.

5.25 **"ENVIRONMENTAL CONSULTANT"** means a geologist certified by the American Institute of Professional Geologists (certified professional geologist), or a geologist registered by any state program (registered professional geologist), or a registered professional engineer, or an environmental professional working under the supervision of a registered professional engineer, or a certified professional geologist or a registered professional geologist, and who works for a firm that is independent of the owner/operator.

5.26 **"ENVIRONMENTALLY SENSITIVE AREA**" means any area, including but not limited to, those wherein the groundwater is classified as GA or GAA in accordance with Rule 9 Groundwater Classification of the RIDEM *Rules and Regulations for Groundwater Quality* and any other area which includes sensitive receptors.

5.27 **"EXCAVATION ZONE"** means the underground area containing the tank system and backfill material, bounded by the ground surface, walls, and floor of the pit and trenches into or from which the UST system is installed or removed.

5.28 **"FACILITY"** means any parcel of real estate or contiguous parcels of real estate owned and/or operated by the same person(s), which together with all land, structures, facility components, improvements, fixtures and other appurtenances located therein form a distinct geographic unit and at which petroleum products or hazardous materials are or have been stored in underground storage tanks.

5.29 **"FACILITY COMPONENT"** means any underground tanks, associated pipes, pumps, leak monitoring systems, cathodic protection systems, vaults, fixed containers or appurtenant

structures, used or designed to be used for the storage, transmission, or dispensing of petroleum products and hazardous materials.

5.30 **"FARMER"** means an individual, partnership or corporation who operates a farm and has filed a 1040F U.S. Internal Revenue Form with the Internal Revenue Service, has a State of Rhode Island farm tax number and has earned ten thousand dollars ($10,000) gross income on farm products in each of the preceding four (4) years.

5.31 **"FARM TANK"** means an underground storage tank located on a tract of land operated by a farmer, provided that the material stored is used on-site.

5.32 **"FLOW THROUGH PROCESS TANK"** means any tank that is an integral part of a production process through which there is a steady, variable, recurring, or intermittent flow of materials during the operation of the process. Flow-through process tanks do not include tanks used for the storage of materials prior to their introduction into the production process or for the storage of finished products or by-products from a production process.

5.33 **"FREE PRODUCT"** means any petroleum product or hazardous material that is present as a nonaqueous phase liquid (e.g. liquid not dissolved in water)

5.34 **"GASOLINE"** means a petroleum distillate, or blends of petroleum distillates, having a Reid vapor pressure of 7 pounds per square inch absolute (48.3 k Pa) or greater and capable of being used as fuel for internal combustion engines.

5.35 **"GROUNDWATER"** means water found in the saturated zone underground; which completely fills the open spaces between particles of sediment and within rock formations.

5.36 **"HAZARDOUS MATERIALS"** means any material defined as a "hazardous substance" by section 101(14) of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 USC 9605), as amended (see Appendix A). Hazardous materials shall also include any material defined as a "hazardous waste" pursuant to the Rhode Island Hazardous Waste Management Act of 1978, as well as any of the following materials:

(A) Acetone
(B) Ethanol
(C) Ethylene Oxide
(D) Methanol
(E) Methylene Chloride
(F) Perchloroethylene

5.37 **"HEATING OIL"** means No. 1, No. 2, No. 4, No. 5, or No. 6, technical grades of fuel oil, other residual fuel oil, including bunker C and/or other fuels, except motor fuels or waste oils, when used as substitutes for any of these fuel oils used for the purpose of producing heat (e.g., burned in a furnace).

5.38 **"HOLDING TANK"** means a UST system used to collect and contain discharges, both intermittent and continuous, of non-sanitary wastewater and other pollutants from floor drains or other piping outlets.

5.39 **"HYDRAULIC CONDUCTIVITY"** is a measure of the ability of an aquifer to transmit a fluid, which depends on the properties of both the fluid and the medium.

5.40 **“HYDRAULIC LIFT TANKS”** are those tanks holding hydraulic fluid for a closed-loop mechanical system using compressed air or hydraulic fluid to operate lifts, elevators, and other similar devices.

5.41 **“LEAK”** means a loss from or gain to a UST system of a 0.05 gallon per hour or more of fluid as determined by a tank tightness test or a line tightness test, or a 0.2 gallon per hour as determined by automatic tank gauging, or loss or gain of fluid to a UST system as determined by visual inspection, an interstitial monitoring system other continuous monitoring system, inventory control, or other appropriate means.

5.42 **“LINE LEAK DETECTOR”** means a device installed on the discharge side of a remote pump which is capable of interrupting product flow if there is a leak greater than or equal to three (3) gallons per hour at ten pounds per square inch of line pressure.

5.43 **“LOCAL FIRE CHIEF”** means the person responsible for the administration and direction of a fire department in a fire district or municipality, including a fire administrator or chief, or that person's designee.

5.44 **“MAINTENANCE”** means the normal operational upkeep of an underground storage tank system necessary to prevent a release of product.

5.45 **“MODIFICATION”** means any addition, replacement, restoration, refurbishment or renovation to an existing UST system or repair of any UST system component which regularly contains product that is inconsistent with the information provided to the Director in the Registration Application. Such modifications include, but are not limited to:

(A) Any alterations to the site plan;

(B) Any changes in design and/or specifications to a UST system’s corrosion protection equipment;

(C) Any changes in the design and/or specifications to a UST system’s leak detection equipment, including groundwater monitoring wells;

(D) The replacement or repair of any product piping;

(E) The installation, repair or replacement of any underground storage tank.

5.46 **“MONITORING WELL”** means a cased well with a screened interval that intercepts the water table and can be used to detect the presence of groundwater contamination.

5.47 **“MOTOR FUELS”** means any petroleum or a petroleum-based substance, typically used in the operation of combustion (motor) engines, including but not limited to, gasoline, aviation gasoline, No. 1 or No. 2 diesel fuel, or any grade of gasohol.

5.48 **“NFPA 30”** means the National Fire Protection Association publication number 30 entitled, "Flammable and Combustible Liquids Code," 2000 or current edition.

5.49 **“NFPA 30(A)”** means the National Fire Protection Association Publication Number 30A entitled "Code for Motor Fuel Dispensing Facilities and Repair Garages," 2000 or current edition.

5.50 **“NFPA 329”** means the National Fire Protection Association publication number 329 entitled, "Handling Underground Releases of Flammable and Combustible Liquids," 1999 or current edition.

5.51 **“NO. 1 FUEL OIL”** means a distillate oil, commonly referred to as kerosene, range oil, or jet propulsion fuel (JP-1).

5.52 **“NO. 1 1-D FUEL OIL”** -means a distillate oil, commonly referred to as light diesel oil.

5.53 **“NO. 2 FUEL OIL”** means a distillate oil, commonly referred to as home heating oil.

5.54 **“NO. 2 2-D FUEL OIL”** -means a distillate oil, commonly referred to as medium diesel oil.

5.55 **“NO. 4 FUEL OIL”** means a distillate oil blend of No. 2 and No. 6 fuel oil.

5.56 **“NO. 5 FUEL OIL”** means a distillate oil blend of No. 4 and No. 6 fuel oil.

5.57 **“NO. 6 FUEL OIL”** means a distillate oil, commonly referred to as Bunker-C or residual fuel.

5.58 **“NON-COMMUNITY WATER SYSTEM”** means a public water system that is not a community water system.

5.59 **“OBSERVATION WELL”** means a well other than a monitoring well that is typically located in a tank excavation or the collection sump of a secondary containment system.

5.60 **“OIL-WATER SEPARATOR”** means a UST system used typically for storm water runoff applications and intended for the separation of oil-water mixtures containing oils and greases.

5.61 **“ON-SITE”** means located on the same or geographically contiguous property, which may be divided by public or private right-of-way provided the entrance and exit between the properties is at a cross-roads intersection and access is by crossing as opposed to going along the right-of-way. Non-contiguous properties owned by the same person but connected by a right-of-way which he controls and to which the public does not have access, is also considered on-site property.

5.62 **“OPERATE A FACILITY”** means to maintain petroleum product(s) or hazardous material(s) in underground storage tanks at a facility for purposes of storage, use or sale, and to conduct Operation and Maintenance for each tank as required in Rule 8.

5.63 **“OPERATOR”** means any person in control of or having responsibility for the daily operation of a facility.

5.64 **“OVERFILL PROTECTION”** means a device that will restrict or stop the flow of fuel during a delivery or otherwise alert the transfer operator, before the tank reaches full capacity.

5.65 **“OVERFLOW TANK”** means a tank used for temporary storage of substances in response to a leak, spill or other unplanned occurrence. This tank must be emptied expeditiously following use.

5.66 **“OWNER”** means any person who holds exclusive or joint title to or lawful possession of a facility or part of a facility.

5.67 **"OWNER/OPERATOR"** means any owner and/or operator.

5.68 **"PERSON"** means an individual, trust, firm, joint stock company, corporation (including quasi-government corporation), partnership, or other unincorporated association, syndicate, governmental entity or subdivision thereof.

5.69 **"PETROLEUM PRODUCT"** means crude oil or any fractions thereof that is liquid at standard conditions of temperature (60°F) and pressure (14.7 pounds per square inch absolute) and includes substances derived from crude oil including, but not limited to the following:

(A) Gasoline
(B) Fuel Oils
(C) Diesel Oils
(D) Waste Oils
(E) Gasohol, lubricants and solvents

5.70 **"POLLUTANT"** means any material or effluent which may alter the chemical, physical, biological, or radiological characteristics and/or integrity of water, soil, air or other environmental media including, but not limited to, dredge spoils, solid waste, incinerator residue, sewage, garbage, sewage sludge, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, cellar dirt or industrial, municipal, agricultural, or other waste, petroleum or petroleum products, including but not limited to oil.

5.71 **"PRODUCT DELIVERER"** means any person who delivers or deposits product into an underground storage tank. This term may include major oil companies, jobbers, petroleum transportation companies, or other product delivery entities**.**

5.72 **"PUBLIC WATER SYSTEM"** means a system for the provision to the public of water for human consumption through pipes or other constructed conveyances, if such system has at least fifteen service connections or regularly serves at least 25 individuals daily at least 60 days out of the year.

5.73 "**RED TAG**" means a tag, device, or mechanism, approved by the Director and affixed to a UST system's fill pipe that clearly identifies a UST system as ineligible for product delivery. The tag or device must clearly state " It is unlawful to deliver to, deposit into, or accept product into this UST system". The tag or device must be of tamper resistant material in order that it cannot be removed and reattached without obvious visual evidence.

5.74 **"RELEASE"** means any spilling, leaking, pumping, pouring, injecting, emitting, escaping, leaching, or disposing of any material stored in an underground storage tank system subject to these regulations into groundwater, surface water, soil, air or any other environmental media.

5.75 **"REMOTE PUMPING SYSTEM"** (also known as a submerged pumping system) means a system in which one or more pumping units push petroleum product, via a pressurized piping system, to one or more points away from the tank or tanks.

5.76 **"REMOVE FROM SERVICE"** means to cease to operate a facility component.

5.77 **"RESIDENTIAL TANK"** means a tank containing No. 2 heating oil serving a one, two or three-family dwelling.

5.78 **“SATURATED THICKNESS”** means the thickness of an aquifer below the water table.

5.79 “**SEPTIC TANK**” means a watertight receptacle which receives the discharge of sewage from a building sewer, and is designed and constructed to permit the deposition of settled solids, the digestion of the matter deposited, and the discharge of the liquid portion into a leaching system.

5.80 **“SPILL”** means a loss of petroleum product or hazardous material in a manner other than a leak, occurring on the property where a facility is in operation, and such that the product or material is likely to enter groundwater, surface water, soil, air or any other environmental media and shall be considered a release from a facility.

5.81 **“SPILL CONTAINMENT BASIN”** means a device installed in fill pipe manholes that prevents petroleum product or hazardous material spills from leaching into the soil and groundwater.

5.82 **“STRATIFIED DRIFT”** means the predominantly sorted sediments deposited in layers by meltwater from a glacier.

5.83 **“SUBMERGED FILL TUBE**” or “**DROP TUBE**” means any fill pipe or tube which fits directly into the underground tank riser pipe and allows submerged filling. This pipe or tube should be located six (6) inches above the bottom of the tank and cut at a 45º angle.

5.84 **“SUBSTANTIAL CONSTRUCTION”** means that a continuous on-site physical construction program has progressed to a point where 25% or more of the total project is completed or where 25% or more of the total cost of the project has been expended for materials which are at the site.

5.85 **“SUCTION PUMPING SYSTEM”** means a system in which a pump at a dispensing island reduces pressure in the product line to the underground storage tank to less than atmospheric pressure, causing product from the tank to be pulled to the island via the product suction line.

5.86 **“SURFACE WATER”** means a body of water whose top surface is exposed to the atmosphere and includes all waters of the territorial sea, tidewaters, all inland waters of any river, stream, brook, pond, lake or wetlands.

5.87 **“TANK”** means a stationary device designed to contain petroleum products or other regulated substances and which is constructed of non-earthen materials that provide structural support and which is an underground storage tank.

5.88 **“TIGHTNESS TEST”** means a test able to determine whether or not an underground storage tank, line or system is leaking as defined by NFPA 329, "Handling Releases of Flammable and Combustible Liquids and Gases". The test shall be capable of accurately detecting a tank or a tank and line leak of 0.1 gallons per hour, adjusted for all variables, with a probability of detection of no less than 95 percent and a probability of false detection of no more than 5 percent. Measurements recorded for each test shall be in accordance with manufacturer's protocol. The test method must be approved by the Director prior to use, and must be conducted by persons who have demonstrated the capability to properly conduct the test in accordance with Rule 14, Approval of Tank and/or Line Tightness Tests.

5.89 **“TILL”** means the predominantly unsorted, unstratified sediments deposited directly by a glacier.

5.90 **"TRANSMISSIVITY"** is a measure of the ability of an aquifer to transmit a fluid. It is equal to the average hydraulic conductivity multiplied by the saturated thickness.

5.91 **"UNDERGROUND"** means 10 percent or more of the volume of the facility components (storage tanks and piping) is buried in the ground.

5.92 **"UST"** or **"UNDERGROUND STORAGE TANK (UST) SYSTEM"** means any one or more underground tanks, whose volume is 10 percent or more beneath the surface of the ground, and their associated components, including piping, used to contain an accumulation of petroleum product or hazardous material. The system shall include piping whose volume is 10 percent or more beneath the surface of the ground.

5.93 **"VAULT"** means a structure such as a basement or cellar which: houses an underground storage tank; is designed to contain any leaks from the tank and provide protection from corrosive soils; is not part of a secondary enclosure; and is designed such that the tank is situated upon or above the surface of a concrete floor and allows for physical access to an inspection of the storage tank and inside the vault.

5.94 **"VENT WHISTLE"** means a device installed in the vent pipe of a UST designed to whistle when the tank is being filled but goes silent when the tank is full.

5.95 **"WASTE OIL"** means used or spent oil of any kind, including but not limited to those oils from automotive, industrial, aviation and other sources.

5.96 "**WEAR PLATE**" means a thick deflection plate or striker plate measuring at least 9 inches wide and at least one foot square in an area which is located on the bottom of the UST, under each tank opening.

5.97 **"WELLHEAD PROTECTION AREA"** means the three-dimensional zone, surrounding a public well or wellfield through which water will move toward and reach such well or wellfield, as designated by the Director pursuant to 46-13.1.

6.00 RULE 6 FACILITY REGISTRATION AND NOTIFICATION

6.01 Applicability: All owners/operators of USTs shall comply with the registration requirements of this Rule unless otherwise exempted in Rule 3.03.

6.02 Prohibition of Use of Unregistered USTs: No person subject to this rule shall operate an underground storage tank facility unless the tank(s) is/are registered with the Department.

6.03 Registration Deadlines: The owner/operator of an UST facility shall apply for and obtain a certificate of registration from the Director in accordance with the following schedule:

(A) New and Replacement Facilities: The owner/operator shall apply for a certificate of registration before commencing construction.

(B) Existing facilities: The owner/operator shall have applied for and obtained a certificate of registration in accordance with the following deadlines:

Type of Tank	Registration Deadline

Tanks of any size storing No. 4, No. 5 or No. 6 fuel oils	January 31, 1993
Tanks with less than or equal to a capacity of 1,100 gallons storing motor fuels at residential properties	January 31, 1993
Farm tanks with less than or equal to a capacity of 1,100 gallons storing motors fuels	January 31, 1993
Tanks serving floor drains	July 1, 1994
All other tanks subject to these regulations of any size storing petroleum products or hazardous materials	April 9, 1985

(C) USTs No Longer in Service: Any UST that has been removed from service for more than 180 days without the permission of the Director is considered abandoned and shall be subject to the closure requirements contained in Rule 13 Closure.

6.04 Application for Registration: To apply for a certificate of registration, the facility owner/operator shall complete, certify and submit to DEM the application forms available from the Department, along with the applicable registration fees. Information to be included on the form shall include, but not be limited to, the following

(A) For New UST Systems and Proposed Replacement Tank Systems:

(1) A set of detailed installation plans and specifications for the tank system. All plans for new UST systems shall be stamped by a registered professional engineer. The Director reserves the authority to require that plans for replacement UST installations be stamped by a registered professional engineer at locations where the site conditions and/or installation are determined to be complex or pose engineering difficulties.

(2) A written description, including technical specifications, of the following:

(a) Proposed tank size, construction material, construction type and material to be stored;
(b) All proposed leak monitoring systems;
(c) Proposed spill/overfill protection methods;
(d) Proposed corrosion protection methods; and
(e) Operation and maintenance requirements for any of the above.

(3) A site plan including all of the information listed below:

(a) Proposed locations of all tanks, piping, and dispensing pumps;
(b) Proposed locations of on-site monitoring or observation wells; where applicable.
(c) Watertable elevation, where available;

(d) Location of all public water supply wells or reservoirs within 400 feet of the facility site;
(e) Location of all facilities served by private wells within 200 feet of the facility site;
(f) Location of all proposed and existing building and associated structures;
(g) Boundaries of the facility site; and
(h) North Arrow.

(B) For Existing UST Systems :

(1) The results of all tightness tests and leak detection tests pertaining to all tanks and associated piping.

(2) Written description of the following:

(a) Installation date
(b) Tank size, construction material, construction type and material stored;
(c) All existing or proposed leak monitoring systems;
(d) Spill/overfill protection methods;
(e) Corrosion protection methods; and
(f) Operation and maintenance requirements for any of the above.

(3) A site plan including all of the information listed below:

(a) Location of all tanks, piping, and dispensing pumps;
(b) Location of existing or proposed on-site monitoring or observation wells; where applicable.
(c) Description of water service to the facility and properties within 200 feet of the facility site;
(d) Location of buildings and associated structures on-site;
(e) Boundaries of the facility site; and
(f) North Arrow

(4) Description of all repairs performed on the tank system.

(5) A description of all past spills and leaks associated with the tank system known to have occurred at the site in or after October, 1984.

6.05 Unknown Tank Size: Any tank of unknown size shall be assumed to be of regulated capacity unless it is determined to the satisfaction of the Director by records or measurements that the tank is not of regulated capacity.

6.06 Unknown Tank Age: Any tank of unknown age shall be assumed to be greater than twenty years of age for the purpose of these rules.

6.07 Issuance of Registration Certificates:

(A) For Existing UST Systems: The Director shall issue a certificate of registration to the owner/operator of an existing tank or existing tank facility upon review and approval of an application and receipt of fees pursuant to this Rule.

(B) For New and Replacement UST Systems: The Director shall issue a certificate of registration to the owner/operator of a tank facility at which new or replacement tanks have been installed in accordance with an approved application, and upon receipt and approval of the following:

(1) Complete registration application form;

(2) Applicable fee payment;

(3) Installation plans; stamped by a professional engineer for new facilities;

(4) A completed installation certification form, as specified in Appendix D, signed by the installer and owner;

(5) A completed manufacturer's installation checklist, signed by the contractor; and

(6) Tightness test results for the tank(s) and piping, which indicates that the tank system, as installed, is not leaking.

(C) Receipt of a registration certificate DOES NOT necessarily indicate compliance with all applicable rules of these regulations.

6.08 Renewal of Registration Certificates: All facility owners/operators, except those listed as exempt in Rule 6.09 below, shall renew their certificate(s) of registration annually as follows:

(A) During the first quarter of each fiscal year (July 1 to September 30), the Department shall send renewal notices and invoices for the payment of registration fees to each owner/operator of registered underground storage tanks. Each owner/operator shall return the invoice with payment of fees set forth in this section no later than forty-five (45) days from the date of said notices and invoices.

(B) Certificates of registration shall be valid for one year expiring on September 30th annually,: or through 45 days after the date of invoice for the subsequent fiscal year.

6.09 Exempted Tanks: The following owners/operators of underground storage tank facilities, while required to meet the obligations of these regulations, are exempt from annual registration fees:

(A) Federal, state and local governments and any agency or department of those governments;

(B) Nonprofit fire districts;

(C) Owners/occupiers of one, two, or three family dwellings that utilize tanks, of a capacity of greater than 1,100 gallons storing heating oil that is consumed solely onsite for heating purposes;

(D) Owners/operators of farm tanks of greater than a capacity of 1,100 gallons storing fuel for heating purposes;

(E) Owners/operators of underground storage tanks that have been closed in accordance with these regulations.

(F) Receipt of a registration certificate DOES NOT necessarily indicate compliance with all applicable sections of these regulations.

6.10 Registration Fees: All facility owners/operators shall pay to the Department an annual registration fee of seventy five dollars ($75.00) for each underground storage tank required to be registered at the facility.

6.11 Multi-compartment Tanks: The registration fee for USTs with multi-compartments will be based upon the number of compartments. (If a tank has two compartments it is considered two tanks for registration and fee purposes.)

6.12 Payment of Fees:

(A) All persons who register or renew registration of underground storage tank facilities shall submit registration fees in the form of a check made payable to: "Treasurer, State of Rhode Island," which will be placed in a restricted receipt account to be used for the UST Program.

(B) All payments must be for the full amount of the registration fee, including late fees where applicable.

(C) The Director shall deposit all monies collected pursuant to this rule into the Water and Air Protection Program as established in General Laws section 42-17.1-2(z).

6.13 Late Fees: Owners/operators who fail to pay a registration fee within the specified time frame shall be subject to a late fee charge of $35.00 per tank per year.

6.14 Acceptance of Fees: The Director's acceptance of registration fees does not indicate that the tanks are in compliance with all UST regulations.

6.15 Penalties:

(A) Failure to obtain a certificate of registration in accordance with these regulations shall constitute a violation of these regulations and may subject the owner/operator to penalties.

(B) Where an owner/operator of a Facility who fails to obtain a certificate of registration from the Department, the Director may order the owner/operator to immediately implement temporary or permanent closure procedures in accordance with Rule 13 Closure, of these regulations.

6.16 Modifications of Certificates of Registration:

(A) Changes in Ownership: Changes in ownership of a tank or tank facility are subject to Rule 16, Transfer of Certificates of Registration or Closure.

(B) Change in Registration Information: Excepting a change in ownership, which is subject to Rule 16 Transfer of Certificates of Registration or Closure, owners/operators of a UST facility shall:

(1) Report any change in information contained on the original registration form (including a change in the product stored) to the DEM in writing within (10) ten days of that change.

(2) Maintain a continuous and accurate record of the name, address and length of time during which particular persons operated a facility. The record shall be maintained by the owner/operator until such time as the facility is closed in accordance with Rule 13 Closure, of these regulations. Upon request, the written record of operators shall be made available by the owner to the Department.

6.17 Revocation of Registration: The Director may, after (10) ten days written notice to the person or persons affected, and after a hearing, if requested by the affected person or persons, suspend, modify or revoke a certificate of registration for cause including, but not limited to:

(A) The information submitted by the application was incomplete, false or misleading;

(B) Circumstances on which the certificate was based have materially and substantially changed since the certificate was issued;

(C) Failure to pay registration fees;

(D) Noncompliance with these Regulations;

(E) Failure to comply with an order of the Director; or

(F) Failure to provide information to the Director that is required to be maintained under these regulations after receipt of written request from the Director.

6.18 Closure of Facilities with Revoked Registrations: Upon the denial or revocation of the certificate of registration by the Director, the owner/operator shall immediately implement facility closure procedures in accordance with Rule 13 of these regulations.

7.00 RULE 7 FINANCIAL RESPONSIBILITY

7.01 Applicability: This Rule shall apply to all owners/operators of petroleum underground storage tank systems required to register under these regulations with the following exceptions:

(A) USTs used solely for the storage of heating or fuel oils consumed on the facility premises;

(B) Farm or residential USTs with capacity of 1,100 gallons or less and used solely for the storage of motor fuel which is not for resale;

(C) Airport hydrant fueling systems; and

(D) UST facilities owned by the state, federal or municipal government which, consistent with EPA requirements, have been deemed to be inherently capable of meeting financial responsibility requirements.

7.02 Compliance Dates: Owners of petroleum underground storage tanks are required to comply with the requirements of this Rule in a manner consistent with 40 CFR 280, as amended, by the following dates:

(A) By January 24, 1989: All petroleum marketing firms owning 1,000 or more USTs and all other UST owners that report a tangible net worth of $20 million or more to the U.S. Securities and Exchange Commission (SEC), Dun and Bradstreet, the Energy Information Administration, or the Rural Electrification Administration;

(B) By October 26, 1989: All petroleum marketing firms owning 100-999 USTs;

(C) By April 26, 1991: All petroleum marketing firms owning 13-99 USTs at more than one facility;

(D) By December 31, 1993: All other petroleum UST owners, including municipal governments, not described in paragraphs (A), (B), or (C) of this section.

7.03 Demonstration of Financial Responsibility:

(A) Unless otherwise exempted from these rules, the owner of any UST system shall demonstrate financial responsibility for taking corrective action and for compensating third parties for bodily injury and property damage caused by accidental releases from an underground storage tank system in a manner and in amounts consistent with 40 CFR part 280, as amended.

(B) The amount of financial assurance required in part 7.03 (A) shall exclude legal defense costs.

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

7.04 Rhode Island UST Financial Responsibility Fund: An owner/operator may satisfy the Financial Responsibility requirement by being eligible for the Rhode Island UST Financial Responsibility Fund, established by the "Rhode Island Underground Storage Tank Financial Responsibility Act", RIGL Chapter 46-12.9.

8.00 RULE 8 MINIMUM UST OPERATION AND MAINTENANCE REQUIREMENTS

8.01 Applicability: This section shall apply to all existing UST systems, with the exception that those systems storing heating oil of any grade that is consumed on-site solely for heating purposes are exempt from Rules 8.03, 8.04, 8.05, 8.06, 8.07, 8.08, 8.09, 8.10, 8.11, 8.12, 8.15, 8.17, 8.21 and 8.22.

8.02 General Operations and Maintenance:

(A) All USTs shall be maintained and operated by trained personnel and in compliance with the applicable national codes of practice for the handling and storage of petroleum or hazardous materials as listed in Appendix B.

(B) Facilities subject to leak detection requirements shall post or provide in a location available to the operators of UST systems, written instructions pertaining to the operation of leak detection equipment, as well as spill response procedures.

(C) Facilities subject to inventory record-keeping requirements shall comply with Rule 11.03 Inventory Record-keeping and Leak Reporting.

(D) All gasoline dispensing facilities (including retail, commercial, and municipal stations) subject to Stage I and Stage II vapor controls shall comply with the RI DEM Office of Air Resources Air Pollution Regulation No. 11: Petroleum Liquids Marketing and Storage.

(E) Compatibility: All new or replacement tank and/or piping systems shall be made of, or lined with, materials that are compatible with the substance(s) stored. The owner/operator shall not introduce, or allow to be introduced, any material into a UST system that is incompatible with the UST system. The use of ethanol motor fuel which exceeds 10% ethanol in gasoline is prohibited without prior written notification by the owner/operator to the Department along with submission of documentation that the entire UST system is compatible.

(F) Correct Filling Practices: All UST facilities shall establish procedures for determining the available storage capacity of each of its tanks and shall comply with those procedures and communicate the available capacity to delivery personnel before allowing any product to be delivered to the facility's tank(s). Facilities shall also establish procedures to monitor deliveries in order to prevent tank overfills and product spills.

8.03 Facility Compliance - Environmental Results Program: The Environmental Results Program (ERP) is a mandatory facility compliance inspection program. Owners/Operators shall ensure that their facilities comply with these regulations by conducting their own inspections and certifying their compliance by completing and submitting a *Compliance Certification Checklist & Forms Booklet* (the "ERP Certification Booklet") .

(A) At least every three (3) years, the Department will issue an ERP Certification Booklet to all operating UST facilities. The ERP Certification Booklet will include the following:

(1) Non-Applicability Statement
(2) Compliance Certification Checklist
(3) Certification Statement
(4) Return to Compliance Form

(B) Along with the ERP Certification Booklet, the Department will also issue an *ERP Compliance Certification Workbook* (the "ERP Workbook"). The ERP Workbook will provide guidance to owners/operators regarding the performance of their ERP inspection and instructions for completing and submitting the ERP Certification Booklet.

(C) Owners/operators shall return the completed ERP Certification Booklet to the Department within the time frame specified by the Director.

(D) Neither the ERP Certification Booklet nor the ERP Workbook shall be construed to be a substitute for, or to waive, replace or supersede the requirements of these regulations. In the event of any conflict between these regulations and the ERP Certification Booklet or the ERP Workbook, these regulations shall prevail.

(E) Neither the ERP Certification Booklet nor the ERP Workbook shall be construed to be an exhaustive compliance review. The Department reserves the right to target specific

compliance issues through the ERP certification process without waiving any of the other requirements of these regulations.

(F) Compliance with the ERP requirements contained in this Rule shall not limit the Director's right to inspect any UST facility and its records at any reasonable time, with or without notice.

(G) Nothing in this Rule shall be construed to prohibit the Director from issuing ERP Certification Booklets more often than every three years. The Director may also issue ERP Certification Booklets to all UST facilities, individual UST facilities or targeted groups of UST facilities.

8.04 Mandatory Deadline for Permanent Closure of Single-Walled UST Systems (Tanks and/or Piping): Except as provided in Rule 8.01, all existing tank and piping systems without secondary containment shall be permanently closed as follows:

(A) Single-walled tanks and/or piping installed prior to May 8, 1985 shall be permanently closed by December 22, 2017.

(B) Single-walled tanks and/or piping installed between May 8, 1985 and July 20, 1992 shall be permanently closed within thirty-two (32) years of the date of installation.

8.05 Mandatory Corrosion Protection Requirements for Tank Systems: Except as provided in Rule 8.01 above, the owners/operators of existing UST facilities shall have provided for corrosion protection of all unprotected steel tanks and metallic piping no later than December 22, 1998. Facilities shall have provided for corrosion protection by either:

(A) Closing all tank systems which did not meet corrosion protection standards, and installing new or replacement tanks and piping which comply with Rule 9 New and Replacement Tank System Requirements.

(B) Upgrading existing tanks and piping to provide for corrosion protection through:

(1) Interior lining (see Rule 8.06); and/or

(2) Cathodic protection (see Rule 8.07).

8.06 Interior Lining: Interior lining is no longer accepted as a method of corrosion protection. However, USTs lined prior to the effective date of these regulations are required to be inspected as follows:

(A) Within 10 years after lining, and every 5 years thereafter, the lined tank shall be internally inspected in accordance with NLPA Standard 631, 1994 and found to be structurally sound with the lining still performing in accordance with original design specifications. Follow-up internal inspections of lined tanks are not required when the tank has external cathodic protection meeting the requirements of Rule 8.07.

(B) Records of all tank lining inspections are required to be permanently kept in accordance with Rule 11.02 (A) Permanent Records.

8.07 Cathodic Protection:

(A) All cathodic protection systems must be operated and maintained to continuously provide corrosion protection to the metal components of that portion of the tank system that routinely contains regulated substances and is in contact with the ground.

(B) All UST systems equipped with cathodic protection must be inspected and tested for proper operation by a qualified cathodic protection tester in accordance with the following requirements:

(1) All impressed current cathodic protection systems must be surveyed within 6 months of installation or repair, at least every 2 years following the installation date, and whenever construction or maintenance in the area of the structure occurs. The operational survey should include the following:

(a) Measurement of anode-to-structure resistance and structure-to-electrolyte resistance;
(b) Measurement of structure-to-reference electrode potentials at all test stations (perform testing to verify structure polarization in accordance with NACE RP-0169-2002 or RP0285-2002);
(c) Verification of the accuracy of the display module readings;
(d) Adjustment of rectifier as required;
(e) Submission of written report of findings, to be kept in accordance with the permanent record keeping requirements cited in Rule 11.02(A).

(2) All sacrificial anode (galvanic or *sti*-P_3) systems must be tested within 6 months of installation or repair, at least every 3 years following the installation date, and whenever construction or maintenance in the area of the structure occurs, in order to determine that the tank-to-soil potential reading relative to copper is –850 millivolts or more negative.

(3) The criteria used to determine whether a cathodic protection system provides adequate cathodic protection must be in accordance with a nationally recognized code of practice listed in Appendix B.

(4) Failed tests or surveys must be reported to the Department by the tester within 24 hours, and the results are to be submitted within 15 days.

(C) USTs with impressed current cathodic protection systems must also be inspected every 60 days by the owner/operator or designee to ensure the equipment is running properly. The following tasks must be performed:

(1) Read and record the rectifier DC current output;

(2) Read and record the rectifier DC voltage output;

(3) Inspect the rectifier for physical damage.

(D) For UST systems using cathodic protection, records of the operation, repair and testing of the cathodic protection system must be permanently kept in accordance with Rule 11.02 (A) Permanent Records.

(E) Cathodic protection systems shall not be shut off or deactivated at any time except for repair. Any malfunction must be reported to the Department within 24 hours and be repaired within 30 days of the first occurrence. If the device cannot be repaired within 30 days, then the affected UST system(s) shall be temporarily closed in accordance with Rule 13.03 of these Regulations until satisfactory repairs are made. Malfunctioned systems not repaired within 180 days require the UST to be permanently closed in accordance with Rule 13.05. Any deactivation or failure of a corrosion protection system shall be reported within 24 hours to the Department by the owner/operator or designee.

(F) Repairs, or replacements of existing UST cathodic system components, including the addition of supplemental anodes, require prior approval from the Department and shall be performed in accordance with NACE RP0285-2002 and/or STI R972, January 2006. A report detailing the type and extent of work shall be submitted to the Director within thirty (30) days of work completion.

8.08 Leak Detection for Existing Tanks: Except as provided in Rule 8.01 above, owners/operators of all existing facilities shall comply with the applicable leak detection requirements:

(A) Double-Walled USTs: The following requirements apply to all double-walled USTs except those used for emergency generators and waste oil/motor oil. See Rules 8.08 (D) and 8.08 (E) for requirements for emergency generators and waste oil/motor oil USTs.

(1) Install and operate a continuous interstitial space electronic monitoring system consistent with the requirements in Rules 9.15 and 9.17, and

(2) Perform daily and monthly inventory control and record keeping consistent with Rule 11.03, and maintain inventory records in accordance with Rule 11.02(B).

3) Perform a test for tightness on the interstitial space between the tank's walls as follows:

(a) A test for tightness on the interstitial space shall be performed when the tank has been installed for a period of twenty years, and once every 2 years thereafter.
(b) Interstitial space testing shall be consistent with the tank manufacturer's protocol or an alternative recognized method.
(c) Such testing shall be performed by persons and businesses licensed in accordance with Rules 14.04 and 14.05.
(d)Testing results shall be submitted to the Director within fifteen (15) calendar days of the test date and shall include the start and end vacuum readings, test duration, and water table (as referenced from the tank bottom).
(e) All suspected or confirmed leaks/releases and failed or inconclusive tests shall be immediately reported and promptly investigated in accordance with Rule 12 Leak and Spill Response.
(f) A Release Characterization Report shall be submitted by the owner/operator within seven (7) days for test results which are fail or inconclusive.
(g) The owner/operator must have the contents of a UST system for which test results are fail or inconclusive completely removed within 24 hours, or a retest of the UST system must be arranged by the owner/operator and the retest conducted within 3 days.
(h) If the results of a UST system retest fail or are inconclusive, then the owner/operator must have the contents of the UST system completely removed within 24 hours of the retest.

(i) Test results are to be maintained as permanent records in accordance with Rule 11.02(A).

(j) Double-walled USTs with a brine solution or other inert liquid in the interstitial space are not required to have this test performed and instead shall be continuously monitored for a change in fluid level in the reservoir and interstice.

(B) Single-Walled USTs: Leak detection requirements as follows:

(1) Install and operate an approved automatic tank gauging system that tests for loss or gain of the contents stored, and is consistent with the requirements in Rule 8.15. Single-walled USTs installed prior to October 1984 were required to have automatic tank gauging by December 22, 1998. Single-walled USTs installed between October 1984 and July 1992 were required to have automatic tank gauging upon tank installation. The installation of new single-walled USTs has been prohibited since July 1992.

(2) Perform a leak test capable of detecting a leak rate of 0.2 gallons per hour or less at least once per month. For manifolded USTs a leak test is required for each tank separately (or a continuous statistical leak detection system certified for manifolded tank applications and meeting U.S. E.P.A. performance standards can be used). All leak test results shall be maintained in accordance with Rule 11.02(B).

(3) Perform daily and monthly inventory record keeping consistent with Rule 11.03. Inventory records are required to be maintained in accordance with Rule 11.02(B), Routine Record-keeping.

(4) Perform a tank tightness test at five-year intervals once a monitoring device has been installed, until such time as the tank has been installed for a period of twenty years; thereafter, tank tightness tests shall be conducted once every two years. Single-walled tanks that have been installed for a period of thirty (30) years shall have a tightness test performed annually beginning in 2015, and all single-walled tanks shall be permanently closed in accordance with the schedule outlined in Rule 8.04. Tank tightness tests shall be consistent with Rule 8.10.

(C) Single-Walled USTs Upgraded with Interior Lining and/or Cathodic Protection: Leak detection requirements as follows:

(1) Install and operate an approved automatic tank gauging system that tests for loss or gain of the substance stored and is consistent with the requirements in Rule 8.15.

(2) Perform a leak test capable of detecting a leak rate of 0.2 gallons per hour or less at least once per month. For manifolded USTs a leak test is required for each tank separately (or a continuous statistical leak detection system certified for manifolded tank applications and meeting U.S. E.P.A. performance standards can be used). All leak test results shall be maintained in accordance with Rule 11.02(B).

(3) Perform daily and monthly inventory record-keeping consistent with Rule 11.03. Inventory records are required to be maintained in accordance with Rule 11.02(B), Routine Record-keeping.

(4) Perform a tank tightness test at five year intervals once a monitoring device has been installed, until such time as the tank has been installed for a period of twenty years; thereafter, tank tightness tests shall be conducted once every two years. Single-walled tanks that have been installed for a period of thirty (30) years shall have a tightness test performed annually beginning in 2015, and all single-walled tanks shall be permanently closed in accordance with the schedule outlined in Rule 8.04. Tank tightness tests shall be consistent with Rule 8.10.

(5) For USTs upgraded with interior lining and/or cathodic protection in accordance with Rule 8.06 and/or Rule 8.07, annual tightness testing is required in conjunction with inventory record keeping and shall be a permissible leak detection method for a period no longer than ten (10) years after the date of the upgrade. After ten years, a leak detection method that provides for continuous monitoring must be installed consistent with Rules 8.08(C)(1) and (2) and Rule 8.15.

(D) Emergency Diesel Generator USTs: USTs serving an emergency diesel generator, and USTs whose stored substance serves both an emergency diesel generator and an on-site boiler, shall comply with leak detection requirements as follows:

(1) Double-walled USTs shall be equipped with a continuous interstitial space electronic monitoring system consistent with the requirements in Rules 9.15 and 9.17. A test for tightness on the interstitial space between the tank's walls shall be performed when the tank has been installed for a period of twenty years, and every two (2) years thereafter, in accordance with Rule 8.08 (A)(3).

(2) Single-walled UST leak detection requirements are as follows:

(a) Install and operate an approved automatic tank gauging system that tests for loss or gain of the contents stored and is consistent with the requirements in Rule 8.15. Single-walled USTs installed prior to October 1984 are required to have been equipped with automatic tank gauging by December 22, 1998. Single-walled USTs installed between October 1984 and July 1992 are required to have been equipped with automatic tank gauging upon tank installation. The installation of single-walled USTs after July 1992 is prohibited.

(b) Perform a leak test capable of detecting a leak rate of 0.2 gallons per hour or less at least once per month. For manifolded USTs a leak test is required for each tank separately (or a continuous statistical leak detection system certified for manifold tank applications and meeting U.S. E.P.A. performance standards can be used). All leak test results shall be maintained in accordance with Rule 11.02(B), Routine Record-keeping.

(c)Perform a tank tightness test at five year intervals once a monitoring device has been installed, until such time as the tank has been installed for a period of twenty years; thereafter, tank tightness tests shall be conducted once every two years. Single-walled tanks that have been installed for a period of thirty (30) years shall have a tightness test performed annually beginning in 2015, and all single-walled tanks shall be permanently closed in accordance with the schedule outlined in Rule 8.04. Tank tightness tests shall be consistent with Rule 8.10.

(3) Diesel generator USTs used for the production of commercial electricity are regulated in accordance with Rules 8.08(A) and (B).

(E) Waste Oil USTs and Motor Oil USTs**:** UST's used to store waste oil or motor oil shall comply with leak detection requirements as follows;

(1) Double-walled USTs shall be equipped with a continuous interstitial space electronic monitoring system consistent with the requirements in Rules 9.15 and 9.17. A test for tightness on the interstitial space between the tank's walls shall be performed when the tank has been installed for a period of twenty years and every two (2) years thereafter, in accordance with Rule 8.08 (A)(3).

(2) Single-walled USTs with a capacity of less than or equal to 2000 gallons shall comply with either (a) or (b) below:

(a) ATG and Tank Tightness Testing:

1. Install and operate an approved automatic tank gauging system that tests for loss or gain of the contents stored and is consistent with the requirements in Rule 8.15.
2. Perform a leak test capable of detecting a leak rate of 0.2 gallons per hour or less at least once per month. For manifolded USTs a leak test is required for each tank separately (or a continuous statistical leak detection system certified for manifold tank applications and meeting U.S. E.P.A. performance standards can be used). Leak test results shall be maintained in accordance with Rule 11.02(B).
3. Perform a tank tightness test at five year intervals once a monitoring device has been installed, until such time as the tank has been installed for a period of twenty years; thereafter, tank tightness tests shall be conducted once every two years. . Single-walled tanks that have been installed for a period of thirty (30) years shall have a tightness test performed annually beginning in 2015, and all single-walled tanks shall be permanently closed in accordance with the schedule outlined in Rule 8.04. Tank tightness tests shall be consistent with Rule 8.10.

(b) Manual Tank Gauging and Tank Tightness Testing

1. Perform an annual tank tightness test consistent with Rule 8.10.
2. Perform inventory record keeping and leak reporting as follows:
   a. Once a week take the tank out of service for a period of 36 hours
   b. Take liquid level measurements before and after the 36-hour shut down period.
   c. Once a month reconcile your 4 weeks of data in accordance with Appendix D.

(3) Single-walled USTs with a capacity greater than 2000 gallons shall comply with the following requirements:

(a) Install and operate an approved automatic tank gauging system that tests for loss or gain of the contents stored and is consistent with the requirements in Rule 8.15.

(b) Perform a leak test capable of detecting a leak rate of 0.2 gallons per hour or less at least once per month. For manifolded USTs a leak test is required for each tank separately (or a continuous statistical leak detection system certified for manifold tank applications and meeting U.S. E.P.A. performance standards can be used). Leak test results shall be maintained in accordance with Rule 11.02(B).

(c) (c)Perform a tank tightness test at five year intervals once a monitoring device has been installed, until such time as the tank has been installed for a period of twenty years; thereafter, tank tightness tests shall be conducted once every two years. Tank tightness tests shall be consistent with Rule 8.10

(F) Heating Oil USTs Used for Off-Site Consumption: UST systems storing heating oil of any grade that is consumed off-site shall comply with the leak detection requirements outlined in Rules 8.08(A), (B), and (C).

8.09 Leak Detection for Piping: Except as provided in Rule 8.01 above, all existing piping associated with UST facilities shall comply with one or more of the following requirements. Piping that is contained inside a trench or trough (e.g. "Fiber-Trench") shall be considered single walled.

(A) Double Walled Piping:

(1) Requires interstitial or annular space monitoring consistent with Rules 9.16 and 9.17.

(2) Requires a test performed on the secondary containment pipe as follows:

(a) A test for tightness on the interstitial space shall be performed when the piping system has been installed for a period of twenty years, and once every 2 years thereafter.
(b) Interstitial space testing shall be consistent with the piping manufacturer's protocol or an alternative recognized method.
(c) Such testing shall be performed by persons and businesses licensed in accordance with Rules 14.04 and 14.05.
(d)Testing results shall be submitted to the Director within fifteen (15) calendar days of the test date and shall include the start and end pressure readings and test duration.
(e) All suspected or confirmed leaks/releases and failed or inconclusive tests shall be immediately reported and promptly investigated in accordance with Rule 12 Leak and Spill Response.
(f) A Release Characterization Report shall be submitted by the owner/operator within seven (7) days for test results which are fail or inconclusive.
(g) The owner/operator must have the carrier or primary pipe tightness tested in accordance with Rule 8.10 within 3 days of a failed or inconclusiveness interstitial space test. If the primary pipe tests as fail or inconclusive, then the line shall be taken out of service immediately. If the primary pipe tests as pass, then the secondary containment pipe shall be repaired within 30 calendar days.
(h) A repaired secondary containment pipe shall be retested prior to placing the piping system back into regular operation. If the repaired secondary pipe tests as fail or

inconclusive, then the owner/operator shall have the line taken out of service immediately.

(i) Test results are to be maintained as permanent records in accordance with Rule 11.02(A).

(j) In accordance with Rule 10.04(C) of the regulations, a qualified environmental consultant is required to be on-site during all excavation activities.

(B) Single Walled Piping: Must comply with the following:

(1) All tank systems equipped with pressurized piping shall have performed a line tightness test upon installation and annually thereafter.

(2) With the exception of "European" or "safe suction" systems (no valve at the tank) all tank systems equipped with suction piping shall have a line tightness test performed upon installation, 5, 8, 11 and 13 years following installation, and annually thereafter. All single-walled piping shall be permanently closed in accordance with the schedule outlined in Rule 8.04.

(3) "European" or "safe suction" piping systems which have the check valve located at the base of the dispensing unit or pump and have no valve at the tank shall have a line tightness test performed upon installation, 5, 8, 11 and 13 years following installation, and once every two years thereafter. When the piping system has been installed for a period of thirty (30) years, a line tightness test shall be performed annually beginning in 2015. All single-walled piping shall be permanently closed in accordance with the schedule outlined in Rule 8.04.

(4) Line tightness tests shall be consistent with Rule 8.10.

(5) Electronic line leak detectors that are third-party certified to meet U.S. E.P.A. performance standards can be used to satisfy Rule 8.09(B)(1). Such equipment shall perform an annual 0.1 gallon per hour pressure leak test. Test results are to be maintained as permanent records in accordance with Rule 11.02(A). All failed or inconclusive tests shall be immediately reported in accordance with Rule 12 Leak and Spill Response. Electronic line leak detectors shall also be tested annually for proper operation in accordance with Rule 8.11.

(C) Alternative leak detection methods for piping that are equivalent in accuracy and reliability to the methods listed may be approved by the Director pursuant to Rule 18 Variances.

8.10 Tank and Line Tightness Testing Requirements: Tank and line tightness testing shall be consistent with the following:

(A) Tightness test results must be capable of detecting a 0.1 gallon per hour leak rate from the entire tank system, accounting for the effects of thermal expansion or contraction of product, vapor pockets, tank deformation, evaporation, condensation, and the location of the water table. The probability of detection shall be no less than 95 percent and the probability of a false alarm shall be no more than 5 percent.

(B) Each tightness test result submitted to DEM shall include at minimum the following information:

(1) Date the test was performed;

(2) Facility name and address;

(3) Facility owner name and address;

(4) Identification of the USTs tested, including volume and stored material;

(5) Brand name and type of tightness test equipment used for the test;

(6) Identification of the UST system components tested (e.g., tank and lines; tank only);

(7) Product piping type (e.g., pressurized or suction);

(8) Identification of the licensed tester who performed the test, and the names of any persons assisting in the test;

(9) Data sheets with the test readings recorded;

(10) Calculations pertaining to the test method and test results;

(11) Location of monitoring or observation well, if used in the test procedure;

(12) Description of the method used to measure the water table if required, and the result;

(13) Signature of the licensed tester attesting to the accuracy of the information submitted in the test result;

(14) DEM facility ID number; and

(15) Site plan identifying all tanks on site with tank numbers on cover sheet corresponding to tank numbers on the site plan.

(C) Failure to provide the information specified in Rule 8.10(B) may render the test invalid.

(D) The testing company shall notify the Department of the date that the testing will be conducted at least 7 days in advance. All tightness test results required in this rule (including results of failed or inconclusive tests) shall be submitted by the owner/operator to the Director within fifteen (15) calendar days of the date of test completion. All suspected or confirmed leaks/releases and failed or inconclusive tests shall be immediately reported in accordance with Rule 12 Leak and Spill Response.

(E) All persons who conduct tightness tests on underground storage tanks located in Rhode Island are required to be licensed in accordance with Rule 14 Approval of Tank and/or Line Tightness Tests, Leak Detection Methods and Tightness Tester Licensing Requirements.

(F) Any licensed tester or testing company who offers to, or otherwise undertakes the burden of, submitting test results to the Department on behalf of the owner/operator of a UST or UST facility must submit said test results in accordance with the requirements of these Regulations and forward copies of the test results to the owner/operator who contracted for the tests. Failure of the licensed tester to comply with this section will make the tester and the company that employs the tester jointly and severally liable for any penalty assessed by the Department against the owner/operator for the late filing or failure to file the results of these tests.

(G) Tank and line tightness test results are to be maintained as permanent records in accordance with Rule 11.02(A).

8.11 Line Leak Detectors: All underground storage tanks at existing facilities that are equipped with pressurized piping are required to have been fitted with an approved line leak detection system by May 8,1987. Line leak detectors shall be tested annually in accordance with the manufacturer's requirements and procedures by trained, qualified personnel. "Failed" or defective line leak detectors shall be replaced immediately. Operation of a pressurized piping system with a defective or missing line leak detector is prohibited. Records of the annual test results shall be kept in accordance with Rule 11.02(A), Permanent Records.

8.12 Shear/Crash/Impact Valves: Remote pumping systems shall be equipped with an emergency shut-off valve designed to close automatically in the event of a severe impact or fire exposure. The automatic closing feature of this valve shall be checked at the time of installation and at least once a year thereafter by manually tripping the hold-open linkage. "Failed" or defective valves shall be replaced immediately. Testing is to be performed by the owner/operator or trained personnel. The test results, test date, and name of person performing the test shall be kept in accordance with Rule 11.02(B), Routine Record-keeping. Operation of a remote pumping system with a defective crash valve is prohibited.

8.13 Anti-Siphon Valves: Where a tank is located at an elevation that produces a gravity head on the dispensing unit. the tank outlet shall be equipped with a device (such as a solenoid valve) that will prevent gravity flow from the tank to the dispenser. This device shall be positioned, installed, and adjusted so that liquid cannot flow by gravity from the tank to the dispenser in the event of failure of the piping or hose when the system is not in use.

8.14 Check Valves: Suction piping systems shall be equipped with a functioning check valve located directly below and as close as practical to the inlet of the suction pump.

8.15 Operation of Leak Monitoring Equipment:

(A) Leak monitoring devices shall be installed, calibrated, operated and maintained in accordance with the manufacturer's instructions, including routine maintenance and service checks for operability or running conditions. All records pertaining to the equipment manufacturer, warranties, maintenance requirements, repairs, and testing shall be maintained on-site for the life of the system or at an alternate location approved by the Director in writing.

(B) Leak monitoring devices shall not be shut off or deactivated at any time except for repair. Any malfunction shall be repaired within fifteen (15) working days of its first occurrence. If the device(s) cannot be repaired within 15 days, the affected system(s) shall be temporarily closed in accordance with Rule 13.03 until satisfactory repairs are made. The owner/operator shall perform daily manual tank gauging and inventory record keeping in the event of a

monitoring system being deactivated. Any deactivation of a monitoring device shall be immediately reported to the Director by the owner/operator.

(C) Leak monitoring devices shall employ an audible alarm and a visual indicator, which shall be so located as to be readily heard and seen by the owner/operator or other personnel during normal working hours. All alarms and warnings must be responded to immediately.

(D) All monitoring devices shall be conspicuously marked or labeled as being monitoring devices and shall be secured against vandalism, incidental damage, and improper deactivation.

(E) All continuous monitoring systems and alarms shall be tested by the owner/operator on a monthly basis to ensure that they are operating effectively. Records of such tests shall be maintained in accordance with Rule 11.02(B), Routine Record-keeping.

(F) All leak-monitoring devices shall be inspected, calibrated and tested annually to ensure proper operation. Such testing must be performed by trained, qualified persons and in accordance with the manufacturer's requirements. Records of such tests shall be maintained in accordance with Rule 8.15(A) and Rule 11.02(A), Permanent Records.

(G) Continuous monitoring systems must be designed, constructed, and installed so as to detect a 0.2 gallon per hour leak rate from any portion of tank system that routinely contains product. The probability of detection shall be no less than 95 percent and the probability of a false alarm shall be no more than 5 percent.

8.16 Spill Containment and Overfill Protection:

(A) Spill Containment Basins:

(1) All underground storage tanks at existing facilities are required to have spill containment basins around all fill pipes. Spill containment basins must be capable of holding a minimum of three gallons. Spill containment basins are required to be properly maintained, in good condition, and kept free of water, product or debris. Spill containment basins shall be inspected weekly and before and after deliveries.

(2) USTs with aboveground fill pipes do not require spill containment basins, provided that:

(a) The ground surrounding the fill pipe is covered with a material that is impervious to the substance stored and is properly graded to contain spills of 3 gallons; (example: concrete and asphalt are acceptable, while dirt and grass are not)
(b) The fill pipe extends a minimum of 6 inches above the finished grade;
(c) Above-ground fill pipes located in areas subject to traffic or vehicular damage shall be protected by concrete-filled bollards with a minimum diameter of 2 inches, and at least three feet high, three feet below grade, and spaced no more than four feet apart.

(B) Overfill Protection: All underground storage tanks at existing facilities required to be registered by these regulations are required to have overfill protection in accordance with 9.13(C), with the following exceptions:

(1) USTs used to store heating fuels consumed on-site solely for heating purposes and installed prior to July 21, 1992; and

(2) USTs that never receive more than 25 gallons at one time.

(C) Written verification of the installation of spill containment and overfill protection equipment must be submitted by the owner/operator to the Director within fifteen (15) calendar days of installation.

(D) Sumps: Piping collection and transition sumps, submersible pump head containment structures, and dispenser pans/sumps, where existing, shall be maintained such that all penetration fittings and entry boots are in good condition, all sensors are secured in an upright position and located at least one inch below the lowest penetration fitting or entry boot, and are kept clean and dry. Sumps shall be inspected at least annually and whenever an alarm or warning from a leak monitoring device indicates the presence of product or water.

8.17 Submerged Fill Tube: Except as provided in Rule 8.01, all USTs are required to be equipped with a submerged fill tube.

8.18 Fill Pipe Labeling: All fill pipes and/or fill box covers shall be permanently labeled or otherwise permanently marked, so that the product inside the tank is identified. The American Petroleum Institute Publication 1637, 2006 may be used to satisfy this requirement.

8.19 Groundwater Monitoring Wells and UST Pad Observation Wells: All groundwater monitoring wells and tank pad observation wells that are finished at ground level must:

(A) Be equipped with a labeled and tamper-resistant cover. Labels shall identify them as being groundwater monitoring or observation wells.

(B) Be fitted with a locking gripper cap or plug.

(C) Cannot be screened to the top, in order to prevent surface water from infiltrating the wells.

(D) Be maintained so as to assure the prevention of pollutants from entering into the well.

(E) Unless otherwise instructed by the Director, the water in all groundwater monitoring wells shall be bailed and evaluated for visual and olfactory evidence of free product no less than once per year and in accordance with Rule 9.18(C). Groundwater monitoring wells no longer used to gather information on geologic or groundwater properties shall be permanently abandoned in accordance with Appendix 1 of the RIDEM "Rules and Regulations for Groundwater Quality."

8.20 Record Keeping: Owners/operators of existing facilities shall maintain records documenting compliance with the provisions of Rule 8 Minimum UST Operation and Maintenance Facility Requirements, in accordance with Rule 11 Maintaining Records.

8.21 Delivery Prohibition

(A) The Director shall classify all USTs located at a facility as ineligible for delivery, deposit, or acceptance of petroleum or hazardous materials, after providing written notice and within (7)

seven days of determining that one or more underground storage tanks at the facility has one or more of the following violations:

(1) Failure to have the required spill prevention equipment installed, per Rule 8.16
(2) Failure to have the required overfill protection equipment installed, per Rule 8.16
(3) Failure to have the required leak detection equipment installed, per Rules 8.08, 8.09, and 8.11; or
(4) Failure to have the required corrosion protection equipment installed, per Rule 8.05

(B) The Director may classify all USTs located at a facility as ineligible for delivery, deposit, or acceptance of petroleum or hazardous materials, if the owner/operator fails to complete corrective action and submit documentation within sixty (60) days following written notice from the Department of one or more of the following violations:

(1) Failure to properly operate and/or maintain leak detection equipment, perform tank or pipeline tightness testing, and/or compile inventory control records per Rules 8.08, 8.09, 8.10, 8.11, 8.15, and 11.03;
(2) Failure to properly operate and/or maintain spill prevention, overfill protection, or corrosion protection equipment per Rules 8.06, 8.07, and 8.16;
(3) Failure to maintain Financial Responsibility per Rule 7 and the Regulations promulgated under the "Rhode Island Underground Storage Tank Financial Responsibility Act", RIGL Chapter 46-12.9;
(4) Failure to register or maintain registration including payment of all required fees; or
(5) Failure to obtain or maintain required certification for Class A, Class B and/or Class C operator(s) per Rule 8.22.

(C) Upon classification of a UST system as ineligible for delivery, deposit, or acceptance of petroleum or hazardous materials, the Department shall determine and record the inventory of petroleum or hazardous materials remaining in each of the USTs located at the facility and a red tag shall be affixed by the Department to the fill pipe(s) of all USTs located at the facility. The tag or device must be:

(1) Located on the fill pipe of the UST,
(2) Affixed in a manner that it is easily and immediately visible to the product deliverer; and
(3) Affixed in manner that it cannot be removed and reattached without obvious visual evidence.

(D) No owner, operator, product deliverer or other person shall deliver, deposit, or accept petroleum or hazardous materials into a UST which has a red tag affixed to the fill pipe.

(E) No owner, operator, product deliverer, or other person shall remove, deface, alter, or otherwise tamper with a red tag affixed to a UST fill pipe.

(F) A red tag shall remain affixed to a UST classified as ineligible for delivery, deposit, or acceptance of petroleum or hazardous materials until:

(1) The UST is returned to compliance for the violations causing classification of the UST as ineligible for delivery, deposit, or acceptance of petroleum or hazardous materials;

(2) The owner/operator submits notification to the Department that the violations causing the UST to be classified as ineligible for delivery, deposit, or acceptance of petroleum or hazardous materials have been corrected. Such notification shall be a written report detailing all actions that have been taken to return to UST to compliance and including verification such as test reports, invoices, receipts, inventory records, etc.; and

(3) As soon as practicable, and within seven (7) days after notification of the corrections, the Department will perform a review sufficient to determine compliance and reclassify, or cause to be reclassified, the UST as eligible for delivery, deposit, or acceptance of petroleum or hazardous materials. For this section, "reclassified" shall mean the physical removal of the "Red Tag" by the Department or an individual specifically authorized by the Director to remove such tags.

(G) USTs that are not brought into compliance including submission of all required notification and documentation to the Department within thirty (30) days after a red tag has been affixed, shall, be immediately placed into temporary closure in accordance with Rule 13.03.

(H) USTs that are not brought into compliance including submission of all required notification and documentation to the Department within one hundred and eighty (180) days after a red tag has been affixed, shall be immediately permanently closed in accordance with Rules 13.05 and 13.11.

(I) The Director may delay classifying a facility as ineligible for delivery, deposit or acceptance of petroleum or hazardous materials for up to one hundred and eighty (180) days if the Department determines that prohibiting deliveries to the UST(s) would jeopardize health and safety or the availability of fuel to the community.

8.22 Operator Training Requirements

(A) Effective August 1, 2012, all UST facilities shall have operators that are trained and certified according to the requirements of this Rule. All facilities shall have three classes of operators: A, B, and C.

(1) A facility may have more than one individual designated for each class of operator.

(2) An individual certified as a Class A or Class B operator may do so at more than one UST facility.

(3) The same individual may serve as Class A, Class B, and Class C operator, provided the individual is certified in each Class.

(4) Prior to August 1, 2012, each facility must complete and submit the Department's certified operators form listing Class A and Class B operators, and shall immediately submit an updated form whenever there is a change in designated Class A and Class B operators.

(5) After August 1, 2012, all new Class A and Class B operators shall be trained and certified within 30 days of assuming responsibility for a UST facility.

(6) Class C operators must be trained prior to assuming the responsibilities of a Class C operator.

(7) All facilities must maintain, and revise when changes occur, a list of all its Class C operators assigned to the facility. The list shall include the latest date of training, and the name of the Class A or Class B operator that trained each Class C operator.

(B) The Class A operator is an individual who has the primary statutory and regulatory responsibility for maintenance and operation of the UST facility. This individual shall be trained to have an understanding of the statutory and regulatory requirements that relate to the permitting of the facility, including: financial responsibility; spill containment; overfill protection; release detection; corrosion protection; emergency response; product compatibility; notification requirements; release and suspected release reporting; temporary and permanent closure requirements; reporting and recordkeeping requirements; and operator training requirements. The Class A operator shall, at a minimum:

(1) Ensure proper operation and maintenance of the UST system.
(2) Ensure proper record keeping.
(3) Ensure a proper response to emergencies caused by releases or spills from UST systems.
(4) Make financial responsibility documents available upon request to the Department.
(5) Ensure all UST registration fees are paid to date.
(6) Ensure that the facility has a certified Class B and a trained Class C operator(s).

(C) The Class B operator is an individual who shall implement the daily on-site operation and maintenance of a UST system(s). This individual shall be trained to have a practical and regulatory understanding of the components of an UST system and its proper operation, including: spill containment; overfill protection; release detection; corrosion protection; emergency response; and product compatibility. The Class B operator shall, at a minimum:

(1) Ensure that all applicable sections of Rule 8 are met including, but not limited to; spill containment, overfill protection, leak detection (including inventory control), and corrosion protection.
(2) Ensure that the Class C operators are trained to respond to emergencies caused by releases or spills from the UST system.

(D) The Class C operator is an individual who is an employee and is, generally, the first line of response to events indicating emergency conditions. This individual shall be trained to recognize and respond to emergencies caused by releases or spills from the UST system, and be familiar with the facility layout and with reading alarm enunciator panels. Except as specified in (E) below, a Class C operator shall:

(1) Be present at the facility during all operating hours.
(2) Control or monitor the dispensing or sale of regulated substances from the UST system.
(3) Properly respond to alarms or releases.
(4) Notify the Class A or Class B operator and appropriate emergency responders when there is a spill or other emergency.

(E) Facilities that do not normally have employees on-site (e.g., state/municipal unmanned fueling facilities) shall have a sign posted that lists both the name and telephone number of the owner or operator and local emergency responders, and advises persons to call these numbers in the event of a spill or other emergency. This sign must be posted so that if an emergency occurs the person fueling the vehicle or filling the USTs can read it. Before operating without having a Class C operator present during all operating hours, these

facilities must be approved by the Department in writing. These facilities must still have trained A, B and C operators. A designated person(s) must be available to respond to emergencies when the owner or operator is contacted.

(F) The Class A or B operator shall conduct an on-site inspection at least once a month and complete a monthly inspection form that will be provided by the Department. Results of these inspections shall remain on file at the facility for three years, and be made available at the time of a Department inspection.

(G) Operator Training and Certification

(1) Operator knowledge for all A and B operators must be demonstrated by the passing of an ICC (International Code Council) exam approved by the Department. Certification as a result of passing this exam will be good for five years provided the facility remains in compliance with these regulations. A copy of this certification must be submitted to the Department to remain in compliance.
(2) Passing any other New England State approved exam administered by ICC will be an acceptable means of demonstrating knowledge and a certificate of passing must be submitted to the Department. A certificate of passing of any other New England ICC exam will be good for five years provided the facility remains in compliance with these regulations.
(3) If a new operator in RI has demonstrated knowledge from passing an exam approved by another state (not administered by ICC), that certificate is allowed as an acceptable means of demonstrating knowledge for a period of one year provided the facility remains in compliance with these regulations. A copy of the certification must be submitted to the Department. After one year, the Class A or Class B operator must pass an ICC administered exam approved by the Department and submit a copy of that certification to the Department.
(4) Class C operators must be trained every two years, by a Class A or B operator (or a Class A or B operator trained in accordance with (G)(1), (2) or (3) above may be designated as a Class C operator for the time period(s) specified in (G)(1), (2) or (3) above).

(H) Retraining and Re-Certification-If a facility is not in compliance with these regulations at the time of a Department or EPA conducted UST compliance inspection then the Class A and/or Class B operators shall be required to be retrained and re-certified as specified below:

(1) Class A operators shall be retrained and re-certified if any facility for which they provide oversight is determined by the Department to be significantly out of compliance with the requirements of these regulations for which a Class A operator is responsible as provided in Rule 8.22(B).
(2) Class B operators shall be retrained and re-certified if any facility for which they provide oversight is determined by the Department to be significantly out of compliance with requirements of these regulations for which a Class B operator is responsible as provided in Rule 8.22(C):
(3) Class A and B operators that require retraining shall be retrained and recertified within 60 days of the date of the Department's letter of non compliance, and shall submit written documentation within 10 days of re-certification.

9.00 RULE 9 NEW AND REPLACEMENT TANK SYSTEM REQUIREMENTS

9.01 Applicability: This section shall apply to all new or replacement USTs and piping under these regulations with the exception of those tank systems to be used to store heating oil consumed on-site solely for heating purposes, which are exempt from Rules 9.06, 9.07, 9.15, 9.16 and 9.17.

9.02 Prohibitions:

(A) The installation of new USTs wherein the groundwater is designated as a wellhead protection area for a community well, pursuant to RIGL 46-13.1, is prohibited. However, USTs that have been registered prior to the effective date of these regulations and have not been abandoned or removed from the ground for more than 180 days shall be permitted to be replaced with a tank(s) of equivalent size or less, substance stored, and in accordance with the provisions of these regulations.

(B) In accordance with the RI DOH "Rules and Regulations Pertaining to Public Drinking Water" (R46-13-DWQ), the installation of a UST within 200 feet of a public dug well or bedrock well or within 400 feet of a gravel-packed or gravel-developed well is prohibited.

(C) USTs are to be installed as far away as possible from private wells, per the RI DEM "Rules and Regulations Governing the Enforcement of Chapter 46-13.2 Relating to the Drilling of Drinking Water Wells."

(D) The installation of bare steel or metal USTs for storage of petroleum products or hazardous materials is prohibited.

(E) No person shall commence construction of a new tank system or replacement tank system, and no modification (including product piping replacement) may be made to any UST facility for which an application for a certificate of registration is required, without prior written notification to and approval by the Director.

9.03 General Requirements:

(A) Before commencing construction of a new UST system, replacement UST system, or modification to an existing UST system (including product piping replacement), the owner/operator is required to submit at minimum the following:

(1) A completed *Underground Storage Tank Registration Form*;

(2) A completed *Equipment List Addendum*;

(3) A completed *UST Installation/Modification/Upgrade Supplemental Information* form;

(4) A site plan including all of the information listed in Rule 6.04(A)(3) (plans for new UST systems must be stamped by a registered Professional Engineer);

(5) Specifications or a diagram indicating depth of excavation, bedding, and backfill, supports and anchorage used, distance between tanks, and dimensions (including thickness) of traffic pad.

(6) The appropriate registration fees in accordance with Rules 6.09 and 6.10.

(B) Letters of approval from the Director authorizing the installation of new/replacement UST systems or modification of an existing UST system are valid for a period of one (1) year from the date of issuance. Approvals may be extended by the Director upon written request by the owner/operator.

(C) In accordance with Rule 10.04(C), an on-site environmental consultant shall be present for all modifications involving the excavation of soils.

(D) All USTs shall be maintained and operated in compliance with all national codes of practice for handling and storing of petroleum or hazardous materials as listed in Appendix B.

(E) All USTs equipped with cathodic protection shall be maintained and operated in accordance with the requirements outlined in Rule 8.07 of these Regulations.

(F) All Secondary Containment Systems shall be designed, constructed and installed to:

(1) Contain regulated substances released from the tank system until they are detected and removed,
(2) Prevent the release of regulated substances to the environment at any time during the operational life of the underground storage tank system, and
(3) Be checked for evidence of a release at least every 30 days.

9.04 Compatibility: All new or replacement tank and/or piping systems shall be made of or lined with materials that are compatible with the substance(s) stored. The owner/operator shall not introduce, or allow to be introduced, any material into a UST system that is incompatible with the UST system.

9.05 Tanks - Design and Manufacturing Standards: All new USTs installed in Rhode Island shall provide for secondary containment of the tank and associated piping and shall be constructed in accordance with one of the national codes of practice listed in Appendix B, and the requirements listed below:

(A) All new and replacement USTs shall be of double-walled construction.

(B) All USTs constructed of fiberglass-reinforced plastic shall comply with one of the following national codes, as amended:

(1) Underwriter's Laboratories Standard 1316, April 2, 1996: "Standard for Glass-Fiber-Reinforced Plastic Underground Storage Tanks for Petroleum Products, Alcohols, and Alcohol-Gasoline Mixtures",

(2) Underwriters Laboratories of Canada ULC-S615-1998: "Standard for Underground Reinforced Plastic Tanks. "

(C) All USTs constructed of steel shall be cathodically protected and shall comply with one of the following national codes, as amended:

(1) Underwriters Laboratories of Canada CAN/ULC-S603-1992 "Standard for Underground Steel Tanks ", CAN/ULC-S603.1-1992: "Standard for Galvanic Corrosion Protection

Systems for Underground Steel Tanks," and CAN4-S631-1984(R1998): "Isolating Bushings for Steel Underground Tanks Protected with Coatings and Galvanic Systems;"

(2) National Association of Corrosion Engineers Standard RP0285-2002: "Corrosion Control of Underground Storage Tank Systems by Cathodic Protection" and Underwriters Laboratories Standard 58, December 13, 1996: "Standard for Steel Underground Tanks for Flammable and Combustible Liquids."

(3) Steel Tank Institute sti-P_3 , February 2010:"STI-P3 Specification and Manual for External Corrosion Protection of Underground Steel Storage Tanks" and Underwriters Laboratories Standard 58, December 13, 1996: "Standards for Steel Underground Storage Tanks for Flammable and Combustible Liquids."

(D) Steel-fiberglass reinforced plastic composite UST systems, steel-high density polyethylene (HDPE) UST systems, and steel-polyurethane UST systems shall comply with Underwriters Laboratories Standard 1746, January 17, 2007: "Standard for External Corrosion Protection Systems for Steel Underground Tanks," as amended, Underwriters Laboratories Standard 58, December 13, 1996: "Standard for Steel Underground Tanks for Flammable and Combustible Liquids," as amended, and one of the following codes: Steel Tank Institute STI F894, February 2010: "ACT-100 Specification for External Corrosion Protection of FRP Composite Steel USTs," as amended, Steel Tank Institute STI F922, February 2010: "Specification for Permatank," as amended, or Steel Tank Institute STI F961, February 2010: "ACT-100-U Specification for External Corrosion Protection of FRP Composite Steel Underground Storage Tanks," as amended.

9.06 Wear Plates: All new and replacement USTs shall have steel wear plates, on the inside bottom of the tanks, centered under all openings with minimum dimensions of at least 9 inches wide and at least one square foot in area and at least 1/4" thick.

9.07 Submerged Fill Tube: All new and replacement USTs shall have a submerged fill tube.

9.08 Fill Pipe Labeling: All fill pipes and/or fill box covers shall be permanently labeled , or otherwise permanently marked, so that the product inside the tank is identified. The American Petroleum Institute Publication 1637, 2007 may be used to satisfy this requirement

9.09 Manufacturer's Test: Prior to installation, all new and replacement USTs shall be factory tested and guaranteed tight by the manufacturer. This guarantee shall be filed with the Director at the time of installation.

9.10 Installation Standard:

(A) All tanks, piping, and other related facility components shall be installed in accordance with a code of practice developed by a nationally recognized association or independent testing laboratory as listed in Appendix B and in accordance with the manufacturer's instructions.

(B) The installer shall be certified or licensed as may be required by the RI Department of Labor, Division of Professional Regulation. (See RI General Laws Chapter 28-27 regarding the installation of commercial gasoline, diesel fuel, and heating oil UST systems.)

(C) The local city/town building official shall be notified prior to the commencement of installation.

9.11 Tightness Testing Upon Installation:

(A) All new and replacement tanks and piping (primary and secondary) shall be tightness tested after all paving over the tanks and piping has been completed and before commencing regular UST operation. In accordance with Rule 8.10(D), the results of this initial tightness test shall be submitted to the Director within 15 calendar days of test completion or, in the event of a leak, in accordance with Rule 12 Leak and Spill Response.

(B) Tightness tests must be capable of detecting a 0.1 gallon per hour leak rate from the entire tank system, accounting for the effects of thermal expansion or contraction of product, vapor pockets, tank deformation, evaporation, condensation, and the location of the water table. The probability of detection shall be no less than 95 percent and the probability of a false alarm shall be no more than 5 percent.

(C) All persons who conduct tightness tests and all test methods used must be licensed in accordance with Rule 14 Approval of Tank and/or Line Tightness Tests, Leak Detection Methods and Tightness Tester Licensing Requirements.

9.12 Piping – Design, Construction and Installation:

(A) All new or replacement piping that is part of an underground storage tank system and routinely contains regulated substances, including fittings and connections, shall be designed and constructed in accordance with the following:

(1) Fiberglass reinforced plastic piping and nonmetallic flexible piping shall be made of materials listed by Underwriters Laboratories (UL) and be equipped with secondary containment.

(2) All steel or metal piping which routinely contains a regulated substance shall be equipped with secondary containment, and all such piping that is in contact with the ground shall be cathodically protected with an impressed current system. All cathodic protection systems shall be designed, installed, operated and maintained in accordance with the national codes of practice cited in Rule 9.05 (C).

(3) The use of copper piping is restricted to No. 2 heating oil and to diesel fuel serving generators and must employ secondary containment. In all cases this piping shall be protected from damage.

(4) Secondary containment piping is required to be listed by UL or ULC as an underground secondary pipe for flammable liquids, with the exception that heating oil USTs used solely for on-site consumption may be allowed to use PVC piping for secondary containment (minimum schedule 40 thickness).

(B) Aboveground sections of all UST product piping systems also must be equipped with secondary containment, with the exception of aboveground indoor piping.

(C) All UST primary and secondary product piping, before being covered, enclosed, or placed in use, shall be hydrostatically or pneumatically tested in accordance with NFPA 30, Rule 3-8, and API Publication 1615, Rule 10.2.

(D) Siphon (manifold) piping systems are required to meet the design and construction standards given in Rules 9.12(A) and 9.14(A).

(E) Remote fill piping must meet the design and construction standards given in Rules 9.12(A) and 9.14(A) and (F).

(F) All underground portions of vent piping shall be made of either fiberglass reinforced plastic listed by UL or cathodically protected and coated steel, and shall be installed in accordance with RI DEM Office of Air Resources Air Pollution Control Regulation No. 11, "Petroleum Liquids Marketing and Storage." For USTs storing fuel oil and/or diesel generator fuel only, the use of metallic vent piping is allowed provided that the piping is protected against corrosion.

9.13 Spill and Overfill Prevention Equipment: All new and replacement UST systems shall be provided with equipment and procedures to prevent spilling and overfilling during product transfers to the tank in accordance with the following:

(A) Spill prevention equipment that will prevent a release of regulated substance to the environment in the area of the fill pipe. A containment basin used to satisfy this requirement must have the following:

(1) The basin must be capable of holding a minimum of 3 gallons,

(2) The basin must be surrounded by an impervious surface and,

(3) If the basin is made of metal, then its exterior wall must be protected from galvanic corrosion.

(B) USTs with aboveground fill pipes do not require spill containment basins, provided that:

(1) The ground surrounding the fill pipe is covered with a material that is impervious to the substance stored and is properly graded to contain spills of 3 gallons. (*Example: concrete and asphalt are acceptable, while dirt and grass are not.*)

(2) The fill pipe extends a minimum of 6 inches above the finished grade;

(3) Above-ground fill pipes located in areas subject to traffic or vehicular damage shall be protected by concrete-filled bollards with a minimum diameter of 2 inches, and at least three feet high, three feet below grade, and spaced no more than four feet apart.

(C) Overfill prevention equipment designed to restrict or stop the flow of fuel during a delivery before the tank reaches full capacity as follows:

(1) Alert the transfer operator when the tank is no more than 90 percent full by restricting the flow into the tank or triggering a remote high-level alarm; or

(2) Automatically shut off flow into the tank when the tank is no more than 95 percent full; or

(3) Restrict flow 30 minutes prior to overfilling, alert the operator by means of a high level alarm one minute before overfilling, or shut off flow into the tanks so that none of the fittings located on the top of the tank are exposed to product due to overfilling; or

(4) An equivalent device pre-approved by the director.

(5) Use of a flow restriction ball float vent valve is restricted to submerged pumping systems (not suction pump systems) and gravity deliveries (not pump off unloading). Ball float vent valves must be installed so as to allow annual inspection for proper operation. Check with the tank manufacturer to see if a ball float vent valve is prohibited.

(6) USTs used to store fuel oils consumed on-site solely for heating purposes, and emergency generator USTs, are allowed to be equipped with an in-line vent whistle as a method of overfill prevention. Vent whistles may be used only when tight fill, pump-off deliveries are made. The vent opening must be located adjacent to the fill (within 8 feet, or if not practical then as close as possible to be readily heard by the deliverer). The vent whistle must be installed so as to alarm (stop whistling) when the tank is 90% full. Vent whistles also must be installed so as to allow annual inspection for proper operation.

(7) USTs that never receive more than 25 gallons at one time (e.g., waste oil USTs) are not required to have overfill protection.

9.14 Tank Top Sumps, Transition Sumps, and Dispenser Sumps:

(A) All new and replacement USTs shall be equipped with a liquid-tight tank top containment sump for the purpose of providing a low-point collection area for secondary piping, siphon piping, and remote fill piping and access for periodic maintenance. All sumps shall be installed using gaskets, sealants, and fittings that are compatible with the substance stored.

(B) All new and replacement secondary piping systems shall terminate in a tank top sump or transition sump as described in Rule 9.14(A) above.

(C) All flexible underground piping runs shall be continuous whereby all connections for both the primary and secondary piping are made in accessible sumps as described in Rule 9.14(A).

(D) Facilities at which new or replacement piping for motor fuels is being installed are required to have liquid-tight containment pans or sumps under each fueling dispenser.

(E) Facilities at which new or replacement motor fuel dispensers and the equipment necessary to connect the dispenser to the UST system are being installed are required to have liquid-tight containment pans or sumps under each fueling dispenser. The equipment necessary to connect the dispenser to the UST system may include check valves, shear valves, swing joints, flexible connectors, or other transitional components that are beneath the dispenser and connect the dispenser to the underground piping. Such containment must allow for visual inspection and access to the components in the containment system and/or be monitored.

(F) All sumps described in (A)-(C) above shall be continuously monitored in accordance with Rule 9.16 (D).

9.15 Leak Detection for New and Replacement Underground Storage Tanks:

(A) Leak monitoring shall be installed and continuously operated for all new USTs.

(B) The interstitial space in all double-walled USTs shall be continuously monitored for the presence of both the regulated substance and water. A discriminating sensor for the regulated substance and water is not required. Double-walled USTs with a brine solution or other inert liquid in the interstitial space shall be continuously monitored for a change in fluid level in the reservoir and interstice.

(C) All leak-monitoring devices shall be able to detect the substance stored in the UST, and its vapors if the substance is a volatile organic compound or mixture with a vapor pressure greater than gasoline, as well as water.

(D) Continuous monitoring systems must be designed, constructed, and installed so as to detect a 0.2 gallon per hour leak rate from any portion of tank system that routinely contains product. The probability of detection shall be no less than 95 percent and the probability of a false alarm shall be no more than 5 percent.

9.16 Leak Detection for New and Replacement Underground Piping Systems:

(A) All new and replacement pressurized piping systems shall employ a UL-approved line leak detector capable of detecting a line leakage rate of 3 gallons per hour at 10 pounds per square inch of line pressure. If a leak is detected, said leak detection system shall shut-off or restrict product flow and otherwise notify the operator of the detection of a leak.

(B) All new or replacement suction piping systems shall be equipped with a check valve located directly below and as close as practical to the inlet of the suction pump.

(C) The interstitial space of double-walled piping or the annular space between the primary piping and secondary containment system shall be continuously monitored to detect water , the presence of the regulated substance, and its vapors if the substance is a volatile organic compound or mixture with a vapor pressure greater than gasoline. A leak sensor employed as described in Rule 9.16(D) shall also satisfy this requirement.

(D) All piping collection sumps, transition sumps, and submersible pump head containment structures shall employ a leak monitor (sensor) activated by water, the regulated substance or its vapors and secured at least 1” below the lowest penetration fitting or entry boot.

(E) All secondary piping test boots shall be disconnected so as to allow for any leakage in the piping to flow into the sump area.

(F) All dispensers of motor fuels under pressure from a remote pumping system shall be equipped with an emergency shut-off valve (shear valve) which is located in the supply line at the inlet of the dispenser. This valve shall be designed to close automatically in the event that the dispenser is accidentally dislodged from the inlet pipe.

(G) Anti-Siphon Valves: Where a tank is located at an elevation that produces a gravity head on the dispensing unit (or pump outlet, for heating oil USTs), the tank outlet shall be equipped with a device (such as a solenoid valve) that will prevent gravity flow from the tank to the dispenser/pump. This device shall be positioned, installed, and adjusted so that liquid cannot flow by gravity from the tank to the dispenser/pump, in the event of failure of the piping or hose when the system is not in use

9.17 Operation of Leak Monitoring Equipment

(A) Leak monitoring devices shall be installed, calibrated, operated and maintained in accordance with the manufacturer's instructions, including routine maintenance and service checks for operability or running conditions. All leak monitoring devices shall be inspected, calibrated, and tested annually to insure proper operation. Such testing shall be performed by trained, qualified persons. All records pertaining to the equipment manufacturer, warranties, maintenance requirements, repairs, maintenance, and testing shall be maintained on-site for the life of the system or at an alternate location approved by the Director in writing.

(B) Leak monitoring devices shall not be shut off or deactivated at any time except for repair. Any malfunction shall be repaired within fifteen (15) working days of its first occurrence. If the device(s) cannot be repaired within 15 days, the affected UST system(s) shall be temporarily closed in accordance with Rule 13.03 of these Regulations until satisfactory repairs are made. Any deactivation of a monitoring device shall be immediately reported to the department by the owner/operator.

(C) Leak monitoring devices shall employ an audible alarm and a visual indicator, which shall be so located as to be readily heard and seen by the owner/operator or other personnel during normal working hours.

(D) All monitoring devices shall be conspicuously marked or labeled as being monitoring devices and shall be secured against vandalism, incidental damage and improper deactivation.

(E) All continuous monitoring systems shall be tested by the owner/operator on a monthly basis to ensure that they are operating effectively. Records of such tests shall be maintained in accordance with Rule 9.17(A) and Rule 11 Maintaining Records.

(F) All leak-monitoring devices shall be inspected, calibrated and tested annually to ensure proper operation. Testing must be performed by trained, qualified persons. Records of such tests shall be maintained in accordance with Rule 8.15(A) and Rule 11.02(A), Permanent Records.

9.18 Monitoring Wells: As a condition of approval for new or replacement UST systems located in environmentally sensitive areas, the Director may require the installation of one or more groundwater monitoring wells meeting the following specifications:

(A) The well or wells shall be located so as to be likely to detect any release from the UST systems. The location of the well and/or the requirement of additional wells are subject to the approval of the Director.

(B) Monitoring wells shall be constructed in accordance with Appendix 1 of the RIDEM “Rules and Regulations for Groundwater Quality” and as described below:

(1) The screen portion of the wells shall extend a minimum of five (5) feet below the average dry season water table elevation at the site. The screen shall be open to the water table at all times. Wells cannot be screened to the surface.

(2) The screen shall be of sufficient length to compensate for seasonal fluctuations in the water table.

(3) All wells shall have a minimum inside diameter of two (2) inches and be constructed using a minimum of schedule 40 PVC piping.

(4) All wells shall have bottom caps.

(5) All wells shall be gravel packed around the screen and grouted to the surface.

(6) All wells with casing extending aboveground shall have a mounded surface seal around the well casing and a locked, above grade protective security cover.

(7) All wells that are finished at ground level shall have a roadbox, tamper resistant identifying cover and locking gripper (cap) in order to prevent surface runoff from entering the well.

(8) Monitoring wells are required to be properly developed no earlier than 48 hours after completion and before initial water quality samples are taken.

(9) The requirement to complete monitoring wells may be waived by the Director if groundwater is not encountered within 30 feet of the ground surface.

(C) Monitoring well check: Where groundwater monitoring wells are installed, the water in the monitoring well shall be bailed and evaluated, noting any visual or olfactory evidence of free product, no less than once per year. Written records of all well check observations shall be kept in accordance with the permanent record-keeping requirements in Rule 11.02(A). All owners/operators must promptly investigate and report any evidence of free product in accordance with Rule 12 Leak and Spill Response.

(D) Access to wells: Upon request, the owner/operator shall provide access to the monitoring wells to the Director.

10.00 RULE 10 FACILITY MODIFICATIONS OR REPAIRS

10.01 Prohibition: No modification may be made to any UST facility for which an application for a certificate of registration is required, without prior written notification to and approval by the Director.

10.02 Modification Standard: Any modification to or replacement of facility components shall be made to conform with the requirements of Rule 9 New and Replacement Tank System Requirements.

10.03 Reuse of Tanks: Used USTs meeting the specifications given in Rule 9 New and Replacement Tank System Requirements, may only be installed after:

(A) The owner/operator makes a written request for and receives written approval from the Director of the proposed modification;

(B) Documentation is provided that the used tanks have been inspected and tested by the manufacturer and found satisfactory;

(C) Documentation is provided that the used tank has been certified by the manufacturer to be reusable for the product to be stored; and

(D) Documentation is provided that the used tank is given the balance of the original warranty by the manufacturer.

10.04 Approval of Modifications or Repairs: USTs and/or their associated piping can be modified or repaired only once, provided that:

(A) The Director has approved the modification or repair;

(B) The modification or repair is properly conducted in accordance with the applicable national codes of practice as listed in Appendix B and the manufacturer's specifications;

(C) An environmental consultant is present for any modification or repair (including piping installation or replacement) that requires the excavation of soils. The environmental consultant shall screen soils for the presence of contamination and submit a written summary of the findings to DEM within 30 days. Releases shall be reported in accordance with Rule 12 Leak and Spill Response.

(D) The tank and/or piping system (primary and secondary) passes a tightness test conducted upon completion of the modification or repair, and prior to commencing UST operation, and in accordance with Rule 8.10. Results of the tightness test must be submitted to the Director within fifteen (15) calendar days of test completion, or in the event of a leak, in accordance with Rule 12 Leak and Spill Response;

(E) The method of modification or repair is compatible with the product or material to be stored;

(F) All damaged tank system components, including but not limited to pipe sections and fittings, must be replaced immediately.

11.00 RULE 11 MAINTAINING RECORDS

11.01 Applicability: All owners/operators of UST facilities shall maintain records in accordance with the following Rule except that the provisions of 11.02(A)(3) and (8) and 11.02 (B) shall not apply to tanks used for storing fuel oils of any grade that is consumed on-site solely for heating purposes.

11.02 Records: All owners/operators of UST facilities shall maintain on the facility premises or at an alternate location approved by the Director, for the period of time specified below, records of the following:

(A) Permanent Records: The following shall be maintained for three years beyond the operational life of the facility:

(1) All data used to complete the application for the certificate of registration;

(2) All records of modifications or repairs to pipes, fittings or other components of underground storage tank systems;

(3) Annual test results of equipment or systems used for leak detection and inventory control;

(4) Results of monitoring well checks as referenced in Rules 8.19(D) and 9.18 (C);

(5) Records of closure activities;

(6) Records of leaks, spills, releases, overfills, site investigations, and remedial response activities taken;

(7) Tank and/or line tightness test results including all of the information required in Rule 8.10;

(8) All records pertaining to the operation and maintenance of approved corrosion protection methods as required in Rule 8.06 and 8.07;

(9) Equipment warranties and manufacturers' checklists.

(B) Routine Record-keeping: The following records shall be maintained for a minimum period of three years from the date made, or for such longer periods as required by the Director in the resolution of enforcement actions:

(1) Records of all calibration and standard maintenance performed;

(2) Records of strip charts, electronic recall device and/or manual recordings for any continuous monitoring instrumentation;

(3) Records of monthly tests of continuous monitoring systems as required in Rules 8.15 (E) and 9.17 (E).

(4) Daily and monthly inventory record keeping, as described in Rule 11.03 below.

(5) Records of annual shear valve tests.

11.03 Inventory Control, Record-keeping and Leak Reporting: All product inventory shall be managed in accordance with the following:

(A) Inventory volume for regulated substance inputs (fuel deliveries), withdrawals (amount dispensed), and the amount still remaining in the tank shall be measured and recorded each operating day;

(B) Any unusual occurrences that might affect the inflow, outflow, or volume on hand, shall be recorded each operating day, along with any adjustments that were made to the records.

(C) All inventory gauging equipment shall be capable of measuring the level of product over the full range of the tank's height to the nearest one-eighth of an inch;

(D) All inputs of regulated substance shall be reconciled with delivery receipts by measurement of the tank inventory volume before and after delivery;

(E) All deliveries shall be made through a drop tube that extends to within six (6) inches of the tank bottom;

(F) Product dispensing shall be metered and recorded within the local standards for meter calibration or an accuracy of six (6) cubic inches for every five (5) gallons of product withdrawn, whichever is more accurate;

(G) All tanks shall be gauged for the presence of water in the bottom of the tank at least once each month and a measurement of any water present shall be recorded to the nearest one-eighth of an inch. If the water measurement exceeds 1 inch, then the water is required to be removed;

(H) Inventory records shall include a leak check to reconcile differences in the daily measurement of inflows, outflows, and volume on hand. If the leak check indicates a discrepancy of 1% or more of the flow-through plus 130 gallons on a monthly basis, then the owner/operator shall report such discrepancy in accordance with Rule 12 Leak and Spill Response.

11.04 Access to Records: The owner/operator shall make available to the Director, upon request, all records which the Director determines may be pertinent to the enforcement of these Rules and Regulations.

11.05 Change of Ownership: In the event of a change of ownership, records pertaining to the facility shall be transferred in accordance with Rule 16 Transfer of Certificates of Registration or Closure.

12.00 RULE 12 LEAK AND SPILL RESPONSE

12.01 Applicability: These regulations shall apply to all new, existing, and abandoned tank facilities at which petroleum products and/or hazardous materials are stored underground as specified in Rules 3 Applicability and Rule5 Definitions.

12.02 General Requirements: All owners/operators of underground storage tank systems storing petroleum products or hazardous materials must report, investigate, and clean up any spills, leaks, or releases in accordance with this Rule and any other applicable provisions of local, state and federal statutes, rules and regulations.

12.03 Investigation of Suspected Releases: All owners/operators must promptly investigate all suspected leaks or releases, including, but not limited to, instances where:

(A) Unusual operating conditions, release detection signals or environmental conditions at the site suggest a release may have occurred; and

(B) Investigation is required by the Director to determine the source of a release.

(C) The Director may require a Release Characterization Report when unusual operating conditions at a facility create reasonable suspicion of a leak or release and therefore warrant further investigation. All pertinent operation and maintenance records must be included in the report.

12.04 Leak and Release Reporting Requirements:

(A) All persons shall immediately report all confirmed and suspected leaks or releases from USTs to:

(1) The Director;

(2) The appropriate local fire official;

(3) The local public water supplier, in the event a spill occurs in a public supply watershed or in a wellhead protection area for community water supply wells.

(B) Persons reporting leaks or releases to the Director shall provide the following information:

(1) Name and phone number of person reporting the release;

(2) Location of the release and name of the facility;

(3) Date and time of the release;

(4) Type, and to the extent known ,the amount of material released;

(5) Name and phone number of the potentially responsible party, if known.

(C) Tank and/or line tightness test results which are fail or inconclusive shall be reported to the Director by the tester within two (2) hours of the test. The owner/operator must submit the failed test within fifteen (15) days of the test date and submit a Release Characterization Report in accordance with Rule 12.07.

(1) The owner/operator must have the contents of the UST system completely removed within 24 hours; or

(2) The owner/operator must make arrangements for a retest of the UST system, and the retest must be conducted within 3 days. If the UST system retest results indicate a failed or inconclusive test, the owner/operator must have the contents of the UST system completely removed within 24 hours of the retest.

(3) Lines that test as failed or inconclusive shall be taken out of service immediately.

NOTE: During normal working hours reports of releases should be made to the DEM UST Section at (401)-222-2797; fax (401)-222-3813. At all other times, reports can be made to the DEM 24-hour Emergency Response Hotline at (401)-222-3070.

12.05 Initial Abatement Actions: Unless directed by the Director to do otherwise, when a confirmed release occurs, the owner/operator shall take the following actions:

(A) Arrange for and within 24 hours and as soon as practicable, complete removal of the contents of the UST system to prevent further release into the environment;

(B) Contain all discharged oil, oil-contaminated debris and hazardous waste. Such materials shall be handled, stored and disposed of in accordance with the state Oil Pollution Control Regulations and other applicable state and federal statutes, rules and regulations;

(C) Assess fire, health and safety hazards and take reasonable steps to mitigate any such hazards; local fire officials should be consulted, as conditions require;

(D) Inspect any exposed releases and take steps to prevent the migration of any released regulated substance into the environment, including soils, groundwater or surface waters;

(E) Investigate for the presence of free product and, if present, initiate free product removal consistent with Rule 12.06; and

(F) Carry out other actions as directed by the Director pursuant to Oil Pollution Control regulations, or other local, state and federal statutes, rules and regulations.

12.06 Free Product Removal:

(A) At sites where free product is present, the owner/operator shall remove the free product in a manner that minimizes the spread of contamination.

(B) Discharges and by-products from free product recovery and disposal operations shall be treated or disposed of in compliance with all applicable state and federal statutes, rules and regulations.

(C) Free product removal systems shall be designed to maximize the removal of free product.

(D) Documentation of all free product removal measures shall be submitted to the Director with the Release Characterization Report and Site Investigation Report as required pursuant to Rules 12.07 and 12.09 respectively, and shall contain the following information:

(1) Names of persons implementing the free product removal measures;

(2) Estimated quantity, type and thickness of free product observed or measured;

(3) Type of system used to remove free product;

(4) Locations of any discharges associated with free product recovery activities;

(5) Type of treatment applied to any water pumped for the purpose of free product removal; and

(6) Disposition of recovered free product.

12.07 Release Characterization Report:

Within seven (7) days after confirmation of a leak or release or a failed tank and/or line tightness test, the owners/operators shall submit a Release Characterization Report to the Director summarizing the events related to the leak or release from a UST or UST system and describing the results of initial abatement steps. Such report shall include:

(A) Data on the nature and estimated quantity of the release;

(B) Data from available sources and site investigations concerning these factors:

(1) Surrounding populations;

(2) Water quality;

(3) Use and approximate locations of wells potentially affected by the release;

(4) Subsurface soil conditions;

(5) Locations of subsurface sanitary sewers and stormwater lines;

(6) Climatological conditions, where pertinent; and

(7) Land use;

(C) Names, addresses, and plat and lot numbers of the owners of all properties that abut the facility;

(D) All pertinent data obtained from actions taken as Initial Abatement Actions pursuant to Rule 12.05;

(E) Name and address of the facility.

(F) If the Release Characterization Report is related to a tightness test(s), then the report shall also include:

(1) Name and phone number of the tank owner/operator;

(2) Size of the UST(s) and material stored;

(3) Copy(ies) of the failed tightness test(s);

(4) Information on any repairs conducted;

(5) Copy(ies) of any retests conducted;

(6) The present status of the UST(s).

(7) A Release Characterization Report is not required when the release is documented in a Closure Assessment Report prepared and submitted to the Director in accordance with Rule 13.11.

12.08 Site Investigation:

(A) Upon completion and submittal of a Release Characterization Report or Closure Assessment Report, owners/operators shall conduct a full investigation of the release and the on-site and off-site areas known or potentially affected by the release. The Director may waive the

requirement to conduct a full site investigation when the initial Release Characterization Report or Closure Assessment Report establishes, to the satisfaction of the Director, that there is no present or potential groundwater or surface water adverse impact from the release. The Director may require additional information or investigation before deciding whether to waive the requirement for a full site investigation.

(B) The Director may require that a site investigation be conducted at any UST facility where one or more of the following conditions exists:

(1) The facility has closed USTs storing hazardous materials;

(2) Groundwater or surface waters adjacent to the facility have been affected by a release of petroleum product or hazardous material;

(3) An inspection of a tank closure and/or a Closure Assessment Report reveals soil or groundwater contamination;

(4) A site assessment report or information reveals soil or groundwater contamination; or

(5) Other evidence of a leak or release exists, including but not limited to failed tank or line tightness tests or perforated or highly corroded tanks or piping.

(C) The site investigation shall be conducted by, and a Site Investigation Report shall be prepared by an environmental consultant.

(D) The owner/operator shall submit the results of a site investigation to the Department within sixty (60) days of notification by the Director that a Site Investigation Report is required, or within an alternate deadline approved by the Director, in the format of a Site Investigation Report pursuant to Rule 12.09.

12.09 Site Investigation Report:

(A) The purpose of the Site Investigation Report shall be to define the nature, degree and extent of contamination and identify threats to the public health and environment.

(B) The Site Investigation Report shall include, but not be limited to, the following information:

(1) A locus map using the U.S. Geological Survey 7.5 minute quadrangle map;

(2) A description of past and present activities on the site, including a list of past owners and operators of the site and the approximate time periods of their ownership and operation;

(3) A compliance history of the site including, but not limited to, any and all past environmental enforcement actions and documentation of any past releases, repairs and leak detection results;

(4) A site plan, drawn to scale, showing the location and the immediately surrounding area, and identifying the following items:

(a) Property boundaries;

(b) Buildings and other structures;
(c) Roads;
(d) Surface topography;
(e) Surface water courses and wetlands;
(f) Public and private water wells;
(g) Groundwater monitoring wells;
(h) Public sewer and water lines;
(i) Individual sewage disposal systems and other waste disposal areas;
(j) Present and former locations of USTs and associated piping;
(k) Dry wells; and
(l) Locations of soil borings, test pits or piezometers;

(5) A description of the site's hydrogeology, including, but not limited to:

(a) Depth to groundwater and groundwater elevations, including water table contour map, where applicable;
(b) Groundwater flow direction;
(c) Description of the unconsolidated materials (in both the unsaturated and saturated zones), including permeability, porosity, degree of stratification, and the capacity for contaminant attenuation;
(d) Depth to bedrock and bedrock characteristics;
(e) Aquifer characteristics including saturated thickness, hydraulic conductivity, and transmissivity; and
(f) The presence and effects of both natural and man-made barriers to and conduits for contaminant migration.

(6) A description of the area surrounding the site and identification of all human and environmental receptors, including, but not limited to:

(a) The location of properties served by private wells;
(b) The location of public wells;
(c) Which wells would be potential contaminant receptors; and
(d) The classification of groundwater and surface waters surrounding the site;

(7) The nature, degree and extent of contamination, including free product, groundwater, soil, and vapor; including isopleth maps of contaminants, where applicable;

(8) The results of any analytical testing of groundwater or soil on the site, including identification of methods used and sampling protocols;

(9) A minimum of three groundwater monitoring wells located so that the groundwater flow direction and the nature, degree and extent of contamination from leaks and releases from USTs can be determined; Monitoring wells shall be installed in accordance with Rule 9.18 of these regulations and Appendix 1 of the Rules and Regulations for Groundwater Quality. The following information must be included:

(a) Boring logs and well completion information;
(b) Well development and sampling procedures;
(c) Results of field screening and laboratory analysis of soil and groundwater samples; and
(d) Well gauging information;

(10) Any other factors necessary for or that contribute to an adequate site characterization;

(11) Conclusions and recommendations, including;

(a) A description of the source or potential sources(s) of the contamination;
(b) A description of the current extent of contamination in the soil and groundwater, as well as in surface water, and the presence of vapors;
(c) Identification of potential receptors; and
(d) Recommendations for further investigation and corrective action or a statement that no further action is required.

(12) The Site Investigation Report shall include the following signed statements:

(a) A statement signed by the registered professional engineer, or the certified professional geologist, or the registered professional geologist, who prepared the report or who directly supervised preparation of the report, certifying the accuracy of the information contained in the report; and
(b) A statement signed by the owner/operator responsible for the preparation and submittal of the report certifying that the report is a complete and accurate representation, and that it includes all known facts about the discharge or release that has resulted, or may result, in the exceedance of a groundwater quality standard.

12.10 Additional Information:

Upon review of the Site Investigation Report for completeness and accuracy, the Director may require the collection and submission of additional information where a Site Investigation Report is found to be incomplete or deficient or does not provide sufficient data to identify the extent of a contamination plume. Any required additional information shall be submitted within a time frame specified by the Director.

12.11 No Further Action: The Director may issue a letter requiring no further action upon review of the site investigation report when:

(A) The contaminant concentrations are found to be below applicable standards;

(B) No threat to human health or the environment exists;

(C) The Site Investigation Report concludes and/or recommends that no further action is needed based on the results of the investigation; and

(D) The report is found to be complete and accurate to the satisfaction of the Director.

12.12 Corrective Action Plan:

(A) Based upon the Site Investigation Report or other data, the Director may require owners/operators to develop and submit a Corrective Action Plan, within 60 days or within an alternate time frame approved by the Director, to address contaminated soils or groundwater or other related environmental or public health impacts. The Corrective Action Plan shall be prepared by an environmental consultant.

(B) In order to be approved, the Corrective Action Plan must protect human health and the environment in a manner acceptable to the Director.

12.13 Contents of Corrective Action Plan:

(A) A Corrective Action Plan shall, at minimum, consist of the following:

(1) A summary of findings from the Site Investigation Report, including but not limited to:

(a) Impacts and potential impacts to receptors such as groundwater, surface water, public and private wells, environmentally sensitive areas, buildings and basements;
(b) All data from testing of all environmental media including soil, water and air, site geology and hydrogeology; and
(c) Any additional information the Director may require;

(2) A description of the proposed method for remediation, including, but not limited to, the following:

(a) Justification of the ability of the chosen remedial method(s) to meet the remediation objectives within a time frame acceptable to the Director;
(b) Detailed design plans including equipment specifications, piping routes, process flow diagrams, instrumentation, and any other information necessary to fully describe the remedial system;
(i) Engineered remedial systems must be signed and stamped by a registered professional engineer.

(c) Proposed plans for the disposal of any products or by-products from the remediation activities;

(3) The results of any aquifer testing or pilot testing required to support the remedial system, or a detailed proposal to conduct such testing.

(4) A proposed schedule for implementation of the corrective action plan;

(5) A proposed groundwater monitoring program including the monitoring wells to be sampled, frequency of sampling, analyses to be conducted and well gauging, and a proposed frequency of reporting to the Director;

(6) Any other information necessary to support the proposed remedial action.

(B) The Corrective Action Plan shall include the following signed statements:

(1) A statement signed by the registered professional engineer, or the certified professional geologist, or the registered professional geologist, who prepared the plan or who directly supervised preparation of the plan, certifying the accuracy of the information contained in the plan; and

(2) A statement signed by the facility owner/operator responsible for the preparation and submittal of the Corrective Action Plan, certifying that the plan is complete and accurate.

12.14 Approval of Corrective Action Plans:

(A) The Director shall approve, approve with conditions or reject Corrective Action Plans based upon the following criteria:

(1) The physical and chemical characteristics of the regulated substance, including its toxicity, persistence, and potential for migration;

(2) The hydrogeologic characteristics of the facility and the surrounding area;

(3) The proximity, quality, and current and future uses of nearby surface water and groundwater;

(4) The potential effects of residual contamination on nearby surface water and groundwater;

(5) Reliability and technical feasibility of the proposed corrective action technologies as to their potential to achieve contamination removal, within a time frame acceptable to the Director; and

(6) Completeness and accuracy of the information submitted in the Corrective Action Plan.

(B) Orders of Approval: Upon approval of the Corrective Action Plan, the Director may issue an Order of Approval governing the Corrective Action Plan consistent with Rule 12 Leak and Spill Response, and the Groundwater Quality Regulations. Owners/operators shall implement the plan in accordance with the provisions of the Order of Approval, and any conditions, established by the Director contained therein. The Order of Approval shall include, where applicable:

(1) Specific reference to the Corrective Action Plan;

(2) A schedule for implementation including installation and start up;

(3) Contingencies for potential additional necessary actions or other necessary modifications;

(4) A schedule for groundwater monitoring;

(5) A schedule for system inspections;

(6) A schedule for submission of status reports;

(7) Any other reporting obligations to the Director such as system shutdown; and

(8) Any other site specific requirements.

(C) The Director, at his/her discretion, may issue an interim letter of approval to allow a specified time frame for the generation of additional information about the proposed corrective action, including, but not limited to, pilot testing or a trial period of operation of the remedial system.

(D) The Director, at his/her discretion, may approve a Corrective Action Plan in a letter of approval for proposed remedial actions that are limited in duration or complexity, including, but not limited to, soil removal, monitored natural attenuation or enhanced natural attenuation.

12.15 Corrective Action Prior to Issuance of Orders of Approval: Owners and operators may begin cleanup of soil and groundwater before the Corrective Action Plan is approved provided that they:

(A) Notify the Director of their intention to begin cleanup;

(B) Comply with any conditions imposed by the Director, including halting cleanup or mitigating adverse consequences from cleanup activities; and

(C) Incorporate these self-initiated cleanup measures in the Corrective Action Plan that is submitted to the Director for approval.

12.16 Public Notification:

(A) The Director shall provide written notice to the town or municipality of the on-going investigation of confirmed releases from UST facilities, at the time when the Director requires a Site Investigation Report.

(B) The Director shall provide written notice to the town or municipality of approved Corrective Action Plans, and may require the responsible party to provide wider notice by block advertisement, and/or legal advertisement letters to individual property owners.

(C) The Director shall provide written notice to the town or municipality of consideration to terminate an Order of Approval in the event that the Corrective Action Plan referenced in the order does not achieve the established clean up levels originally required.

(D) The public notice provided in sub-paragraphs (A), (B), and (C), above, shall be provided by letter and directed to the chief executive municipal officer or mayor, if performing similar responsibilities, and shall direct the letter to be posted in the city or town hall.

12.17 Recording of Orders of Approval: Orders of Approval relating to Corrective Action Plans shall be recorded in the municipal land evidence records by the owner/operator of the facility within 10 days of issuance by the Director and documentation of the recording shall be submitted to the Director by the owner/operator within 10 days of the recording.

12.18 No Further Action: The Director may issue a no further action letter upon completion of the remedial action where:

(A) The monitoring reports have been submitted in accordance with the approved schedule, were found to be complete and accurate, and demonstrate that the contaminant concentrations are at or below applicable standards; or

(B) The threat to human health and the environment has been eliminated or reduced to the satisfaction of the Director.

13.00 RULE 13 CLOSURE

13.01 Applicability: This Rule shall apply to all facilities where petroleum product(s) and/or hazardous materials are or were stored as defined in Rule 3 Applicability. Rule 13.11 (A) pertaining to closure assessments, and Rule 13.09(F) pertaining to consultants, shall not apply to the following:

(A) USTs which store fuel oil consumed on-site solely for heating purposes;

(B) USTs of less than 1,100 gallons in capacity which store motor fuels at farm or residential sites, provided that the fuel is for on-site use; or

(C) Holding tanks.

13.02 Prohibitions:

(A) The abandonment of any UST or UST system is prohibited.

(B) The removal, filling, or other permanent closure of any UST or UST system that is required to be registered with the Department under Rule 3 is prohibited except as permitted by this Rule after obtaining prior approval from the Director.

(C) The removal from service or other temporary closure of any UST that is registered or required to be registered in accordance with these regulations is prohibited except as permitted by this Rule.

13.03 Temporary Closure:

(A) The owner/operator of any underground storage tank that is removed from service shall:

(1) Evacuate tank contents by pumping down to less than an inch of liquid product;

(2) Cap and secure all fill lines against tampering;

(3) Secure manways, pumps and other components;

(4) Pump out suction lines;

(5) Keep the vent lines open;

(6) Maintain records regarding:

(a) UST location and size;

(b) The date on which USTs were taken out of operation;

(c) The procedures used to maintain the facility in a safe condition;

(7) Continue to comply with all general operating requirements, including but not limited to:

(a) Maintenance of corrosion protection,

(b) Release reporting and investigation, and
(c) Leak and spill response and corrective action requirements;

(8) Notify the Director in writing within 15 days of any temporary closure, which USTs have been put into temporary closure and the actions taken to satisfy the requirements of Rule 13.03.

(B) The Director may require temporary closure of UST systems for which operational conditions or other information indicate a leak or release.

13.04 Extension of Temporary Closure: The Director may extend the period of temporary closure to more than 180 days upon a showing of good cause by the owner/operator. Written requests for approval of an extension extension must be submitted to the Director no later than 150 days from the date the underground storage tank(s) was/were temporarily removed from service. Owners/operators may request approval for an extension of temporary closure for a period of no greater than 6 months. Written requests for approval for an additional extension of temporary closure must be submitted to the Director more than 30 days before the approved period of temporary closure expires, must be for a period no greater than 6 months and must be accompanied by a Site Investigation Report conducted in accordance with Rules 12.08 and 12.09. Approval for any further extensions of temporary closure are at the discretion of the Director.

13.05 Permanent Closure: All owners/operators that have removed any underground storage tank from operation for more than 180 days and have not been granted an extension of temporary closure by the Director or who have abandoned any UST or who desire to permanently close a UST shall comply with the procedures for closing underground storage tank(s) in accordance with the provisions of this Rule and appropriate national codes of practice. The Director may require permanent closure of UST systems for which there is confirmation of a leak or release.

13.06 Closure Applications: Owners/operators wishing to close one or more USTs shall submit a permanent closure application to the Director at least ten (10) days prior to the date the UST is to be permanently removed from service. Closure applications are valid for a period of one year. Such application shall be made on forms provided by the Department and shall include, but not be limited to:

(A) The date the UST is to be or was permanently removed from service;

(B) The age of the UST;

(C) The type of substance or material that was stored in the UST;

(D) The closure method to be used and contractor to perform the work;

(E) The size, type and location of the UST;

(F) The proposed date of UST excavation if it is to be removed from the ground;

(G) Appropriate documentation demonstrating compliance with the approved closure procedures including, but not limited to:

(1) The method(s) to be used to empty the tank prior to excavation;

(2) The method to be used to remove the tank from the excavation;

(3) The method(s) to be used to comply with the closure assessment requirements of Rule 13.11, below;

(4) A description of the method(s) to be used to properly and safely vent the tank, and to properly make openings in the UST(s), including:

(a) Appropriate venting must be carried out both before any cutting of the tank, and before offsite transport of any tank which has not been completely cleaned per Rule 13.09(C), below.

(b) A description of the instruments to be used to verify that the tanks have been properly vented.

(5) A description of how any residues in the tank will be managed; and

(H) Appropriate documentation demonstrating notification of local fire officials.

13.07 Closure Application Fees:

(A) There shall be a fee for processing a closure application, which shall be submitted with the application forms. The closure application is valid for a period of one year, so once the year expires a new application and new processing fees must be resubmitted.

(B) The processing fee shall be $75.00 per UST to be closed.

(C) Payment of the fee, and all unpaid registration fees and late fees shall be made in the full amount. Checks or money orders shall be made payable to the "Treasurer, State of Rhode Island", to be placed in a restricted receipt account to be used for the UST Program.

13.08 Emergency Closures: The time frame requirements in Rule 13.06 may be waived by the Director in the event of an emergency UST closure.

13.09 UST Removal: Upon approval by the Director of an application to close USTs, the owner/operator may permanently close underground storage tanks by removing the USTs and related facility components provided that:

(A) All product is removed from the UST(s) and connecting lines;

(B) Local fire safety officials have been notified of the date, time, and place of removal activities;

(C) The UST is cleaned to remove any remaining product or residual material and such product or residual material is disposed of in accordance with applicable federal, state and local statutes, ordinances, rules and regulations;

(D) The gaseous vapors are released at the site in a safe manner consistent with national codes of practice, and in accordance with the closure application submitted to and approved by the Director;

(E) The owner/operator shall make arrangements such that, the UST(s) to be closed and the excavation zone shall be made available to be viewed and inspected by DEM personnel during the scheduled closure process, at the discretion of the Director.

(F) The owner/operator is required to retain an environmental consultant to be present on the site during the tank removal process in order to ensure that an adequate closure assessment is performed, where required.

(G) Before final disposal, openings shall be made in the UST(s) to render it unfit for further use;

(H) Any excavated contaminated soil or debris is stored, handled and disposed of in accordance with appropriate state and federal statutes, rules or regulations; and

(I) The owner/operator of the facility, as well as the person responsible for transporting any residues or contaminated soil generated by the closure, must keep records indicating the final destination for all such materials, the date(s) of such shipment(s), and the person or company responsible for the transportation. In the case of material managed as a hazardous waste, the manifest required by the Department's Rules and Regulations for Hazardous Waste Management will satisfy this requirement.

13.10 UST Closure in Place: Upon approval by the Director of an application to close USTs, the owner of a facility may permanently close underground storage tanks by allowing the UST(s) and/or associated facility components to remain in the ground provided that:

(A) The owner/operator requests approval for closure in place in writing to the Director and approval is granted prior to the closure.

(1) The request must provide specific detailed information that demonstrates closure in place is necessary because the removal of the UST(s) would adversely impact the structural integrity of a building, permanent structure, sensitive/critical utilities, or other active UST(s), or the removal of the UST(s) would adversely impact an environmentally sensitive area, or the UST(s) is inaccessible to typical removal equipment.

(2) For tanks not exempted from closure assessments by Rule 13.01, the request must include a scope of work for the closure assessment that includes soil and groundwater sampling sufficient to determine whether a release has occurred. The closure assessment report must be prepared in accordance with Rule 13.11 and submitted to the Director within 30 days of the closure.

(3) For tanks exempted by Rule 13.01, the owner/operator must either conduct a closure assessment or opt to have all USTs and lines tightness tested. If all test results are not passing, a closure assessment is required and a scope of work for soil and groundwater sampling sufficient to determine if a release has occurred must be submitted for prior approval by the Director.

(B) All product is removed from the UST and from all connecting lines;

(C) The UST is cleaned to remove any remaining product or residual material and such product or residual material is disposed of in accordance with applicable federal, state and local statutes, ordinances, rules and regulations;

(D) All fill, gauge, pump and vent lines are disconnected and all inlets and outlets are permanently capped or plugged; and

(E) All USTs are filled completely with a slurry concrete or flowable fill and all remaining underground piping associated with the USTs are permanently capped and secured against tampering.

13.11 Closure Assessment Report:

(A) Except as otherwise provided in Rule 13.01, the owner/operator of any UST which is to be permanently closed, shall have a closure assessment performed to determine if a release has occurred. The closure assessment will also be required of those USTs exempted by Rule 13.01 when evidence of a release is discovered during closure.

(B) The closure assessment shall be conducted by and a closure assessment report prepared by an environmental consultant, in accordance with this rule and the DEM's UST Closure Assessment Guidelines. The Closure Assessment Report shall include, but not be limited to:

(1) A background description of the site including location, use of the facility, and a summary of any available tank and line leak detection results;

(2) A locus map using the U.S. Geological Survey 7.5 minute quadrangle map;

(3) A detailed site plan showing the location of all former or existing USTs, piping, dispensers, buildings, utilities, monitoring wells, drinking water wells, soil screening locations, soil sampling locations and any other pertinent site features;

(4) Descriptions of all USTs closed including size, construction type, depth to tank bottom, age and stored material;

(5) A description of the condition of the USTs and piping including extent of corrosion, identification of any holes and any other indication of leakage;

(6) Photographic documentation of the condition of each tank removed;

(7) A description of the soil conditions in the excavation zone such as soil classification, gradation, extent of compaction and any other notable physical characteristics;

(8) A description of soil contamination, including visual and olfactory observations, field screening and laboratory analytical methods used and all results;

(9) A description of groundwater encountered in the excavation zone including depth to water and appearance with respect to the presence of any sheen or free product;

(10) A description of groundwater obtained from monitoring or observation wells, where present, including any gauging results;

(11) Identification of the DEM groundwater classification at the site and surrounding areas, the availability of public water and presence of private or public wells;

(12) Any potential receptors such as, but not limited to, surface waters, basements, storm drains, sewer lines or other utilities where contamination is identified;

(13) Description of the management of all excavated contaminated soil, including proper cover while stockpiled on-site and documentation of proper disposal;

(14) Documentation of proper disposal of the tank(s) and the residual sludge material;

(15) Any other information or documentation required to complete the closure assessment; and

(16) Conclusions as to whether a release has occurred and recommendations for further investigation and/or remediation.

(C) The closure assessment report shall include the following signed statements:

(1) A statement signed by the registered professional engineer, or the certified professional geologist, or the registered professional geologist, who prepared the report or who directly supervised preparation of the report, certifying the accuracy of the information contained in the report; and

(2) A statement signed by the facility owner/operator that the report is complete and accurate.

(D) The owner/operator shall submit the Closure Assessment Report to the Director within 30 days after the date of the UST closure; or as specified by the Director.

(E) In response to conditions identified by a representative of the Department or reported to the Department, the Director may require one or more of the following actions during the UST closure:

(1) The collection and analysis of soil samples in and around the UST excavation zone done in accordance with standard EPA methods and protocols or other methods approved by the Director;

(2) Excavation and stockpiling of contaminated soil from in and around the UST excavation for offsite disposal; and/or

(3) Free product removal or other remedial activities applicable under Rules 12.05 and 12.06 of these regulations, the Oil Pollution Control Regulations, or other state and federal statutes, rules or regulations.

(F) When required by the Director, the owner/operator of a UST system permanently closed before December 22, 1988 shall assess the excavation zone in accordance with this section if, in the judgment of the Director, releases from the UST pose a potential threat to human health or the environment.

13.12 <u>Certificate of Closure:</u>

(A) Following DEM inspection of a closure or receipt of a Closure Assessment Report that satisfies the Requirement in Rule 13.11, the Director shall:

(1) Issue a Certificate of Closure; or

(2) Require that additional actions be taken in accordance with Rule 12 Leak and Spill Response if there is evidence of a release.

(B) All Certificates of Closure issued under the "Emergency Regulations for Underground Storage Facilities Used for Petroleum Products and Hazardous Materials", adopted 9 October, 1984 shall remain in full force and effect provided that the owner/operator submit a written certification in accordance with Rule 15 Signatories to Registration and Closure Applications, of these regulations.

(C) The Director shall not issue a Certificate of Closure until it is satisfied that all residues and contaminated soil generated as a result of the closure have been properly transported to an authorized facility and all investigatory and remedial actions have been completed in accordance with Rule 12 Leak and Spill Response.

14.00 RULE 14 APPROVAL OF TANK AND/OR LINE TIGHTNESS TESTS, LEAK DETECTION METHODS AND TIGHTNESS TESTER LICENSING REQUIREMENTS

14.01 Applicability: This section applies to all companies and persons who conduct tightness tests on underground storage tanks located in Rhode Island, and the manufacturer or developer of tightness test.

14.02 Prohibition:

(A) No person shall conduct tightness testing on underground storage tanks or tank components in Rhode Island except as in compliance with the licensing and other provisions of this section.

(B) A licensed tester shall not authorize any other person to conduct tightness testing under his/her license.

(C) A licensed tester can not transfer his/her license to any person.

(D) Licensed testers shall perform tightness tests in accordance with protocols provided by the developer or manufacturer of the testing equipment, and in accordance with the most current publication of the National Work Group on Leak Detection Evaluations.

(E) All tightness testing methods must be approved by the Director prior to use.

14.03 Approval of Tank and Line Tightness Test Methods:

(A) The Department shall maintain a list of tank and line tightness test methods that have been approved for use in Rhode Island.

(B) To obtain approval of a tank and/or line tightness test method, the manufacturer or developer of the method shall submit to the Director:

(1) The protocols, operating manuals, performance data, and other pertinent information that demonstrates by clear and convincing evidence that the leak detection method satisfies the requirements of a tightness test as defined in Rule 5.85, and 40 CFR 281.33 and the method can be performed reliably and effectively;

(2) The entire third party evaluation reports conducted in accordance with the Standard Test Procedures for Evaluating Leak Detection Methods issued by the EPA. These reports must be complete and include all data, method description reports, test results, reports and other information required in the above-referenced EPA procedures;

(3) Verification that the method is included in the most current publication of the National Work Group on Leak Detection Evaluations;

(4) Verification that the method requires certification of the individual testers who perform the entire test, and a detailed description of the certification procedure;

(5) Agreement from the manufacturer or distributor to provide certified training in the approved method to DEM employees, at no cost to the Department.

14.04 Licensing Procedures for Tightness Testers:

(A) Any individual wishing to be licensed to conduct tightness tests in Rhode Island shall submit a completed application to the Director which includes, but may not be limited to, the following:

(1) A copy of a valid certificate issued by the manufacturer of the equipment of a DEM accepted tightness test method that indicates that the applicant has successfully completed all training courses pertaining to the operation of the test equipment;

(2) Identification of the owner(s) of the equipment to be used by the applicant to perform tests; and identification of who has and will maintain and calibrate the equipment;

(3) A copy of a certificate of liability insurance specifying tightness-testing activities for the entity which owns or operates the equipment which provides for coverage of bodily injury of at least $100,000 per person and an aggregate of $300,000, per occurrence, and provides for property damage of at least $50,000 per accident with an aggregate of $100,000;

(4) A description of the applicant's relevant experience; and

(5) An initial application license fee of $100.00. Checks or money orders shall be made payable to "Treasurer, State of Rhode Island, Water and Air Protection Fund".

(B) All tightness tester licenses shall expire annually on September 30, and it shall be the responsibility of each licensed tester to renew that license in accordance with the provisions of this section.

(C) At least thirty (30) days prior to the expiration of a license, a tester shall submit a complete license renewal application on forms as provided by DEM, and a renewal fee of $100.00.

(D) An application is considered submitted if it includes all of the required information and fees. A tightness tester who fails to submit a complete application at least thirty (30) days prior to the expiration of his/her license, shall be subject to a late fee charge of $25.00. Should the processing time of an untimely renewal application extend beyond the expiration date of the previous license, the tester may not conduct any tightness tests in Rhode Island until after the license renewal is issued.

(E) Upon review and approval of a license application, either new or renewed, the Director shall issue a license.

(F) A licensee shall notify the Director of any change in his or her business address within thirty (30) days of such change.

14.05 Licensing Procedures for Tightness Testing Businesses:

(A) Any business who employs or subcontracts licensed testers to conduct tank and/or piping tightness tests in Rhode Island are required to submit a completed application for a tank tightness testing business license to the Department which includes, but is not limited to, the following:

(1) A complete list of all tank tightness testers that the business employs or subcontracts to conduct tank tightness testing in Rhode Island;

(2) Identification of who owns the testing equipment used by the testers, identification of who maintains and calibrates the testing equipment, and identification of the testing equipment by the Manufacturer, Model number, Serial number, etc.;

(3) A copy of a certificate of liability insurance specifying tank tightness activities for the entity which owns or operates the equipment which provides for coverage of bodily injury of at least $100,000 per person and an aggregate of $300,000, per occurrence, and provides for the property damage of at least $50,000 per accident with an aggregate of $100,000.

(B) All tightness testing business licenses shall expire annually on September 30, and it shall be the responsibility of each licensed testing business to renew that license in accordance with the provisions of this section.

(C) At least thirty (30) days prior to the expiration of a license, a testing business shall submit a complete license renewal application on forms as provided by DEM.

(D) Should the processing time of an untimely renewal application extend beyond the expiration date of the previous license, testers employed by the business may not conduct any tightness tests in Rhode Island until after the license renewal is issued.

(E) A tightness testing business shall notify the Director of any change in his or her business address within thirty (30) days of such change.

14.06 Suspension or revocation of license:

(A) Whenever the Director has reasonable grounds to believe that a licensed tightness tester or testing business has not acted in compliance with these regulations or has conducted tightness tests in such a way as to violate Chapters 23-19.1, 42-17.1 or 46-12 of the General Laws of Rhode Island, the Director may suspend or revoke that person's tightness testing license. A suspension or revocation of a tightness testing license may also include, but not be limited to, the following:

(1) An assessment of penalties;

(2) An order directing the tester and/or testing business to submit documentation pertaining to his/her past UST testing activities; and

(3) An order directing the tester and/or testing business to arrange for another licensed third party tester to re-test certain named USTs or UST systems at the expense of the alleged violator.

(B) The Director shall revoke a tightness testing license whenever it is determined that the tester or testing business did not act in compliance with these regulations or conducted tightness tests in violation of Chapters 23-19.1, 42-17.1 or 46-12 of the General Laws of Rhode Island. The Director reserves the right, upon notice to the alleged violator, to upgrade any license suspension to a license revocation based upon newly discovered information.

14.07 Procedure for suspension and revocation:

(A) Upon learning of reasonable grounds to believe that a violation has occurred, the Director shall notify the tester and/or testing business, by certified mail, of the facts and/or conduct warranting the intended suspension or revocation. Such notice shall be for the purpose of allowing the tester and/or testing business an opportunity to show compliance with all lawful requirements for the retention of his/her license.

(B) If the tester and/or testing business fails to show compliance with the requirements for retaining his/her license to the satisfaction of the Director, then the Director shall issue a Notice of Suspension or Revocation enumerating the facts or conduct warranting the suspension or revocation and the statutes and/or regulations violated.

(C) All Notices of Suspension or Revocation shall be forwarded to the licensee by certified mail or served upon the licensee in accordance with the Rhode Island Superior Court Rules of Civil Procedure.

14.08 Requests for Hearings: Persons wishing to request a hearing in regard to the suspension or revocation of a tightness testing license may do so by filing a hearing request with the Department's Administrative Adjudication Division in accordance with the "Administrative Rules of Practice and Procedure for the Administrative Adjudication Division for Environmental Adjudication Division within ten (10) days of the licensee's receipt of the Notice of Suspension or Revocation. Whenever a hearing request is not filed in a timely fashion, the Notice of Suspension or Revocation shall automatically become a Compliance Order of the Department enforceable in Superior Court.

14.09 Upon upholding by AAD of the suspension or revocation of a license, and unless appealed to Superior Court, the Director shall notify the manufacturer of the tightness testing equipment of the suspension or revocation and request concurrent action.

15.00 RULE 15 SIGNATORIES TO REGISTRATION AND CLOSURE APPLICATIONS

15.01 Signatures: No person may sign an application for a Certificate of Registration or Closure except in the manner set forth in this Rule :

(A) For a corporation: The application shall be signed by a responsible corporate officer. For the purpose of this Rule, a responsible corporate officer means:

(1) A president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision making functions for the corporation; or

(2) The manager of one or more facilities employing more than 250 persons or having gross annual sales or expenditures exceeding $21 million (in second-quarter 1980 dollars) if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

NOTE: DEM does not require specific assignments or delegations of authority to responsible corporate officers identified in Rule 15.01(A)(1). The DEM will presume that these responsible corporate officers have the requisite authority to sign permit applications unless the corporation has notified the Director to the contrary. Corporate procedures governing authority to sign permit applications may provide for assignment or delegation to applicable corporate positions under Rule 15.01(A) or(B) rather than to specific individuals.

(B) For a partnership, limited partnership or sole proprietorship; by a general partner or the proprietor, respectively;

(C) For a municipality, state, federal, or other public agency; by either a principal executive officer or ranking elected official. For purposes of this section, a principal executive officer of a federal agency includes:

(1) The chief executive officer of the agency, or

(2) A senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., Regional Administrators of EPA).

(D) For a military installation; by the Installation Commander of a rank of 06 or higher, if the installation employs more than 250 persons and authority to sign permit applications has been assigned or delegated to the Installation Commander in accordance with applicable Department of Defense (DOD) procedures. If an Installation Commander does not meet these requirements, the permit application must be signed by a superior officer who meets the requirements.

In addition, where a tenant is present on the installation and has authority or responsibility for any aspect of the regulated activity, the Tenant Commander (rank of 06 or higher) must also sign the application. The Tenant Commander must also employ more than 250 persons and have been assigned or delegated authority to sign permit applications in accordance with

applicable DOD procedures. Again, if the Tenant Commander does not meet these requirements, the permit application must be signed by a superior officer meeting the requirements.

15.02 Reports: All reports required by these regulations and other information requested by the Director shall be signed by a person described in Rule 15.01, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

(A) The authorization is made in writing by a person described in Rule 15.01;

(B) The authorization specifies either an individual or a position having responsibility for overall operation of the regulated facility or activity such as the position of plant manager, operator of a well or a well field, superintendent, or position of equivalent responsibility. (A duly authorized representative may thus be either a named individual or any individual occupying a named position); and

(C) The written authorization is submitted to the Director.

15.03 Changes to authorization: If an authorization under Rule 15.01 or 15.02 of this Rule is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of this section must be submitted to the Director prior to or together with any reports, information, or applications to be signed by an authorized representative.

15.04 Certification: All documents required to be signed in accordance with Rule 15.01 shall contain the following certification:

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

16.00 RULE 16 TRANSFER OF CERTIFICATES OF REGISTRATION OR CLOSURE

16.01 Prohibition: No person shall transfer ownership of a UST facility or facility component without prior notification to the Director as provided in Rule 16.02.

16.02 Transfer of Registration Certificates:

(A) An owner of a facility may only transfer a Certificate of Registration to a new owner after providing written notification of the proposed transfer to the Director by certified mail at least thirty (30) days prior to the proposed "transfer date" and shall include the following information:

(1) Name, registration number and address of the Facility;

(2) Name and address(es) of the current owner(s) and operator(s);

(3) Names and address(es) of the proposed owners(s) and operator(s);

(4) Names and addresses of the persons upon whom legal process can be served for both the present and proposed owners(s) and operator(s);

(5) A notarized statement, signed by a duly authorized officer or agent of the new owner/operator stating that he/she:

(a) Has read the original application for a Certificate of Registration or Closure and
(b) Believes, to the best of his or her knowledge, that there has been no substantial modification in the operations of the Facility since the Certificate was issued; and
(c) Has included a description of all the changes that have occurred since the Certificate was issued.

(6) A proposed transfer date on which the new owner will assume the Certificate and all accompanying responsibility.

(B) Accompanying the notification from the current owner shall be payment of any due or past due registration and/or late fees pertaining to the facility.

(C) The Director shall notify the existing certificate holder and the proposed new certificate holder, within thirty (30) days of receipt of notice of proposed transfer, in the event that additional information is needed or of an intent to modify, revoke or revoke and reissue the certificate. If the applicant does not receive such notice, the transfer is effective on the date specified in the notice provided to the Director pursuant to Rule 16.02 (A).

16.03 Transfer of Records: The existing Certificate holder shall deliver to the new owner or operator all documents and information related to the UST, facility or system, including, but not limited to, all records required to be maintained in Rule 11 Maintaining Records.

17.00 RULE 17 HOLDING TANKS

17.01 Applicability: Except as provided by Rule 3.03, all owners and operators of UST systems used to collect and contain the discharge of non-sanitary wastewaters and other pollutants shall be subject to this Rule.

17.02 Registration: Existing holding tanks are required to have been registered prior to July 1, 1994. The owner/operator of new and replacement holding tanks installed on or after July 1, 1994 are required to apply for a certificate of registration from the Director before commencing installation of the holding tank.

17.03 Application for Registration: To apply for a certificate of registration, the facility owner/operator shall complete, certify, and submit to DEM, application forms which shall be available from the Department.

17.04 Minimum Requirements for Existing Holding Tank Systems: The owner/operator of a holding tank in operation prior to the commencement of these regulations shall meet the following requirements:

(A) Verify that the holding tank and associated piping are made of or lined with materials that are compatible with the material(s) being stored.

(B) Verify that the holding tank and associated piping are solid, non-leaching, and in good operational condition.

(C) Obtain written approval from the Director prior to any upgrade of a holding tank and its associated piping.

(D) All Holding Tanks are required to be maintained in accordance with Rule 17.07

17.05 New Holding Tank System Requirements:

(A) Prohibitions:

(1) The installation of new holding tanks wherein the groundwater is designated as a wellhead protection area for a community well, pursuant to RIGL 46-13.1, is prohibited. However, facilities where the USTs have been registered prior to the effective date of these regulations and where the USTs have not been abandoned or removed from the ground for more than 180 days shall be permitted to be replaced with a tank of equivalent size and substance stored and in accordance with the provisions of these regulations.

(2) The installation of bare steel or metal holding tanks is prohibited.

(3) In accordance with the RI DOH "Rules and Regulations Pertaining to Public Drinking Water" (R46-134-DWQ), the installation of a UST within 200 feet of a public dug well or bedrock well or within 400 feet of a gravel-developed well is prohibited.

(4) No person shall commence construction of a new holding tank system or replacement holding tank system, and no modification may be made to any holding tank facility for which an application for a certificate of registration is required, without prior written notification to and approval by the Director.

(B) Compatibility: All new or replacement holding tanks and/or piping systems shall be made of or lined with materials that are compatible with the substance(s) stored. The owner/operator shall not introduce, or allow to be introduced, any material into a holding tank system that is incompatible with the holding tank system.

(C) Tanks - Design and Manufacturing Standards: All new holding tanks installed in Rhode Island shall provide for secondary containment of the tank and associated piping, and shall be constructed in accordance with one of the national codes and requirements listed below:

(1) All new and replacement holding tanks shall be of double-walled construction.

(2) All holding tanks constructed of fiberglass-reinforced plastic shall comply with one of the following national codes, as amended:

(a) Underwriter's Laboratories Standard 1316, April 2, 1996: "Standard for Glass-Fiber-Reinforced Plastic Underground Storage Tanks for Petroleum Products, Alcohols and Alcohol-Gasoline Mixtures,"2nd Edition

(b) Underwriters Laboratories of Canada ULC-S615-1998: "Standard for Underground Reinforced Plastic Tanks."

(3) All holding tanks constructed of steel shall be cathodically protected and shall comply with one of the following national codes, as amended:

(a) Underwriters Laboratories of Canada CAN/ULC-S603-1992: "Standard for Underground Steel Tanks," and CAN/ULC-S603.1-1992: "Standard for Galvanic Corrosion Protection Systems for Underground Steel Tanks", and CAN4-S631-1984(R1998): "Isolating Bushings for Steel Underground Tanks Protected with Coatings and Galvanic Systems;"

(b) National Association of Corrosion Engineers Standard RP0285-2002: "Corrosion Control of Underground Storage Tank Systems by Cathodic Protection" and Underwriters Laboratories Standard 58, December 13, 1996: "Standard for Steel Underground Tanks for Flammable and Combustible Liquids,"

(c) Steel Tank Institute "sti-P_3, February 2010: "STI-P3 Specification and Manual for External Corrosion Protection of Underground Steel Storage Tanks" and Underwriters Laboratories Standard 58, December 13, 1996: "Standard for Steel Underground Tanks for Flammable and Combustible Liquids."

(4) All holding tanks constructed of a steel-fiberglass-reinforced plastic composite, steel-high density polyethylene (HDPE), and steel-polyurethane systems shall comply with the Underwriters Laboratories Standard 1746, January 2007: "Standard for External Corrosion Protection Systems for Steel Underground Tanks," as amended, Underwriters Laboratories Standard 58, December 13, 1996: "Standard for Steel Underground Tanks for Flammable and Combustible Liquids," as amended, and one of the following codes: Steel Tank Institute STI F894, February 2010: "ACT-100 Specification for External Corrosion Protection of FRP Composite Steel USTs," as amended, Steel Tank Institute STI F922, February 2010: "Specification for Permatank," as amended, or Steel Tank Institute STI F961, February 2010: "ACT-100-U Specification for External Corrosion Protection of FRP Composite Steel Underground Storage Tanks," as amended.

(D) Manufacturer's Test: Prior to installation, all new and replacement holding tanks shall be factory tested at a minimum of five (5) pounds per square inch gauge and shall be guaranteed tight by the manufacturer. This guarantee shall be filed with the Director at the time of installation application.

(E) Installation Standard:

(1) All tanks, piping, and other related facility components shall be installed in accordance with a code of practice developed by a nationally recognized association or independent testing laboratory as listed in Appendix B and in accordance with the manufacturer's instructions.

(2) The local city/town building official shall be notified prior to the commencement of installation.

(F) Tightness Testing Upon Installation: All new and replacement tanks and/or lines shall be tightness tested upon completion of installation and in accordance with Rule 8.10. The results of this initial tightness test shall be submitted to the Director within 15 calendar days of test completion or in the event of a leak, in accordance with Rule 12 Leak and Spill Response. No further tightness testing will be required beyond installation, unless the Director has reason to believe the holding tank or its secondary containment has been breached.

(G) Piping - Design Construction and Installation: All new or replacement underground piping that routinely contain regulated substances, including fittings and connections, shall be designed and constructed in accordance with the following:

(1) Fiberglass reinforced plastic piping and nonmetallic flexible piping shall be made of materials listed by Underwriters Laboratories (UL) or Underwriters Laboratories of Canada (ULC); and be equipped with secondary containment.

(2) All steel or metal piping which routinely contains a regulated substance shall be equipped with secondary containment, and all such piping that is in contact with the ground shall be cathodically protected with an impressed current system. All cathodic protection systems shall be designed, installed, operated and maintained in accordance with the national codes of practice sited in Rule 9.05 (C).

(H) Overfill Prevention Equipment: All new and replacement holding tank systems shall be provided with equipment to prevent overfilling during normal operation.

17.06 Facility Modification: No substantial modification may be made to any holding tank facility for which an application for a certificate of registration is required, without prior written notification to and approval by the Director.

17.07 Maintenance Requirements:

(A) All wastes shall be removed from the holding tank as necessary and in accordance with appropriate state, local, and federal rules and regulations.

(B) Records of all waste removals must be maintained on site for a minimum of five years.

(C) All tanks and associated piping must be maintained in accordance with manufacturer's standards.

(D) On a yearly basis, the space between the secondary containment and the holding tank shall be physically monitored to verify that neither the tank nor the secondary containment have been breached. If either has been breached, the Director shall be notified in accordance with Rule 12.04 of these regulations.

(E) Upon reasonable notice, the owner/operator shall make available for inspection by the Director, any records required under this subsection.

18.00 RULE 18 VARIANCES

18.01 Variance Requests: Any owner/operator of a facility, or person subject to these regulations may submit a written request to the Director for a variance from some or all provisions of these regulations. Such request for a variance must, at the minimum, contain the following:

(A) The name and address of the facility owner/operator, and/or person requesting the variance;

(B) The name, location, and registration number of the facility for which the owner/operator seeks a variance, if applicable;

(C) Identification of the specific Rule or Rules from which a variance is requested;

(D) A statement of the reasons for which the facility owner/operator and/or person seeks a variance. This statement shall specify the reasons that the facility owner/operator and/or person is unable to comply with these Rules and Regulations, why a variance is necessary, and the reasons why hardship is alleged. The person seeking the variance should separately and by number list each reason and any other mitigating factor he/she believes the Director should consider;

(E) An explanation that the alternative procedures requested are substantially equivalent to the Rules and Regulations herein in achieving protection of the public health and the environment; and

(F) The signature of the person requesting the variance.

18.02 Variance Decisions:

(A) The owner/operator and/or person shall have the burden of proving by clear and convincing evidence that a variance should be granted because alternative design, operating standards or procedures are substantially equivalent to the regulations and will have no adverse effect on public health and the environment.

(B) If the Director determines that there is widespread public interest or that the variance request raises major issues that could affect other facilities, then the Director may schedule a public hearing to solicit public comment prior to rendering a decision on the variance request.

(C) The Director's decision to grant or deny a variance shall be in writing and may, as a condition of granting the variance, impose appropriate requirements necessary to protect the public health and environment.

18.03 Appeal of Variance Denials: Any person affected by the grant or denial of a variance request may, in accordance with the Administrative Rules of Practice and Procedure for the Administrative Adjudication Division for Environmental Matters, file an appeal to review the initial decision. All appeals must be received by the Administrative Adjudication Division within ten (10) days of receipt of the denial of the variance.

19.00 RULE 19 APPEALS

Any person affected by a decision of the Director pursuant to these regulations may, in accordance with Administrative Rules of Practice and Procedure for the Department of Environmental Management, file a claim for an adjudicatory hearing to review the decision. The

party appealing a Department decision bears the burden of proving that their application or actions comply with all requirements of the rules and regulations herein.

20.00 RULE 20 PENALTIES

The Director shall assess all penalties for violation of these regulations in accordance with the provisions of Rhode Island General Laws Chapters 46-12, 42-17.1, 42-17.6 and 23-19.1 and the "Rules and Regulations for Assessment of Administrative Penalties".

21.00 RULE 21 SEVERABILITY

If any provision of these Rules and Regulations, or the application thereof to any person or circumstances, is held invalid by a court of competent jurisdiction, the validity of the remainder of the Rules and Regulations shall not be affected thereby.

22.00 RULE 22 SUPERSEDED RULES AND REGULATIONS

On the effective date of these Rules and Regulations, all previous Rules and Regulations for Underground Storage Facilities Used for Petroleum Products and Hazardous Materials shall be superseded except for the purposes of Department enforcement actions. Any enforcement action shall be governed by the Rules and Regulations in effect at the time the alleged violations occurred.

23.00 RULE 23 EFFECTIVE DATE

The foregoing "Rules and Regulations for Underground Storage Facilities Used for Petroleum Products and Hazardous Materials", after due notice and hearing, are hereby adopted and filed with the Secretary of State, this ____ day of_____, 2011, to become effective twenty (20) days thereafter, in accordance with the provisions of Chapter 42-35 of the General Laws of Rhode Island, 1956, as amended.

ATTEST A TRUE COPY:

_____ _____

Janet Coit, Director Date
Department of Environmental Management

Notice Given on:

Public Hearing held:

Filing Date:

Effective Date:

I hereby certify that the enclosed is a true and accurate copy of the regulations being filed with the Secretary of State on the _____ day of _____, 2011.

_____

NOTARY PUBLIC

My commission expires:_____

APPENDIX A: DEFINITION OF HAZARDOUS SUBSTANCE

Hazardous substance, as defined by section 101(14) of CERCLA, means (a) any substance designated pursuant to section 311(b)(2)(A) of the CWA; (b) any element, compound, mixture, solution, or substance designated pursuant to section 102 of CERCLA; (c) any hazardous waste having the characteristics identified under or listed pursuant to section 3001 of the Solid Waste Disposal Act (but not including any waste the regulation of which under the Solid Waste Disposal Act has been suspended by Act of Congress); (d) any toxic pollutant listed under section 307(a) of the CWA; (e) any hazardous air pollutant listed under section 112 of the Clean Air Act; and (f) any imminently hazardous chemical substance or mixture with respect to which the Administrator of EPA has taken action pursuant to section 7 of the Toxic Substances Control Act. The terms do not include petroleum, including crude oil or any fraction thereof which is not otherwise specifically listed or designated as a hazardous substance under subparagraphs (a) through (f) of this paragraph, and the term does not include natural gas, natural gas liquids, liquefied natural gas or synthetic gas usable for fuel (or mixtures of natural gas and such synthetic gas).

APPENDIX B: APPLICABLE NATIONAL CODES OF PRACTICE

Subject to Change Through Written DEM Policy Documents Following Notice and Hearing In Accordance With RI APA, R.I.G.L. 42-35-3

Installation:

API RP Publication 1615, 1996
"Installation of Underground Petroleum Storage Systems," Recommended Practice, 5th Edition

NFPA 31, 2006
"Standard for the Installation of Oil-Burning Equipment"

PEI/RP100-2005
"Recommended Practices for Installation of Underground Liquid Storage Systems"

PEI/RP 1000-09(Draft)
"Recommended Practices for the Installation of Marina Fueling Equipment

UST Design and Manufacturing Standards:

STI sti-P3, February 2010
"STI-P3 Specification and Manual for External Corrosion Protection of Underground Steel Storage Tanks"

STI F894, February 2010
"ACT-100 Specification for External Corrosion Protection of FRP Composite Steel USTs"

STI F961, February 2010
"ACT-100-U Specification for External Corrosion Protection of Composite Steel Underground Storage Tanks"

STI F922 February 2010
"Specification for Permatank"

UL Standard 58, December 13, 1996
"Standard for Steel Underground Tanks for Flammable and Combustible Liquids." 9th Edition

UL Standard 971, July1, 2005
"Standard for Nonmetallic Underground Piping for Flammable Liquids," Revised

UL Standard 971A, October 18, 2006
"Standard for Metallic Underground Fuel Pipe"

UL Standard 1316, April 2, 1996
"Standard for Glass-Fiber-Reinforced Plastic Underground Storage Tanks for Petroleum Products, Alcohols, and Alcohol-Gasoline Mixtures." 2nd Edition

UL Standard 1746, January 17, 2007

“Standard for External Corrosion Protection Systems for Steel Underground Storage Tanks,” 3rd Edition

Corrosion Protection:

API RP1632, 1996
"Cathodic Protection of Underground Petroleum Storage Tanks and Piping Systems," 3rd Edition

NACE RP-0169-2007
"Control of External Corrosion on Underground or Submerged Metallic Piping Systems"

NACE RP0285-2002
"Corrosion Control of Underground Storage Tank Systems by Cathodic Protection"

STI R972, January 2006
“Recommended Practice for the Addition of Supplemental Anodes to sti-P_3 USTs”

Also UL 1746 (See Above)

Lining:

API RP 1631, 2001
"Interior Lining and Periodic Inspection of Underground Storage Tanks," 5th Edition

NLPA Standard 631, 1991
"Entry, Cleaning, Interior Inspection, Repair and Lining of Underground Storage Tanks"

General:

API RP 1621, 2001
“Bulk Liquid Stock Control at Retail Outlets” 5th Edition

API RP 1635, 1987
"Management of Underground Petroleum Storage Systems at Marketing and Distribution Facilities,"2nd Edition

API RP 1637, 2007
“Using the API Color- Symbol System to Mark Equipment and Vehicles for Product Identification at Gasoline Dispensing Facilities and Distribution Terminals,” 3rd Edition

NFPA 30, 2008
"Flammable and Combustible Liquids Code"

NFPA 30A, 2008
"Code for Motor Fuel Dispensing Facilities and Repair Garages"

NFPA 31, 2006
“Standard for the Installation or Oil-Burning Equipment”

NFPA 329, 2010
“Recommended Practice for Handling Releases of Flammable and Combustible Liquids and Gases”

NFPA 385, 2007
"Standard for Tank Vehicles for Flammable and Combustible Liquids"

PEI/RP500-05
“Recommended Practices for Inspection and Maintenance of Motor Fuel Dispensing Equipment”

PEI/RP900-08
“Recommended Practices for the Inspection and Maintenance of UST Systems”

Closure:

API RP 1604, 1996
"Closure of Underground Petroleum Storage Tanks," 3rd Edition

API RP 2015, 2001
"Safe Entry and Cleaning of Petroleum Storage Tanks," 6th Edition

APPENDIX C: INSTALLATION CHECKLIST AND CERTIFICATION FORM

STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
Department of Environmental Management
Office of Waste Management
UNDERGROUND STORAGE TANK SECTION
235 Promenade Street
Providence, RI 02908-5767
(401) 222-2797

RI DEM UST FACILITY ID NO._____

CERTIFICATE OF INSTALLATION OR MODIFICATION OF UST

I, _____, hereby certify that on_____,___, I performed certain installation or modification work on underground storage tanks, piping, and/or other related UST facility components located at:

_____

_____

_____

I further certify that:

(1) All work was performed in accordance with: all applicable national codes of practice as listed in "Appendix B" of the Regulations for Underground Storage Facilities Used for Petroleum Products and Hazardous Materials (the "UST Regulations"); the manufacturer's instructions; and the prior written approval of DEM.

(2) All work specified in the manufacturers installation checklist has been completed. **(A copy of the installation checklist, signed by the contractor submitting this Certificate, must be attached hereto.)**

(3) I am certified or licensed as may be required by the R.I. Department of Labor, Division of Professional Regulation. (See R.I. General Laws Chapter 28-27 regarding installation of commercial gasoline or diesel UST systems.)

(4) The City/Town building official was notified prior to the commencement of the installation or modification work.

(5) Compliance with all proper installation procedures is assured by at least one of the following (check all that apply):

☐ I am certified by the appropriate equipment manufacturers.

☐ The work performed was inspected and approved by, a registered professional engineer in the State of Rhode Island having education and experience with UST equipment installation or modification.

☐ The work was performed in compliance with the following DEM-approved method(s) for assuring proper installation or modification:

(A copy of DEM's written approval of the above methodology must be attached hereto.)

INSTALLER'S CERTIFICATION

I hereby certify and attest that the information provided herein is true and accurate. I understand that the provision of false or misleading information could subject me to civil and/or criminal penalties, loss of licensure and/or imprisonment as may be provided by statute or regulation.

_____ _____
Signature Date

Name (Print) : _____
Title : _____
Business Name : _____
Address : _____
_____
Phone Number : _____

OWNER'S CERTIFICATION

I hereby certify that I am the registered owner of the above-referenced facility and/or USTs and that the work described herein was undertaken at my direction.

_____ _____
Signature Date

Name (Print) : _____
Title : _____
Business Name : _____
Address : _____
_____
Phone Number : _____

Appendix D: Manual Tank Gauging Record

MONTH _____ YEAR _____
TANK IDENTIFICATION: _____
PERSON COMPLETING FORM: _____
FACILITY NAME: _____
RI DEM UST FACILITY ID # _____

Circle your tank size, test duration, and weekly/monthly standards in the table below:

Tank Size	Minimum Duration Of Test	Weekly Standard (1 test)	Monthly Standard (4-test average)
up to 550 gallons	36 hours	10 gallons	5 gallons
551-1,000 gallons (also requires periodic tank tightness testing)	36 hours	13 gallons	7 gallons
1,001-2,000 gallons (also requires periodic tank tightness testing)	36 hours	26 gallons	13 gallons

Compare your weekly readings and the monthly average of the 4 weekly readings with the standards shown in the table on the left.

If the calculated change exceeds the weekly standard, the UST may be leaking. Also, the monthly average of the 4 weekly test results must be compared to the monthly standard in the same way.

If either the weekly or monthly standards have been exceeded, the UST may be leaking. As soon as possible, call RI DEM at (401) 222-2797 to report the suspected leak and get further instructions.

Start Test (month, day, and time)	First Initial Stick Reading	Second Initial Stick Reading	Average Initial Reading	Initial Gallons (convert inches to gallons) [a]	End Test (month, day, and time)	First End Stick Reading	Second End Stick Reading	Average End Reading	End Gallons (convert inches to gallons) [b]	Change In Tank Volume In Gallons + or (X) [aXb]	Tank Passes Test (circle YES or NO)
Date: Time: AM/PM					Date: Time: AM/PM						Y N
Date: Time: AM/PM					Date: Time: AM/PM						Y N
Date: Time: AM/PM					Date: Time: AM/PM						Y N
Date: Time: AM/PM					Date: Time: AM/PM						Y N
							To see how close you are to the monthly standard, divide the sum of the 4 weekly readings by 4 and enter result here >				Y N

KEEP THIS PIECE OF PAPER ON FILE FOR AT LEAST 3 YEARS

(REV. .2/05)