

Annex A
TITLE 25. ENVIRONMENTAL PROTECTION
PART I. DEPARTMENT OF ENVIRONMENTAL PROTECTION
Subpart D. ENVIRONMENTAL HEALTH AND SAFETY
CHAPTER 245. ADMINISTRATION OF THE STORAGE TANK AND SPILL
PREVENTION PROGRAM

Subchapter A. GENERAL PROVISIONS

GENERAL

§ 245.1. Definitions.

The following words and terms, when used in this chapter, have the following meanings, unless the context clearly indicates otherwise:

Aboveground storage tank—One or a combination of stationary tanks with a capacity in excess of 250 gallons, including the underground pipes and dispensing systems connected thereto within the emergency containment area, which is used, will be used or was used to contain an accumulation of regulated substances, and the volume of which, including the volume of piping within the storage tank facility, is greater than 90% above the surface of the ground. The term includes tanks which can be visually inspected, from the exterior, in an underground area and tanks being constructed or installed for regulated use. The term does not include the following, or pipes connected thereto:

(viii) Tanks [**which are**] **regulated under 58 Pa.C.S. Chapter 32 (relating to oil and gas development)** used to store brines, crude oil, drilling or frac fluids and similar substances or materials and are directly related to the exploration, development or production of crude oil or natural gas [**regulated under the Oil and Gas Act (58 P. S. § § 601.101—601.605)**].

***Aboveground Storage Tank System*—An aboveground storage tank, connected piping and ancillary equipment within the emergency containment area and emergency and secondary containment.**

***[Actively involved]*—To perform or to conduct direct onsite supervision or oversight of the minimum number of qualifying activities in § 245.111 or § 245.113 (relating to certified**

installer experience and qualifications; and certified inspector experience and qualifications) for renewal of installer or inspector certification in each applicable category, within the period in § 245.114(a)(3) (relating to renewal and amendment of certification).]

Cathodic protection tester—A person who can demonstrate an understanding of the principles and measurements of common **[type]types** of cathodic protection systems as applied to buried or submerged metal piping and tank systems. At a minimum, the person shall have **documented** education and experience in soil resistivity, stray current, structure to soil potential and component electrical isolation measurements of buried metal piping and tank systems.

Certification categories—

(i) Individual certification categories issued to certified installers or certified inspectors to perform tank handling, tightness testing or inspection activities on aboveground or underground storage tank systems and facilities.

(ii) The term includes category specific certifications in one or more of the following:

(A) Storage tank inspector certification categories:

(I) IAF—Inspection of aboveground field constructed and aboveground manufactured storage tank systems and facilities.

(II) IAM—Inspection of aboveground manufactured storage tank systems and facilities.

(III) IUM—Inspection of underground storage tank systems and facilities.

(B) Storage tank installer certification categories:

(I) ACVL—Aboveground storage tank system civil installation and modification.

(II) AFMX—Aboveground field constructed metallic storage tank installation, modification and removal, and aboveground manufactured metallic storage tank modification.

(III) AFR—Aboveground field constructed storage tank system removal.

(IV) AMEX—Aboveground storage tank system mechanical installation, modification and removal.

(V) AMMX—Aboveground manufactured metallic storage tank system installation and modification.

(VI) AMNX—Aboveground nonmetallic storage tank system installation and modification.

(VII) AMR—Aboveground manufactured storage tank system removal.

(VIII) TL—Storage tank liner installation and modification, and underground storage tank liner evaluation.

(IX) UMX—Underground storage tank system installation and modification.

(X) UMI – Underground storage tank system minor modification.

[(X)] **(XI)** UTT—Underground storage tank system tightness tester.

[(XI)] **(XII)** UMR—Underground storage tank system removal.

Certified inspector—A person certified by the Department to conduct inspections of tanks or storage tank facilities and who may conduct environmental audits. A certified inspector may not be an **[employee] employee** of a tank owner.

Certified installer—A person certified by the Department to install, modify or remove storage tanks. A certified installer may be an **[employee] employee** of a tank owner.

Containment structure or facility—Anything built, installed or established which comes in contact with regulated substances that are spilled, leaked, emitted, discharged, escaped, leached or disposed from a storage tank or storage tank system, **including**. **The term includes but is not limited to,** a vault, dike, wall, building or secondary containment structure around an underground or above[-]ground storage tank, or any rock or other fill material placed around an underground storage tank.

Containment sump—A liquid-tight container designed to protect the environment by containing leaks and spills of regulated substances from piping, dispensers, pumps and related components in the containment area. Containment sumps may be single-walled or secondarily contained and located at the top of the tank (tank top or submersible turbine pump sump), underneath the dispenser (under-dispenser containment sump), or at other points in the piping run (transition or intermediate sump).

De minimis—With regard to products containing regulated substances, the term applies when the regulated substance is of insufficient concentration to be required to appear on a **[Material] Safety Data Sheet [(MSDS)](SDS)**. The term does not apply to section 507 of the act (35 P. S. § 6021.507) as it pertains to site contamination.

Environmental Covenant—A servitude arising under an environmental response project which imposes activity and use limitations under the Uniform Environmental Covenants Act (27 Pa.C.S. §§ 6501-6517).

Existing underground storage tank system—An underground storage tank system used to contain an accumulation of regulated substances [or] for which installation has **either** commenced [on or before December 22, 1988.] **or been completed in accordance with this chapter.**

Installation is considered to have commenced if the following apply:

Hazardous substance storage tank system—

(i) A storage tank system that contains a hazardous substance defined in section 101(14) of CERCLA (42 U.S.C.A. § 9601(14)).

(ii) The term does not include a storage tank system that contains a substance regulated as a hazardous waste under [Subtitle C of CERCLA] **Subchapter III of the Solid Waste Disposal Act (42 U.S.C. §§ 6921—6939g) (relating to hazardous waste management),** or mixture of the substances and petroleum, and which is not a petroleum system.

[Interim certification—Certification granted by the Department on an interim basis under section 108 of the act (35 P. S. § 6021.108) to installers and inspectors of storage tank systems or storage tank facilities.]

Minor modification—

(i) An activity to upgrade, repair, refurbish or restore all or part of an existing storage tank system or storage tank facility which does not alter the design of that storage tank system or storage tank facility, but[,] which may **effect** **affect** the integrity of that storage tank system or storage tank facility.

(ii) The term does not include an activity directly affecting the tank portion of the storage tank system or an activity directly affecting an underground component of the storage tank system.

Motor fuel—**[Petroleum or a petroleum-based substance that is]A complex blend of hydrocarbons typically used in the operation of a motor engine, such as** motor gasoline, aviation gasoline, No. 1 or No. 2 diesel fuel or any **[grade of gasohol, and is typically used in the operation of an internal combustion engine]blend containing one or more of these substances such as motor gasoline blended with alcohol.**

Pipeline facilities (including gathering lines)—New and existing pipe rights-of-way and associated equipment, facilities or buildings [regulated under the Hazardous Liquid Pipeline Safety Act of 1979 or the Natural Gas Pipeline Safety Act of 1968, codified without substantive change in 1994 by Pub. L. No. 103-272, 108 Stat. 1371 (49 U.S.C.A. § § 60101—60125) which may include coastal, interstate or intrastate pipelines].

Reconstruction—The work necessary to reassemble a storage tank that has been dismantled and relocated to a new [site]location.

Regulated substance— [(i)] An element, compound, mixture, solution or substance that, when released into the environment, may present substantial danger to the public health, welfare or the environment which is one of the following:

[(A)] (i) A substance defined as a hazardous substance in section 101(14) of CERCLA, including hazardous substances that are liquid or gaseous, or suspended therein regardless of holding temperature, but not including a substance regulated as a hazardous waste under Subtitle C of the Resource Conservation and Recovery Act of 1976 (42 U.S.C.A. § § 6921—6931).

[(B)] (ii) Petroleum, including crude oil or a fraction thereof and petroleum hydrocarbons which are liquid at standard conditions of temperature and pressure (60° F and 14.7 pounds per square inch absolute), including, but not limited to, oil, petroleum, petroleum mixed with ethanol, fuel oil, oil sludge, oil refuse, oil mixed with other nonhazardous wastes and crude oils, gasoline and kerosene.

[(C)] (iii) Other substances determined by the Department by regulation whose containment, storage, use or dispensing may present a hazard to the public health and safety or the environment, but not including gaseous substances used exclusively for the administration of medical care. This includes the following other regulated substances:

[(I)] (A) Nonpetroleum oils including biodiesel; synthetic fuels and oils, such as silicone fluids; tung oils and wood-derivative oils, such as resin/rosin oils; and inedible seed oils from plants, which are liquid at standard conditions of temperature and pressure. The requirements in this chapter for petroleum tanks in [clause] subparagraph [(B)] (ii) apply for this group of substances.

[(II)] (B) Pure ethanol intended for blending with motor fuel. The requirements in this chapter for petroleum tanks in [clause] subparagraph [(B)] (ii) apply.

Release—Spilling, leaking, emitting, discharging, escaping, leaching or disposing from a storage tank into surface waters and groundwaters of this Commonwealth or soils or subsurface soils in an amount equal to or greater than the reportable released quantity determined under section 102 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C.A. § 9602), and regulations promulgated thereunder, or an amount equal to or greater than a discharge as defined in section 311 of the Federal Water Pollution Control Act (33 U.S.C.A. § 1321) and regulations promulgated thereunder. The term also includes spilling, leaking, emitting,

discharging, escaping, leaching or disposing from a storage tank into a containment structure or facility that poses an immediate threat of contamination of the soils, subsurface soils, surface water or groundwater. **All spills, leaks, emissions, discharges, escapes, leaching or disposals of a regulated substance into a containment structure or facility pose an immediate threat of contamination of the soils, subsurface soils, surface water or groundwater, except when a regulated substance is present in a liquid-tight containment sump or emergency containment structure as a result of a tank handling activity, if the certified installer providing direct onsite supervision has control over the regulated substance, the regulated substance is completely contained and, prior to the certified installer leaving the storage tank facility, the total volume of the regulated substance is recovered and removed.**

Release detection—The determination, through a method or combination of methods, whether a release of a regulated substance has occurred from a storage tank **system** into the environment or into the interstitial space between the storage tank **system** and its secondary containment around it.

Removal—Activities involving removal of storage tank system components, ancillary equipment and appurtenances. The term includes removal from service activities when a storage tank or storage tank system is removed, but excludes site assessment activities.

Removal from service—The term includes the following:

(i) Activities related to rendering [**an underground**] a storage tank system permanently unserviceable. Activities include the oversight of the proper draining and cleaning of the storage tank system of product liquids, vapors, accumulated sludges or solids, and completing one of the following:

(A) Leaving the storage tank system in the ground and filling the tank with inert, solid material.

(B) Dismantling or removing the storage tank system from the tank site.

(ii) [**Discontinued use, abandonment, closure**] **Closure-in-place** and permanent closure [**but does not include temporary closure as those terms are used in the act**].

(iii) Site assessment activities required under Subchapter E (relating to technical standards for underground storage tanks) and applicable State law, which are the responsibility of owners and operators, but are not conducted by certified installers or inspectors.

Repair—**An activity that restores to original operating condition a tank, piping, spill prevention equipment, overfill prevention equipment, corrosion protection equipment, release detection equipment or other storage tank system component that has failed to function properly.**

[Reportable release]—**A quantity or an unknown quantity of regulated substance released to or posing an immediate threat to surface water, groundwater, bedrock, soil or sediment. The term does not include the following, if the owner or operator has control over the**

release, the release is completely contained and, within 24 hours of the release, the total volume of the release is recovered or removed in the corrective action:

- (i) A release to the interstitial space of a double-walled aboveground or underground storage tank.
- (ii) A release of petroleum to an aboveground surface that is less than 25 gallons.
- (iii) A release of a hazardous substance to an aboveground surface that is less than its reportable quantity under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C.A. § § 9601—9675) and 40 CFR Part 302 (relating to designation, reportable quantities, and notification).]

Spill prevention equipment—A liquid-tight container placed around the fill pipe or fill port riser of a storage tank designed to capture any product that may spill when the delivery hose is disconnected including, but not limited to, a catchment basin, spill containment bucket, or spill containment box.

Storage tank system— [An] **All or part of an** underground or aboveground storage tank, associated underground or aboveground piping directly serving that storage tank, and one or more of the following which are directly associated with that storage tank:

- (i) Ancillary equipment.
- (ii) Foundation.
- (iii) Containment structure or facility.
- (iv) Corrosion protection system.
- (v) Release detection system.
- (vi) Spill and overflow protection system.

Survey—For purposes of § 245.303(d) (**relating to general requirements**), the term means a study to establish background for surface water, groundwater, soil and sediment prior to the use of a storage tank facility.

Tank handling activities—Activities to install, modify, **perform change-in-service**, or [remove] **close** all or part of a storage tank system or storage tank facility. The term does not include maintenance activities.

Underground storage tank—One or a combination of tanks (including underground pipes connected thereto) which are used, were used or will be used to contain an accumulation of regulated substances, and the volume of which (including the volume of underground pipes connected thereto) is 10% or more beneath the surface of the ground. The term includes tanks being constructed or installed for regulated use. The term does not include:

- (i) Farm or residential tanks of 1,100 gallons or less capacity used for storing motor fuel for noncommercial purposes.
- (ii) Tanks used for storing heating oil for consumptive use on the premises where stored unless they are specifically required to be regulated by Federal law.
- (iii) A septic or other subsurface sewage treatment tank.

(iv) A pipeline facility (including gathering lines) **[regulated under] which is one of the following:**

(A) **[The Natural Gas Pipeline Safety Act of 1968.] Regulated under 49 U.S.C. Chapter 601.**

(B) **[The Hazardous Liquid Pipeline Safety Act of 1979] An intrastate pipeline facility regulated under state laws as provided in 49 U.S.C. Chapter 601 and which is determined by the Secretary of the United States Department of Transportation to be connected to a pipeline or to be operated or intended to be capable of operating at pipeline pressure or as an integral part of a pipeline.**

(v) An interstate **[or intrastate]** pipeline facility regulated under State laws comparable to the provisions of law in subparagraph (iv).

[(xiii)](xiii) Tanks containing radioactive materials or coolants that are regulated under The Atomic Energy Act of 1954 (42 U.S.C.A. § § 2011—2297).]

[(xiv)](xiii) A wastewater treatment tank system that is part of a wastewater treatment facility regulated under section 307(b) or 402 of the Clean Water Act (33 U.S.C. §§ 1317(b) or 1342) (relating to pretreatment standards and national pollutant discharge elimination system (NPDES) permits).

[(xv)](xiv) Equipment or machinery that contains regulated substances for operational purposes such as hydraulic lift tanks and electrical equipment tanks.

[(xvi)](xv) An underground storage tank system that contains a de minimis concentration of regulated substances.

[(xvii)](xvi) An emergency spill or overflow containment underground storage tank system that is expeditiously emptied after use.

[(xviii) An underground storage tank system that is part of an emergency generator system at nuclear power generation facilities regulated by the Nuclear Regulatory Commission under 10 CFR Part 50, Appendix A (relating to general design criteria for nuclear power plants).]

[(xix)](xvii) Other tanks excluded by policy or regulations promulgated under the act.

TANK HANDLING AND INSPECTION ACTIVITIES

§ 245.21. Tank handling and inspection requirements.

(a) Tank handling activities shall be conducted by a certified installer except in the case of modification to an aboveground nonmetallic storage tank, which may be modified by the tank manufacturer. Storage tank facility owners and operators **[may not] shall** use persons who are **[not]** Department-certified to conduct tank handling activities except as noted in this subsection. The certified installer shall perform the tank handling activity or provide direct onsite supervision and control of the activity.

(b) Tank handling activities conducted on all **aboveground** field constructed storage **[tanks] tank systems** and tank handling activities conducted on all aboveground storage **[tanks] tank systems** having a capacity greater than 21,000 gallons shall be inspected by a certified inspector, except in the case of a minor modification or removal from service.

[TIGHTNESS] TESTING ACTIVITIES

§ 245.31. Underground storage tank system [tightness] testing requirements.

(a) Tightness testing activities shall be conducted by a Department-certified underground storage tank system tightness tester (UTT), except when performed by an owner or operator using installed automatic tank gauging or monitoring equipment meeting requirements of § 245.444[(3)](2) and [(4)](3) (relating to methods of release detection for tanks).

[(b) Tightness testing is required to be conducted when it is:

(1) Used as a method of release (leak) detection as prescribed in § § 245.442(b)(1), 245.443(1), 245.444(3) and 245.445(2).

(2) Used to complete the installation of a new single wall constructed underground storage tank. The testing is an integral part of the installation process.

(3) Used in conjunction with cathodic protection upgrading as prescribed in § 245.422(b)(2)(iii) or (v) (relating to upgrading of existing underground storage tank systems).

(4) Used to test tanks repaired in response to a release as prescribed in § 245.434(5) (relating to repairs allowed).

(5) Otherwise required by the Department.]

([c]b) Tightness testing shall be conducted in accordance with equipment manufacturer's written instructions and using the recommended written practices, procedures and established test method protocols developed by the sources in § 245.132(a)(1) (relating to standards of performance).

([d]c) A failed valid tightness test will, regardless of the test method, constitute a suspected release, except as provided in § 245.304(b) (relating to investigation of suspected releases). A failed valid tightness test conducted as part of an investigation of a suspected release constitutes a confirmed release.

([e]d) A complete written test report shall be provided to the tank owner as documentation of test results within 20 days of the test. The test methodology, a certification that the test meets the requirements of § 245.444[(3)](2) or § 245.445(2) (relating to methods of release detection for piping), and sufficient test data, which were used to conclude that the **underground storage tank system** passed or failed the tightness test, shall be included in the test report.

([f]e) Certified underground storage tank system tightness testers (UTT) shall maintain complete records of tightness testing activities for a minimum of 10 years as provided in § 245.132(a)(3) (relating to standards of performance).

[(g) Tightness testing of the underground storage tank system's piping shall be conducted by a Department-certified underground storage tank system tightness tester (UTT) after November 10, 2008.]

(f) Tests or evaluations of spill prevention and overfill prevention equipment, containment sumps, and release detection equipment required under this Chapter shall be performed by a Department-certified individual holding the appropriate certification category and documented on a form provided by the Department. Results shall be maintained onsite at the storage tank facility or at a readily available alternative site and shall be provided to the Department upon request.

TANK REGISTRATION AND FEES

§ 245.41. Tank registration requirements.

(a) Tank owners shall properly register each storage tank by meeting the requirements of this section and paying the registration fee **prior to registration certificate expiration as** required by § 245.42 (relating to tank registration fees).

(b) Tank owners shall register each aboveground storage tank and each underground storage tank with the Department, except as specifically excluded by Department policy or this chapter, on a form provided by the Department, within 30 days after installation or acquisition of an ownership interest in the storage tank. Unless otherwise approved by the Department, a regulated substance may not be placed in the tank and the tank may not be operated until the tank is properly registered and the Department approves an operating permit for the tank.

(c) A form for registration of a storage tank must be complete upon submission to the Department and provide the following:

- (1) Tank owner, operator, **property owner**, and contact information.
- (2) General facility, site and location information.
- (3) Specific tank description and usage information, including regulated substance or substances that will be stored in each tank.
- (4) Specific tank construction, system components and installation information.
- (5) **[Owner or owner's representative] Owner's** certification validating the registration information and operating permit application.
- (6) Certified tank installer information and signature (when required).
- (7) Certified tank inspector information and signature for certain classes of tanks addressed in § 245.21 (relating to tank handling and inspection requirements).

(8) Trained underground storage tank operator information, as required by § 245.436 (relating to operator training).

[8]9) Other applicable information that may be required by the Department.

(d) The owner's registration form shall also serve as an operating permit application. The Department may register a tank and not approve an operating permit for the tank if the application, tank system or the storage tank facility does not meet the requirements of this chapter or the permit applicant is in violation of the act. The Department will automatically withhold or withdraw the operating permit for a storage tank that is reported on the registration form in **[temporary closure or]** temporary removal from service (out-of-service) status. Tank owners may not store, dispense from or place a regulated substance in a storage tank that does not have an operating permit unless otherwise agreed upon by the Department. Additionally, certain classes of tanks require a site-specific installation permit prior to beginning construction of a new or replacement storage tank in accordance with Subchapter C (relating to permitting of underground and aboveground storage tank systems and facilities). Submission of a site-specific installation permit application is a separate requirement for these tanks that is not satisfied by the registration form submission.

(e) A combination of tanks that operate as a single unit require registration of each tank unless otherwise agreed upon by the Department. A tank that has separate compartments within the tank shall be registered separately and charged a separate tank fee for each compartment unless the compartments are connected in a manner that fills, dispenses and operates as a single unit maintaining the same regulated substance at the same operating level in each compartment.

(f) Tank owners shall submit a registration form to amend registration information previously submitted to the Department within 30 days of a change in the previously submitted information. These changes include the following:

- (1) Removal or relocation of a storage tank to a new facility.
 - (2) Temporary or permanent closure or removal_from_service of a storage tank.
 - (3) Change in use of a storage tank to or from regulated or nonregulated status, for example, changing a storage tank to use as a process vessel.
 - (4) Change in substance or substances stored in the tank, unless otherwise agreed upon by the Department.
 - (5) Change of ownership or change of operator[—**new and previous owner**].
 - (6) Change of contact, mailing address or telephone number.
 - (7) Installation of a new or replacement storage tank at an existing facility.
- (g) The Department may require submission of supporting documentation and process information for exemption or exclusion from regulation for a tank change in status or use from a regulated to a nonregulated status.

(h) Beginning October 24, 1988, a person who sells a tank intended to be used as a regulated storage tank or a property containing an existing regulated storage tank shall notify the purchaser, in writing, of an owner's obligations under this section.

§ 245.42. Tank registration fees.

(c) The Department will issue an invoice to the tank owner after receipt of a complete registration form under § 245.41(c) (relating to tank registration requirements). [A] **The** tank owner **[filing a registration]** shall remit the appropriate fee upon receipt of the invoice.

(d) Registration expiration dates are established for storage tanks according to facility location. The Department will prorate the registration fee established by this section to reflect the percentage of time remaining in the registration year from the date of initial registration **or change of ownership** of a storage tank. The Department will not refund registration fees if an owner permanently closes a storage tank or exempts a storage tank through a change-in-service to store a nonregulated substance or change to nonregulated use (such as a process vessel) prior to the expiration of the storage tank's registration, **nor will the Department refund registration fees due to a change of ownership.**

**Subchapter B. CERTIFICATION PROGRAM FOR INSTALLERS
AND INSPECTORS OF STORAGE TANKS AND STORAGE
TANK FACILITIES**

§ 245.102. Requirement for certification.

(d) [After March 23, 1992, a] A certified installer or certified inspector may not perform tank handling or inspection activities as an employee of a company unless the company holds a valid certification issued by the Department under this chapter.

§ 245.105. Certification examinations.

(d) To receive a passing grade on the examinations, the applicant for certification shall achieve a minimum score of 80% on each technical **[section] examination** and a minimum score of 80% on the administrative **[section of the]** examination.

(f) Passing examination scores are valid for a period of 2 years from the date of the examination.

§ 245.106. Conflict of interest.

(a) Except as provided in subsection (b), a certified inspector may not be one or more of the following:

(1) An employee of the tank owner, the tank owner or operator.

(2) A certified installer on the same tank handling activity **on an aboveground storage tank system** for which **[he is a] the installer is the** certified inspector.

(3) An employee of a company that employs a certified installer on the same tank handling activity for which **[he is a] the employee is the** certified inspector, when the tank handling activity is performed on a field-constructed storage tank. This prohibition extends to a company that owns, or is owned by, the employer, in whole or in part.

(b) A certified inspector who is a certified installer may conduct a tank handling activity to correct a deficiency identified by the same certified individual or company during an inspection of the operation of **[a]an underground storage tank [facility]system or the inspection of the integrity, installation, or modification of an aboveground storage tank system**. Notwithstanding this exception, subsection (a)(2) still prohibits a certified inspector from subsequently inspecting a tank handling activity which the certified inspector conducted to

correct a deficiency noted [in] **during** an **integrity, installation, or modification** inspection of [the operation of a] **an aboveground** storage tank [facility] **system**.

(c) A certified inspector may not perform an inspection as required in § 245.411 (relating to inspection frequency) for a facility where the inspector is also the designated Class A or Class B operator as defined in § 245.436 (relating to operator training).

§ 245.107. [Reciprocity.] Reserved.

[(a) A person holding a valid certification issued under the law of another state, territory or the District of Columbia may be issued a certificate in a classification equivalent to the classification of the certification issued by the other state, territory or District of Columbia, if the person proves to the satisfaction of the Department that he is competent to conduct activities in the classification for which certification is being requested. In making its determination, the Department will consider the following:

(1) That the other certification was issued as a result of the passing of an examination equivalent in technical content to that given by the Department for that classification.

(2) That the applicant can be shown to have complied with the laws and requirements of the state, territory or District of Columbia, issuing the other certification in conducting activities for which the other certification was issued.

(3) That the applicant meets the experience and qualification requirements of this chapter for the category of certification being requested.

(4) The applicant achieves a passing grade on all administrative sections of the certification examination required by this chapter for the category of certification being requested.

(b) The applicant shall submit an application for certification to the Department in accordance with § 245.104 (relating to application for installer or inspector certification).]

§ 245.108. Suspension of certification.

(a) The Department may suspend the certification of a certified installer or certified inspector for good cause which includes, but is not limited to:

(4) In the case of a certified inspector's failure to:

(i) Inform the owner or operator and the Department of conditions or procedures that are not in accordance with the manufacturer's technical and procedural specifications for installation, construction, modification or operation of the storage tank system or storage tank facility and not in compliance with the act or this chapter.

(ii) Conduct, review or observe a test or inspection activity required by the act or this chapter.

(iii) Submit reports of inspection activities to the Department within 60 days of conducting **[the]an inspection [activities] activity, except for reports of modification inspection activities, which shall be reported to the Department within 30 days of conducting a modification inspection activity.**

(6) Working as a certified installer or certified inspector in a certification category for which the person has failed to obtain **or maintain** certification.

(9) A violation of The Clean Streams Law, the Air Pollution Control Act or the Solid Waste Management Act or regulations promulgated under those statutes by the certified individual which **results in the following:**

(i) **Causes** **causes** pollution, causes a threat of pollution or causes harm to the public health, safety or welfare.

[(ii) Occurs as a result of the certified individual conducting activities related to the installation, modification, removal or inspection of storage tank systems.]

§ 245.110. Certification of installers.

(a) An installer certification authorizes the person to whom it is issued to conduct tank handling activities or tightness testing activities pertaining to storage tank systems or storage tank facilities in one or more of the categories in subsection (b).

(b) Installer certifications may be issued for the following categories:

(1) *Underground storage tank system[-]installation and modification {UMX}*. Installation and modification of underground **[storage tanks and]** storage tank systems including, but not limited to, the tank and all associated ancillary equipment, appurtenances, corrosion protection systems, structural components and foundations. This category also includes conducting preinstallation air pressure tests for underground storage tank systems, **overflow prevention equipment evaluations, containment sump and spill prevention equipment testing, and release detection equipment testing.**

(2) Underground storage tank system minor modification {UMI}. Limited to the performance of minor modifications of underground storage tank systems. This category also includes conducting overflow prevention equipment evaluations, containment sump and spill prevention equipment testing, and release detection equipment testing.

([2]3) Underground storage tank system[-]removal {UMR}. Removal from service of underground storage tank systems **[or storage tank facilities]**.

([3]4) *Underground storage tank system[-]tightness tester {UTT}*. Tightness testing activities involved in conducting and interpreting results of volumetric and nonvolumetric tests on underground storage tank systems **[or storage tank facilities]**. **This category also includes containment sump and spill prevention equipment testing and release detection equipment testing.**

([4]5) *Aboveground manufactured metallic storage tank system[-]installation and modification {AMMX}*. Installation and modification of aboveground manufactured metallic storage tank systems, including, but not limited to, the tank and all associated ancillary equipment, appurtenances and corrosion protection systems. This category also covers foundations, **containment structures** and structural components when they are designed by an engineer qualified in civil construction or when installing small aboveground UL-labeled tanks with manufacturer's installed self-containment or diking systems.

([5]6) *Aboveground nonmetallic storage tank system[-]installation and modification {AMNX}*. Installation and modification of aboveground nonmetallic **[storage tanks or]**storage tank systems, including, but not limited to, the tank and all associated ancillary equipment and appurtenances. This category also covers foundations and structural components when they are designed by an engineer qualified in civil construction or as specified by the tank manufacturer.

([6]7) *Aboveground manufactured storage tank system[-]removal {AMR}*. Removal from service of aboveground manufactured storage tank systems **[or storage tank facilities]**.

([7]8) *Aboveground field constructed metallic storage tank[-]installation, modification and removal {AFMX}*. Installation, modification and removal of aboveground field constructed metallic storage tanks and corrosion protection systems. This category also covers the modification of tank **shell** components of an aboveground manufactured **metallic** storage tank **[system]**.

([8]9) *Aboveground field constructed storage tank system[-]removal {AFR}*. Removal from service of aboveground field constructed and manufactured aboveground storage tank systems **[or storage tank facilities]**.

([9]10) *Aboveground storage tank system mechanical[-]installation, modification and removal {AMEX}*. Installation, modification and removal of tank related mechanical appurtenances, including, but not limited to, valves, fill piping, suction piping, foam system piping, pumps, corrosion protection systems, release detection systems, and spill and overflow prevention systems that are components of an aboveground storage tank system **[or storage tank facility]**.

([10]11) *Aboveground storage tank system[-]civil {ACVL}*. Installation and modification of tank related structural components, including, but not limited to, foundations, dike walls, field grading, above and below grade vaults, pump supports, pipe supports, corrosion protection systems and drainage systems associated with an aboveground storage tank system**[or storage tank facility]**.

([11]12) *Storage tank[-]liner {TL}*. Activities involved in installation or modification of internal linings for underground and aboveground storage tank systems **[or storage tank facilities]** and

the evaluation of underground storage tank linings as required in § 245.422(b)(1)(ii) (relating to upgrading of existing underground **storage tank** systems).

§ 245.111. Certified installer experience and qualifications.

(a) An applicant shall meet the following minimum experience, education, training or certification requirements and have completed the required number of activities in the appropriate category for an initial installer category certification:

| <i>Category</i> | <i>Experience, Education, Training or Certification</i> | <i>Total Number of Activities Completed</i> |
|-------------------|--|--|
| UMX | 2 years, or college degree and 1 year Technical training <u>or</u> <u>UMI certification</u> | <u>[9 installations] 10 installations or major modifications (at least 5 installations)</u> |
| <u>UMI</u> | <u>2 years, or college degree and 1 year</u> <u>Technical training</u> | <u>10 minor modifications</u> |
| UMR | 2 years, or college degree and 1 year Technical training | 6 removals |
| UTT | Department-approved training with testing equipment manufacturer's certification | None |
| AMMX | 2 years, or college degree and 1 year Technical training <u>or</u> <u>UMX certification</u> Technical training | <u>[9 installations] 10 installations or major modifications (at least 5 installations)</u> None |

| | | |
|------|---|---|
| | or AFMX certification | None |
| AMNX | 2 years, or college degree and 1 year Technical training | [9 which may be installations or major modifications] <u>10 installations or major modifications (at least 5 installations)</u> 6 AST installations |
| | or AMMX certification | |
| AMR | 2 years, or college degree and 1 year Technical training | 6 removals |
| | or UMR certification | None |
| | or AFR certification | None |
| AFMX | 3 years, or college degree and 2 years Technical training | 12 which may be installations or major modifications |
| AFR | 2 years, or college degree and 1 year Technical training | 6 removals |
| AMEX | 3 years, or college degree and 2 years Technical training | 12 installations or modifications (at least 6 installations) |
| ACVL | 3 years, or college degree and 2 years Technical training | 12 installations or modifications (at least 6 installations) |
| TL | 2 years[/] Manufacturer's certification | 9 tank linings |

(c) A college degree being substituted for experience shall **be at a minimum a bachelor's degree** in civil engineering, mechanical engineering, environmental engineering, petroleum engineering, chemical engineering, structural engineering, **[or] geotechnical engineering, hydrology, geology, or equivalent degree as determined by the Department.**

(g) The technical training required by subsection (a) shall be completed during the experience interval and shall be demonstrated through the submission of proof of successful completion of a category-specific training course approved by the Department in accordance with § 245.141. Successful completion means attendance at all sessions of the training and attainment of the minimum passing grade for the approved course. **[The requirement for category-specific technical training is effective November 10, 2008.]**

§ 245.112. Certification of inspectors.

(a) An inspector certification authorizes the person to whom it is issued to conduct inspection activities for storage tank systems and storage tank facilities in one or more of the categories in subsection (b).

(b) Inspector certifications may be issued for the following categories:

(1) IUM underground storage tank systems and storage tank facilities. **This category also includes containment sump and spill prevention equipment testing and release detection equipment testing.**

(2) IAM aboveground manufactured storage tank systems and storage tank facilities.

(3) IAF aboveground field constructed and aboveground manufactured storage tank systems and storage tank facilities.

§ 245.113. Certified inspector experience and qualifications.

(a) An applicant shall meet the following minimum experience, education, training or certification requirements, and have completed the required number of activities in the appropriate category for an initial inspector category certification:

| | <i>Category Experience, Education, Training or Certification</i> | <i>Total Number of Activities Completed</i> |
|-----|--|---|
| IUM | 4 years, or college degree and 2 years, | None |

and

Department-approved tank tightness testing familiarization course or UTT certification,

and

UMX certification,

and

Corrosion protection training

| | | |
|-----|---|------|
| IAM | 4 years, or college degree and 2 years API 653 certification or | None |
|-----|---|------|

STI inspector certification
or

Department-approved aboveground **storage** tank inspector certification

| | | |
|-----|---|--|
| IAF | 4 years, or college degree and 2 years API 653 certification or Department-approved aboveground <u>storage</u> tank inspector certification | 12 integrity or construction inspections |
|-----|---|--|

(c) A college degree being substituted for experience shall be, **at a minimum, a bachelor's degree** in civil engineering, mechanical engineering, environmental engineering, petroleum engineering, chemical engineering, structural engineering, geotechnical engineering, hydrology, geology, **[or environmental studies] or equivalent degree as determined by the Department.**

(f) Corrosion protection training required for IUM certification shall be documented by completion of a Nationally recognized training course in the area of cathodic protection or corrosion protection, or other training as approved by the Department.

([f]g) When conducting an aboveground storage tank structural integrity inspection on an aboveground field constructed metallic storage tank, the Department certified inspector shall also possess API Standard 653 (Tank Inspection, Repair, Alteration and Reconstruction Certification).

([g]h) The applicant shall certify completion of safety training which is appropriate for the certification category. Training must be in accordance with regulatory requirements and industry

standards and procedures such as Occupational Safety and Health Administration requirements in 29 CFR 1910 (relating to occupational and health standards for industry).

(h) Certified inspectors of underground storage tanks (IUM) shall complete Department-provided inspector training prior to conducting **[UST facility operation]** inspections on underground storage tank systems as required in § 245.411 (relating to inspection frequency).

(i) Certified inspectors of aboveground storage tanks (IAF and IAM) shall complete Department-provided inspector training prior to conducting AST installation, modification, in-service and out-of-service inspections required in §§ 245.551-554 (relating to inspection requirements for large aboveground storage tanks) and § 245.616 (relating to inspection requirements for small aboveground storage tanks).

§ 245.114. Renewal and amendment of certification.

(a) Certification categories **[renewed after January 9, 2008,]** will have a uniform expiration date of 3 years from the issuance date of the first category **obtained or renewed** after January 9, 2008.

(b) **[After the conversion to a uniform expiration date as provided in subsection (a), the]** **The** issued certification will be valid for 3 years from the previous expiration date, unless suspended or revoked before that date.

(c) An applicant shall meet the following **[minimum]** training requirements **[or number of activities]** in the appropriate category for renewal of installer certification:

| <i>Category</i> [t] <i>Training</i> | <i>[Total Number of Activities Completed (Renewal by activities to be phased out November 10, 2009)]</i> |
|--|--|
| UMR Examination or Technical training Administrative training | [6 removals] |
| UMX Examination or Technical training Administrative training | [9 installations or major modifications] |
| <u>UMI</u> <u>Examination or Technical training</u> <u>Administrative training</u> | |
| UTT Testing equipment manufacturer's certification Administrative training | [None] |

| | | |
|------|--|--|
| AMMX | Examination or Technical training Administrative training | [9 installations or major modifications] |
| AMNX | Examination or Technical training Administrative training | [9 installations or major modifications] |
| AFMX | Examination or Technical training Administrative training | [12 installations or major modifications] |
| AFR | Examination or Technical training Administrative training | [6 removals] |
| AMR | Examination or Technical training Administrative training | [6 removals] |
| AMEX | Examination or Technical training Administrative training | [12 installations or major modifications] |
| ACVL | Examination or Technical training Administrative training | [12 installations or major modifications] |
| TL | Manufacturer's certification Administrative training | [9 tank linings] |

(d) An applicant shall meet the following requirements in the appropriate category for renewal of inspector certification:

Category Qualifications and Training

| | |
|-----|---|
| IUM | Department inspector training |
| IAM | API 653 certification or STI Inspector certification or Department approved inspector certification and Department inspector training |
| IAF | API 653 certification or Department-approved inspector certification and Department inspector training |

[(e) Renewal of categories based on number of activities completed without technical training or examination as provided in subsection (c) will be a method of renewal until November 10, 2009.]

[(f)e] Technical, [and] administrative, and inspector training shall be obtained within 2 years prior to application submission.

(1) Administrative and inspector training will be provided by the Department. [Administrative training in subsection (c) is required after November 10, 2009.]

(2) Technical training is category-specific and must be approved by the Department in accordance with § 245.141 (relating to training approval).

[(g)f] An applicant for renewal shall:

(1) Submit a completed application for renewal to the Department 60 to 120 days prior to the expiration date or examination test date. Applicants who fail to submit a renewal application within 60 days following the expiration date shall meet the experience, qualifications and examination requirements for initial certification as required in § 245.111 or § 245.113 (relating to certified installer experience and qualifications; certified inspector experience and qualifications) and the requirements in § 245.105 (relating to certification examinations).

(2) The applicant shall certify completion of safety training which is appropriate for the certification category. Training must be in accordance with regulatory requirements and industry standards and procedures such as Occupational Safety and Health Administration requirements in 29 CFR 1910 (relating to occupational and health standards for industry).

(3) Successfully complete training programs which may be required by the Department. Successful completion means attendance at all sessions of training and attainment of the minimum passing grade established by the Department in the approval of the training course under § 245.141 for all sections of all qualifying tests given as part of the training course.

[(h)g] A certified installer or certified inspector shall notify the Department and seek amendment of the certification from the Department whenever:

(1) There is a change in the information provided in the application for the certification. This request shall be made within 14 days from the date of a change in information.

(2) The certified installer or certified inspector wishes to conduct tank handling or inspection activities in installer or inspector certification categories other than those approved by the Department as set forth on the certification.

(3) The certified installer or certified inspector wishes to eliminate installer or inspector certification categories from the certification.

(4) The EQB amends certification categories or qualification requirements and establishes a phase-in period for the new requirements.

(i)h) Certified installers or certified inspectors required to amend their certifications in accordance with paragraph (1) or (3) shall apply for amendment on a form provided by the Department.

(j)i) Certified installers or certified inspectors required to amend their certifications in accordance with subsection **(h)g)(2)** shall comply with the applicable requirements of this chapter related to application, experience, qualifications and examination.

COMPANY CERTIFICATION

§ 245.121. Certification of companies.

A company may not **perform or** employ a certified installer or certified inspector to perform tank handling, tightness testing or inspection activities unless the company holds a valid certification issued by the Department under this chapter and the company verifies that the certified installer or certified inspector holds a valid certification issued under this chapter for the appropriate category.

§ 245.123. Suspension of company certification.

(a) The Department may suspend the certification of a certified company for good cause, which includes, but is not limited to:

(4) A violation of The Clean Streams Law, the Air Pollution Control Act or the Solid Waste Management Act or regulations promulgated thereunder by the company or a certified installer or a certified inspector employed by the company which **[results in the following:**

(i) Causes] causes pollution, causes a threat of pollution or causes harm to the public health, safety or welfare.

[(ii) Occurs while conducting activities related to the installation, modification, removal from service or inspection of storage tank systems.]

STANDARDS **[FOR] OF** PERFORMANCE

§ 245.132. Standards of performance.

(a) Certified companies, certified installers and certified inspectors shall:

(1) Maintain current technical and administrative specifications and manuals, **[Nationally-recognized] Nationally recognized** codes and standards, and State and Federal regulations which pertain to the categories for which certification was issued. **[Nationally-recognized]**

Nationally recognized organizations are identified in § § 245.405, 245.504 and 245.604 (relating to codes and standards; and referenced organizations).

(2) Complete and submit to the Department, within 60 days of ~~[the]~~**an** inspection activity, **except for a modification inspection, which shall be submitted within 30 days of the inspection activity,** or 30 days of a tank handling activity, a Department-approved form certifying that the tank handling activity or inspection activity conducted by the certified installer or certified inspector meets the requirements of the act and this chapter and accurately describes the conditions of the storage tank system and facility. For tank handling activities involving multiple certified individuals and certification categories, the tank handling report shall be submitted within 30 days of the completion of all project tank handling and inspection activities.

(3) Maintain complete records of tank handling and inspection activities, nondestructive examination and testing results and tightness testing records for a minimum of 10 years.

(4) Report to the Department a release of a regulated substance; **[or] suspected or confirmed [confirmed or suspected] contamination of soil, surface or groundwater from regulated substances; or a regulated substance observed in a containment structure or facility,** while performing services as a certified installer or certified inspector.

(5) Report to the Department failed tests of spill prevention equipment, containment sumps, and overfill prevention equipment conducted as required in this Chapter.

(6) [This notification shall be submitted to the Department] As required by paragraphs (4) and (5), notify the Department in writing within 48 hours of performing the failed test or observing a release of a regulated substance, suspected or confirmed contamination, or a regulated substance in a containment structure or facility on a form provided by the Department. If the notification is being submitted because of a failed valid tightness test, spill prevention equipment test, containment sump test, or overfill prevention evaluation, a copy of the test results shall also be provided to the Department with the notification report. [When there is a reportable release, the notification may be submitted jointly by the owner, operator, certified installer and certified inspector. In this instance, the written notification report shall be submitted to the Department, at the appropriate regional office, in accordance with § 245.305 (relating to reporting releases).]

[(5)] (7) Perform certified installer or certified inspector activities so that there is no release of regulated substances or contamination of soil, surface or groundwater caused by regulated substances from a storage tank system or storage tank facility.

[(6) Not affix the certified installer's or certified inspector's signature or certification number to documentation concerning the installation or inspection of a component of a storage tank system project or to documentation concerning tank handling or inspection activity, unless:

(i) The storage tank system project was accomplished by the certified installer or under the installer's direct, onsite supervision and control.

(ii) Inspection activities were conducted on the storage tank system project by the certified inspector, or under the inspector’s direct, onsite supervision and control and as required by the act and this chapter and the certified inspector was present at the site during the conducting of inspection activities on the storage tank system project and as required by the act and this chapter.

(iii) Installation or modification inspection activities were conducted on a large or field constructed aboveground storage tank and the certified inspector was involved prior to the initiation of the project and was present at critical times, so that the inspector can reliably determine that the following requirements were met:

(A) Industry standards and project specifications were followed throughout the tank handling activity.

(B) Appropriate testing and nondestructive examinations were properly conducted.

(C) The tank is suitable for operational service.

(7) Not certify to an owner or operator or the Department that a storage tank system project or component thereof is complete unless it complies with the act or this chapter. Project certification applies to both certified activities and nontank handling activities that may have been performed as part of the project.]

(8) Adhere to equipment manufacturer’s instructions, accepted industry standards and applicable industry codes of practice when performing tank handling, tightness testing or inspection activities or other nontank handling activities on the project.

(9) Provide requested records and documentation to the Department under section 107(c) of the act (35 P. S. § 6[201]021.107(c)).

(b) A company that employs any individual certified in the UMX, UMR, UMI, or UTT category or an individual certified in the UMX, UMR, UMI, or UTT category who is not employed by a certified company shall participate in the Tank Installer Indemnification Program (TIIP) as required by section 704(a)(1) of the act (35 P.S. § 6021.704(a)(1)), and shall provide timely payment of TIIP fees as required by sections 705(d)(1) and 705(e) of the act (35 P.S. §§ 6021.705(d)(1) and 6021.705(e)) and § 977.19(b) (relating to certified company fees for the Underground Tank Storage Tank Indemnification Fund).

(c) Certified companies, certified installers and certified inspectors may not:

(1) Affix the certified installer’s or certified inspector’s signature or certification number to documentation concerning the installation or inspection of a component of a storage tank system project or to documentation concerning tank handling or inspection activity as required by the act and this chapter unless:

(i) The storage tank system project was performed by the certified installer or under the installer’s direct, onsite supervision and control.

(ii) Inspection activities were conducted on the storage tank system project by the certified inspector, or under the inspector's direct, onsite supervision and control.

(iii) Installation or modification inspection activities were conducted on a large or field-constructed aboveground storage tank and the certified inspector was involved prior to the initiation of the project and was present at critical times so that the inspector can reliably determine that the following requirements were met:

(A) Industry standards and project specifications were followed throughout the tank handling activity.

(B) Appropriate testing and nondestructive examinations were properly conducted.

(C) The tank is suitable for operational service.

(2) Certify to an owner or operator or the Department that a storage tank system project or component thereof is complete unless it complies with the act and this chapter. Project certification applies to both certified activities and nontank handling activities that may have been performed as part of the project.

[(b)](d) A certified installer or certified inspector shall display **[a] his or her Department-issued** certification identification card or certificate upon request.

[(c)](e) ***

TRAINING APPROVAL

§ 245.141. Training approval.

(a) Providers of training for which approval is required under this chapter shall, at least 120 days prior to the scheduled date of the training program, request approval from the Department for the training program.

(b) An application for approval must include the following information:

(1) The name and address of the person offering the training.

(2) The title of the course.

(3) The name, title, affiliation and professional background of each course instructor and a detailed outline of the course which includes a description of the subject matter to be presented, the order of presentation and the amount of time scheduled for the presentation.

(4) A narrative describing the preparation and administration of a test to be given at the conclusion of the course. This test must test the participant's knowledge of the technical, administrative and legal requirements related to the subject matter of the course. The narrative

must also describe a procedure for conducting and grading of the test that assures careful monitoring and expeditious transmission of test results to the applicant and the Department.

(5) Other information necessary for a determination that the training program conforms to the act and this chapter such as copies of any presentations, presenter notes, training handouts, or references.

(c) Training approval shall be for 3 years from the date of issuance. An applicant for renewal shall submit a completed application for renewal to the Department 60 to 120 days prior to the expiration date.

(d) The Department may approve industry recognized training without the submission of an application as provided in subsection (a).

Subchapter C. PERMITTING OF UNDERGROUND AND ABOVEGROUND STORAGE TANK SYSTEMS AND FACILITIES

GENERAL

§ 245.203. General requirements for permits.

(a) **[Except as provided in subsections (b)—(d), a]**A person may not operate an aboveground or underground storage tank system or storage tank facility, or install a storage tank system or facility covered by § 245.231 (relating to scope), unless the person has first applied for and obtained a permit for the activity from the Department under this subchapter.

(b) **[A person is not required to submit a separate application for a permit if the storage tank system is subject to a permit-by-rule.]**The storage tank system must be registered with the Department in accordance with Subchapter A (relating to general provisions) and be maintained and operated in compliance with the standards and requirements of the Department under the act and this chapter. Failure to comply with standards could result in administrative or other Departmental actions against the storage tank owner~~[/]~~ **and** operator.

[(c) A person may continue to operate an existing storage tank system, registered with the Department on or before October 11, 1997, when the tank system is operated for its intended use, until the Department notifies the person to submit a permit application under this subchapter or the Department notifies the person the tank system is deemed permitted, if the person maintains and operates the storage tank system in compliance with the act and this chapter.

(d) Operation of existing storage tank systems will be allowed to continue until the Department takes final action on the permit application requested in subsection (c) or the Department notifies the person that the tank system is deemed permitted or that the permit is withheld or denied.]

[(e)] (c) Operating permits will be renewed automatically on an annual basis concurrent with registration. There will be no additional fee or paperwork required beyond the registration requirements.

[(f)] **(d)** The Department will automatically withhold or withdraw the operating permit for a storage tank that is reported under § 245.41 (relating to tank registration requirements) in **[temporary closure or]** temporary removal from service (out-of-service) status. The Department may renew the permit when an amended registration form is received showing the tank returning from **[temporary closure or]** temporary removal from service status to an operating status.

[(g)] **(e)** A storage tank system may not be operated if the Department suspends, revokes or denies the tank operating permit. **[A person may not deliver or place a regulated substance in a storage tank if the Department suspends, revokes or denies the tank operating permit.]**

(f) A person may not deliver or place a regulated substance in a storage tank if the Department suspends, revokes or denies the tank operating permit, if the tank operating permit is in a withheld or withdrawn status, or if the tank operating permit has not been issued.

(g) The owner and operator of a storage tank system who causes or allows a violation of the act, this chapter, an order of the Department, a condition of a permit issued under the act, or any other applicable law is subject to enforcement action including suspension, modification or revocation of the permit.

[PERMITS-BY-RULE]

§ 245.211. [Scope.] **Reserved.**

[The following storage tank systems are subject to permit-by-rule for operation:

(1) Aboveground storage tank systems with a capacity less than or equal to 21,000 gallons, except highly hazardous substance storage tank systems.

(2) Underground manufactured storage tank systems storing petroleum.]

§ 245.212. [Minimum requirements for obtaining a permit-by-rule.] **Reserved.**

[(a) A storage tank system listed in § 245.211 (relating to scope) shall be deemed to have a permit-by-rule for operation if the following conditions are met:

(1) The storage tank system is properly registered.

(2) Tank handling and inspection activities are performed by Department certified individuals, as specified in Subchapter B (relating to certification program for installers and inspectors of storage tanks and storage tank facilities).

(3) If necessary, the corrective action process regulations in Subchapter D (relating to corrective action process for owners and operators of storage tanks and storage tank facilities and other responsible parties) are followed.

(4) The storage tank system meets the applicable technical, administrative and operational requirements for underground tank systems specified in Subchapter E (relating to

technical standards for underground storage tanks) or for aboveground tank systems specified in Subchapter G (relating to simplified program for small aboveground storage tanks).

(5) The owner of an underground storage tank system has met the applicable financial responsibility requirements of Subchapter H (relating to financial responsibility requirements for owners and operators of underground storage tanks and storage tank facilities).

(6) If required, the owner submits a current Spill Prevention and Response Plan that meets the Department's requirement under Chapter 9 of the act (35 P. S. § § 6021.901—6021.904).

(b) The owner/operator of a storage tank system who causes or allows violations of the act, regulations thereunder, an order of the Department, or a condition of a permit issued under the act is subject to administrative or other actions including suspension, modification or revocation of the permit.]

[GENERAL] OPERATING PERMITS

§ 245.221. [Scope.] Reserved.

[Storage tank systems not covered by § 245.211 (relating to scope) are subject to general operating permits.]

§ 245.222. Application requirements.

Applications for [a] an [general] operating permit shall be submitted on a **[Department form]**form provided by the Department. The application must certify the following:

(1) General requirements for all storage tank systems are as follows:

(i) The storage tank system is properly registered.

(ii) Tank handling and inspection activities are performed by Department-certified individuals, as specified in § 245.21 (relating to tank handling and inspection requirements) and Subchapter B (relating to certification program for installers and inspectors of storage tanks and storage tank facilities).

(iii) The storage tank system is in compliance with applicable administrative, technical and operational requirements as specified in Subchapter E, Subchapter F or Subchapter G (relating to technical standards for underground storage tanks; technical standards for aboveground storage tanks and facilities; and simplified program for small aboveground storage tanks).

(2) In addition to the requirements of paragraph (1), an owner of an underground storage tank system shall meet the applicable financial responsibility requirements of Subchapter H (relating to financial responsibility requirements for owners and operators of underground storage tanks and storage tank facilities).

(3) In addition to the requirements of paragraph (1), an owner of **[an] a large** aboveground storage tank **[system] or large aboveground storage tank facility** shall **[meet the following requirements:**

(i) A] file a current Spill Prevention Response Plan[,] that is in compliance with Chapter 9 of the act (35 P. S. § § 6021.901—6021.904)[, **is filed]** with the Department.

[(ii) For new tanks, proof that an appropriate tightness test of the aboveground tank system has been completed.]

SITE-SPECIFIC INSTALLATION PERMITS

§ 245.231. Scope.

(a) Site-specific installation permits are required prior to the construction, reconstruction or installation of one or more of the following:

(1) New aboveground storage tank systems with a capacity greater than 21,000 gallons at an existing large aboveground storage tank facility.

(2) New large aboveground storage tank facilities.

(3) New highly hazardous substance tank systems.

(4) New underground field constructed storage tank systems **not installed within a previously registered underground storage tank system.**

(b) Site-specific installation permit applications meeting the requirements in § § 245.232(a)(1) and (2) and 245.236 (relating to general requirements; and public notice) are required to be approved prior to construction, reconstruction or installation. Additional application requirements include the following:

(1) Large aboveground storage tank system at a new facility or existing small aboveground **storage** tank facility requires compliance with § 245.232(a)(3) and (4) and (b).

(d) Site-specific installation permits will expire five years from the date of issuance unless the Department receives a written extension request from the owner prior to the expiration date and grants an extension.

§ 245.232. General requirements.

(a) Applicants for site-specific **installation** permits shall provide the following:

(b) In addition to the items required by subsection (a), owners of aboveground storage tank systems or facilities required to apply for a site-specific **installation** permit shall include:

(1) A [**current**] Spill Prevention Response Plan **for the facility that includes the proposed storage tank systems demonstrating [that is in]** compliance with Chapter 9 of the act (35 P. S. § § 6021.901—6021.904).

(2) Proof of notification to the municipality and county prior to submitting the application for a site-specific installation permit under section 1101(a) of the act [(**35 P. S. § 621.1101(a)**)]**35 P.S. § 6021.1101(a)** and § 245.236 (relating to public notice). Acceptable proof of notification includes, but is not limited to, copies of letters sent to the affected municipality and county and legal notices published in a newspaper of general circulation in the area where the project is proposed.

§ 245.233. Mapping requirements.

(a) A site-specific **installation** permit application shall contain maps and plans of the proposed storage tank system or facility site showing the following:

(1) The boundaries for the proposed facility site.

(2) The location of the proposed storage tanks.

(~~2~~**3**) The location and names of public roads within or adjacent to the proposed facility site.

(~~3~~**4**) The location of proposed monitoring wells.

(~~4~~**5**) The municipality and county.

(~~5~~**6**) The elevation and location of test borings and core samples.

(~~6~~**7**) The ownership, if known, location and extent of known workings of active, inactive and abandoned underground mines including mine openings within the proposed permit site.

(~~7~~**8**) Streams, lakes or surface watercourses located on or adjacent to the proposed permit site.

(~~8~~**9**) The location and ownership of public or private groundwater supplies within 2,500 feet of the proposed permit site.

(~~9~~**10**) Sufficient slope measurements to adequately represent the existing land surface configuration of the proposed permit site.

§ 245.234. Siting requirements.

(a) The Department will not issue a site-specific storage tank system or facility installation permit if:

(1) The installation of **storage** tank systems and facilities is proposed on 100-year floodplains or a larger area that the flood of record has inundated unless **[the] an** industrial use on the proposed site was in existence as of August 5, 1989.

(2) The installation of **storage** tank systems and facilities is proposed in wetlands in a manner inconsistent with Chapter 105 (relating to dam safety and waterway management).

(b) The applicant shall provide the following additional information if appropriate:

(3) A professional engineer's construction design criteria and engineering specifications necessary to mitigate surface or subsurface conditions which may result in excessive **storage** tank system settlement or unstable support of the applicant's proposed **storage** tank systems.

§ 245.235. Environmental assessment.

(a) An application for a site-specific **installation** permit must include an environmental assessment on a form prescribed by the Department.

§ 245.236. Public notice.

The owner of a proposed new large aboveground storage tank facility or proposed aboveground storage tank system with greater than 21,000 gallons capacity or proposed new highly hazardous substance tank shall provide written notice to the local municipality and county in which the proposed aboveground system or facility is to be located prior to submitting a permit application. **This notice shall inform the local municipality and county of the location, capacity, and projected installation date of the proposed storage tank system and the substance to be stored in the tank.**

**STORAGE TANK FACILITIES AND OTHER
RESPONSIBLE PARTIES**

§ 245.301. Purpose.

This subchapter establishes **suspected release investigation**, release reporting, [release confirmation] and corrective action requirements for owners and operators of storage [tanks] **tank systems** and storage tank facilities and other responsible parties.

§ 245.302. Scope.

This subchapter applies to releases of regulated substances from storage [tanks] **tank systems** regulated under the act.

§ 245.303. General requirements.

(c) For corrective actions required by this subchapter, it will be presumed as a rebuttable presumption of law in civil and administrative proceedings that a person who owns or operates an aboveground or underground storage tank **system** is liable, without proof of fault, negligence or causation, for damage, contamination or pollution within 2,500 feet of the perimeter of the site of a storage tank **system** containing or which contained a regulated substance of the type which caused the damage, contamination or pollution. The presumption may be overcome by clear and convincing evidence that the person so charged did not contribute to the damage, contamination or pollution.

(1) The damage, contamination or pollution existed prior to the use of a storage tank **system** at the facility to contain an accumulation of regulated substances, as determined by surveys of the site and within 2,500 feet of the perimeter of the storage tank **system** or facility.

(2) An adjacent landowner refused to allow the owner or operator of a storage tank **system** at a new facility access to property within 2,500 feet of the perimeter of a storage tank facility to conduct a survey.

(3) The damage, contamination or pollution was not within 2,500 feet of the perimeter of a storage tank **system**.

(e) The Department may waive or combine one or more of the requirements of this subchapter based on:

(1) The nature, extent, type, volume or complexity of the release[.], **including a release to a containment structure or facility that is shown to be liquid-tight.**

- (2) The general characteristics of the site and the regulated substances which were released.
- (3) The corrective action which occurred subsequent to the release.

§ 245.304. Investigation of suspected releases.

(a) The owner or operator of a storage [**tanks and**] **tank system or** storage tank [**facilities**] **facility** shall initiate and complete an investigation of [**an indication of**] a **suspected** release of a regulated substance as soon as practicable, but no later than 7 days after the indication of a release. An indication of a release includes one or more of the following conditions:

(1) The presence of a regulated substance or an unusual level of vapors from a regulated substance [**of unknown origin, at**] **outside of storage tank system components designed to routinely contain or convey product, at or near** a storage tank facility.

(2) Evidence of a regulated substance or vapors in soils, basements, sewer lines, utility lines, surface water or groundwater in the surrounding area.

(3) Unusual operating conditions, indicative of a release, such as the erratic behavior of product dispensing equipment.

(4) The sudden or unexpected loss of a regulated substance from a storage tank **system**[,] or the unexplained presence of water in a storage tank **system**.

(5) Test, sampling or monitoring results, **including the sounding of an alarm**, from a release detection method which indicate a release.

(6) The discovery of holes in **or damage to** a storage tank **system** during activities such as inspection, repair or removal from service.

(7) Other events, conditions or results which may indicate a release.

(b) The investigation required by subsection (a) shall include a sufficient number of the procedures outlined in this subsection and be sufficiently detailed to confirm whether a release of a regulated substance has occurred. The owner or operator shall investigate the indication of a release by one or more of the following procedures:

(1) A check of product dispensing or other similar equipment.

(2) A check of release detection monitoring devices.

(3) A check of inventory records to detect discrepancies.

(4) A visual inspection of the storage tank **system** or the area immediately surrounding the storage tank **system**.

(5) Testing of the storage tank **system** for tightness or structural soundness.

(6) Sampling and analysis of soil, **subsurface soil and backfill, vapor, water,** or groundwater **at a location where contamination from a release would most likely be present.**

(7) Other investigation procedures which may be necessary to determine whether a release of a regulated substance has occurred.

(c) **[If] Except as provided in § 245.305(i) (relating to reporting releases), if** the investigation confirms that a **[reportable]** release has occurred, the owner or operator shall report the release in accordance with § 245.305 (relating to reporting releases) and initiate corrective action.

[(d) If the investigation confirms that a nonreportable release has occurred, the owner or operator shall take necessary corrective actions to completely recover or remove the regulated substance which was released.]

[(e)](d) If the investigation confirms that a release has not occurred, further **[investigation] corrective action** by the owner or operator is not required.

§ 245.305. Reporting releases.

(a) The owner or operator of **a** storage **[tanks and] tank system or** storage tank **[facilities] facility** shall notify the appropriate regional office of the Department as soon as practicable, but no later than 24 hours, after the confirmation of a **[reportable]** release.

[(b) Upon the occurrence of a confirmed, nonreportable release, the owner or operator shall take necessary corrective actions to completely recover or remove the regulated substance which was released.]

[(c)](b) The notice required by subsection (a) shall be by telephone and describe, to the extent of information available, the regulated substance involved, the quantity of the regulated substance involved, when the release occurred, where the release occurred, **the cause of the release,** the affected environmental media, **[relevant, available]** information concerning impacts to water supplies, buildings or to sewer or other utility lines, and interim remedial actions planned, initiated or completed.

[(d)](c) Within 15 days of the notice required by subsection (a), the owner or operator shall provide written notification to the Department and to each municipality in which the **[reportable]** release occurred, and each municipality where that release has impacted environmental media or water supplies, buildings or sewer or other utility lines.

[(e)](d) The owner or operator shall provide written notification to the Department and each impacted municipality of new impacts to environmental media or water supplies, buildings, or sewer or other utility lines discovered after the initial written notification required by subsection **[(d)](c)**. Written notification under this subsection shall be made within 15 days of the discovery of the new impact.

[(f)](e) Written notification required by this section shall contain the same information as required by subsection **[(c)](b) and shall be on a form provided by the Department.**

[(g)](f) If the Department determines that a release poses an immediate threat to public health and safety, the Department may evaluate and implement reasonable procedures to provide the public with appropriate information about the situation which may, at a minimum, include a summary of the details surrounding the release and its impacts in a newspaper of general circulation serving the area in which the impacts are occurring.

[(h)](g) Upon the occurrence of a **[reportable]** release at the aboveground storage tank, the owner or operator of **a [aboveground] storage tank [facilities]facility** with **[a] an aggregate aboveground storage** capacity greater than 21,000 gallons shall immediately notify the county emergency management agency, the Pennsylvania Emergency Management Agency and the Department. Downstream water companies, downstream municipalities and downstream industrial users within 20 miles of an aboveground storage tank facility located adjacent to surface waters shall be notified on a priority basis based on the proximity of the release by the owner or operator or the agent of the owner or operator within 2 hours of a release which enters a water supply or which threatens the water supply of downstream users. If the owner or operator or an agent fails to notify or is incapable of notifying downstream water users, the county emergency management agency shall make the required notification. This notification shall be done in accordance with section 904 of the act (35 P. S. § 6021.904).

[(i)](h) The owner or operator of **a storage [tanks and] tank system or** storage tank **[facilities] facility** shall immediately notify the local fire authority where fire, explosion or safety hazards exist **[at the site.] as a result of a release.**

(i) Release reporting under this section and further corrective action under this subchapter are not required for the following releases if the owner or operator has control over the release, the release is completely contained, the total volume of the release is recovered and removed within 24 hours of the release, and any defective storage tank system component that caused or contributed to the release is properly repaired or replaced:

(1) A release of petroleum to an aboveground surface, including within an emergency containment structure, that is less than 25 gallons.

(2) A release of a hazardous substance to an aboveground surface, including within an emergency containment structure, that is less than its reportable quantity under the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (42 U.S.C. §§ 9601—9675) and 40 CFR Part 302 (relating to designation, reportable quantities, and notification).

(3) A release to a liquid-tight containment sump used for interstitial monitoring of piping in accordance with § 245.444(6) (relating to methods of release detection for tanks).

§ 245.306. Interim remedial actions.

(a) [Upon confirming that a release has occurred in accordance with § 245.304 (relating to investigation of suspected releases) or after a release from a storage tank is identified in another manner, the] A responsible party shall immediately initiate the following interim remedial actions necessary to prevent or address an immediate threat to human health or the environment from a release while initiating, as necessary, one or more of the tasks identified in § 245.309(c) (relating to site characterization):

(1) Remove the regulated substance from the storage tank system to prevent further release to the environment.

(2) Identify, mitigate and continue to monitor and mitigate, fire, explosion and safety hazards posed by vapors and free product.

(3) Prevent further migration of the regulated substance released from the storage tank system into the environment as follows:

(i) If contaminated soil exists at the site, the interim remedial action may include excavation of the soils for treatment or disposal.

(ii) If free product is present, free product recovery shall be initiated immediately.

(4) Identify and [sample] analyze samples of affected water supplies and water supplies with the potential to be affected in a reasonable and systematic manner consistent with § 245.309(b)(1) and (4) and (c)(4), (6), (12) and [(13)] (16). The responsible party shall restore or replace an affected or diminished water supply in accordance with § 245.307 (relating to affected or diminished water supplies). The responsible party shall provide a copy of the sample results to the water supply owner and the Department within 5 days of receipt of the sample results from the laboratory.

(b) At sites where free product recovery, regulated substance removal or contaminated soil excavation is performed, the responsible party shall:

(1) Conduct recovery, removal, storage, treatment and disposal activities in a manner that prevents the spread of contamination into previously uncontaminated areas.

(2) Handle flammable products in a safe and competent manner to prevent fires or explosions.

(3) Obtain required State and local permits or approvals for treatment and disposal activities.

(4) Minimize the amount of soil and subsurface material affected by a release of a regulated substance by segregating the unaffected soil and subsurface material from the material affected by a release of a regulated substance.

(c) If interim remedial actions such as free product recovery [affects or diminishes] affect or diminish the quality or quantity of a water supply, the responsible party shall restore or replace the water supply in accordance with § 245.307.

(d) Where soil and subsurface material affected by a release is removed from the site, the person removing the material shall provide to the owner, operator, landowner or other responsible party a receipt documenting acceptance of the material at a permitted treatment or disposal facility.

(e) A responsible party shall notify the Department by telephone or electronic mail as soon as practicable, but no later than 24 hours, after the initiation of interim remedial actions.

§ 245.307. Affected or diminished water supplies.

(a) A responsible party who affects or diminishes a water supply as a result of a release, **or as a result of a corrective action**, shall restore or replace the affected or diminished supply with an alternate source of water adequate in quantity and quality for the purposes served by the supply, at no cost to the owner of the affected or diminished water supply.

(e) A responsible party shall notify the Department, by telephone or electronic mail, within 24 hours of providing an alternate source of water to the owner of the affected or diminished water supply.

§ 245.309. Site characterization.

(a) Upon confirming that a [**reportable**] release has occurred in accordance with § 245.304 (relating to investigation of suspected releases) or after a [**reportable**] release from a storage tank **system** is identified in another manner, the responsible party shall perform a site characterization.

(b) The objectives of a site characterization are to accomplish the following:

(1) Determine whether additional interim remedial actions are necessary to abate an imminent hazard to human health or the environment.

(2) Determine whether additional site characterization work is required upon completion of an interim remedial action.

(3) Determine or confirm the sources of contamination.

(4) Provide sufficient physical data, through field investigations, to determine the regulated substances involved, and the extent of migration of those regulated substances in surface water, groundwater, soil or sediment.

(5) Determine, from measurements at the site, values [**for input parameters**] **necessary for fate and transport analysis** including hydraulic conductivity, source dimensions, hydraulic gradient, water table fluctuation and fraction organic carbon [**necessary for fate and transport analysis**].

(6) Provide sufficient information to select a remediation standard.

(7) Provide sufficient information to allow for completion of a remedial action plan or a design for remedial action.

(c) The responsible party shall conduct the site characterization activities necessary to satisfy the objectives established in subsection (b). The site characterization shall include the following tasks, as necessary, based on the nature, extent, type, volume or complexity of the release:

(1) Identifying the need for and initiating additional interim remedial actions.

(2) Opening **[and sampling]** storage tanks **and analyzing samples of the contents** to determine the regulated substances stored in the tanks.

(3) **[Tightness] Performing tightness** testing or other release detection testing and monitoring to determine the structural integrity of the storage tank **system**.

(4) **[Identify and sample] Identifying and analyzing samples of** affected water supplies and water supplies with the potential to be affected **which were** not previously identified or sampled under § 245.306(a)(4) (relating to interim remedial actions). The responsible party shall restore or replace an affected or diminished water supply in accordance with § 245.307 (relating to affected or diminished water supplies). The responsible party shall provide a copy of the sample results to the water supply owner and the Department within 5 days of receipt of the sample results from the laboratory.

(5) Determining the location of the ecological receptors identified in § 250.311(a) (relating to evaluation of ecological receptors).

(6) **[A review of the site history] Reviewing the history of operations, releases and corrective actions at the site**.

(7) **[A review and analysis of data from] Reviewing and analyzing data collected during** removal from service and interim remedial action activities.

(8) Using geophysical survey techniques to locate storage tanks and to determine geologic and hydrogeologic characteristics of affected hydrogeologic zones and hydrogeologic zones with the potential to be affected.

(9) **[Drilling soil borings, conducting soil gas surveys and collecting] Using soil survey techniques which include drilling soil borings and analyzing** soil samples to determine soil characteristics and the horizontal and vertical extent of soil contamination.

(10) Using **direct push probes**, piezometers, well points, monitoring wells, **[and]** public and private wells, **and other resources** to:

(i) Determine the direction of groundwater flow.

(ii) Determine soil, geologic, hydrogeologic and aquifer characteristics, **including parameters necessary for fate and transport analysis**.

(iii) **[Measure] Determine** the horizontal **and vertical** extent and **[thickness] evaluate the properties** of free product **in the subsurface**.

(iv) **[Sample] Analyze** groundwater **samples** to determine the horizontal and vertical extent of groundwater contamination.

[(11) A demonstration that groundwater is not used or currently planned to be used.]

[(12) Sampling] (11) Analyzing surface water and **[sediments] sediment samples** to determine the extent of surface water and sediment contamination.

[(13)] (12) Assessing potential migration pathways, including sewer lines, utility lines, wells, geologic structures, **[and] hydrogeologic conditions, and vapor intrusion into structures**.

[(14)] (13) Performing site surveying and topographic mapping.

[(15)] (14) Developing a conceptual site model that describes the sources of contamination, fate and transport of contaminants, **actual** and potential receptors **and an evaluation of the vapor intrusion pathway**.

[(16)] (15) Handling and disposing of site characterization wastes.

[(17)] (16) Preparing and implementing a site-specific plan for the provision of the following:

(i) Worker health and safety in accordance with OSHA requirements established at 29 CFR 1910.120 (relating to hazardous waste operations and emergency response), including health and safety policies, medical monitoring, training and refresher courses, emergency and decontamination procedures, personal protective equipment and standard work practices.

(ii) The identification, management and disposition of solid, hazardous, residual and other wastes generated as part of the site characterization.

(iii) **[A] Establishment of data quality objectives and a** quality assurance/quality control program for the performance of site characterization field activities and for the accurate collection, storage, retrieval, reduction, analysis and interpretation of **[site characterization] all data that will be collected during the corrective action, according to appropriate standards and guidelines for environmental remediation**.

[(18)] (17) [An analysis of] Analyzing the data collected as a result of the site characterization.

[(19) Selection of] (18) Selecting a remediation standard.

[(19) Demonstrating that groundwater is not used or currently planned to be used in accordance with the selected remediation standard.]

(20) If the site-specific standard is selected, **[performance of] performing** a risk assessment in accordance with Chapter 250, Subchapter F (relating to exposure and risk determinations).

(21) **[Recommendation of] Developing preferred remedial action options to attain the selected remediation standard.**

(22) **[Recommendation for further site characterization work.**

(23) **Developing a conceptual design of the selected remedial action options and identifying] Identifying additional investigations or pilot studies needed to design and implement [a detailed] the preferred remedial action [plan] options.**

[(24) Additional] (23) Performing additional tasks necessary to [characterize the site] meet the objectives established in subsection (b).

(24) Notifying the Department by telephone or electronic mail as soon as practicable, but no later than 24 hours, after the initiation of site characterization activities.

§ 245.310. Site characterization report.

(a) **[The] A responsible party shall prepare and submit to the Department within 180 days of reporting a [reportable] release under § 245.305(a) (relating to reporting releases), or within an alternative time frame as determined by the Department, [two copies of] a site characterization report which describes the activities undertaken in accordance with § 245.309 (relating to site characterization). The responsible party shall submit two copies of the site characterization report to the Department unless directed otherwise. The site characterization report shall be complete and concisely organized and shall contain the following elements, as necessary, based on the nature, extent, type, volume or complexity of the release:**

(1) A narrative description of the site and the historical and current operations conducted at the site.

(2) A site map showing location of buildings, roads, storage tanks, including those removed from service or closed in place, utilities, property boundaries, topographic contours, potential receptors and other information pertinent to the site characterization.

(3) A description of natural and manmade features pertinent to the site characterization.

(4) Details of interim remedial actions conducted at the site in accordance with § 245.306 (relating to interim remedial actions). These details shall include the following, as necessary:

(i) A description of the type and volume of the regulated substance removed from the storage tank.

(ii) A discussion of fire, explosion and safety hazards which have been identified, mitigated and monitored.

(iii) A discussion of necessary relocation of affected residents.

(iv) Where free product recovery is performed, **a description of:**

(A) The regulated substance released **[and]**, the thickness of free product in wells, boreholes or excavations, **and the properties and vertical and horizontal distribution of any free product remaining in the subsurface.**

(B) The type of free product recovery system used.

(C) Whether a discharge has or will take place during the recovery operation, and where this discharge is or will be located.

(D) The type of treatment applied to, and the effluent quality expected from, a discharge.

(E) The steps that have been or are being taken to obtain necessary permits or approvals for a discharge.

(F) The volume and disposition of the recovered free product.

(G) The date free product recovery was initiated.

(H) The date free product recovery was completed.

(v) Where excavation of contaminated soil is performed, **a description of:**

(A) The regulated substance released and actual volume of soil excavated.

(B) The method used to determine the existence and extent of contaminated soil.

(C) The treatment method or disposition of the excavated soil, including receipts documenting acceptance of the material at a permitted treatment or disposal facility.

(D) The date excavation was initiated.

(E) The date excavation was completed.

(F) The rationale for terminating soil excavation where the contaminated soil has not been excavated, including the volume of contaminated soil remaining in place, and a description of what steps will be taken to address the soils that remain unexcavated.

(5) **[The] Details of actions conducted at the site in accordance with § 245.307 (relating to affected or diminished water supplies). These details shall include the** steps that have been or are being taken to restore or replace affected or diminished water supplies.

(6) A description of the type and characteristics of regulated substances involved, including quantities, physical state, concentrations, toxicity, propensity to bioaccumulate, persistence and mobility.

(7) The results of tightness testing or other release detection method used or conducted to determine the structural integrity of the storage **[tanks] tank systems.**

(8) The details of removal from service activities conducted at the site.

(9) The identification of the sources of contamination, including the actual or estimated date and quantity of release from each source.

(10) The location and description of affected water supplies and water supplies with the potential to be affected.

(11) **[A description of further site characterization work needed.] A statement certifying that the site-specific plan, prepared for worker health and safety in accordance with OSHA requirements established at 29 CFR § 1910.120 (relating to hazardous waste operations and emergency response), including health and safety policies, medical monitoring, training and refresher courses, emergency and decontamination procedures, personal protective equipment and standard work practices, was implemented.**

(12) A discussion and **[conclusions that demonstrate] analysis to demonstrate that** the site characterization objectives outlined in § 245.309(b) have been satisfied.

(13) The rationale, equipment, methodology and results of geophysical surveys.

(14) The location, rationale and logs of soil borings.

(15) The location, rationale, construction details, including methods and materials, and depth to groundwater of piezometers, well points and monitoring wells.

(16) Groundwater contour maps depicting groundwater flow direction at the site.

(17) A description of methods and equipment used to determine site-specific soil, geologic, hydrogeologic and aquifer properties.

(18) Sampling locations and rationale for selection of these locations.

(19) The results of a survey used to identify and sample public and private wells.

(20) Parameters analyzed for, analytical methods used and detection limits of these methods.

(21) Field and laboratory analytical results and interpretations.

(22) Contaminant distribution maps in the media and contaminant phases.

(23) A conceptual site model **[describing] which describes** the sources of contamination, **the** fate and transport of contaminants, **[and] actual and** potential receptors, **and evaluates the vapor intrusion pathway.**

(24) The disposition of site characterization wastes.

(25) A copy of site-specific plans prepared and implemented for the provision of the following:

[(i) Worker health and safety in accordance with OSHA requirements established at 29 CFR 1910.120 (relating to hazardous waste operations and emergency response), including health and safety policies, medical monitoring, training and refresher courses, emergency

and decontamination procedures, personal protective equipment and standard work practices.]

[(ii)](i) The identification, management and disposition of solid, hazardous, residual and other wastes generated as part of the site characterization.

[(iii) A] (ii) The data quality objectives and quality assurance/quality control program for the performance of site characterization field activities and for the accurate collection, storage, retrieval, reduction, analysis and interpretation of site characterization data.

(26) The identification of the remediation standard which has or will be attained at the site.

(27) The Department's written determination that groundwater is not used or currently planned to be used, **if needed to attain the remediation standard selected or to be selected.**

(28) The impacts to ecological receptors as a result of the evaluation conducted in accordance with § 250.311 or § 250.402(d) (relating to evaluation of ecological receptors; and human health and environmental protection goals).

(29) The impacts to surface water as a result of the evaluation conducted in accordance with § 250.309 or § 250.406 (relating to MSCs for surface water; and relationship to surface water quality requirements).

(30) A **[discussion] summary** of the remedial action **[options selected to remediate the site] option(s) that will be used at the site to attain the selected remediation standard. The summary shall include a description of the components of each option, a conceptual design and a description of any additional investigation needed to complete the design of each option.**

(31) A risk assessment report in accordance with § 250.409 (relating to risk assessment report).

(32) A demonstration that no current or future exposure pathways exist following the procedures described in § 250.404 (relating to pathway identification and elimination).

[(33) A conceptual design of the remedial action options selected.]

[(34)](33) A report of additional tasks performed to **[characterize the site] meet the objectives in 245.309(b).**

(c) Following submission of a complete site characterization report prepared under subsection (a), selecting the site-specific standard, or subsection (b), the Department will do one or more of the following:

[(6) Review the site characterization report without further action.]

§ 245.311. Remedial action plan.

(a) Unless a site characterization report is submitted in accordance with § 245.310(b) (relating to site characterization report), the responsible party shall prepare and submit to the Department **two copies of the remedial action plan, unless directed otherwise. The remedial action plan shall be submitted** within 45 days of submission of a site characterization report required by § 245.310(a) selecting the background or Statewide health standard, within 45 days of deemed approval or receipt of a written approval of a site characterization report selecting the site-specific standard, or within an alternative time frame as determined by the Department [**two copies of a remedial action plan prior to implementation of the remedial action plan**]. The remedial action plan must **be submitted prior to its implementation**, be complete and concisely organized and contain the following elements, as necessary, based on the nature, extent, type, volume or complexity of the release:

- (1) A brief summary of the site characterization report conclusions.
- (2) A copy of the plans relating to **[worker health and safety,]** management of wastes generated and quality assurance/quality control procedures, as they relate to the remedial action, if different from the plans submitted in accordance with § 245.310(a)(25).

(12) A description of proposed postremediation care requirements, **including proposed activity and use limitations to be implemented under an environmental covenant.**

(13) A description of additional items necessary to develop the remedial action plan.

(14) A description of any water supply that remains affected or diminished, the replacement system that was provided, the analytical results of samples taken, and any maintenance or monitoring required to ensure its functionality until the supply is no longer affected or diminished.

(b) Following submission of a complete remedial action plan selecting the background or Statewide health standard, the Department will **publish an acknowledgment of receipt of the remedial action plan in the Pennsylvania Bulletin and** do one or more of the following:

- (1) Review and approve the site characterization report and remedial action plan as submitted.
- (2) Review and approve the site characterization report and remedial action plan with modifications made by the Department.
- (3) Review and disapprove the site characterization report and remedial action plan, citing deficiencies.

(4) Review and disapprove the site characterization report and remedial action plan and direct, require or order the responsible party to perform other tasks or make modifications as prescribed by the Department.

(5) Review and disapprove the site characterization report and remedial action plan, prepare a remedial action plan or perform the remedial action in whole or in part, and recover, in accordance with § 245.303(b) (relating to general requirements), the Department's costs and expenses involved in preparing the remedial action plan or performing the remedial action.

(6) [Review the site characterization report and remedial action plan without further action.] Publish a notice of its final action in the *Pennsylvania Bulletin*.

(c) Following submission of a complete remedial action plan selecting the site-specific standard, the Department will **publish an acknowledgment of receipt of the remedial action plan in the *Pennsylvania Bulletin* and** do one or more of the following:

(1) Review and approve the remedial action plan as submitted.

(2) Review and approve the remedial action plan with modifications made by the Department.

(3) Review and disapprove the remedial action plan, citing deficiencies.

(4) Review and disapprove the remedial action plan and direct, require or order the responsible party to perform other tasks or make modifications as prescribed by the Department.

(5) Review and disapprove the remedial action plan, prepare a remedial action plan or perform the remedial action in whole or in part, and recover, in accordance with § 245.303(b), the Department's costs and expenses involved in preparing or performing the remedial action plan.

(6) [Review the remedial action plan without further action.] Publish a notice of its final action in the *Pennsylvania Bulletin*.

§ 245.312. Remedial action.

(c) Each remedial action progress report shall provide the data generated during the reporting period and shall show the progress to date toward attainment of the selected remediation standard. Each report shall be complete and concisely organized and shall contain the following elements, as necessary, based on the nature, extent, type, volume or complexity of the release:

(4) Quantitative analytical results from **replacement water supply system**, groundwater, surface water, soil and sediment sampling.

(10) A summary of data collected from any water supply that remains affected or diminished, and any maintenance performed.

[(10)] (11) A report of additional items necessary to describe the progress of the remedial action.

(d) The first remedial action progress report shall be received by the Department 3 months following the date of remedial action plan implementation **or at an alternative interval as determined by the Department.** The final remedial action progress report shall be submitted to the Department as part of the remedial action completion report.

(g) If during implementation of the remedial action plan the Department determines that the remedial action plan will not attain the selected remediation standard or will cause additional environmental harm, the Department may require the responsible party to suspend remedial action and notify the Department, by telephone or e-mail, within 24 hours of suspension. The Department may require the responsible party to prepare and submit a new or modified remedial action plan, to include selection of the new remediation standard, if applicable, to the Department in accordance with § 245.311.

§ 245.313. Remedial action completion report.

(a) When the selected remediation standard has been attained, the responsible party shall submit a remedial action completion report to the Department.

(b) The remedial action completion report shall be complete and concisely organized and shall contain the following elements, as necessary, based on the remediation standard attained:

(1) Data demonstrating that the remedial actions have attained the selected standard(s) for the site in accordance with Chapter 250, Subchapter G (relating to demonstration of attainment).

[(1)] **(2)** When the background standard has been attained, the remedial action completion report shall include the requirements of § 250.204(f) and (g) (relating to final report).

[(2)] **(3)** When the Statewide health standard has been attained, the remedial action completion report shall include the requirements of § **[250.312(b)] 250.312(a)**—(h) (relating to final report).

[(3)] **(4)** When the site-specific standard is attained, the remedial action completion report shall include the requirements of § 250.411(c)[-], **(d), and** (f) (relating to final report).

[(4)] **(5)** For fate and transport analyses, the following information, in addition to that required by § 250.204(f)(5):

(i) An isoconcentration map showing the configuration and concentrations of contaminants within the plume being analyzed.

- (ii) Sufficient information from monitoring data to establish whether the plume is stable, shrinking or expanding.
 - (iii) Input parameters for the analysis and the rationale for their selection.
 - (iv) Figures showing the orientation of the model or analysis to the field data.
 - (v) Comparison and analysis of the model or mathematical output to the actual field data.
- (c) Following submission of the remedial action completion report, the Department will **publish an acknowledgment of receipt of the remedial action completion report in the Pennsylvania Bulletin and** do one or more of the following:
- (1) Review and approve the remedial action completion report as submitted.
 - (2) Review and approve the remedial action completion report with modifications made by the Department.
 - (3) Review and disapprove the remedial action completion report, citing deficiencies.
 - (4) Review and disapprove the remedial action completion report and direct, require or order the responsible party to perform other tasks or make modifications as prescribed by the Department.
 - (5) Review and disapprove the remedial action completion report, perform the site characterization or remedial action and recover, in accordance with § 245.303(b) (relating to general requirements), the Department's costs and expenses involved in preparing the remedial action completion report.
 - (6) **[Review the remedial action completion report without further action.] Publish a notice of its final action in the Pennsylvania Bulletin.**

Subchapter E. TECHNICAL STANDARDS FOR UNDERGROUND STORAGE TANKS

GENERAL

§ 245.402. Scope.

This subchapter applies to underground storage **[tanks]tank systems** regulated under the act and this chapter.

§ 245.403. Applicability.

(a) *General.* The requirements of this subchapter apply to owners and operators, as well as installers and inspectors of underground storage tank systems as defined in § 245.1 (relating to definitions), except as otherwise provided in subsections **[(b)](c) and (d)**.

(b) Emergency power generator fuel tanks. Underground storage tank systems that store fuel solely for use by emergency power generators must meet the requirements of §§ 245.441 – 245.446 (relating to release detection) as follows:

(1) Underground storage tank systems installed on or before November 10, 2007, must meet the requirements in §§ 245.441 – 245.446 on or before _____ (Editor’s Note: The blank refers to two years after the effective date of the final-form regulations.).

(2) Underground storage tank systems installed after November 10, 2007, must meet the requirements in §§ 245.441 – 245.446 on or before _____ (Editor’s Note: The blank refers to one year after the effective date of the final-form regulations.).

(3) Underground storage tank systems installed after _____ (Editor’s Note: The blank refers to the effective date of the final-form regulations.) must meet the requirements in §§ 245.441 – 245.446 at installation.

[*(b) Deferrals.* Sections 245.441—245.446 (relating to release detection) do not apply to an underground storage tank system that stores fuel solely for use by emergency power generators.]

(c) Partial exclusions. The following underground storage tanks systems are not required to comply with §§ 245.411, 245.421(b)(3), 245.421(b)(4)(ii)-(iii), 245.422(d), 245.432(g), and 245.436 – 245.446:

(1) A wastewater treatment tank system that is not part of a wastewater treatment facility regulated under Section 307(b) or 402 of the Clean Water Act, as amended (33 U.S.C. §§ 1317(b) or 1342).

(2) An underground storage tank system containing radioactive material that is regulated under the Atomic Energy Act of 1954, as amended (42 U.S.C. § 2011—2297h-13).

(3) An underground storage tank system that is part of an emergency generator system at a nuclear power generation facility licensed by the Nuclear Regulatory Commission and subject to Nuclear Regulatory Commission requirements regarding design and quality criteria, including but not limited to 10 CFR Part 50.

(c)(d) [Temporary exclusions] Previously excluded underground storage tanks. Underground storage tank systems that were not required to be registered with the Department prior to _____ (Editor’s Note: The blank refers to the effective date of the final-form regulations.) shall be registered with the Department by _____ (Editor’s Note: The blank refers to 30 days after the effective date of the final-form regulations.). Such underground storage tanks include:

(1) Field-constructed underground storage installed on or before October 11, 1997 that the Department previously did not require to be registered as a matter of policy. [Existing tanks that become regulated due to the addition of new regulated substances in § 245.1 ((relating to definitions) (See the definition of “regulated substance” (i)(C)(I) and (II))) are subject to this chapter and shall be registered with the Department by January 9, 2008]. [In

addition, these] These tanks are temporarily excluded from the requirements of § § 245.421, 245.422, 245.431, 245.432, 245.437, and 245.441—245.446, until [November 10, 2010.] _____
(Editor's Note: The blank refers to one year after the effective date of the final-form regulations.)

(2) Underground storage tank systems referenced in subsection (c)(1)-(3) installed on or before _____ (Editor's Note: The blank refers to the effective date of the final-form regulations.)

§ 245.404. Variances.

When unique or peculiar circumstances make compliance with this subchapter technically impractical, infeasible or unsafe, the Department may, upon written application from the owner/[operator] of a storage tank system subject to this subchapter, grant a variance from one or more specific provisions of this subchapter:

[FACILITY]INSPECTIONS

§ 245.411. Inspection frequency.

(a) *Inspection of [tanks]underground storage tank systems.* Underground storage tank owners or operators shall have their underground storage tank [facility] systems inspected by a certified inspector at the frequency established in subsections (b)[—] and [(d)] (c). The inspection must include, but not be limited to, release detection, assessment of the underground storage tank system and ancillary equipment, operation of overfill and spill prevention equipment where practicable, corrosion protection testing, or verification that corrosion protection is functional, and release prevention measures.

(b) *Initial inspections.*

[(1) Storage tank facilities with tank systems installed prior to December 1989, shall be inspected prior to October 11, 1999.]

(2)]Newly installed underground storage tank systems shall be inspected between 6 to 12 months after installation. If the [facility]tank ownership changes, an inspection of the [facility]underground storage tank system shall be completed between the first 6 to 12 months of operation unless another time frame is agreed to by the Department.

[(3) Storage tank facilities not inspected in accordance with paragraph (1) or (2) shall have an initial inspection by October 11, 2002.]

(c) *Subsequent [routine facility] inspections.*

(1) The interval between subsequent [**routine facility**] inspections may not exceed 3 years (36 months) commencing after the last inspection, except as provided in [**the phase-in periods in**] paragraph (2).

[(2) On November 10, 2007, existing facilities with routine inspections scheduled more than 3 years from this date shall be inspected by the following dates, unless notified otherwise by the Department:

(i) Before August 8, 2008, if currently scheduled for inspection between November 10, 2010, and August 7, 2011, inclusive.

(ii) Before August 8, 2009, if currently scheduled for inspection between August 8, 2011, and August 7, 2013, inclusive.

(iii) Before August 8, 2010, if currently scheduled for inspection after August 7, 2013.]

(2) An inspection in addition to those required in subsections (b) and (c)(1) may be required by the Department when the prior inspection determined release detection, corrosion protection or operational violations occurred, or when the Department determines the inspection is necessary to verify compliance with this subchapter.

(d) [Additional inspections and mandatory training]Training. [Inspections in addition to those in subsections (b) and (c) may be required by the Department when the prior inspection determined release detection, corrosion protection or operational violations occurred, or when the Department determines the inspections are necessary to verify compliance with this subchapter.] The Department may require facility owners and operators to successfully complete a release detection, release prevention, or operator training course, such as those offered by [PEI] Nationally recognized associations or professional industry trainers approved under § 245.141 (relating to training approval), when related violations are documented through an inspection. Owners and operators of underground storage tanks that the Department determines through inspection are failing to meet United States Environmental Protection Agency guidelines for significant operational compliance shall be retrained in a manner consistent with the training recommended in Department guidance entitled “Underground Storage Tank Class A and Class B Operator Training Courses.” The owner or operator shall incur the costs of the training.

UNDERGROUND STORAGE TANK SYSTEMS: DESIGN, CONSTRUCTION, INSTALLATION AND NOTIFICATION

§ 245.421. Performance standards for underground storage tank systems.

(a) *New underground storage tank systems.*

(2) At least 30 days prior to the installation of a(n) [new or replacement] tank, pipng system, replacement or additional dispenser, or underground storage tank system [installed after **January 9, 2008,] or within another reasonable time agreed upon by the Department, owners and operators shall notify the Department of the proposed installation on a form provided by the Department.**

(3) An owner or operator of [a] **an underground storage tank [system]** changing from unregulated to regulated service shall provide certification by a Department-certified installer [or inspector] that the **underground storage** tank system meets new **underground storage tank** system requirements, **on a form provided by the Department [using the registration form (See § 245.41 (relating to tank registration requirements))]** prior to placing product into the tank and operating the storage tank system.

(b) To prevent releases due to structural failure, corrosion or spills and overfills for as long as the underground storage tank system is used to store regulated substances, owners and operators of new and existing underground storage tank systems shall ensure that the system meets the following requirements:

(1) *Tanks.* A tank must be properly designed and constructed. A tank or portion of a tank including the outer metallic wall of a double-walled tank that is underground and routinely contains product shall be protected from corrosion in accordance with a code of practice developed by a [**Nationally-recognized**] **Nationally recognized** association or independent testing laboratory, using one of the following methods:

(i) The tank is constructed of fiberglass-reinforced plastic.

(ii) The tank is constructed of steel and cathodically protected in the following manner:

(A) The tank is coated with a suitable dielectric material.

(B) Field-installed cathodic protection systems are designed by a corrosion expert.

(C) Impressed current systems are designed by a corrosion expert and allow determination of current operating status as required in § 245.432(a)(3) (relating to operation and maintenance including corrosion protection).

(D) Cathodic protection systems are operated and maintained in accordance with § 245.432.

(iii) The tank is constructed of [a] steel[~~-fiberglass-reinforced-plastic composite~~] **and clad or jacketed with a non-corrodible material.**

(iv) The tank is constructed of metal without additional corrosion protection measures if:

(A) The tank is installed at a site that is determined by a corrosion expert not to be corrosive enough to cause it to have a release due to corrosion during its operating life.

(B) Owners and operators maintain records that demonstrate compliance with clause (A) for the remaining life of the tank.

(2) *Piping.* The piping and ancillary equipment that routinely contain regulated substances shall be protected from corrosion and deterioration. New piping systems that routinely contain and convey regulated substances from the tank must be double-walled with liquid-tight containment sumps [**and dispenser pan sumps**] installed in accordance with paragraph (4)(ii). Whenever **50% or** more [**than 50%**] of the existing piping that routinely contains and conveys product

from the tank is replaced, the entire piping system that routinely contains and conveys product from the tank shall be replaced meeting the requirements for new piping systems in this [sub]section. The portions of the product piping system, including joints, flexible connectors and ancillary equipment that are in contact with the ground must be properly designed, constructed and protected from corrosion in accordance with a code of practice developed by a [Nationally-recognized] **Nationally recognized** association or independent testing laboratory using one of the following methods:

(3) *Spill and overflow prevention equipment.*

(i) Except as provided in subparagraph [(iv)] (vi), to prevent spilling and overflowing associated with product transfer to the underground storage tank system, owners and operators shall ensure that their systems have the following spill and overflow prevention equipment **permanently installed**:

(A) Spill prevention equipment that will prevent release of product to the environment when the transfer hose is detached from the fill pipe—for example, a spill catchment basin or spill containment bucket.

(B) Overflow prevention equipment that will do one or more of the following:

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

(II) Alert the transfer operator when the tank is no more than 90% full by restricting the flow into the tank or triggering a high-level alarm.

[III] Restrict flow 30 minutes prior to overflowing, alert the operator with a high level alarm 1 minute before overflowing, or automatically shut off flow into the tank so that none of the fittings located on top of the tank are exposed to product due to overflowing.]

(ii) Bypassing overflow protection is prohibited. [for]**For** example, bypassing the [flow vent] **ball float** valve with [coax] **coaxial stage-1** vapor recovery **systems** or a spill **containment** bucket drain valve is prohibited.

(iii) Ball float valves may not be used to comply with this subsection when overflow prevention is installed or replaced after _____ (Editor's Note: The blank refers to the effective date of the final-form regulation.).

[(iii)](iv) Existing [B] ball float valves may not be used on suction pump systems having an air eliminator, or on any system having coaxial stage-1 vapor recovery systems or receiving pressurized pump deliveries.

(v) Spill and overflow prevention equipment must be periodically tested or evaluated in accordance with § 245.437 (relating to periodic testing). Required tests shall be documented on a form provided by the Department and shall be maintained onsite at the storage tank facility or at a readily available alternative site.

~~[(iv)]~~**(vi)** Owners and operators are not required to use the spill and overfill prevention equipment specified in subparagraph (i) if the underground storage tank system is filled by transfers of no more than 25 gallons at one time.

(4) Installation.

(i) [Tanks and piping] **Underground storage tank systems** shall be properly installed and system integrity tested in accordance with a code of practice developed by a Nationally recognized association or independent testing laboratory [**such as API 1615 and PEI RP100,**] and in accordance with the manufacturer's instructions.

(ii) [**Newly installed spill containment buckets**] **Spill prevention equipment**[, **tank-top sumps, dispenser pans**] and containment sumps must be constructed to be liquid-tight, and shall be tested prior to use of the system to confirm liquid-tight construction using a hydrostatic test, vacuum test or other [**Nationally-recognized**] **Nationally recognized** liquid-tight testing procedure or method recommended by the containment equipment manufacturer.

(iii) Overfill prevention equipment shall be properly installed and tested in accordance with a code of practice developed by a [**Nationally-recognized**] **Nationally recognized** association, and in accordance with manufacturer's instructions. [**When ball float valves are used, the valve shall be installed with extractor fitting and ball floats must be readily accessible (not requiring excavation) for removal and operational verification.**]

[(c) Certification of installation. Owners and operators shall ensure that a certified installer has installed the tank system by providing a certification of compliance on an appropriate form provided by the Department.]

§ 245.422. Upgrading of existing underground storage tank systems.

(b) *Tank upgrading requirements.* Steel tanks shall be upgraded to meet one of the following requirements in accordance with a code of practice developed by a [**Nationally-recognized**] **Nationally recognized** association or independent testing laboratory:

(1) *Interior lining.* A tank may only be upgraded by internal lining **for corrosion protection** prior to November 10, 2007. [**The following conditions of existing**] **Existing** lined tanks shall [**be met**] **meet the following conditions**:

(i) The lining was installed in accordance with § 245.434 (relating to repairs allowed).

(ii) Within 10 years after lining, and every 5 years thereafter, the lined tank is internally evaluated by, or under the direct onsite supervision of a certified tank liner (TL) or by a professional engineer adhering to the evaluation process developed by a National association (See API 1631 and NLPA 631) and found to be structurally sound with the lining still performing in accordance with original design specifications. The evaluation findings shall be documented on a form approved by the Department and shall be maintained at the facility for the duration of the tank's operating life.

(iii) Lined tank systems that do not meet original design specifications or have not been evaluated as required in subparagraph (ii) shall be emptied, removed from service, and permanently closed in accordance with § 245.451 and 245.452 (relating to temporary **[closure removal from service]**; and permanent closure and changes-in-service).

(2) *Cathodic protection.* A tank may be upgraded by cathodic protection if the cathodic protection system meets the requirements of § 245.421(b)(1)(ii)(B)—(D) and the integrity of the tank is ensured using one or more of the following methods:

(i) The tank is internally inspected and assessed to ensure that the tank is structurally sound and free of corrosion holes prior to installing the cathodic protection system.

[(ii) The tank has been installed for less than 10 years and is monitored monthly for releases in accordance with § 245.444(4)—(9) (relating to methods of release detection for tanks).

[(iii) The tank has been installed for less than 10 years and is assessed for corrosion holes by conducting two tightness tests that meet the requirements of § 245.444(3). The first tightness test shall be conducted prior to installing the cathodic protection system. The second tightness test shall be conducted between 3 and 6 months following the first operation of the cathodic protection system.]

[(iv) (ii)] The tank is installed at a site that is determined by a corrosion expert not to be corrosive enough to cause it to have a release due to corrosion during its operating life. Owners and operators shall maintain records that demonstrate compliance with this requirement for the remaining life of the tank.

[(v) (iii)] The tank is assessed for corrosion holes by a method that is determined by the Department to prevent releases in a manner that is no less protective of human health and the environment than **[subparagraphs]subparagraph (i)[—(iii)]**.

(3) *Internal lining combined with cathodic protection.* A tank upgraded prior to November 10, 2007, having both internal lining and cathodic protection must meet the following:

(i) The lining was installed in accordance with the requirements of § 245.434.

(ii) The cathodic protection system meets § 245.421(b)(1)(ii)(B)—(D).

(c) *Piping upgrading requirements.* Metal piping and fittings that routinely contain regulated substances and are in contact with the ground must be one or more of the following: **[(1)]**

[(1)] Replaced with piping meeting the requirements of new piping in § 245.421(b)(2)(i) and (ii).

(2) Cathodically protected in accordance with a code of practice developed by a **[Nationally-recognized] Nationally recognized** association or independent testing laboratory and meets the requirements of § 245.421(b)(2)(ii)(B)—(D).

(3) Installed at a site that is determined to not be corrosive enough to cause a release due to corrosion for the remaining operating life of the piping under § 245.421(b)(2)(iii).

(d) *Spill and overflow prevention equipment.* To prevent spilling and overflowing associated with product transfer to the underground storage tank system, **[existing]** underground storage tank systems must comply with **[new]** underground storage tank system spill and overflow prevention equipment requirements in § 245.421(b)(3) and (4).

(e) *Under-dispenser containment.* When **an existing dispenser is replaced with another dispenser and equipment at or below the shear valve needed to connect the dispenser to the underground storage tank system is replaced, under-dispenser containment** [a vertical riser, dispenser and interconnected piping and fittings are added to a storage tank system or a dispenser is replaced, involving major modification, the dispenser must have containment (liquid-tight dispenser pan)] meeting [requirements in]**the provisions of § 245.421(b)(4)(ii) is required.** [When an existing dispenser is removed and replaced with another dispenser and equipment at or below the shear valve used to connect the dispenser to the UST is replaced, under-dispenser containment is required.] This equipment may include **check valves, shear valves, vertical risers, flexible connectors, or other transitional components.** [flex connectors or risers or other transitional components that are beneath the dispenser and connect the dispenser to the piping.] **Under-dispenser containment shall be installed when a major modification as defined in § 245.1 (relating to definitions) is performed at the dispenser area involving excavation beneath the dispenser.**

§ 245.423. [Registration requirements.] **Reserved.**

[(a) An underground storage tank shall be registered with the Department prior to adding a regulated substance. The owner of a tank that was in use after May 8, 1986, shall have notified the Department of the system's existence.

(b) Owners required to submit notices under subsection (a) shall provide notices to the Department for each tank they own. Owners may provide notice for several tanks using one registration form, but owners who own tanks located at more than one facility shall file a separate registration form for each separate facility.

(c) Notices required to be submitted under subsection (a) shall provide all of the requested information on the registration form for each tank for which notice is required to be given.

(d) Owners and operators of new underground storage tank systems shall certify compliance with the following requirements in the registration form provided by the Department:

(1) Installation of tanks and piping under § 245.421(c) (relating to performance standards for new underground storage tank systems).

(2) Cathodic protection of steel tanks and piping under § 245.421(b)(1) and (2).

(3) Financial responsibility under Subchapter H (relating to financial responsibility requirements for owners and operators of underground storage tanks and storage tank facilities).

(4) Release detection under § § 245.442 and 245.443 (relating to requirements for petroleum underground storage tank systems; and requirements for hazardous substance underground storage tank systems).

(5) Use of a Department-certified installer under § 245.21 (relating to tank handling and inspection requirements).

(e) Beginning October 24, 1988, a person who sells a tank intended to be used as an underground storage tank or a property containing an existing tank system shall notify the purchaser, in writing, of an owner's obligations under subsection (a). The following form may be used to comply with this requirement:

Federal law (the Resource Conservation and Recovery Act) and Commonwealth law (the Storage Tank and Spill Prevention Act) require that the owner of a regulated underground storage tank notify the Pennsylvania Department of Environmental Protection of the existence of its tank.

Notification for tanks brought into service after August 5, 1989, must be made prior to placing the tank system into service. Consult EPA 40 CFR Part 280 and PA Code Title 25 Chapter 245 to determine if you are affected by these laws.

(f) Every owner, including a new owner of an existing tank system, shall comply with tank registration requirements in Subchapter A (relating to general provisions).]

GENERAL OPERATING REQUIREMENTS

§ 245.432. Operation and maintenance including corrosion protection.

(a) Owners and operators of [steel] **metal** underground storage tank systems with corrosion protection shall comply with the following requirements to ensure that releases due to corrosion are prevented [for as long as] **until** the underground storage tank system is [used] **permanently closed or undergoes a change-in-service in accordance with § 245.452 (relating to permanent closure and changes-in-service).** [to store regulated substances:]

(1) Corrosion protection systems shall be operated and maintained to continuously provide corrosion protection to the metal components of that portion of the tank and piping that routinely contain regulated substances.

(2) Underground storage tank systems equipped with cathodic protection systems shall be inspected for proper operation by a qualified cathodic protection tester in accordance with the following requirements:

(i) *Frequency.* Cathodic protection systems shall be tested within 6 months of installation and at least every 3 years thereafter.

(ii) *Inspection criteria.* The criteria that are used to determine that cathodic protection is adequate as required by this section shall be in accordance with a code of practice developed by a ~~[Nationally-recognized]~~ **Nationally recognized** association.

(iii) Documentation. Surveys of cathodic protection systems required under this Chapter shall be documented on a form provided by the Department and shall be provided to the Department upon request.

(3) Underground storage tank systems with impressed current cathodic protection systems shall be inspected or checked every 60 days to ensure the equipment is **[running properly] functioning as designed**. At a minimum, the operator or person conducting the 60-day check shall document the date checked, annotate the system's functioning status, and for systems equipped with a direct current readout meter, record the amount of current indicated on the meter.

(c) **Underground storage tank systems and [Required equipment] storage tank system components**, including **but not limited to tanks, piping,** line leak detectors, product sensors and probes, **[dispenser pans,]** containment sumps, measuring devices (including gauge sticks), gauges, corrosion protection, spill prevention, overfill prevention and other appurtenances whose failure could contribute to a release of product, shall be maintained in a good state of repair to ensure they function as designed.

(e) Lined tank systems that do not meet original design specifications or have not been evaluated as required in subsection (d)(1) and (2) shall be emptied, removed from service and permanently closed in accordance with § 245.451 and 245.452 (relating to temporary **[closure] removal from service;** and permanent closure and changes-in-service).

(f) Primary and secondary containment structures, **containment sumps, and spill prevention equipment** must be maintained in a leak-free condition. If **[infiltration] any liquid** or **[a release] regulated substance** is detected **[within the secondary containment], the liquid or regulated substance shall be immediately removed and** the defective component, **if applicable,** shall be repaired in accordance with § 245.434 (relating to repairs allowed). Repairs, including those performed to stop infiltration, shall be tested in accordance with § 245.434(~~5~~**4**).

§ 245.433. Compatibility.

(a) Owners and operators shall use an underground storage tank system[,] made of or lined with materials[,] that **[is] are** compatible with the substance stored in the underground storage tank system. **[Owners and operators storing alcohol blends may use the following codes to comply with the requirements of this section:**

(1) American Petroleum Institute Publication 1626, “Storing and Handling Ethanol and Gasoline-Ethanol Blends at Distribution Terminals and Service Stations.”

(2) American Petroleum Institute Publication 1627, “Storage and Handling of Gasoline-Methanol/Cosolvent Blends at Distribution Terminals and Service Stations.”]

(b) An owner and operator of an underground storage tank storing alternative fuel blends or biodiesel or biodiesel blended fuel shall submit on a form provided by the Department information verifying compatibility of the underground storage tank system with the substance stored prior to storing the substance in the underground storage tank.

(c) Upon Department request, an owner and operator of an underground storage tank system shall demonstrate compatibility of the underground storage tank system with the substance stored by using one or more of the following:

(1) Certification or listing of the underground storage tank system equipment or component by a Nationally recognized, independent testing laboratory for use with the substance stored.

(2) Equipment or component manufacturer approval. The manufacturer’s approval must be in writing, indicate an affirmative statement of compatibility, specify the range of alternative fuel blend or biodiesel blend with which the equipment or component is compatible, and be from the equipment or component manufacturer.

(3) Verification by a Pennsylvania-licensed professional engineer who has knowledge, experience, and training in materials science that the equipment or component is compatible with the substance stored. The Department may request documentation supporting the professional engineer’s verification.

(4) Another option that is determined by the Department to be at least as protective of human health and the environment as those listed in paragraphs (1)—(3).

§ 245.434. Repairs allowed.

Owners and operators of underground storage tank systems shall ensure that repairs will prevent releases due to structural failure or corrosion as long as the underground storage tank system is used to store regulated substances. The repairs must meet the following requirements:

(1) Repairs involving a tank handling activity shall be performed by or under the direct, onsite supervision and control of a certified installer.

(2) Repairs to underground storage tank systems shall be properly conducted in accordance with a code of practice developed by a [**Nationally-recognized**] **Nationally recognized** association or an independent testing laboratory.

[(3) Repairs to fiberglass reinforced plastic tanks may be made by the manufacturer’s authorized representatives, and shall be made in accordance with a code of practice developed by a Nationally-recognized association or an independent testing laboratory.]

([4]3) Metal pipe sections and fittings that have released product as a result of corrosion or other damage shall be replaced. [Fiberglass] **Non-corrodible** pipes and fittings may be repaired; repairs shall be made in accordance with the manufacturer's specifications.

([5]4) **Repairs to secondary containment areas of tanks and piping, containment sumps, and spill prevention equipment must be tested for tightness according to the manufacturer's instructions, a code of practice developed by a Nationally recognized association, or independent testing laboratory prior to returning the underground storage tank system to operating status. All other repairs to [T]tanks, containment sumps, and piping [repaired in response to a release]** shall be tightness tested in accordance with §§ 245.421(b)(4)(ii), 245.444([3]2) and 245.445(2) (relating to performance standards for underground storage tank systems; methods of release detection for tanks; and methods of release detection for piping), respectively, prior to placing the **underground storage tank** system back into service except as provided as follows:

(i) The repaired tank is internally inspected in accordance with a code of practice developed by a [Nationally-recognized] **Nationally recognized** association or an independent testing laboratory.

[(ii) The repaired portion of the underground storage tank system is monitored monthly for releases in accordance with a method specified in § 245.444(4)—(9).]

[(iii)ii] Another test method is used that is determined by the Department to be at least as protective of human health and the environment as [those] listed in subparagraph[s] (i)[**and (ii)**].

([6]5) Within 6 months following the repair of a cathodically protected underground storage tank system, the cathodic protection system shall be tested in accordance with § 245.432(a)(2) and (3) (relating to operation and maintenance including corrosion protection) to ensure that it is operating properly.

([7]6) Underground storage tank system owners and operators shall maintain records of each repair, including those in response to a release, for the remaining operating life of the underground storage tank system.

§ 245.435. Reporting and recordkeeping.

(a) Owners and operators of underground storage tank systems shall **maintain records as required by this chapter and provide such records, as requested, and** cooperate fully with inspections, monitoring and testing conducted by the Department, certified installers or certified inspectors.[, **as well as**] **Owners and operators shall provide records and cooperate fully in response to** requests for document submission, testing and monitoring by the owner or operator under section 107(c) of the act (35 P. S. § **6021.107(c)**[**6201.107(c)**]).

(b) Owners and operators shall maintain required records either onsite at the [**underground**] storage tank facility or at a readily available alternative site. Records maintained at the [**underground**] storage tank facility shall be immediately available for inspection by the

Department and certified inspectors. If records are maintained offsite, the records shall be easily obtained and provided for inspection or for review by the Department upon request.

[(1)](c) Reporting. Owners and operators shall submit the following applicable information to the Department:

[(i)](1) Notification in accordance with § 245.41 (relating to tank registration requirements) for underground storage tank systems, including change of ownership, closure of **[a] an underground storage** tank system, change of substance stored and change of tank status, and certification of installation for new underground storage tank systems (§ 245.421(c) (relating to performance standards for underground storage tank systems)).

[(ii)](2) Reports of confirmed, **[reportable]** releases (§**[245.305(d)] 245.305(c)** (relating to reporting releases)).

[(iii)](3) A site characterization report (§ 245.310 (relating to site characterization report)).

[(iv)](4) Remedial action plans (§ 245.311 (relating to remedial action plan)), remedial action progress reports (§ 245.312 (relating to remedial action)) and remedial action completion reports § 245.313 (relating to remedial action completion report)).

[(v)](5) A notification before installation, permanent closure or change-in-service of a storage tank or storage tank system (§ 245.421(a)(2) and § 245.452(a) (relating to permanent closure and changes-in-service)).

[(vi)](6) In the case of permanent closure, closure records to the Department when requested.

[(2)](d) Recordkeeping[*Permanent recordkeeping*]. Owners and operators shall maintain **the following** records for **[new] underground storage tank** systems **[and available records for existing systems]** for the operational life of the [tank] system and retain the records for a minimum of 1 year after the **underground storage** tank system has been **[removed] permanently closed**. **Permanent records include the following:**

[(i)](1) A corrosion expert's analysis of site corrosion potential if corrosion protection equipment is not used (§ 245.421(b)(1)(iv) and (2)(iii) and § 245.422(b)(2)(iv) and (c)(3) (relating to upgrading of existing underground storage tank systems)).

[(ii)](2) The corrosion expert's design of an impressed current system or field-installed cathodic protection system or similar information that demonstrates compliance with § § 245.421(b)(2)(ii)(B) and 245.422(b)(2) and (c)(2).

[(iii)](3) Documentation of **underground storage** tank system installation, **[system]** modification and **[tank]** upgrade activities.

[(iv)](4) Underground storage [T]tank system assessment records prior to upgrading in accordance with § 245.422(b).

[(v)](5) Documentation of the installation testing and commissioning reports required for corrosion protection systems by manufacturers and National standards in accordance with § 245.432 (relating to operation and maintenance including corrosion protection).

[(vi)](6) Documentation of underground storage tank system repairs[, **including those in response to a release (§ 245.434(6) (relating to repairs allowed))**].

[(vii)](7) Tank lining evaluation reports (§ 245.432(d)).

[(viii)](8) Documentation showing Department approval for a variance or alternate leak detection method (§ § 245.404 and 245.443 (relating to variances; and requirements for hazardous substance underground storage tank systems)).

(9) Documentation showing the owner or operator of an underground storage tank system is continuously participating in the USTIF.

[(3) *Temporary recordkeeping.* Owners and operators shall retain current temporary records for a minimum of 1 year after the tank system has been removed. Temporary records shall be maintained as follows:

(i)](10) The current Storage Tank Registration/Permit Certificate.

[(ii)](11) Tank and [**pipe**] **pip**ing release detection records for the past 12 months, including written certifications or performance claims for the release detection[s] methods in use [**and documentation of investigations of suspected releases**] (§ [**§ 245.304 and**] 245.446 (relating to [**investigation of suspected releases; and**] release detection recordkeeping)).

[(iii)](12) The last annual check/testing, and maintenance records of leak detection equipment including probes, monitors, line leak detectors and automatic tank gauges that verify they are working properly and tested as required by the equipment manufacturers **and this Chapter**.

[(iv)](13) Documentation of the last three impressed current cathodic protection system inspection checks for each 60- day test period in accordance with § 245.432.

[(v)](14) The last two cathodic protection surveys, done at 3-year intervals, on impressed current and galvanic cathodic protection systems in accordance with § 245.432.

[(vi)](15) Results of the site investigation conducted at permanent closure or change-in-service (§ 245.455 (relating to closure records)).

[(vii)](16) A properly completed closure report required under § 245.452(f).

[(viii)](17) Documentation of the last test that demonstrates each containment sump, [**dispenser pan**] and spill [**containment bucket**] **prevention equipment** installed or repaired after November 10, 2007, were tested and verified to be liquid-tight in accordance with § § 245.421(b)(4) and 245.434(5).

~~[(ix)]~~**(18)** Documentation of operator training, including verification of training for current Class A, Class B and Class C operators, current list of operators and written instructions or procedures for Class C operators in accordance with § 245.436 (relating to operator training).

(19) For owners and operators conducting periodic testing of containment sumps and spill prevention equipment and evaluations of overfill prevention under § 245.437 (relating to periodic testing), documentation of the last test for the containment sump and spill prevention equipment and evaluation of the overfill prevention equipment.

(20) For owners and operators conducting periodic testing of containment sumps and spill prevention equipment under § 245.437(a)(1)(i), documentation showing that the equipment is double-walled and the integrity of both walls is periodically monitored in accordance with § 245.438(a)(1)(i) (relating to periodic operation and maintenance walkthrough inspections) for as long as the equipment is monitored by walkthrough inspection.

(21) Records of walkthrough inspections as required in § 245.438 for the past 12 months. Records must include a list of each area checked, whether each area checked was acceptable or needed action taken, a description of actions taken to correct an issue, and delivery records if spill prevention equipment is checked less frequently than every 30 days due to infrequent deliveries.

(22) Documentation of investigations of suspected releases in accordance with § 245.304 (relating to investigation of suspected releases).

§ 245.436. Operator training.

(a) *Requirement for trained operators.*

(1) An owner shall designate Class A, Class B and Class C operators for each underground storage tank system or **storage tank** facility that has underground storage tanks permitted to operate by the Department.

(2) A **storage tank** facility may not operate [after August 8, 2012,] unless operators have been designated and trained as required in this section, unless otherwise agreed upon by the Department.

(3) Trained operators shall be readily available to respond to suspected/confirmed releases, other unusual operating conditions and equipment shut-offs or failures.

(i) The Class A or Class B operator shall be available for immediate telephone consultation when a **storage tank** facility is in operation. A Class A or Class B operator must be able to be onsite at the storage tank facility within 24 hours.

(ii) **Storage tank facilities** [Facilities] that dispense motor fuel for retail sales to the general public shall be manned by an onsite Class C operator when open for business with the public in accordance with 3[7]4 Pa. Code §§ 1[3]4a.115 and 1[3]4a.117 (relating to attended self-service stations; and supervision of dispensing). During an unexpected absence of a Class C operator, such as employee no-shows or call-offs, an onsite Class A or Class B operator may fill-in or

temporarily substitute for the Class C operator. **Storage tank facilities [Facilities]** that do not dispense motor fuel to the general public may be manned based on the facility owner's requirements and routine operational needs. **Emergency contact information and written instructions and procedures in the event of an emergency must be immediately available upon request.**

(iii) For **[unmanned] storage tank facilities that do not dispense motor fuel for retail sales to the general public,** a Class C operator shall be available for immediate telephone consultation and shall be able to be onsite within 2 hours of being contacted. Emergency contact information **and written instructions and procedures in the event of an emergency** shall be prominently displayed at the site **and visible to the storage tank user.** **[Emergency procedures for users of unmanned facilities shall also be prominently posted at the site.]**

[(4) Designated operators shall successfully complete required training under subsection (c) by August 8, 2012.]

[(5)4] A person may be designated for more than one class of operator.

(b) *Operator classes.*

(1) *Class A operator.* A Class A operator has primary responsibility to operate and maintain the underground storage tank system and facility. The Class A operator's responsibilities typically include managing resources and personnel, such as establishing work assignments, to achieve and maintain compliance with regulatory requirements. In general, this person focuses on the broader aspects of the statutory and regulatory requirements and standards necessary to properly operate and maintain the underground storage tank system and facility.

(i) A Class A operator assists the owner by ensuring that underground **storage** tank systems are properly installed and expeditiously repaired, and records of system installation, modification and repair are retained and made available to the Department and certified IUM inspectors.

(ii) A Class A operator shall be familiar with training requirements for each class of operator and may provide required training for Class C operators.

(iii) A Class A operator may prepare site drawings that indicate equipment locations for Class C operators and routine maintenance checklists for Class B operators. **[(See PEI RP 900—“Recommended Practices for the Inspection and Maintenance of UST Systems.”)]**

(iv) Department-certified **[companies,]** installers and inspectors with current underground storage tank **UMX, UMI,** or IUM certification categories may perform Class A operator duties when employed or contracted by the tank owner to perform these functions.

(A) Department-certified installers~~[,]~~ **and** inspectors **[and companies]** identified in this subparagraph are excluded from required training under subsection (c), unless required by the Department to successfully complete mandatory operator training under § 245.411(d) (relating to inspection frequency).

(B) A certified IUM inspector may not perform **[a]an [facility operation]** inspection **as required in § 245.411** for a facility where the inspector is also the designated Class A operator. (See § 245.106 (relating to conflict of interest).)

(2) *Class B operator.* A Class B operator implements applicable underground storage tank regulatory requirements and standards in the field or at the storage tank facility. This person oversees and implements the day-to-day aspects of operations, maintenance and recordkeeping for the underground storage tank[s] **systems** at one or more facilities. For example, the **Class B** operator ensures that release detection methods, release prevention equipment and related recordkeeping and reporting requirements are met, relevant equipment manufacturer's or third-party performance standards are available and followed, and appropriate persons are trained to properly respond to potential emergencies caused by releases or spills from underground storage tank systems at the facility.

(i) A Class B operator checks spill **and overflow** prevention **[and overflow control]** equipment and corrosion protection equipment to ensure that they are functioning properly and that any required system tests are performed at required intervals.

(ii) A Class B operator assists the owner by ensuring that release detection equipment is operational, release detection is performed at the proper intervals and release detection records are retained and made available to the Department and certified IUM inspectors.

(iii) A Class B operator shall be totally familiar with Class B and Class C operator responsibilities, and may provide required training for Class C operators.

(iv) Department-certified **[companies,]** installers and inspectors with current underground storage tank **UMX, UMI,** or IUM certification categories may perform Class B operator duties when employed or contracted by the tank owner to perform these functions.

(A) Department-certified installers[,], **and** inspectors **[and companies]** identified in this subparagraph are excluded from required training under subsection (c), unless required by the Department to successfully complete mandatory operator training under § 245.411(d).

(B) A certified IUM inspector may not perform **[a]an [facility operation]** inspection **as required in § 245.411** for a facility where the inspector is also the designated Class B operator. (See § 245.106.)

(3) *Class C operator.* A Class C operator is the first line of response to events indicating emergency conditions[.] **and may control or monitor the dispensing or sale of regulated substances.** This person is responsible for responding to alarms or other indications of emergencies caused by spills or releases from underground storage tank systems and **associated** equipment failures. The Class C operator shall notify the Class A or Class B operator and appropriate emergency responders when necessary, based on the nature or type of emergency.

[(i) A Class C operator may control or monitor the dispensing or sale of regulated substances.

(ii) After June 28, 2010, written instructions or procedures shall be provided and visible at manned storage tank facilities, and be readily available for unmanned facilities for persons performing duties of the Class C operator to follow and to provide notification necessary in the event of emergency conditions.

(iii) There may be more than one Class C operator at a storage tank facility, but not all employees of a facility are necessarily Class C operators.]

(c) Required training.

(1) *Class A operators.* A Class A operator shall successfully complete a training course approved under § 245.141 (relating to training approval) [**or recognized by the Department under paragraph (5)**] that includes a general knowledge of underground storage tank system requirements. Training must provide information that should enable the operator to make informed decisions regarding compliance and to ensure that appropriate persons are fulfilling operation, maintenance and recordkeeping requirements and standards of this chapter or Federal underground storage tank requirements in 40 CFR Part 280 (relating to technical standards and corrective action requirements for owners and operators of underground storage tanks (UST)), or both, including the following:

- (i) Spill and overflow prevention.
- (ii) Release detection and related reporting requirements.
- (iii) Corrosion protection.
- (iv) Emergency response.
- (v) Product and equipment compatibility.
- (vi) Financial responsibility.
- (vii) Notification and storage tank registration requirements.
- (viii) Temporary and permanent closure requirements.
- (ix) Operator training requirements.

(2) *Class B operators.* A Class B operator shall successfully complete a training course approved under § 245.141 [**or recognized by the Department under paragraph (5)**] that includes an in-depth understanding of operation and maintenance aspects of underground storage tank systems and related regulatory requirements. Training must provide specific information on the components of underground storage tank systems, materials of construction, methods of release detection and release prevention applied to underground storage tank systems and components. Training must address operation and maintenance requirements of this chapter or Federal underground storage tank requirements in 40 CFR Part 280, or both, including the following:

- (i) Spill and overflow prevention.

(ii) Release detection and related reporting requirements.

(iii) Corrosion protection and related testing.

(iv) Emergency response.

(v) Product and equipment compatibility.

(vi) Reporting and recordkeeping requirements.

(vii) Class C operator training requirements.

(3) *Class C operators.* At a minimum, training provided by the tank owner or Class A or Class B operator must **be site-specific and** enable the Class C operator to take action in response to emergencies, such as situations posing an immediate danger or threat to the public or to the environment and that require immediate action, caused by spills or releases and alarms from an underground storage tank system. Training must include written instructions or procedures for the Class C operator to follow and to provide notification necessary in the event of emergency conditions.

(4) *Class A and Class B operators.* Successful completion for Class A and Class B operators means attendance for the entire training course and demonstration of knowledge of the course material as follows:

(i) Receipt of a passing grade under § 245.141(b)(4), on an examination of material presented in the training course, or demonstration through practical (hands-on) application to the trainer, operation and maintenance checks of underground storage tank equipment, including performance of release detection at the **[underground]** storage tank facility, at the conclusion of onsite training.

(ii) Receipt of a training certificate by an approved trainer upon verification of successful completion of training under this paragraph.

[(5) *Reciprocity.* The Department may also recognize successful completion of Class A and Class B operator training on regulatory standards consistent with 40 CFR Part 280, which is recognized by other states or implementing agencies and which is approved by the EPA as meeting operator training grant guidelines published by the EPA.]

[(6) (5) *Costs of training.* The tank owner or operator shall incur the costs of the training.

(d) *Timing of training.*

(1) An owner shall ensure that Class A, Class B and Class C operators are trained **[as soon as practicable after December 26, 2009, contingent upon availability of approved training providers, but by August 8, 2012.]and identified on a form provided by the Department prior to placing the underground storage tank system into use.**

(2) When a Class A or Class B operator is replaced[, **after August 8, 2012**], a new operator shall be trained within 30 days of assuming duties for that class of operator.

(3) Class C operators shall be trained before assuming duties of a Class C operator. [**After June 28, 2010,**] [w]Written instructions or procedures shall be provided to Class C operators to follow and to provide notification necessary in the event of emergency conditions. Class C operators shall be briefed on these instructions or procedures at least annually (every 12 months), which may be concurrent with annual safety training required by the Occupational Safety and Health Administration, under 29 CFR Part 1910 (relating to Occupational Safety and Health Standards).

(e) *Documentation.*

(1) The owner of [an **underground**] **a** storage tank facility shall prepare a list of designated operators. The list must represent the current Class A, Class B and Class C operators for the [**underground**] storage tank facility and include:

(i) The name of each operator, class of operation trained for and the date each operator successfully completed initial training and refresher training, if any.

(ii) For Class A and Class B operators that are not permanently onsite or assigned to more than one facility, telephone numbers to contact the operators.

(2) A copy of the certificates of training for Class A and Class B operators shall be on file and readily available and a copy of the facility list of Class A, Class B and Class C operators and Class C operator instructions or procedures shall be kept onsite and immediately available for [**manned**] storage tank facilities **that dispense motor fuel for retail sales to the general public. Storage tank facilities that do not dispense motor fuel for retail sales to the general public shall have this information [and] readily available [for unmanned facilities].** (See § 245.435(b)(3)(ix) (relating to reporting and recordkeeping).)

(3) Class C operator or owner contact information, including names and telephone numbers, and emergency procedures, shall be conspicuously posted at **storage tank facilities that do not dispense motor fuel for retail sales to the general public [unmanned facilities].**

§ 245.437 Periodic testing.

(a) Owners and operators of underground storage tank systems shall ensure installed equipment for release detection and prevention is operating properly by meeting the following requirements:

(1) Containment sumps used for interstitial monitoring of piping in accordance with § 245.444(6) (relating to interstitial monitoring) and spill prevention equipment shall meet one of the following:

(i) When the containment sump or spill prevention equipment is double-walled, the integrity of both walls must be periodically monitored by maintenance walkthrough inspections as required by § 245.438 (relating to periodic operation and maintenance walkthrough inspections). If walkthrough inspections are discontinued, the owner and

operator shall comply with subparagraph (ii) and conduct a test within 30 days of the last inspection.

(ii) Containment sumps and spill prevention equipment must be tested at least once every three years to ensure the equipment is liquid-tight by using vacuum, pressure, or liquid.

(2) Overfill prevention equipment must be evaluated at least once every three years. At a minimum, the evaluation must ensure that overfill prevention equipment is set to activate at the correct level specified in § 245.421(b)(3) (relating to performance standards for underground storage tank systems) and will activate when the regulated substance stored reaches that level.

(3) Electronic and mechanical components of release detection equipment must be tested for proper operation at least annually. At a minimum, required tests, as applicable to the facility, must cover the following components and criteria:

(i) Automatic tank gauges and other controllers must be tested by:

(A) Testing alarm.

(B) Verifying system configuration.

(C) Testing battery backup.

(ii) Probes and sensors must be tested:

(A) Inspecting for residual buildup.

(B) Ensuring that floats move freely.

(C) Ensuring the shaft is not damaged.

(D) Ensuring cables are free of kinks and breaks.

(E) Testing alarm operability or running condition and communication with controller.

(iii) Automatic line leak detectors must be tested to meet criteria in § 245.445 (relating to methods of leak detection for piping) by simulating a leak.

(iv) Vacuum pumps and pressure gauges must be tested to ensure proper communication with sensors and controller.

(v) Handheld electronic sampling equipment associated with groundwater and vapor monitoring must be tested to ensure proper operation.

(b) Owners and operators of underground storage tank systems shall ensure tests and evaluations required by this section are performed in accordance with one of the following criteria:

(1) Requirements developed by the manufacturer.

(2) Code of practice developed by a Nationally recognized association or independent testing laboratory.

(3) Requirements determined by the Department to be no less protective of human health and the environment than the requirements listed in paragraphs (1) and (2) of this subsection.

(c) Owners and operators shall comply with the periodic testing requirements of this section as follows:

(1) For underground storage tank systems installed on or before _____ (Editor's Note: The blank refers to the effective date of the final-form regulations.), owners and operators shall ensure tests and inspections as required by this section are performed prior to the next required underground storage tank inspection occurring after _____ (Editor's Note: The blank refers to one year after the effective date the final-form regulations.), or not later than _____ (Editor's Note: The blank refers to three years after the effective date of the final-form regulations.), whichever occurs first.

(2) For underground storage tank systems installed after _____ (Editor's Note: The blank refers to the effective date of the final-form regulations.), these requirements apply at installation.

(d) Test liquids used to perform tests as required in this chapter shall be reused, treated or disposed in accordance with applicable requirements in Chapter 91 (relating to water resources general provisions), Chapter 92a (relating to national pollutant discharge elimination system permitting, monitoring and compliance), Chapters 260—270a (relating to hazardous waste management), and Chapters 287—299 (relating to residual waste management).

§ 245.438 Periodic operation and maintenance walkthrough inspections.

(a) To properly operate and maintain spill prevention and release detection equipment part of underground storage tank systems, not later than _____ (Editor's Note: The blank refers to one year after the effective date of the final-form regulation.), owners and operators shall conduct walkthrough inspections at a minimum of every 30 days, with the exception of spill prevention equipment at underground storage tank systems receiving deliveries at intervals greater than every 30 days, which may be checked prior to each delivery. The walkthrough inspection must include, at a minimum, the following:

(1) For spill prevention equipment:

(i) Visually check for damage.

(ii) Remove liquid or debris.

(iii) Check for and remove obstructions in the fill pipe.

(iv) Check the fill cap to make sure it is securely on the fill pipe.

(v) For double-walled spill prevention equipment with interstitial monitoring, check for a leak in the interstitial area.

(2) For release detection equipment:

(i) Check to make sure the release detection equipment is operating with no alarms or other unusual operating conditions present.

(ii) Ensure records of release detection testing are reviewed and current.

(b) To properly operate and maintain containment sumps and handheld release detection equipment part of underground storage tank systems, not later than _____ (Editor's Note: The blank refers to one year after the effective date of the final-form regulation.), owners and operators shall conduct walkthrough inspections at a minimum of every 12 months that include, at a minimum, the following:

(1) For containment sumps:

(i) Visually check for damage and the presence of liquid or debris.

(ii) Remove liquid or debris.

(iii) For double-walled sumps with interstitial monitoring, check for a leak in the interstitial area.

(2) For handheld release detection equipment:

(i) Check devices such as tank gauge sticks or groundwater bailers for operability and serviceability.

(c) Owners and operators of underground storage tank systems shall ensure operation and maintenance walkthrough inspections required by this section are performed in accordance with one of the following criteria, unless the Department determines that a more stringent requirement is necessary to avoid releases of regulated substances from underground storage tank systems:

(1) Requirements developed by the manufacturer.

(2) Code of practice developed by a Nationally recognized association or independent testing laboratory.

(3) Requirements determined by the Department to be no less protective of human health and the environment than the requirements listed in paragraphs (1) and (2) of this subsection.

RELEASE DETECTION

§ 245.441. General requirements for underground storage tank systems.

(a) Owners and operators of new and existing underground storage tank systems shall provide a method, or combination of methods, of release detection that:

(1) Can detect a release from any portion of the tank and the connected underground piping that routinely contains product.

(2) Is installed, calibrated, operated and maintained in accordance with the manufacturer's instructions, including routine maintenance and service checks for operability or running condition.

(3) Meets the performance requirements in § 245.444 or § 245.445 (relating to methods of release detection for tanks; and methods of release detection for piping), with any performance claims and their manner of determination described in writing by the equipment manufacturer or installer. In addition, methods **[used after the date shown] listed in [the following table corresponding with the specified method except for methods permanently installed prior to that date,] §§ 245.444 and 245.445** shall be capable of detecting the leak rate or quantity specified for that method in the corresponding section of this subchapter[, **also shown in the table,**] with a probability of detection (Pd) of 0.95 and a probability of false alarm (Pfa) of 0.05.

| <i>Method</i> | <i>Section</i> | <i>[Date After Which Pd/Pfa Must be Characterized]</i> |
|---|-------------------|--|
| Manual Tank Gauging | 245.444(2) | December 22, 1990 |
| Tank Tightness Testing | 245.444(3) | December 22, 1990 |
| Automatic Tank Gauging | 245.444(4) | December 22, 1990 |
| Statistical Inventory Reconciliation | 245.444(8) | December 22, 1990 |
| Automatic Line Leak Detectors | 245.445(1) | September 22, 1991 |
| Line Tightness Testing | 245.445(2) | December 22, 1990] |

(i) Test method performance claims shall be verified by an independent third party using leak rates that are unknown to the tester.

(ii) When the EPA evaluation protocol for a method changes, the manufacturer shall reevaluate the method within 24 months of the new protocol's effective date for its continued use in this Commonwealth.

(b) When a release detection method operated in accordance with the performance standards in § 245.444 and § 245.445 indicates a release may have occurred, owners and operators shall investigate the suspected release in accordance with Subchapter D (relating to corrective action process for owners and operators of storage tanks and storage tank facilities and other responsible parties).

(c) Owners and operators of underground storage tank systems shall comply with the release detection requirements of this subchapter.

(d) An existing tank system that cannot apply a method of release detection that complies with this subchapter must immediately empty the tank and complete the closure procedures in § § 245.451—245.455 (relating to out-of-service underground storage tank systems and closure).

[(e) For existing tank systems equipped with double-walled pressurized piping that routinely contains regulated substance, and containment sumps at the piping junctures and dispensers, the containment sumps and dispenser pan sumps of these systems shall be monitored monthly beginning November 10, 2009, and monthly monitoring records maintained for the last 12 months of monitoring. Monitoring shall be accomplished by one of the following methods:

(1) Monthly visual check of the sumps.

(2) Interstitial monitoring under § 245.444(7) (relating to methods of release detection for tanks) (also see secondary containment—liquid sump sensors in PEI RP 100).]

§ 245.442. Periodic monitoring requirements [Requirements] for petroleum underground storage tank systems.

(a) Owners and operators of underground storage tank systems **that store petroleum** installed after November 10, 2007, **and underground piping installed after November 10, 2007 that routinely contains regulated substances** shall perform interstitial monitoring **in accordance with § 245.444(6)[,]** at least once every 30 days[**, in accordance with § 245.444(7) (relating to methods of release detection for tanks) of both the tank and underground piping that routinely contains a product (regulated substance).**] **Underground piping installed after November 10, 2007, that conveys regulated substances under pressure [In addition, pressurized piping for these systems]** must be equipped and operated with an automatic line leak detector with an automatic pump shut off device in accordance with § 245.445(1) (relating to methods of release detection for piping). **Release detection is not required for suction piping that meets the requirements of subsection (b)(2)(ii)(A-E).**

(b) Owners and operators of petroleum underground storage tank systems installed on or before November 10, 2007, shall provide release detection for tanks and piping as follows:

(1) *Tanks.* Tanks shall be monitored at least every 30 days for releases using one of the methods listed in § 245.444(~~1~~)—(~~8~~); **[except that:**

(i) Underground storage tank systems that meet the performance standards in § 245.421 (relating to performance standards for underground storage tank systems), may use monthly inventory control requirements in § 245.444(1) or (2), and tank tightness testing (conducted in accordance with § 245.444(3)) until 10 years after the tank was first installed or upgraded under § 245.422(b), but not later than December 22, 2008.

(ii) Underground storage tank systems with a capacity of 1,001 to 2,000 gallons may use manual tank gauging, conducted in accordance with § 245.444(2) and a tank tightness test at least every 5 years until November 10, 2017.

(iii) Tanks with a capacity of 550 gallons or less may use manual tank gauging, conducted in accordance with § 245.444(2) as long as they continue to meet requirements of this subchapter.

(iv) Tanks with a capacity of 551 to 1,000 gallons using the longer test times specified may use manual tank gauging, conducted in accordance with § 245.444(2) as long as they continue to meet requirements of this subchapter.]

§ 245.443. Requirements for hazardous substance underground storage tank systems.

Owners and operators of hazardous substance underground storage tank systems shall provide release detection that meets the following requirements:

(1) **[Release detection at existing underground storage tank systems shall meet the requirements for petroleum underground storage tank systems in § 245.442 (relating to requirements for petroleum underground storage tank systems). By December 22, 1998, all existing hazardous substance underground storage tank systems shall meet the release detection requirements for new systems in paragraph (2).] Hazardous substance underground storage tank systems installed after November 10, 2007, shall perform interstitial monitoring in accordance with § 245.444(6) (relating to methods of release detection for tanks).**

(2) Release detection at **[new]** hazardous substance underground storage tank systems **installed on or before November 10, 2007,** shall meet the following requirements:

[(i)](a) Secondary containment systems.

[(A)](1) Secondary containment systems shall be designed, constructed and installed to:

[(I)](i) Contain regulated substances released from the tank system until they are detected and removed.

[(II)](ii) Prevent the release of regulated substances to the environment at any time during the operational life of the underground storage tank system.

[(III)](iii) Be checked for evidence of a release at least every 30 days.

[(B)](2) The provisions of **40 CFR § 264.193** (relating to **containment and detection of releases [secondary containment]**) may be used to comply with the requirements of this paragraph.

[(ii)](b) Double walled tanks shall be designed, constructed and installed to:

[(A)](1) Contain a release from any portion of the inner tank within the outer wall.

[(B)](2) Detect the failure of the inner wall.

[(iii)](c) External liners, including vaults, shall be designed, constructed and installed to:

[(A)](1) Contain 100% of the capacity of the largest tank within its boundary.

[(B)](2) Prevent the interference of precipitation or ground- water intrusion with the ability to contain or detect a release of regulated substances.

[(C)](3) Surround the tank completely making it capable of preventing lateral as well as vertical migration of regulated substances.

[(iv)](d) Underground piping shall be equipped with secondary containment that satisfies the requirements of subparagraph (i) for example, trench liners, jacketing or double-walled pipe. In addition, underground piping that conveys regulated substances under pressure shall be equipped with an automatic line leak detector in accordance with § 245.445(1) (relating to methods of release detection for piping).

[(v)](e) Other methods of release detection may be used if owners and operators:

[(A)](1) Demonstrate to the Department that an alternate method can detect a release of the stored substance as effectively as any of the methods allowed in § 245.444(2)—(9) (relating to methods of release detection for tanks) can detect a release of petroleum.

[(B)](2) Provide information to the Department on effective corrective action technologies, health risks and chemical and physical properties of the stored substance, and the characteristics of the underground storage tank site.

[(C)](3) Obtain approval from the Department to use the alternate release detection method before the installation and operation of the new underground storage tank system.

§ 245.444. Methods of release detection for tanks.

Each method of release detection for tanks used to meet the requirements of §§ **245.441 and 245.442** (relating to **general requirements for underground storage tank systems and periodic monitoring** requirements for petroleum underground storage tank systems) shall be conducted in accordance with the following:

[(1) *Inventory control. Product inventory control, or another test of equivalent performance, shall be conducted monthly to detect a release of at least 1.0% of flow-through plus 130 gallons on a monthly basis in the following manner:*

(i) Inventory volume measurements for regulated substance inputs, withdrawals and the amount still remaining in the tank are recorded each operating day.

(ii) The equipment used is capable of measuring the level of product over the full range of the tank's height to the nearest 1/8 of an inch.

(iii) The regulated substance inputs are reconciled with delivery receipts by measurement of the tank inventory volume before and after delivery.

(iv) Deliveries are made through a drop tube that extends to within 1 foot of the tank bottom.

(v) Product dispensing is metered and recorded within an accuracy of at least 6 cubic inches for every 5 gallons of product withdrawn.

(vi) Dispenser meters shall be calibrated.

(vii) The measurement of any water level in the bottom of the tank is made to the nearest 1/8 of an inch at least once a month.]

[(2)] **(1) *Manual tank gauging.* Manual tank gauging shall meet the following requirements:**

(i) Tank liquid level measurements are taken at the beginning and ending of a period of at least 36 hours during which no liquid is added to or removed from the tank.

(ii) Level measurements are based on an average of two consecutive stick readings at both the beginning and ending of the period.

(iii) The equipment used is capable of measuring the level of product over the full range of the tank's height to the nearest 1/8 of an inch.

(iv) A leak is suspected and subject to Subchapter D (relating to corrective action process for owners and operators of storage tanks and storage tank facilities and other responsible parties) if the variation between beginning and ending measurements exceeds the weekly or monthly standards in the following table:

| |
|--|
| |
|--|

| | | | | |
|---|-----------------|-------------------|---------------------|----------------------|
| | | | <i>Monthly</i> | |
| | <i>Minimum</i> | <i>Weekly</i> | <i>Standard</i> | <i>Periodic</i> |
| <i>Nominal Tank</i> | <i>Duration</i> | <i>Standard</i> | <i>(average of)</i> | <i>Tightness</i> |
| <i>Capacity</i> | <i>of Test</i> | <i>(one test)</i> | <i>four tests</i> | <i>Test Required</i> |
| 550 gallons or less | 36 hours | 10 gallons | 5 gallons | No |
| 551—1,000 gallons: 64" diameter tank | 44 hours | 9 gallons | 4 gallons | No |
| 551—1,000 gallons: 48" diameter tank | 58 hours | 12 gallons | 6 gallons | No |
| 551—1,000 gallons | 36 hours | 13 gallons | 7 gallons | Yes |
| [1,001—2,000 gallons | 36 hours | 26 gallons | 13 gallons | Yes] |

(v) **[Only tanks of 550 gallons or less nominal capacity may use this as the sole method of release detection. Tanks of 551 to 2,000 gallons may use the method in place of manual inventory control in paragraph (1). Tanks of greater than 2,000 gallons nominal capacity may not use this method to meet the requirements of this section.] Owners and operators of underground storage tanks of greater than 1,000 gallons nominal capacity may not use this method to meet the requirements of this section.**

[(3)] **(2)** *Tank tightness testing.* Tank tightness testing, or another test of equivalent performance, must be capable of detecting a 0.1 gallon per hour leak rate from any portion of the tank that routinely contains product while accounting for the effects of thermal expansion or contraction of the product, vapor pockets, tank deformation, evaporation or condensation, and the location of the water table.

[(4)] **(3)** *Automatic tank gauging.* Equipment for automatic tank gauging that tests for the loss of product and conducts inventory control must meet one of the following requirements:

(i) The automatic product level monitor test can detect a 0.2 gallon per hour leak rate from any portion of the tank that routinely contains product.

(ii) **[For tank gauges installed prior to December 22, 1990, that do not meet the requirements of subparagraph (i), inventory control, or another test of equivalent**

performance, shall also be conducted in accordance with paragraph (1).] Tank gauges shall [be replaced or] be certified by an independent third party verifying the gauge's ability to detect the leak rate in subparagraph (i) following EPA evaluation protocol [by November 10, 2008].

[(5)] **(4)** *Vapor monitoring.* Testing or monitoring for vapors within the soil gas of the excavation zone must meet the following requirements:

[(6)] **(5)** *Groundwater monitoring.* Testing or monitoring for liquids on the groundwater must meet the following requirements:

[(7)] **(6)** *Interstitial monitoring.* Interstitial monitoring between the underground storage tank system and a secondary barrier immediately around or beneath it may be used, but only if the system is designed, constructed and installed to detect a leak from any portion of the tank that routinely contains product and also meets one of the following requirements:

- (i) For double-walled underground storage tank systems, the sampling or testing method can detect a release through the inner wall in any portion of the tank that routinely contains product.
- (ii) For underground storage tank systems with a secondary barrier within the excavation zone, the sampling or testing method used can detect a release between the underground storage tank system and the secondary barrier.

(F) Monitoring wells are clearly marked and secured to avoid unauthorized access and tampering in accordance with § 245.432[(5)]**(b)**.

[(8)] **(7)** *Statistical Inventory Reconciliation (SIR).* SIR shall meet the performance standards of paragraph [(9)(i)]**(8)(i)** for monthly monitoring.

- (i) The owner or operator shall follow the instructions of the SIR manufacturer's protocol.
- (ii) A separate report for each tank monitored shall be maintained by the owner[/**or**] operator in accordance with § 245.446(2) (relating to release detection recordkeeping). Each report shall meet the following requirements:

[(A) Owners and operators shall have reports available within 20 days of the end of the monitored period.]

[(B)](A) A valid report shall include the calculated leak rate, positive for out of tank and negative for into tank, minimum detectable leak rate (MDL), leak detection threshold,

probability of detection (Pd) and probability of false alarm (Pfa) which the supplied data supports.

[(C)](B) A valid report shall also include one of the following test results:

(I) If the calculated leak rate, absolute value, is less than the leak threshold and the MDL is less than or equal to the certified performance standard [(paragraph (3), paragraph (9)(i) or § 245.445(2) (relating to methods of release detection for piping)], the test result is “pass.”

(II) If the calculated leak rate, absolute value, is greater than the leak threshold, the test result is “fail.”

(III) If the MDL exceeds the certified performance standard and the calculated leak rate is less than the leak threshold, the test result is “inconclusive.” An inconclusive result is considered a suspected leak and shall be investigated in accordance with § 245.304 (relating to investigation of suspected releases).

[(9)](8) *Other methods.* Other types of release detection methods, or a combination of methods, may be used if the owner or operator can demonstrate to the Department that one of the following exists:

(i) It can detect a 0.2 gallon per hour leak rate or a release of 150 gallons within a month with a probability of detection of 0.95 and a probability of false alarm of 0.05.

(ii) It can detect a release as effectively as any of the methods allowed in paragraphs [(3)](2) — [(8)](7). In comparing methods, the Department will consider the size of release that the method can detect and the frequency and reliability with which it can be detected. If the method is approved, the owner and operator shall comply with conditions imposed by the Department on its use to ensure the protection of human health and the environment.

§ 245.445. Methods of release detection for piping.

Each method of release detection for piping used to meet the requirements of § 245.442 (relating to requirements for petroleum underground storage tank systems) shall be conducted in accordance with the following:

(1) *Automatic line leak detectors.* Methods which alert the operator to the presence of a leak by restricting or automatically shutting off the flow of regulated substances through piping or triggering an audible or visual alarm may be used only if they detect leaks of 3 gallons-per-hour at 10 pounds per square inch line pressure within 1 hour. An annual test of the operation of the **automatic line** leak detector shall be conducted in accordance with the manufacturer’s requirements.

(i) **Except as provided in subparagraph (ii),** [U]underground storage tank systems installed or replaced after November 10, 2007, must have **automatic** line leak detectors with an automatic pump shut-off device that shuts off the flow of regulated substances through pressurized piping that routinely contains and conveys product from the tank (See § 245.421(a)(1) (relating to performance standards for underground storage tank systems)).

(ii) Owners and operators of underground storage tank systems that store fuel solely for use by emergency power generators shall install methods that trigger an audible or visual alarm to meet the requirements of this subsection.

(iii) Except as provided in subparagraph (ii), pressurized piping installed on or before November 10, 2007 that conveys regulated substances must be equipped with a method that restricts or automatically shuts off the flow of regulated substances and meets the requirements of this section if the storage tank facility is unattended while open for business.

(2) *Line tightness testing.* A periodic test of piping may be conducted only if it can detect a 0.1 gallon per hour leak rate at 1 1/2 times the operating pressure.

(3) *Applicable tank methods.* The methods in § 245.444[(5)](4) —[(9)](8) (relating to methods of release detection for tanks) may be used if they are designed to detect a release from any portion of the underground piping that routinely contains regulated substances.

OUT-OF-SERVICE UNDERGROUND STORAGE TANK SYSTEMS AND CLOSURE

§ 245.451. Temporary [closure] removal from service (out-of-service).

(a) When an underground storage tank system is temporarily [closed] removed from service (out-of-service), the owner shall complete and submit an amended registration form to the Department within 30 days in accordance with § 245.41 (tank registration requirements).

(b) Owners and operators shall continue operation and maintenance of corrosion protection in accordance with § 245.432 (relating to operation and maintenance including corrosion protection), while the tank is temporarily out-of-service[, and release detection in accordance with § § 245.441—245.446 (relating to release detection) until the tank is empty]. Records shall continue to be kept in accordance with § 245.435 (relating to reporting and recordkeeping).

(c) Owners and operators shall empty a tank being placed temporarily out-of-service [**within 30 days or**] prior to submission of the registration form to the Department[, **whichever occurs first,**] unless directed otherwise by the Department. Removed contents shall be reused, treated or disposed of in accordance with State and Federal requirements, such as Chapter 299 (relating to storage and transportation of residual waste) and 29 CFR 1910 (relating to occupational safety and health standards). Release detection is not required as long as the underground storage tank system is empty. The underground storage tank system is empty when all materials have been removed using commonly employed practices so that no more than 2.5 centimeters (1 inch) of residue, or 0.3% by weight of the total capacity of the underground storage tank system, remain in the system. Owners and operators shall maintain release detection records required under § 245.446(2) (relating to release detection recordkeeping) for the most recent 12-month period of active operation.

(d) Subchapter D (relating to corrective action process for owners and operators of storage tanks and storage tank facilities and other responsible parties) shall be complied with if a release is suspected or confirmed.

(e) **[Routine facility inspection] Inspection** requirements at 3-year intervals in § 245.411(c) (relating to inspection frequency) **[may be delayed for a storage tank facility with all tank systems temporarily closed, unless notified otherwise by the Department under § 245.21(c) and (d) (relating to tank handling and inspection requirements). A delayed inspection]** shall be performed on **[a] an underground** storage tank system **[or facility]** in temporary **out-of-service status. [closure when returning the tank system to operating status.]**

(f) When an underground storage tank system is temporarily **[closed] removed from service** for 3 months or more, owners and operators shall also comply with the following requirements:

(1) Vent lines shall be open and functioning.

(2) All other lines, pumps, manways and ancillary equipment shall be capped and secure.

(g) When an underground storage tank system is temporarily **[closed] removed from service** for more than 12 months, owners and operators shall:

(1) Permanently close the underground storage tank system if it does not meet either performance standards in § 245.421 (relating to performance standards for underground storage tank systems) for new underground storage tank systems or the upgrading requirements in § 245.422 (relating to upgrading of existing underground storage tank systems), except that the spill and overfill equipment requirements do not have to be met.

(2) Permanently close the substandard underground storage tank systems at the end of this 12-month period in accordance with § § 245.452—245.455, unless the Department provides an extension of the 12-month temporary **[closure] out-of-service** period.

(3) Complete a site assessment in accordance with § 245.453 (relating to assessing the site at closure or change-in-service) before an extension may be applied for.

(h) Underground storage tank systems that meet performance standards in § 245.421 or the upgrading requirements in § 245.422 shall be permanently closed within 3 years of being placed temporarily out-of-service or by November 10, 2010, whichever is later, unless the Department grants an extension to this temporary **[closure] out-of-service** period. The Department may establish conditions and require submission of documentation associated with extension of the temporary **[closure] out-of-service** period, such as the following:

(1) Requirements for inspection under § § 245.21 and 245.411.

(2) Verification and testing of cathodic protection systems under § 245.432.

(3) Site assessment under § 245.453.

(4) Other considerations determined by the Department.

(i) The Department may require tests to be performed of the underground storage tank system in temporary out-of-service status when returning the storage tank system to currently-in-use status. These tests may include tank and line tightness testing, verification of compatibility, operability testing as required in § 245.437 (relating to periodic testing), internal inspection of the tank, or other tests to ensure proper operation.

§ 245.452. Permanent closure and changes-in-service.

(a) At least 30 days before beginning either permanent closure or a change-in-service under subsections (b) (d), or within another reasonable time determined by the Department, owners and operators shall notify the Department on a form provided by the Department of their intent to permanently close or make the change-in-service, unless the action is in response to corrective action. The required assessment of the excavation zone under § 245.453 (relating to assessing the site at closure or change-in-service) shall be performed after notifying the Department but before completion of the permanent closure or a change-in-service.

(b) To permanently close a tank, owners and operators shall ensure that the tank is empty and clean in accordance with a Nationally recognized code of practice [such as API 2015] by removing the liquids and accumulated sludges. Tanks **being [taken out of service]** permanently **closed** shall also be either removed from the ground or filled with a nonshrinking, inert solid material.

(c) Replacement, **removal or closure-in-place** of [the] underground **product** piping[, **or remote fill lines** connected to a storage tank shall be considered a permanent closure of that part of the underground storage tank system. **A major modification to the dispenser involving excavation beneath the dispenser and removal of the dispenser shall also be considered permanent closure of that part of the tank system.** The requirements applicable to permanent closure of an underground storage tank system also apply to the permanent closure of system piping, **remote fill lines, and dispensers.**

(e) **[An amended registration shall be submitted by the owner to the Department.] The owner shall complete and submit an amended tank registration form, signed by the owner and the certified installer that provided direct onsite supervision of the tank handling activity, to the Department within 30 days of:**

(1) The completion of permanent closure.

(2) Change-in-service of the tank.

**Subchapter F. TECHNICAL STANDARDS FOR ABOVEGROUND STORAGE TANKS
AND FACILITIES**

GENERAL

§ 245.501. Purpose.

This subchapter establishes technical standards and requirements for operations and maintenance, design, construction and installation, corrosion and deterioration prevention, release prevention and leak detection, inspection, and closure and removal from service requirements for large aboveground storage tanks and facilities **and aboveground storage tanks in underground vaults** regulated under the act. Regulated aboveground storage tanks are defined in § 245.1 (relating to definitions).

§ 245.503. Variances.

When unique or peculiar circumstances make compliance with this subchapter technically impractical, infeasible or unsafe, the Department may, upon written application from the owner/**operator** of a storage tank system subject to this subchapter, grant a variance from one or more specific provisions of this subchapter.

(4) The Department will not grant a variance which would result in regulatory controls less stringent than other applicable Federal or State regulations, such as 3[7]4 Pa. Code Chapter 1[1]4 (relating to flammable and combustible liquids; preliminary provisions) and 40 CFR Part 112 (relating to oil pollution prevention).

(5) When granting the variance, the Department may impose specific conditions necessary to assure that the variance will adequately protect the public health, safety or welfare and the environment.

(6) The Department will provide to the applicant a written notice of approval, approval with conditions or denial. **The Department will publish notice of approved variances in the Pennsylvania Bulletin.**

§ 245.505. Applicability.

Existing tanks that become regulated due to the addition of new regulated substances as defined in § 245.1 ((relating to definitions) (See definition of “regulated substance” (i)(C)(I) and (II))), and the regulation of aboveground **storage** tanks greater than 30,000 gallons capacity, storing heating oil that is consumed on the premises (See definition of “consumptive use” in § 245.1) are subject to the requirements of this chapter and shall be registered with the Department **[by January 9, 2008]**.

[In addition, these tanks are temporarily excluded from the following requirements:

(1) Monitoring requirements in § 245.541(c) (relating to overfill prevention requirements) until November 10, 2010.

(2) In-service inspection requirements in § 245.552 (relating to in-service inspections) until within 5 years of the date of construction or the date of the last inspection or by November 10, 2010, whichever is greater.

(3) Out-of-service inspection requirements in § 245.553 (relating to out-of-service inspections) until November 10, 2010 for tanks not previously inspected or 10 years after construction for tanks without known corrosion rates, whichever is greater, or within projected inspection intervals based on corrosion rates determined at the last out-of-service inspection, but not to exceed 20 years from the date of the last inspection.]

OPERATIONS AND MAINTENANCE

§ 245.511. General operations and maintenance.

[An aboveground] A storage tank facility owner[/] and operator shall implement and have onsite a written operations and maintenance plan which assures conformance with applicable safety and operational standards, compliance with applicable Federal and State regulations, and shall use appropriate work practices and procedures.

§ 245.512. Facility operations and spill response plan.

An initial Spill Prevention Response Plan (Plan) [**and any future updates**], which addresses the requirements described in Chapter 9 of the act (35 P. S. § § 6021.901— 6021.904) and this chapter, shall be submitted to the Department for [aboveground] a storage tank [facilities] facility with an aggregate aboveground storage capacity greater than 21,000 gallons. Plan revisions shall be submitted to the Department within 120 days of any occurrences as described in 35 P. S. § § 6021.901(b). A current copy of the Plan shall be readily available at the facility at all times.

§ 245.513. Preventive maintenance and housekeeping requirements.

(a) [An aboveground] A storage tank facility owner[/] and operator shall establish and implement a preventive maintenance and housekeeping program which protects the integrity of the system from degradation and protects the public health and the environment.

(b) The storage tank facility owner and operator shall establish and implement routine [Routine] maintenance inspection procedures [**shall be established and implemented**] at each storage tank facility.

(1) [An] The facility owner[/] and operator [**is**] **are** responsible to assure that a visual inspection is performed once every 72 hours. The visual inspection may be accomplished by or supplemented with electronic surveillance and shall include:

(i) A check of the facility to ensure that no potential hazardous environmental conditions exist. This includes a check for evidence of a release for example, spill, overflow or leakage.

(ii) A check of the containment areas for accumulation of water and a confirmation that containment drain valves are secured in a closed position when not in use. If excessive water has accumulated, it shall be drained off and disposed of in accordance with applicable State and Federal requirements.

(iii) In the case of aboveground storage tanks in underground vaults, a check of the continuous leak detection system, as required under §245.523(7) (relating to aboveground storage tanks in underground vaults), to ensure the equipment is functioning as designed.

(2) [An]The facility owner[/] **and** operator [is] **are** responsible to assure that a maintenance inspection of [the facility]**each aboveground storage tank system [and equipment]** is performed each month. The maintenance inspection shall include:

(i) An inspection of the tank system exterior surfaces for deterioration and maintenance deficiencies including a visual check for cracks, areas of wear, excessive settlement and deterioration of the foundation and supports.

(ii) Ancillary equipment and appurtenances shall be visually checked for operational malfunctions.

(iii) An inspection of containment and transfer areas for cracks, defects and fire hazards.

(iv) A check of overfill prevention equipment and monitoring of the leak detection system.

(v) A check of the cathodic protection system, if installed, to ensure the equipment is functioning as designed.

[(v)] **(vi)** The monthly maintenance inspection report shall be completed and signed by the individual who conducted the inspections and maintained for 1 year.

(3) [An]The facility owner[/] **and** operator [is] **are** responsible to establish a process to assure that storage tank vents are operational and free of restrictions.

(c) [Housekeeping practices shall be established and implemented in a manner that reduces the possibility of accidental spills and safety hazards to plant or facility personnel.] The storage tank facility owner and operator shall immediately initiate the actions necessary to correct deficiencies noted during the 72-hour visual and monthly maintenance inspections.

(d) Repairs to aboveground storage tank systems shall be properly conducted in accordance with the manufacturer's instructions, a code of practice developed by a Nationally recognized association, or an independent testing laboratory.

§ 245.514. Security.

(a) ~~[An]~~**The storage tank facility** owner~~[/]~~ **and** operator ~~[is]~~**are** responsible to assure that appropriate security measures and procedures based on the facility location are established and implemented to protect the environment and the public. These security measures and procedures may include, but are not limited to monitoring, fencing, lighting, access control, locked entrances and securing of valves and dispensers.

(b) The owner and operator of an aboveground storage tank facility with an aggregate aboveground storage capacity greater than 21,000 gallons are responsible for maintaining a written log book. At a minimum, each log book entry shall identify the name of the individual performing tank handling and inspection activities, the individual's signature, the company name, the date of work, start and end times, and a brief description of work performed, including tank identification.

§ 245.515. Labeling/marketing of aboveground storage tank systems.

(a) ~~[An]~~**The storage tank facility** owner~~[/]~~ **and** operator ~~[is]~~**are** responsible to assure aboveground **storage** tank systems are labeled/marked in accordance with industry standards and in compliance with Federal and State requirements. Tank labels/marks shall be easily legible from outside the containment area and shall be capable of readily identifying the regulated substance stored.

(b) The **storage tank facility** owner~~[/]~~ **and** operator shall be capable of readily identifying the substances transferred in the regulated piping system and be able to determine flow control points, including pumps, valves and dispensers through labeling or other suitable means.

§ 245.516. Recordkeeping requirements.

(a) Owners and operators of aboveground tank facilities shall maintain **[required]** records **as required by this chapter.** **[If records are maintained offsite, the records shall be easily obtained and provided to the Department upon request.]** **Owners and operators of an aboveground storage tank system shall provide these records and cooperate fully with the Department, certified installers or certified inspectors when conducting inspections, monitoring and testing. Owner and operators shall provide records and cooperate fully in response to requests for document submission, testing and monitoring by the owner or operator under section 107(c) of the act (35 P. S. § 6021.107(c)).**

(b) Owners and operators shall maintain required records either onsite at the storage tank facility or at a readily available alternative site. Records maintained at the storage tank facility shall be immediately available for inspection by the Department and certified inspectors. If records are maintained offsite, the records shall be easily obtained and provided for inspection or for review by the Department upon request.

[(b)](c) Recordkeeping. Owners and operators shall maintain the following records for aboveground storage tank systems [Permanent records for new systems and available records for existing systems shall be maintained] for the operational life of the tank system and retain the records [retained] for a minimum of 1 year after the tank system has been permanently closed[removed. Permanent records include the following]:

- (1) Original installation and modification of **aboveground storage** tank system design specifications.
- (2) Any variance issued for the **aboveground storage** tank system under § 245.503 (relating to variances).
- (3) The permits issued under Subchapter C (relating to permitting of underground and aboveground storage tank systems and facilities).
- (4) Tank handling activity installation, relocation, reconstruction and major modification inspection results.
- (5) The notices of [**reportable**] releases submitted under § 245.305 (relating to reporting releases).
- (6) Applicable manufacturer's documentation for the **aboveground storage** tank system and any ancillary equipment.
- (7) Third party out-of-service inspection reports.

(8) Written log books required under § 245.514(b) (relating to security).

[(c) Temporary records shall be maintained as follows:]

- [(1)](9)** The current registration certificate.
- [(2)](10)** The leak detection records for the past 12 months.
- [(3)](11)** The last two results of cathodic protection monitoring, when a cathodic protection system is in use.
- [(4)](12)** The routine **72-hour visual and** monthly maintenance inspections for the past 12 months.
- [(5)](13)** The last third party in-service inspection report.
- [(6)](14)** A properly completed closure report and results of the site assessment conducted at permanent closure or change-in-service under § 245.561 (relating to permanent closure or change-in-service).

(15) Documentation of investigations of suspected releases in accordance with § 245.304 (relating to investigation of suspected releases).

DESIGN, CONSTRUCTION AND INSTALLATION

§ 245.521. Performance standards for aboveground storage tanks.

- (a) **Aboveground storage [Tank] tank** construction shall meet or exceed Nationally recognized industry association codes of practice. New **aboveground storage [tanks] tank systems** shall be

installed in accordance with applicable codes of practice and consistent with manufacturer's or fabricator's specifications as specified in § 245.522 (relating to new aboveground **storage** tank installations and reconstructions).

(b) **Aboveground storage [Tank] tank** modifications shall be in accordance with industry codes of practice as specified in § 245.524 (relating to aboveground **storage** tank modifications).

(c) **Aboveground storage [Tanks] tanks** shall be protected from corrosion and deterioration as specified in §§ 245.531—245.534 (relating to corrosion and deterioration prevention).

(d) A leak monitoring system shall be installed as specified in § 245.543 (relating to leak detection requirements).

(e) A release prevention system shall be installed as specified in § § 245.541 and 245.542 (relating to overfill prevention requirements; and containment requirements for aboveground storage tank systems).

(f) **Aboveground storage [Tanks] tanks** shall be tested according to industry standards before being placed in service as specified in §§ 245.522 and 245.524 (relating to new aboveground **storage** tank installations and reconstructions; and aboveground **storage** tank modifications).

(g) **Aboveground storage [Tanks] tanks** shall be inspected at installation, reconstruction or relocation and when a major modification is performed on a tank as specified in § 245.554 (relating to installation and modification inspections).

§ 245.522. New aboveground **storage tank installations and reconstructions.**

(a) **Aboveground storage [Tanks] tanks** must be designed and constructed in accordance with an appropriate current code of practice developed by [**Nationally-recognized**] **Nationally recognized** associations such as UL, ACI, API, ASME, ASTM, STI or NACE and will follow applicable engineering specifications.

(b) **Aboveground storage [Tanks] tanks** must have a stable foundation, capable of supporting the total weight of the tank when full of product without movement, rolling or unacceptable settling. The foundation must minimize corrosion of the tank bottom and meet or exceed the specifications of the tank manufacturer. The foundation design and construction must be based on sound engineering practices.

(c) **Aboveground storage [Tanks] tanks** shall be tested for tightness in accordance with current codes of practice developed by [**Nationally-recognized**] **Nationally recognized** associations and manufacturer's specifications. If a pneumatic test is used for manufactured (shop built) tanks, the fittings, welds, joints and connections shall be coated with a soap solution and checked for leaks. Aboveground field constructed storage tanks shall be hydrostatically tested. Deficiencies shall be remedied prior to tanks being placed into service. Hydrostatic test fluids shall be discharged or disposed of in accordance with State and Federal requirements.

(d) Reconstruction of **aboveground storage** tanks must follow the current codes of practice developed by Nationally recognized associations and be accomplished in accordance with sound

engineering practices. Reconstructed **aboveground storage** tanks must be inspected and hydrostatically tested before being placed into service. Reconstructed **aboveground storage** tanks must meet or exceed requirements specified in § 245.521 (relating to performance standards for aboveground storage tanks). Hydrostatic test fluids shall be discharged or disposed of in accordance with State and Federal requirements.

(e) Aboveground manufactured storage tanks that are relocated to another service site must meet the performance requirements for aboveground storage tanks and shall be tested according to industry standards and inspected before being put back in service.

(f) The Department may require the tank owner to submit documentation of construction design criteria and engineering specifications for review.

(g) Aboveground storage tanks previously regulated by the Department shall meet performance requirements for new aboveground storage tank systems prior to returning to regulated tank status.

§ 245.523. Aboveground storage tanks in underground vaults.

The following requirements shall be met when an owner or operator chooses to install an aboveground storage tank in an underground vault:

(1) The vault shall completely enclose the **aboveground storage** tank. There may be no openings in the vault enclosure except those necessary for access to, inspection of, and filling, emptying and venting of the tank. The walls and floor of the vault must be constructed of reinforced concrete at least 6 inches thick. The top, walls and floor shall be designed to withstand the anticipated loading, including loading from traffic, soil and groundwater.

(2) The vault must be compatible with the stored substance and have a permeability of less than 1×10^{-7} cm/sec for substance stored and be water tight.

(3) **[A] An aboveground storage** tank must be in its own vault. Adjacent vaults may share a common wall.

(4) There may be no backfill around the **aboveground storage** tank and there shall be sufficient space between the tank and the vault to allow inspection of the tank and ancillary equipment.

(5) **[A vault] Vaults** and **[its] aboveground storage [Tank] tanks** must be suitably anchored to withstand uplifting by either water or released substance, including when the tank is empty.

(6) Connections shall be provided to permit venting of each vault to dilute, disperse and remove vapors prior to personnel entering the vault.

(7) A vault must be equipped with a continuous leak detection system capable of detecting vapors and liquids including water. The detection system must activate an alarm that automatically shuts down the dispensing system if **[a release occurs] vapors or liquids are detected.**

(8) A vault must have a means for personnel entry. The entry point must have a warning sign indicating the need for procedures for safe entry into a confined space. An entry point must be secured against unauthorized entry and vandalism.

(9) A suitable means to admit a fire suppression agent shall be provided for each vault.

(10) **Aboveground storage [Tanks] tanks** and ancillary equipment shall be installed, maintained and inspected in accordance with the requirements for aboveground storage tanks in this subchapter.

(11) Underground piping distribution systems for each **aboveground storage** tank system used to dispense class I or class II motor fuels for resale must be provided with release detection equivalent to underground piping release detection addressed in § 245.445 (relating to methods of release detection for piping) and monitored as required in paragraph (7) with monitoring records retained for 12 months as required under § 245.516 [**or § 245.615 (relating to recordkeeping requirements)**].

§ 245.524. Aboveground tank modifications.

(a) Modifications **performed on aboveground storage tank systems** shall be designed and implemented in accordance with current codes of practice developed by [**Nationally-recognized**] **Nationally recognized** associations such as API, ACI, ASME, ASTM, NACE, STI or UL.

(b) Modifications shall be performed in accordance with [**Nationally-recognized**] **Nationally recognized** codes and manufacturer's specifications or a professional engineer's design requirements.

(c) Aboveground **storage [tanks] tank systems** which are modified shall be inspected and tested according to industry standards before being put in service when a major modification has been performed on the [**tank shell, tank roof or tank bottom**] **storage tank system**. Deficiencies shall be remedied before being returned to service.

(d) The Department may require the tank owner to submit documentation of construction modification design criteria and engineering specifications for review.

§ 245.525. Ancillary equipment for aboveground storage tanks.

(a) Ancillary equipment shall be designed and installed in accordance with Nationally recognized codes of practice and manufacturer's specifications such as API, ASME, ASTM, UL, PEI or ANSI. Ancillary equipment shall be in good working order and maintained according to manufacturer's specifications and accepted industry practices. Ancillary equipment shall be compatible with the stored substance.

(b) **Aboveground storage [Tanks] tanks** shall be appropriately vented to protect the tank from over pressurization and excessive vacuums. Vents shall meet or exceed the appropriate codes of practice developed by Nationally recognized associations such as API and NFPA. Normal

venting shall allow the tank to breath when transferring the stored product. Emergency venting shall ensure that the safe pressure for the tank is not exceeded.

(c) **Aboveground storage [Tank] tank** connections through which regulated substance can flow shall be equipped with an operating valve adjacent to the tank to control flow of substance. Appropriate valves shall be installed to meet or exceed current codes of practice and jurisdictional requirements. Valves shall be designed, installed and maintained according to current codes of practice.

§ 245.526. Piping for aboveground storage tanks.

(c) Piping [**installed after October 11, 1997, and**] in contact with the soil or an electrolyte shall be adequately protected from corrosion in accordance with current codes of practice developed by Nationally recognized associations such as NACE or API.

CORROSION AND DETERIORATION PREVENTION

§ 245.531. General corrosion and deterioration requirements.

(a) [**The**]**Aboveground storage tank systems [system]** shall be **continuously protected from [maintained with] corrosion and deterioration[prevention measures]**.

(b) Metallic tank **bottoms [systems]** in direct contact with the soil or other electrolyte shall be evaluated by a corrosion expert to determine if cathodic protection is necessary or appropriate.

(c) [**Existing tank bottoms that do not meet the standards in subsection (b) shall be upgraded when the tank bottom is replaced.**]**Tank bottoms that are not adequately protected from corrosion and deterioration shall be upgraded to meet the requirements under §§ 245.532 and 245.534 (relating to cathodic protection systems; and interior linings and coatings).**

§ 245.532. Cathodic protection systems.

(a) When required for corrosion prevention, [**on new, reconstructed or relocated tanks or the replacement of the tank bottom the**] cathodic protection [**system**] **systems** shall consist of one or more of the following:

(1) Sacrificial anodes and dielectrical coating.

(2) Impressed current.

(3) Another method specified in an appropriate Nationally recognized association code of practice [**such as API 651 or associations such as NACE**].

§ 245.533. Coating exterior tank and piping surfaces.

The exterior surfaces of aboveground **storage** tanks and piping shall be protected by a suitable coating which prevents corrosion and deterioration. The coating system shall be maintained throughout the entire operational life of the tank.

§ 245.534. Interior linings and coatings.

(a) Coating or lining systems may be used to protect **aboveground storage** tank interiors from corrosion **and deterioration**. The coating or lining system shall be designed in accordance with current codes of [**practices such as API 652 or associations such as NACE**] **practice**. [**Any appropriate coating**] **Coating or lining systems** [**which is**] **shall be** bonded firmly to the interior surfaces [**may be used to protect a tank from corrosion**] **of the tank**.

(c) Interior linings or coatings shall be inspected by a third-party, Department-certified, aboveground storage tank inspector at installation, when undergoing a major modification, and at least every 10 years or as warranted or recommended by the manufacturer or design engineer **and agreed upon by the Department**.

RELEASE PREVENTION AND LEAK DETECTION

§ 245.541. Overfill prevention requirements.

(a) [An owner/operator shall ensure that releases from overfills do not occur. Transfer of stored substance may not exceed the volume available in the receiving tank and the transfer shall be adequately monitored.] **Owners and operators shall ensure that releases due to spilling or overfilling do not occur. The owner and operator shall ensure that the volume available in the aboveground storage tank is greater than the volume of product to be transferred to the tank before the transfer is made and that the transfer operation is monitored constantly to prevent overfilling and spilling.** Immediate action shall be taken to stop the flow of regulated substance prior to exceeding tank capacity or in the event that an equipment failure occurs.

(b) **Aboveground storage** [**Tanks**] **tanks** [**must**] **shall** be installed with the following:

(1) A gauge or monitoring device which accurately indicates the level or volume in the tank and is visible to the individual responsible for the transfer of product. The monitoring device shall be installed, calibrated and maintained in accordance with manufacturer's specifications.

(2) A high-level alarm with an automatic high-level cut-off device or a high-level alarm with a manned operator shutdown procedure in operation. **The shutdown procedure shall be in writing and provided to the Department upon request.**

(c) Existing **aboveground storage** tanks must have a gauge or monitoring device installed by October 11, 2000.

(d) An existing **aboveground storage** tank [system] which is taken out of service to perform a scheduled out-of-service inspection or a major modification to the tank shall be upgraded with a high-level alarm with a cut-off device or a high-level alarm with a manned operator shutdown procedure prior to being put back in service.

(e) An existing **aboveground storage** tank system which has not been required to be taken out of service to perform a scheduled inspection or modification must have overfill protection consistent with National industry standards[, such as API 2350, NFPA 30 or PEI RP 200 by November 10, 2010].

§ 245.542. Containment requirements for above[-]ground storage tank systems.

(a) Containment structures must be compatible with the substance stored and minimize deterioration to the **aboveground** storage tank system.

(b) Containment areas shall be designed, maintained and constructed in accordance with sound engineering practices adhering to [Nationally-recognized] **Nationally recognized** codes of practice [such as NFPA, NACE, ACI or API] and in compliance with State and Federal requirements.

(c) Secondary containment under the **aboveground storage** tank bottom and around underground piping must be designed to direct any release to a monitoring point to meet leak detection requirements. Secondary containment shall be provided on a new tank at installation, and shall be provided on an existing tank at reconstruction or relocation of the tank or when the tank floor is replaced (See API 650 Appendix I). Permeability of the secondary containment must be less than 1×10^{-7} cm/sec at anticipated hydrostatic head and shall be verified at the time of installation.

(d) Aboveground **storage** tanks must have emergency containment structures, such as dike fields, curbing and containment collection systems, which contain releases from overfills, leaks and spills[, when a new tank system is installed or at the next out-of-service inspection for existing tank systems as established in § 245.553(d) (relating to out-of-service inspections) or by November 10, 2010, whichever occurs first].

(1) Permeability of newly installed or replacement emergency containment structures must be less than 1×10^{-6} cm/sec at anticipated hydrostatic head and be of sufficient thickness to prevent the released substance from penetrating the containment structure for a minimum of 72 hours, and until the release can be detected and recovered.

(2) Emergency containment structures for existing aboveground storage tanks must meet one of the following standards [by November 10, 2010, or at the next out-of-service inspection, prior to the tank being placed back into service, whichever occurs first]:

(i) The standards for new emergency containment structures for aboveground storage tanks in paragraph (1).

(ii) Verification by a professional engineer that the emergency containment structure, coupled with the tank monitoring program and response plan, is capable of detecting and recovering a release and is designed to prevent contamination of the waters of this Commonwealth. Verification may be conducted in a manner consistent with the Department's technical document entitled "Verification of Emergency Containment Structures for Aboveground Storage Tanks" or in a manner at least as protective of public health and safety and the environment and which meets all statutory and regulatory requirements. Verification of earthen structures should include determination of the containment structure permeability following **[Nationally-recognized] Nationally recognized** testing methods **[such as ASTM Methods and Engineering Standards Listed in API Publication 351]**.

(3) Verification of the containment structure is valid until conditions at the site, monitoring program, response plan or procedures change.

(4) Transfers of regulated substances to **[a] an aboveground storage** tank within the emergency containment shall be monitored by designated personnel for the duration of the transfer.

(e) Emergency containment areas, such as dike fields, must be able to contain 110% of the capacity of the largest **aboveground storage** tank in the containment area.

(f) **[Stormwater] Water** shall be removed from the emergency containment area as soon as possible, **[or when the water is] Water shall be removed from the containment before it comes** in contact with the **aboveground storage** tank or piping **and before it reduces [and prior to]** the capacity of containment **[being reduced]** by 10% or more. Manually operated pumps or siphons and manually operated gravity drains may be used to empty the containment. If drain valves are used they shall be secured in the closed position when not in use. Discharge or disposal of substances from the containment structure must comply with applicable State and Federal requirements.

§ 245.543. Leak detection requirements.

(a) Aboveground **storage** tank systems shall be provided **with** a method of leak detection at installation that is capable of detecting a release. The leak detection method shall be monitored at least monthly and shall be installed, calibrated, operated and maintained in accordance with industry practices and manufacturer's specifications.

(1) The area beneath the **aboveground storage** tank bottom shall be monitored for leakage by visual, mechanical or electronic leak detection methods.

(2) Observation wells outside of the secondary containment structure do not satisfy the leak detection requirements.

(b) Existing aboveground storage tank systems with secondary containment shall implement a monthly leak detection method as required by subsection (a). Monthly visual inspections shall be an acceptable method of leak detection.

(c) Existing aboveground storage tanks without secondary containment under the bottom of the tank that are in contact with the soil, such as vertical flat bottom tanks, **[and] that** do not have

cathodic protection or an internal lining shall be leak tested at the next scheduled in-service inspection consistent with subsection (d) and continue to be leak tested at each in-service inspection thereafter, until the tank is upgraded.

(d) Tank leak test must follow a [**Nationally-recognized**] **Nationally recognized** procedure that is based on a volumetric/mass measurement, an acoustic measurement, or a soil-vapor monitoring method, [**such as those addressed in API Publication 334 “Guide to Leak Detection in Aboveground Storage Tanks.”**] The test shall be performed by a third-party inspector or a technician who has experience with the selected method and is qualified by the test equipment manufacturer or certified by the relevant industry association [**such as ASNT (See Recommended Practice No. SNT-TC-1A)**] and is not an employee of the tank owner.

(e) Aboveground piping shall be visually checked for leaks in accordance with the facility operations and maintenance plan.

ABOVEGROUND STORAGE TANK INSPECTIONS

§ 245.551. General requirements for third-party inspections.

(a) Aboveground storage tank owners and operators shall have their **aboveground** storage tank systems inspected by a Department certified aboveground storage tank inspector at frequencies established in this subchapter. Inspections will check for compliance with State and Federal requirements and adherence to current codes of practice developed by Nationally recognized associations, tank manufacturer’s instructions and design engineer’s specifications.

(b) Only Department certified inspectors, **certified for the applicable inspector certification category**, shall be used to satisfy requirements for:

- (1) In-service inspections.
- (2) Out-of-service inspections.
- (3) Installation and modification inspections.

§ 245.552. In-service inspections.

(a) The in-service inspection must follow the guidelines of a [**Nationally-recognized**] **Nationally recognized** association such as API 653, API 570 and applicable engineering criteria (See § § 245.524(b), 245.542(d)(2) and 245.543(d) (relating to aboveground **storage** tank modifications; containment requirements for aboveground storage tank systems; and leak detection requirements)).

(d) **Except as provided in subsection (5) and (6)**, [I]inspection intervals for in-service inspections are as follows:

(1) Aboveground **storage** tanks **[installed after October 11, 1997,]** shall be initially inspected within 5 years of installation.

[(2) Existing tanks shall be initially inspected as follows:

(i) Tanks over 5 years old without a previous inspection shall be inspected by October 11, 1999.

(ii) Tanks with an inspection more than 3 years prior to October 11, 1997, shall be inspected by October 11, 2000.

(iii) Tanks with an inspection within 3 years prior to October 11, 1997, shall be inspected within 6 years of the previous inspection.]

[(3) (2) Aboveground storage [Tanks] tanks shall have an in-service inspection within 1/4 of the corrosion rate life with a maximum of 5 years from the previous inspection or installation.

[(4) (3) An out-of-service inspection may replace an in-service inspection.

[(5) (4) An in-service inspection interval, if agreed upon by the Department, may be delayed under § 245.562 (relating to temporary removal[-]from[-]service) for an aboveground storage tank that is temporarily removed from service [The delayed inspection shall be conducted prior to placing regulated substance in a tank and returning the tank to operating status. Deficiencies noted during inspection shall be addressed and remedied and an amended registration form submitted to the Department prior to returning the tank to operating status.] Prior to placing product in the aboveground storage tank, the delayed inspection shall be conducted, deficiencies noted during inspection shall be addressed and remedied, and an amended registration form shall be completed and submitted to the Department.

(5) Aboveground storage tanks in underground vaults shall have in-service inspections conducted as follows:

(i) Aboveground storage tanks with a capacity greater than 5,000 gallons shall have in-service inspections conducted within 6 and 12 months of installation and at least every 3 years thereafter.

(ii) Aboveground storage tanks storing highly hazardous substances with a capacity greater than 1,100 gallons shall have in-service inspections conducted within 6 and 12 months of installation and at least every 3 years thereafter.

(iii) More frequent in-service inspections may be required by the Department when a prior inspection identifies corrosion, deterioration or other violations of this subchapter.

(6) Existing aboveground storage tanks in underground vaults with scheduled in-service inspections after _____ (Editor's Note: The blank refers to 3 years after the effective date of the final-form regulation.) shall be inspected by the next currently scheduled in-service inspection date, unless notified otherwise by the Department. Subsequent in-service inspections shall be conducted in accordance with this section.

(e) Inspection recommendations shall be addressed and deficiencies remedied. When **[substantial] modifications or repairs** are necessary to correct deficiencies, they shall be made in accordance with manufacturer's specifications and engineering design criteria (See § § 245.522(a) and (b), 245.524(b)(2), 245.532(b) and (c) and 245.534(c)). The Department may require submission and review of all documentation relating to these remedies. Required tank handling activities are reported to the Department by the certified installer. Tank handling activities involving major modifications shall also be inspected by a certified aboveground storage tank inspector and reported to the Department.

(f) The complete inspection report shall be kept at the facility until the next out-of-service inspection is completed.

§ 245.553. Out-of-service inspections.

(a) Inspections must follow the guidelines of a **[Nationally-recognized] Nationally recognized** association such as API 653, API 570 or ASME and applicable engineering criteria (See § § 245.524(b), 245.534(c), 245.542(d)(2) and 245.543(d)).

(b) The out-of-service inspection must evaluate the following:

(1) Containment areas.

(2) Foundation and supports.

(3) Tank shell.

(4) Tank roof.

(5) Tank bottom.

(6) Appurtenances.

(7) Ancillary equipment including piping.

(8) Leak detection method.

(9) Cathodic protection system, if installed.

(10) Internal linings and coatings, if installed.

(11) **Aboveground storage [Tank] tank** system integrity and suitability for service.

(c) The **aboveground storage** tank bottom evaluation of metallic floors must be based on ultrasonic testing and visual examination and include at least one other method of nondestructive examination such as magnetic flux tests or vacuum tests of bottom lap welds (See API 653 and ASTM metallography—nondestructive testing Vol. 03.03). The ultrasonic evaluation must be statistically representative of the whole floor, excluding the release prevention barrier or secondary containment on double bottom tanks.

(d) Inspection information shall be submitted to the Department on a form provided by the Department and include the results of subsection (b) and the following:

(1) A determination of the corrosion rate for tank shell, bottom plates and piping.

(2) A calculation of the tank life and piping life based on the corrosion rate.

(3) The schedule for next out-of-service inspection, based on the API 653 calculated service life method or 1/2 of the corrosion rate life, with a maximum of 20 years between inspections. Other site-specific conditions, for example, maintenance practices, previous repairs, internal linings, the nature of the substance stored or soil conditions that may affect corrosion rate life and should be considered when projecting tank service life and the next inspection interval.

(4) The recommendations for maintaining **aboveground storage** tank system integrity and meeting performance standards.

(e) Inspection intervals for out-of-service inspections are as follows:

(1) **Aboveground storage [Tanks] tanks [installed after October 11, 1997,]** shall be initially inspected based on measured [**or similar service**] corrosion rates. When the corrosion rate is unknown, **such as with new tank bottoms,** the tank's actual bottom thickness shall be determined by inspection within 10 years of installation to determine the corrosion rate.

(2) Existing tanks shall be initially inspected as follows:

(i) If corrosion rates are not known, tanks shall be inspected within 10 years of installation or by October 11, 2000, whichever is later.

(ii) If corrosion rates can be determined or are known, tanks shall be inspected at their API 653 calculated service life method or 1/2 the corrosion rate life, from installation or previous out-of-service inspection or by October 11, 2000, whichever is later.]

(3) Aboveground storage [Tanks] tanks shall have an out-of-service inspection at their API 653 calculated service life [**method**] or 1/2 of the corrosion rate life, with a maximum of 20 years from the last out-of-service inspection.

(4) If agreed upon by the Department, [An]an out-of-service inspection interval may be delayed under § 245.562 (relating to temporary removal[-]from[-]service) for a tank that is temporarily removed from service. **[The delayed inspection shall be conducted prior to placing regulated substance in a tank and returning the tank to operating status. Deficiencies noted during inspection shall be addressed and remedied and an amended registration form submitted to the Department prior to returning the tank to operating status.] Prior to placing product in the tank, the delayed inspection shall be conducted, deficiencies noted during inspection shall be addressed and remedied, and an amended registration form shall be completed and submitted to the Department.**

(f) Deficiencies **noted during the inspection** shall be remedied before the **aboveground storage** tank **system** is returned to service. **[When substantial] [modifications] Modifications or**

repairs performed on the aboveground storage tank system [are necessary to correct deficiencies, they] shall be made in accordance with manufacturer's specifications or an engineer's design criteria (See § § 245.522(a) and (b), 245.524(b)(2) and 245.532(b) and (c) (relating to new aboveground **storage** tank installations and reconstructions; aboveground **storage** tank modifications; and cathodic protection system)). The Department may require submission **of** and review documentation relating to these remedies. Required tank handling activities **[are] shall be** reported to the Department by the certified installer. Tank handling activities involving major modifications shall also be inspected by a certified aboveground storage tank inspector and reported to the Department.

(g) Aboveground storage tanks which can be completely **[examined] inspected** from the exterior are **[exempt]excluded** from out-of-service inspections, except for tanks that are internally lined.

(h) The completed inspection report for out-of-service inspections shall be kept with the facility records under § 245.516 (relating to recordkeeping requirements).

§ 245.554. Installation and modification inspections.

(a) Aboveground storage tank systems shall be inspected by a Department-certified inspector at the time of installation in accordance with § 245.522 (relating to new aboveground **storage** tank installations and reconstructions), and current **[Nationally-recognized] Nationally recognized** association's code of practice and manufacturer's specifications. **[The inspection report shall be kept for the operational life of the tank.]**

(b) Major modifications shall be inspected by a Department-certified inspector at the time of modification under § 245.524 (relating to aboveground **storage** tank modifications) and current codes of practice developed by **[Nationally-recognized] Nationally recognized** associations prior to being put back in service. **[The inspection report shall be kept for the operational life of the tank.]** When **[substantial]** modifications are made to the tank floor, the next inspection date projections shall be determined based on the condition of the tank subsequent to those modifications and reported to the Department by the certified inspector on the appropriate inspection form provided by the Department. Other site-specific conditions, for example, maintenance practices, previous repairs, the nature of the substance stored or soil conditions that may affect corrosion rate life or **aboveground storage** tank system integrity should be considered when projecting tank service life and the next inspection interval.

(c) **Aboveground storage [Tanks] tanks** which are relocated or reconstructed shall be inspected by a Department-certified inspector and tested for tightness in accordance with § 245.522 and current codes of practice developed by **[Nationally-recognized] Nationally recognized** associations prior to being put in service. **[The inspection report shall be kept for the operational life of the tank.]**

(d) The completed inspection report for installation and modification inspections shall be retained with the facility records under § 245.516 (relating to recordkeeping requirements).

CLOSURE AND REMOVAL FROM SERVICE REQUIREMENTS

§ 245.561. Permanent closure or change-in-service.

Before permanent closure or change-in-service is completed, the owner[/] **and** operator shall comply with the following:

(1) At least 30 days before beginning either a permanent closure or change-in-service [**to an unregulated tank**], or within a lesser time as determined by the Department, the owner[/] **and** operator shall notify the Department of [**its**] **their** intent to permanently close or **perform a change-in-service [from a regulated tank to an unregulated tank]**, unless the action is in response to a corrective action or waived by the Department.

(2) **[The owner/operator shall submit an amended registration form to the Department indicating the change in tank status within 30 days after the change in tank status.] The owner shall complete and submit an amended tank registration form, signed by the owner and the certified installer that provided direct onsite supervision of the tank handling activity, to the Department within 30 days of:**

(i) The completion of permanent closure.

(ii) Change-in-service of the tank.

(3) The owner[/] **and** operator shall complete a site assessment to measure for the presence of any release from the **aboveground** storage tank system and a closure report. The assessment of the site shall be made after the notification to the Department and may be conducted in a manner consistent with the Department's technical document entitled "Closure Requirements for Aboveground Storage Tank Systems" or in a manner at least as protective of public health and safety and the environment and which meets all statutory and regulatory requirements. The results of the site assessment and the closure report shall be retained for 3 years.

(4) If contaminated soil, sediment, surface water or groundwater, or free product is discovered or confirmed by either direct observation or indicated by the analytical results of sampling, the owner[/] **and** operator shall proceed with the corrective action as required in Subchapter D (relating to corrective action process for owners and operators of storage tanks and storage tank facilities and other responsible parties) or, if applicable, in accordance with remedial action agreements.

(5) Regulated substance and contents removed from the **aboveground storage** tank system **[including piping]** shall be reused, treated or disposed of in a manner consistent with applicable State and Federal waste management requirements.

(6) **Aboveground storage [Tank] tank** systems shall be cleaned, rendered free of hazardous vapors and ventilated if left onsite or **[tank systems]** shall be emptied and removed from the site in a manner consistent with current industry practices and Bureau of Waste Management requirements such as Chapters 263a and 299 (relating to transporters of hazardous waste; and storage and transportation of residual waste).

(7) **Aboveground storage [Tanks] tanks [to be]** permanently closed and left onsite shall be legibly marked with the date of permanent closure.

(8) The appropriate State agency, county and local jurisdiction shall be notified if the tank is under a fire marshal, flammable and combustible liquids or other State agency, county or local jurisdiction permit.

(9) **Aboveground storage [Tanks] tanks** that are **[to be]** closed in place shall:

(i) Be rendered inoperable and incapable of storing liquid substance.

(ii) Be secured against unauthorized entry.

(iii) Meet the requirements specified in paragraphs (1)—(8).

§ 245.562. Temporary removal from service (out-of-service).

(a) The owner[/**and**] operator shall complete and submit an amended registration form to the Department within 30 days after the change in tank status.

(b) **An aboveground storage** tank system shall be emptied and regulated substances and contents shall be reused, treated or disposed of in accordance with State and Federal requirements.

(c) **An aboveground storage** tank shall be secured against unauthorized entry and all piping entering or exiting the tank, excluding vents, shall be capped or blinded.

(d) **Aboveground storage [Tank] tank system** integrity shall be maintained throughout the temporary removal[-]from[-]service time and the tank shall be protected against flotation.

(e) Inspection requirements shall be maintained as specified in § § 245.551—245.554 (relating to aboveground storage tank inspections). In-service and out-of-service inspection intervals may be delayed for a tank that is temporarily removed from service. The delayed inspections shall be conducted prior to placing regulated substance in a tank and returning the tank to operating status. Deficiencies noted during inspection shall be addressed and remedied and an amended registration form submitted to the Department prior to returning the tank to operating status.

(f) **Aboveground storage tanks shall be permanently closed within 5 years of being placed temporarily out-of-service unless the owner requests in writing an extension to the temporary out-of-service period and the Department approves the request. [Tanks which are temporarily removed-from-service for 5 years or longer must meet the requirements for permanent closure, unless the time frame for retaining the tank or tanks in temporary removal-from-service status is extended under § 245.503 (relating to variances)].**

(g) **The Department may impose conditions and require submission of documentation when reviewing and approving a request for an extension of the temporary out-of-service period, including:**

(1) Requirements for inspection under §§ 245.552 and 245.553 (relating to in-service inspections; and out-of-service inspections).

(2) Site assessment under § 245.561 (relating to permanent closure or change-in-service).

(3) Other considerations determined by the Department to be necessary to ensure the integrity of the aboveground storage tank.

Subchapter G. SIMPLIFIED PROGRAM FOR SMALL ABOVEGROUND STORAGE TANKS

GENERAL

§ 245.603. General storage tank facility requirements.

(a) The owner[/and] operator of [aboveground] a storage tank [facilities] facility with an aggregate aboveground storage capacity greater than 21,000 gallons shall develop and adhere to a Spill Prevention Response Plan (Plan) which addresses the requirements described in Chapter 9 of the act (35 P. S. § § 6021.901—6021.904). **Plan revisions shall be submitted to the Department within 120 days of any occurrences as described in 35 P. S. § § 6021.901(b).** [The Plan shall be provided to the Department and updated as necessary.] A current copy of the Plan shall be readily available at the storage tank facility at all times.

(b) The owner[/and] operator of a [aboveground] storage tank [facilities]facility is responsible to assure that appropriate security measures and procedures based on the facility location are established and implemented to protect the environment and the public. These security measures may include, but are not limited to, fencing, lighting, access control, locked entrances and securing of valves, drains and dispensers.

(c) An owner and operator of an aboveground storage tank facility with an aggregate aboveground storage capacity greater than 21,000 gallons shall maintain a written log book. At a minimum, each log book entry shall identify the name of the individual performing tank handling and inspection activities, the individual's signature, the company name, the date of work, start and end times, and a brief description of work performed, including tank identification.

§ 245.605. Applicability.

Existing aboveground storage tanks that become regulated due to the addition of new regulated substances as defined in § 245.1 ((relating to definitions) (See “regulated substance” (i)(C)(I) and (II)) are subject to the requirements of this chapter and shall be registered with the Department [by January 9, 2008]. [In addition, these tanks are temporarily excluded from the following technical requirements:

(1) Emergency and secondary containment requirements in § 245.612(e) (relating to performance and design standards) until November 10, 2010.

(2) A method of leak detection as required in § 245.613(a) (relating to monitoring standards) until November 10, 2008.

(3) In-service inspections required in § 245.616(c)(3) (relating to inspection requirements) until November 10, 2010.]

§ 245.606. Variances.

When unique or peculiar circumstances make compliance with this subchapter technically impractical, infeasible or unsafe, the Department may, upon written application from the owner of a storage tank system subject to this subchapter, grant a variance from one or more specific provisions of this subchapter.

(1) A variance may only be granted if the storage tank system meets alternative technical standards that fully protect human health and the environment.

(2) A written application for a variance shall be submitted to the Department and provide the following information:

(i) The facility name and identification number for which the variance is sought.

(ii) Specific sections of this subchapter from which the variance is sought.

(iii) The unique or peculiar conditions which make compliance with the sections identified in subparagraph (ii) technically impractical, infeasible or unsafe.

(iv) Evidence, including data, plans, specifications and test results, which supports an alternative design, practice, schedule or method as being at least as protective of human health and the environment as the requirement of the sections identified in subparagraph (ii).

(3) New technologies may be granted a variance. New technologies shall be reviewed and documented by a professional engineer and documentation provided to the Department with the variance request.

(4) The Department will not grant a variance which would result in regulatory controls less stringent than other applicable Federal or State regulations, such as 34 Pa. Code Chapter 14 (relating to flammable and combustible liquids; preliminary provisions) and 40 CFR Part 112 (relating to oil pollution prevention).

(5) When granting the variance, the Department may impose specific conditions necessary to assure that the variance will adequately protect the public health, safety or welfare and the environment.

(6) The Department will provide to the applicant a written notice of approval, approval with conditions or denial. Variance approvals will be published in the *Pennsylvania Bulletin*.

TECHNICAL REQUIREMENTS

§ 245.611. Testing requirements for new and substantially modified small aboveground storage tanks.

(a) **Aboveground storage [Tanks] tanks** shall be tested for tightness at installation in accordance with current codes of practice developed by [**Nationally-recognized**] **Nationally recognized** associations and manufacturer's specifications, except for manufactured, shop built tanks that meet the requirements of subsection (b). The testing shall be completed, as part of the installation process, prior to putting the tank in service.

(b) Manufactured, shop built tanks that are initially tested after full assembly at the plant do not require additional testing at installation if the manufacturer certifies that the tank was tested at the plant and the manufacturer's installation instructions do not specify additional testing.

(c) **Aboveground storage [Tanks] tanks** that receive major modifications to the tank shell or the tank bottom shall be tested for tightness, in accordance with current codes of practice developed by [**Nationally-recognized**] **Nationally recognized** associations or manufacturer's specifications, prior to being returned to service.

§ 245.612. Performance and design standards.

(a) **Aboveground storage [Tanks] tanks** shall be designed, constructed and installed or modified in accordance with current codes of practice developed by [**Nationally-recognized**] **Nationally recognized** associations [**such as API, ASME, ASTM, ANSI, STI and UL**] and the manufacturer's specifications. Tank handling activities shall be accomplished by a Department-certified aboveground storage tank installer or under the installer's direct, onsite supervision and control.

(b) **Aboveground storage [Tanks] tanks** must have a stable support or foundation capable of adequately supporting the total weight of the tank and its contents when in use. The support or foundation must meet or exceed the specifications of the tank manufacturer and be designed and constructed in accordance with sound engineering practices.

(c) Ancillary equipment, including piping, shall be designed, installed and modified in accordance with current codes of practice developed by [**Nationally-recognized**] **Nationally recognized** associations [**such as API, SSPC, NACE, ASME, PEI and UL**] and the manufacturer's specifications. Ancillary equipment must be compatible with the substance stored and must be adequately protected from corrosion, excessive wear and deterioration. Protective coatings shall be maintained throughout the entire operational life of the **aboveground** storage tank system.

(d) **Aboveground storage [Tanks] tanks** shall be installed with secondary containment in or under the tank bottom to provide monitoring capability to satisfy leak detection requirements in § 245.613 (relating to monitoring standards) and emergency containment to contain possible releases, such as overfills, leaks and spills. Emergency containment must be sufficiently impermeable to contain any potential release for a minimum of 72 hours and until the release can be detected and fully recovered in an expeditious manner. Double walled tanks may meet both emergency and secondary containment requirements when the tank system is operated with spill and overfill protection controls including the following:

(1) [A] **Permanently installed** spill [containment bucket] **prevention equipment** at the tank fill point or containment at the remote fill point.

(2) An overfill alarm or prevention device or monitoring gauge and **written [shut down] shutdown** procedure.

(3) Block valves on product lines.

(4) Solenoid valve or antisiphon device, if [appropriate (See PEI RP 200)] **applicable**.

(e) Existing tanks which do not meet the requirements specified in subsection (d) shall be upgraded with secondary containment by October 11, 2007, and emergency containment by October 11, 2000.

(f) Tanks installed in underground vaults after October 11, 1997, and used for dispensing Class I and Class II motor fuels must comply with § 245.523 (relating to aboveground storage tanks in underground vaults).

(g) The exterior of the **aboveground storage** tank system shall be protected by an appropriate coating or paint which shall be maintained throughout the entire operational life of the **aboveground storage** tank system.

(h) **Aboveground storage [Tanks] tanks** which are internally lined must comply with § 245.534(a)—(b) (relating to interior linings and coatings).

(i) **Aboveground storage [Tanks] tanks** shall be labeled or marked in a manner consistent with industry standards and which provides for identifying the regulated substance stored from outside the containment area.

(h) Aboveground storage tank systems and storage tank system components whose failure could contribute to a release of product shall be maintained in a good state of repair to ensure they function as designed.

§ 245.613. Monitoring standards.

(a) By October 12, 1998, a method of leak detection shall be in use and monitored at least monthly. An automatic sensing device, mechanical device or other appropriate method may be used. This method, at a minimum, shall provide a visual examination of the storage tank system by the owner[/**and** operator or designated representative. If releases are detected, they shall be

corrected and the provisions of Subchapter D (relating to corrective action process for owners and operators of storage tanks and storage tank facilities and other responsible parties) shall be complied with.

(b) The owner[/and] operator shall assure that a maintenance and general operations check of the aboveground storage tank system is performed at least monthly. Deficiencies noted during the check shall be corrected. The small aboveground storage tank general operations and maintenance checklist provided by the owner[/and] operator shall be used to document the monthly operations and maintenance check. The operations and maintenance check shall include:

(1) A visual examination of the aboveground storage tank system for deterioration, including, but not limited to, the tank, piping, ancillary equipment, foundation, containment structure or facility, and safety equipment.

(2) A check of the containment areas for accumulation of water and removal of water as necessary.

(3) Confirmation that containment drain valves are secured in the closed position when not in use.

(4) [Monitoring] Functionality of the leak detection system.

(5) A check of the cathodic protection system, if installed, to ensure the equipment is functioning as designed.

[(5)] **(6)** A check of vents for restrictions.

[(6)] **(7)** A check of ancillary equipment for operational malfunctions.

[(7)] **(8)** An investigation of conditions that may be a fire or safety hazard, or pose an environmental hazard.

[(8)] **(9)** Observation for evidence of a release of regulated substance from the aboveground storage tank system.

§ 245.614. [Requirements for closure.] Reserved.

[(a) Tank systems shall be cleaned, rendered free from hazardous vapors and ventilated if left onsite or shall be emptied and removed from the site in a manner consistent with current industry practices and Bureau of Waste Management requirements such as Chapters 263a and 299 (relating to transporters of hazardous waste; and storage and transportation of residual waste). Piping shall be removed or capped and fill ports shall be secured, capped or dismantled.

(b) The owner shall conduct a visual examination of the surface, soil and area surrounding and underlying the storage tank system for obvious indications or evidence of a release of regulated substance.

(1) If a release is suspected, it shall be investigated in accordance with § 245.304 (relating to investigation of suspected releases).

(2) If a release is confirmed, it shall be reported to the appropriate Department regional office responsible for the county in which the tank is located in accordance with § 245.305 (relating to reporting releases).

(c) The owner shall complete and submit an amended tank registration form to the Department within 30 days of:

(1) The completion of permanent closure.

(2) Change-in-service status of the tank.

(3) Temporary removal from service.

(d) Temporary removal from service requires that the owner/operator empty the tank system of regulated substances and conduct a visual examination of the area surrounding the tank as required in subsection (b), excluding the surface and soil underlying any tank bottom in contact with the ground. A tank may be considered to be in a temporary removal from service status when the tank is emptied and intended to remain out of use for 1 year or more.

(1) Temporary removal from service may not exceed 5 years, unless the owner can demonstrate an operational need to retain the tank in temporary removal-from-service beyond 5 years and the Department agrees to extend this time frame.

(2) Monitoring standards in § 245.613 (relating to monitoring standards) are not required when a tank is reported to the Department as temporarily removed from service.

(3) Inspection of tanks temporarily removed from service shall be performed in accordance with § 245.616 (relating to inspection requirements). In-service inspection interval may be delayed for a tank that is temporarily removed-from-service. The delayed inspection shall be conducted prior to placing regulated substance in a tank and returning the tank to operating status. Deficiencies noted during inspection shall be addressed and remedied and an amended registration form submitted to the Department prior to returning a tank to operating status.]

§ 245.615. Recordkeeping requirements.

(a) The owner[/] and operator shall maintain required aboveground storage tank system records. If records are maintained offsite, the records shall be easily obtained and provided to the Department upon request.

(b) The following records shall be maintained for the operational life of the **aboveground storage tank system** unless otherwise stated:

(1) Original **aboveground storage tank [and] system** installation records and design specifications. This requirement is limited to records currently available for **aboveground storage tank systems [existing prior to] installed on or before** October 11, 1997.

(2) Records of modification to the **aboveground [tank or]** storage tank system.

(3) The permits issued under Subchapter C (relating to permitting of underground and aboveground storage tank systems and facilities).

(4) Current registration certificates.

(5) **[Monthly leak] Leak** detection records and maintenance checklists for the past 12 months.

(6) Third-party inspection reports.

(7) Documentation of investigations of suspected releases in accordance with § 245.304 (relating to investigation of suspected releases).

(8) Written log book information as required under § 245.603(c) (relating to general storage tank facility requirements).

§ 245.616. Inspection requirements.

(a) Required inspections of small aboveground storage **[tanks] tank systems** shall be conducted by Department-certified aboveground storage tank inspectors according to a current Nationally recognized association's code of practice **[such as API, STI or ASME]** or according to manufacturer's specifications and applicable engineering criteria (See § 245.612 (relating to performance and design standards)). Deficiencies noted during the inspection shall be addressed and remedied. When **[substantial] modifications or repairs** are necessary to correct deficiencies, they shall be made in accordance with manufacturer's specifications and applicable engineering design criteria. The Department may require submission and review of documentation relating to these remedies. The associated tank handling activities are reported to the Department by a certified installer.

(b) Small aboveground field constructed storage tanks shall be inspected at installation, reconstruction or relocation and when a major modification activity is performed on the **aboveground storage** tank shell or the tank bottom plates.

(c) **Except as provided in paragraph (2), [The] the** owner[/] **and** operator of small aboveground storage tanks storing regulated substances with a capacity greater than 5,000 gallons and owner[/] **and** operator of small aboveground storage tanks storing highly hazardous substances with a capacity greater than 1,100 gallons shall have in-service inspections conducted every **[10] 5** years or more often when corrosion, deterioration or other specific conditions necessitate. Other specific conditions may include maintenance practices, previous repairs, the nature of the substance stored and coatings or linings that should be considered when projecting

tank service life and the next inspection interval. Internally lined tanks and flat bottom tanks without an interstice or external access to the tank bottom may require further evaluation or internal examination. **[Inspections shall be phased in for tanks without a previous inspection as follows:]**

(1) [New] **Aboveground storage tanks installed after _____** (*Editor's Note: The blank refers to the effective date of the final-form regulations.*) shall be initially inspected within [10] **5** years of installation.

(2) Existing aboveground storage tank systems with scheduled in-service inspections after _____ (*Editor's Note: The blank refers to 5 years after the effective date of the final-form regulations.*) shall be inspected by the next currently scheduled in-service inspection date, unless notified otherwise by the Department. **Subsequent in-service inspections shall be conducted in accordance with this section.**

[(2) Existing tanks, less than 10 years old without a previous inspection, shall be inspected by October 13, 2003, or 10 years from the date of installation, whichever is later.

(3) Existing tanks over 10 years old, without a previous inspection, shall be inspected by October 11, 2002.

(4) When an inspection is delayed under § 245.614 (d)(3) (relating to requirements for closure) for a tank in temporary removal-from-service status, the inspection shall be completed and deficiencies remedied prior to returning the tank to operational service.]

(d) In-service inspections must evaluate the following:

(1) Containment areas.

(2) Foundation and tank supports.

(3) Tank shell and tank roof, where a roof exists.

(4) Appurtenances.

(5) Ancillary equipment including piping.

(6) Leak detection method, including **[monthly]** leak detection records and maintenance checklists.

(7) Cathodic protection system, if installed.

(8) Coatings and protections from deterioration.

(9) Tank system integrity and suitability for service.

(e) If agreed upon by the Department, an in-service inspection interval may be delayed under § 245.617 (relating to temporary removal from service (out-of-service)) for an aboveground storage tank that is temporarily removed from service. Prior to placing

product in the aboveground storage tank, the delayed inspection shall be conducted, deficiencies noted during inspection shall be addressed and remedied, and an amended registration form shall be completed and submitted to the Department.

§ 245.617. Temporary removal from service (out-of-service).

(a) The owner and operator shall complete and submit an amended registration form to the Department within 30 days after the change in tank status.

(b) The owner and operator must empty the aboveground storage tank system of regulated substances and conduct a visual examination of the area surrounding the tank as required in § 245.618(b) (relating to permanent closure or change-in-service), excluding the surface and soil underlying any tank bottom in contact with the ground before placing the tank in temporary removal from service status.

(c) Monitoring standards in § 245.613(a) (relating to monitoring standards) are not required when an aboveground storage tank is reported to the Department as temporarily removed from service.

(d) Inspection requirements shall be maintained as specified in § 245.616. (relating to inspection requirements). In-service inspection intervals may be delayed for a tank that is temporarily removed from service. The delayed inspections shall be conducted prior to placing regulated substance in a tank and returning the tank to operating status. Deficiencies noted during inspection shall be addressed and remedied and an amended registration form submitted to the Department prior to returning the tank to operating status.

(e) Aboveground storage tanks shall be permanently closed within 5 years of being placed temporarily out-of-service unless the owner requests in writing an extension to this temporary removal from service period and the Department approves the request.

(f) The Department may impose conditions and require submission of documentation when reviewing and approving a request for an extension of the temporary removal from service period, including:

(1) Requirements for inspection under §245.616.

(2) Site assessment under § 245.561 (relating to permanent closure or change-in-service) or §245.618(b).

(3) Other considerations determined by the Department to be necessary to ensure the integrity of the aboveground storage tank.

§ 245.618. Permanent closure or change-in-service.

(a) Aboveground storage tank systems shall be cleaned, rendered free from hazardous vapors and ventilated if left onsite or emptied and removed from the site in a manner consistent with current industry practices and Bureau of Waste Management requirements

such as Chapters 263a and 299 (relating to transporters of hazardous waste; and storage and transportation of residual waste). Piping shall be removed or capped and fill ports shall be secured, capped or dismantled.

(b) The owner shall conduct a visual examination of the surface, soil and area surrounding and underlying the storage tank system for obvious indications or evidence of a release of regulated substance.

(1) If a release is suspected, it shall be investigated in accordance with § 245.304 (relating to investigation of suspected releases).

(2) If a release is confirmed, it shall be reported to the appropriate Department regional office responsible for the county in which the aboveground storage tank is located in accordance with § 245.305 (relating to reporting releases).

(c) The owner shall complete and submit an amended tank registration form, signed by the owner and the certified installer that provided direct onsite supervision of the tank handling activity, to the Department within 30 days of:

(1) The completion of permanent closure.

(2) Change-in-service of the tank.

**Subchapter H. FINANCIAL RESPONSIBILITY
REQUIREMENTS FOR OWNERS AND OPERATORS OF
UNDERGROUND STORAGE TANKS AND STORAGE
TANK FACILITIES**

§ 245.704. General requirements.

(a) An owner or operator of an underground storage tank shall continuously participate in the USTIF by timely paying all applicable fees and conforming with all other requirements for participation in the USTIF, unless the EQB has determined that the underground storage tank is an exempt underground storage tank.

§ 245.708. Failure to maintain financial responsibility.

The failure of an owner or operator of an underground storage tank to comply with this subchapter shall subject the owner or operator to the enforcement [pro09visions] provisions in Chapter 13 of the act (35 P. S. § § 6021.1301—6021.1315).