

# RULES AND REGULATIONS

## Title 25—ENVIRONMENTAL PROTECTION

### ENVIRONMENTAL QUALITY BOARD

[ 25 PA. CODE CH. 245 ]

#### Administration of the Storage Tank and Spill Prevention Program

The Environmental Quality Board (Board) by this order amends Chapter 245 (relating to Administration of the Storage Tank and Spill Prevention Program). This final-form rulemaking strengthens the requirements for operation and maintenance of underground storage tank (UST) equipment. Currently, UST owners and operators are required to have spill prevention, overfill prevention and release detection equipment in place but are not required to periodically verify the functionality of some of that equipment. This final-form rulemaking also adds a new certification category for persons that only perform minor modifications of UST systems. This final-form rulemaking also shortens the in-service inspection cycle for aboveground storage tanks (AST) in underground vaults and small ASTs. This final-form rulemaking clarifies or corrects other provisions in Chapter 245 based on the Department of Environmental Protection's (Department) experience in implementing this chapter since the last comprehensive Department rulemaking, which occurred over 10 years ago.

This order was adopted by the Board at its meeting on August 21, 2018.

#### A. Effective Date

This final-form rulemaking will be effective upon publication in the *Pennsylvania Bulletin*.

#### B. Contact Persons

For further information contact Kris A. Shiffer, Chief, Division of Storage Tanks, P.O. Box 8762, Rachel Carson State Office Building, Harrisburg, PA 17105-8762, (717) 772-5809; or Robert Schena, Esq., Assistant Counsel, Bureau of Regulatory Counsel, P.O. Box 8464, Rachel Carson State Office Building, Harrisburg, PA 17105-8464, (717) 783-8072. Persons with a disability may use the Pennsylvania AT&T Relay Service (800) 654-5984 (TDD users) or (800) 654-5988 (voice users). This final-form rulemaking is available on the Department's website at [www.dep.pa.gov](http://www.dep.pa.gov) (select "Public Participation," then "Environmental Quality Board (EQB)").

#### C. Statutory Authority

This final-form rulemaking was developed under the authority of section 106 of the Storage Tank and Spill Prevention Act (act) (35 P.S. § 6021.106), which authorizes the Board to adopt rules and regulations governing ASTs and USTs to accomplish the purposes and carry out the provisions of the act; section 301 of the act (35 P.S. § 6021.301), which authorizes the Department to establish program requirements for ASTs; section 501 of the act (35 P.S. § 6021.501), which authorizes the Department to establish program requirements for USTs; and section 1920-A of The Administrative Code of 1929 (71 P.S. § 510-20), which authorizes the Board to formulate, adopt and promulgate rules and regulations that are necessary for the proper work of the Department.

#### D. Background and Purpose

The United States Environmental Protection Agency (EPA) has codified comprehensive Federal regulations for USTs at 40 CFR Part 280 (relating to technical standards and corrective action requirements for owners and operators of underground storage tanks (UST)). The EPA initially promulgated these regulations in 1988. The EPA published final revisions to 40 CFR Part 280 at 80 FR 41566 (July 15, 2015) (July 15, 2015 Final Rule), effective October 13, 2015. The revisions in the July 15, 2015 Final Rule, among other things, added secondary containment requirements for new and replaced tanks and piping, added operator training requirements, added periodic operation and maintenance requirements for UST systems, removed certain deferrals, added new release prevention and detection technologies, updated codes of practice and made editorial and technical corrections. The Department incorporated secondary containment and operator training requirements that meet the Federal requirements into Chapter 245 through prior rulemakings that became effective on November 10, 2007, and December 26, 2009, respectively.

In the EPA's July 15, 2015 Final Rule, the EPA also updated the State Program Approval (SPA) requirements in 40 CFR Part 281 (relating to approval of state underground storage tank programs). Under these revisions, the EPA requires that states amend their UST regulations and apply for initial or revised SPA within 3 years of the October 13, 2015, effective date of the July 15, 2015 Final Rule. Currently, the Commonwealth has SPA. The Commonwealth receives approximately \$2.3 million annually in Federal grant funding from the EPA under section 9014 of the Solid Waste Disposal Act (42 U.S.C.A. § 6991m) to aid in administering the UST program. This final-form rulemaking is necessary to ensure continued receipt of Federal grant funds. The Department is required to update Chapter 245 to be no less stringent than the Federal requirements so the Department may re-apply for SPA. States and Tribal lands that do not have SPA were required to comply with the EPA final regulations on October 13, 2015. The EPA has not codified companion AST regulations.

This final-form rulemaking is also necessary to further prevent releases of regulated substances from USTs into the environment. There were 210 confirmed releases from USTs in this Commonwealth from October 1, 2016, through September 30, 2017, which were the result of improper operation and maintenance of UST systems. Releases from piping and spills and overfills associated with deliveries, and releases at the dispenser have emerged as common issues. In addition, as noted by the EPA in the preamble to its 2015 Final Rule published at 80 FR 41567, release detection equipment is only successfully detecting approximately 50% of releases it is designed to detect.

A summary of the changes to the Chapter 245 proposed rulemaking resulting from public comment is provided in Section E of this preamble. In addition to updating Chapter 245 to be consistent with EPA requirements at 40 CFR 280, this final-form rulemaking improves operation and maintenance of USTs to prevent the release of regulated substances into the environment by requiring, among other things, a visual inspection of spill prevention equipment and release detection every 30 days, a visual inspection of containment sumps and handheld release

detection devices annually, testing of spill prevention equipment every 3 years, inspection of overfill prevention equipment every 3 years, testing of containment sumps used for interstitial monitoring every 3 years, and annual release detection equipment testing.

In addition to the new operation and maintenance requirements, this final-form rulemaking includes two other key provisions to prevent releases of regulated substances into the environment:

- Release detection requirements for emergency generator USTs are added. These USTs were previously deferred from having to meet release detection requirements;
- Ball float valves are prohibited as an option for overfill prevention in new UST systems and when these devices need to be replaced.

This final-form rulemaking will affect approximately 7,000 storage tank owners at nearly 12,600 storage tank facilities. Industry sectors potentially affected by this final-form rulemaking include retail motor fuel sales, commercial, institutional, manufacturing, transportation, communications and utilities, and agriculture. As owners of regulated USTs, Federal, State and local government will also be affected.

Based upon discussions with several Department certified tank handling companies and the Department's Storage Tank Advisory Committee (STAC) members, and Department attendance at Tank Installer of Pennsylvania meetings, the Department is confident that existing tank installers and inspectors certified by the Department will have the capacity to provide the increased testing and inspections that this final-form rulemaking requires.

Owners of existing storage tank systems will have ample time in which to comply with this final-form rulemaking, once published. Owners of new storage tank systems will need to comply with the requirements upon the effective date of this final-form rulemaking.

The Department worked with the STAC during development of this rulemaking. STAC, which was established by section 105 of the act (35 P.S. § 6021.105), consists of persons representing a cross-section of organizations having a direct interest in the regulation of storage tanks in this Commonwealth. As required under section 105 of the act, STAC was given the opportunity to review and comment on both the draft proposed and draft final-form annex. At the December 8, 2015, and June 7, 2016, STAC meetings, individual STAC members were provided with the opportunity to review Department concepts and present concepts that they would like to see incorporated into Chapter 245. STAC was also afforded the opportunity to review and discuss draft proposed regulatory language at its December 6, 2016, and March 7, 2017, meetings. On March 7, 2017, STAC voted unanimously to support the amendments presented in the Department's draft proposed rulemaking and recommended that the Board consider the amendments for publication as a proposed rulemaking. The Board adopted the proposed rulemaking on October 17, 2017, and published it at 48 Pa.B. 1101 (February 24, 2018). On May 17, 2018, STAC reviewed draft final-form regulatory language. At that meeting, STAC voted unanimously to support the amendments and recommended that the Board consider the amendments for publication as a final-form rulemaking.

A listing of STAC members and minutes of STAC meetings are available on the Department's web site at [www.dep.pa.gov](http://www.dep.pa.gov) (select "Public Participation," then "Advisory Committees") and may also be obtained from Kris

Shiffer, whose contact information appears in Section B of this preamble. The Citizens Advisory Council received monthly updates on the status of this final-form rulemaking.

#### E. Summary of Changes to the Proposed Rulemaking

In this section of the preamble, the Board describes changes made in this final-form rulemaking. Changes made in the proposed rulemaking may be viewed at 48 Pa.B. 1101 (February 24, 2018).

##### Section 245.1. Definitions.

The Department amends or adds a number of definitions under § 245.1 (relating to definitions).

##### "Containment structure or facility"

The Department amends the definition of "containment structure or facility" in this final-form rulemaking to add clarity. Of note, the Department has added the phrase "designed to contain" and deleted the existing language "which comes in contact with" and "any rock or other fill material placed around an underground storage tank." Based on the Department's experience, rock or fill material around a UST cannot adequately contain a regulated substance if a release from the UST system occurs; therefore, upon further consideration, the Department believes that rock or fill material is not suitable as containment. The term "containment structure or facility" appears in the definition of "release," the definition of "immediate threat of contamination" added in this final-form rulemaking, and proposed amendments to §§ 245.132(a)(4)(iii), 245.303(e)(1) and 245.613(b)(1) (relating to standards of performance; general requirements; and monitoring standards), retained in this final-form rulemaking.

##### "Release" and "Immediate threat of contamination"

In the proposed rulemaking, the Department proposed to revise the definition of "release," delete the definition of "reportable release," and add three specific types of "releases" in new § 245.305(i) (relating to reporting releases) that would not require reporting to the Department or further corrective action provided certain criteria were met. As a result, two main questions arose during the comment period. First, commentators asked if the proposed amendments conflicted with the statutory definition of "release." Second, commentators asked if the proposed amendments would require the reporting of all spills into emergency containment structures, which the commentators stated are designed to contain spills and therefore are not a threat to the environment. In this final-form rulemaking, in consideration of the comments received, the Department instead defines "immediate threat of contamination," deletes the proposed addition to the definition of "release," deletes the definition "reportable release," and amends the reporting requirements in § 245.305 for petroleum releases.

The impetus for this change, both in the proposed and final-form amendments, is the undefined phrase "immediate threat of contamination" in the existing (and final-form) definition of "release" in § 245.1. A "release" 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." *Id.* (Emphasis added). The Department defines "immediate threat of contamination" in this final-form rulemaking to be a spill from a storage tank into a containment structure or facility in an amount that is equal to or greater than the applicable

reportable released quantity under section 102 of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) (42 U.S.C.A. § 9602) and regulations under CERCLA; an amount equal to or greater than a discharge as defined in section 311 of the Federal Water Pollution Control Act (Clean Water Act) (33 U.S.C.A. § 1321) and regulations under the Clean Water Act, and a spill of petroleum in any amount. CERCLA and the Clean Water Act establish reportable quantity limits for hazardous substances and prohibit discharges that exceeds those reportable quantities. The Department also defines an “immediate threat of contamination” not to include “spilling, leaking, emitting, discharging, escaping, leaching or disposing of petroleum into a liquid-tight containment sump or emergency containment structure in an amount less than 25 gallons 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.”

This definition balances the Department’s need to adequately oversee “release” responses while recognizing that facility owners and operators should not need to report certain small spills from storage tanks that do not pose a risk of contamination.

*Section 245.108. Suspension of certification.*

The Department amends § 245.108(a)(4)(iii) (relating to suspension of certification) in this final-form rulemaking to address submission of modification reports for inspection activities involving multiple certified individuals and certification categories. If a project involves multiple certified individuals and certification categories, modification reports need to be submitted within 30 days of the completion of all project tank handling and inspection activities. Subsection 245.108(a)(4)(iii) of this final-form rulemaking reads: “Submit a report of an inspection activity to the Department within 60 days of conducting an inspection activity, except for reports of modification inspection activities, which must be reported to the Department within 30 days of conducting a modification inspection activity. For inspection activities involving multiple certified individuals and certification categories, reports of modification inspection activities must be submitted within 30 days of the completion of all project tank handling and inspection activities.”

*Section 245.113. Certified inspector experience and qualifications.*

In response to a concern that the list of college degrees for certified inspector qualification in § 245.113(c) (relating to certified inspector experience and qualifications) seemed too restrictive, “corrosion engineering” is added to the college degrees listed in § 245.113(c) in this final-form rulemaking. The college degrees listed may be substituted for experience in applying to be a certified inspector.

*Section 245.132. Standards of performance.*

The Department amends § 245.132(a)(2) to require that modification inspection reports be submitted to the Department within 30 days of conducting the inspection activity. The current requirement is to submit the report within 60 days of conducting the inspection. This amendment shortens the length of time between submittal of the modification report (required within 30 days of completion of the modification) and the modification inspection report allowing the Department to review the inspection report of the modification activity in a more

timely manner. The Department believes that 30 days is adequate time to prepare and submit the modification inspection report. However, § 245.132(a)(2) is amended in this final-form rulemaking to address submission of modification reports for inspection activities involving multiple certified individuals and certification categories. If a project involves multiple certified individuals and certification categories, modification reports need to be submitted within 30 days of the completion of all project tank handling and inspection activities. Subsection 245.132(a)(2) of this final-form rulemaking provides clarifying language with regards to all reporting requirements pertaining to tank handling and inspection activities conducted by certified installers and certified inspectors.

*Section 245.302. Scope.*

For consistency, the term “suspected releases” is added to § 245.302 (relating to scope) of this final-form rulemaking.

*Section 245.304. Investigation and reporting of suspected releases.*

For purposes of consistency and clarification, the word “suspected” is added to § 245.304(a) (relating to investigation and reporting of suspected releases) in this final-form rulemaking.

Subsection 245.304(c) is amended in this final-form rulemaking to incorporate proposed § 245.304(d) and language from existing § 245.304(d) to clarify the actions an owner or operator needs to take upon completion of a suspected release investigation, and, in particular, if the investigation cannot determine whether a release of a regulated substance has occurred. Under § 245.304(c)(3), the presence of a regulated substance in a containment structure or facility that is shown to be liquid-tight, even if not considered a release, must still be addressed. The regulated substance cannot remain indefinitely in the containment structure or facility. However, the extent of the corrective action may be limited to the complete removal and proper disposal of the regulated substance, and repair or replacement of the defective storage tank component. As a result of these amendments, the title of § 245.304 is revised in this final-form rulemaking to read: “Investigation and reporting of suspected releases.”

*Section 245.305. Reporting releases.*

As previously described in this final-form rulemaking, the Department defines the term “immediate threat of contamination” contained in the definition of “release.” In conjunction, § 245.305(i) is amended to address the specific “releases” of petroleum that do not require reporting to the Department and do not require further corrective action, provided certain criteria are met. Those criteria, which have also been amended, are:

- the owner or operator has control over the release,
- the release is completely contained, and
- the total volume of the release is recovered and removed within 24 hours of the release.

While one of the proposed release reporting criteria, namely “any defective storage tank system component that caused or contributed to the release is properly repaired or replaced” is deleted, an owner or operator may not resume use of the storage tank system until the defective component that caused or contributed to the release is properly repaired or replaced.

Provided all three of the previously listed criteria are met, the following release situations will not need to be reported to the Department:

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

A release of petroleum to a containment sump where the total volume of the release is contained below the lowest sump penetration.

If another release situation occurs, or if one of the two release situations previously listed occurs, but all three of the previously listed criteria are not met, the release must be reported.

A comparison of the release situations that do not require reporting to the Department in the proposed rulemaking and in this final-form rulemaking is as follows:

Proposed § 245.305(i)(1) stated, "A release of petroleum to an aboveground surface, including within an emergency containment structure, that is less than 25 gallons." This language is retained in this final-form rulemaking and includes releases within and outside of emergency containment. As applied to releases of petroleum that are less than 25 gallons and not within an emergency containment structure, the release must not impact soils, subsurface soils, surface water or groundwater. In practice, this means that the release must be to a concrete pad, asphalt surface or similar surface that is not cracked or highly weathered that will contain the regulated substance so that it may be completely recovered. Otherwise, the release must be reported.

Proposed § 245.305(i)(2) stated, "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.A. §§ 9601—9675) and 40 CFR Part 302 (relating to designation, reportable quantities, and notification)." This language is deleted from this final-form rulemaking because a spill of a hazardous substance 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 is not a release.

Proposed § 245.305(i)(3) stated, "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)." While this language is deleted from this final-form rulemaking, § 245.305(i)(2) in this final-form rulemaking is revised to read: "A release of petroleum to a containment sump where the total volume of the release is contained below the lowest sump penetration." Provided the previously stated criteria are met, this release reporting exception applies to all containment sumps, not only those used for interstitial monitoring of piping. However, reporting is required for petroleum releases that reach the lowest sump penetration or above.

#### *Section 245.403. Applicability.*

Subsection 245.403(c) (relating to applicability) of the proposed rulemaking stated the partial regulatory exclusions for wastewater treatment tank systems and nuclear-related UST systems that are now subject to regulation under Chapter 245. The Department clarifies in this final-form rulemaking that USTs identified in § 245.403(c)(1)—(3) need not comply with §§ 245.411, 245.421(b)(3) and (4)(ii) and (iii), 245.422(d), 245.432(g) and 245.436—245.446.

A new § 245.403(c)(4) is added to this final-form rulemaking to clarify that UST systems installed before May

7, 1985, are not required to comply with §§ 245.411—245.422, 245.424, 245.432, 245.433 and 245.436—245.446.

The Department amends § 245.403(d) in this final-form rulemaking to provide owners of previously excluded USTs 60 days from the effective date of this final-form rulemaking to register the USTs. This was in response to concerns that 30 days to register previously deferred USTs may not be an adequate amount of time given the fact that a UST may have been installed many years ago and installation records will need to be retrieved and reviewed.

#### *Section 245.432. Operation and maintenance including corrosion protection.*

Several words are amended in § 245.432(a) (relating to operation and maintenance including corrosion protection) in this final-form rulemaking to clarify and more accurately reflect the requirements of the subsection. For example, § 245.432(a)(2) is amended to state that UST systems equipped with cathodic protection systems shall be tested (as opposed to inspected) for proper operation by a qualified cathodic protection tester.

#### *Section 245.433. Compatibility.*

In recognition of a commentator's concern that the requirement to submit compatibility information for "alternative fuel blends or biodiesel or biodiesel blended fuel" was subject to interpretation and lacked clarity, and due to the fact that the Department may request an owner or operator to provide compatibility documentation for any regulated substance, § 245.433(b) (relating to compatibility) is amended in this final-form rulemaking to read: "Upon Department request, an owner and operator of an underground storage tank 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."

Also, since compatibility documentation is to be maintained for all regulated UST systems, § 245.433(c) is amended in this final-form rulemaking to read: "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:" The proposed rulemaking stated that an owner and operator shall demonstrate compatibility only upon Department request.

Finally, § 245.433(c)(2) in this final-form rulemaking reads: "The manufacturer's approval must be in writing, indicate an affirmative statement of compatibility with the substance stored, and be from the equipment or component manufacturer."

#### *Section 245.435. Reporting and recordkeeping.*

The Department amends § 245.435(d)(13) (relating to reporting and recordkeeping) in this final-form rulemaking to clarify and more accurately reflect the requirements of the subsection.

#### *Section 245.512. Facility operations and spill response plan.*

The Department amends § 245.512 (relating to facility operations and spill response plan) in this final-form rulemaking to clarify that only changes or revisions to an initial Spill Prevention Response Plan—not the entire plan—need to be submitted to the Department and that such must be submitted within 180 days. In addition, language is added in this final-form rulemaking to allow revisions of the plan to be submitted in writing or electronically.

*Section 245.513. Preventative maintenance and housekeeping requirements.*

The proposed language in § 245.513(b)(2)(v) (relating to preventive maintenance and housekeeping requirements) would have required the owner and operator of a AST to verify that cathodic protection systems are functioning as designed as part of the required monthly maintenance inspection. In consideration of the comment that this requirement would be unduly burdensome, proposed § 245.513(b)(2)(v) is deleted and cathodic protection system inspection and testing requirements are added in § 245.532 (relating to cathodic protection systems) in this final-form rulemaking.

*Section 245.514. Security.*

In response to requests to allow the written log book to be maintained in electronic form, proposed § 245.514(b) (relating to security) is amended in this final-form rulemaking to allow the log to be maintained in written or electronic form.

*Section 245.516. Recordkeeping requirements.*

Proposed § 245.514(b) is amended in this final-form rulemaking to allow the log to be maintained in written or electronic form. Therefore, the corresponding recordkeeping requirement in § 245.516(c)(8) (relating to recordkeeping requirements) is amended.

Subsection 245.516(c)(11) is amended in this final-form rulemaking to clarify that results of the last two cathodic protection monitoring required under § 245.532 must be maintained.

A new § 245.516(c)(16) is added to this final-form rulemaking to require documentation of the last three impressed current cathodic protection system checks for each 60-day period as required under § 245.532.

*Section 245.522. New aboveground storage tank installations and reconstructions.*

Proposed § 245.522(g) (relating to new aboveground storage tank installations and reconstructions) is deleted in this final-form rulemaking. This subsection would have required previously regulated storage tanks being reactivated to meet new storage tank system requirements and was proposed primarily with emergency containment structures in mind. A commentator stated that existing emergency containment areas should not be required to be upgraded as a result of activating (or adding) a tank into that existing emergency containment area. As a result of the comment, § 245.542(d)(1) and (2) (relating to containment requirements for aboveground storage tank systems) is amended in this final-form rulemaking to clarify the emergency containment requirements based on installation date of the AST.

*Section 245.532. Cathodic protection systems.*

The proposed language in § 245.513(b)(2)(v) would have required the owner and operator of a AST to verify that cathodic protection systems are functioning as designed as part of the required monthly maintenance inspection. This monthly inspection would have included inspection of junction boxes, test stations and other equipment to ensure all connections are secure and unaffected by corrosion and any installed rectifier is providing appropriate output. In consideration of the comment that this requirement would be unduly burdensome, proposed § 245.513(b)(2)(v) is deleted and cathodic protection system inspection and testing requirements are added in § 245.532(c) in this final-form rulemaking. These amendments will require testing of galvanic ca-

thodic protection systems at least every 3 years and annual testing for impressed current systems. Impressed current systems will also be required to have current output recorded every 60 days. Both types of cathodic protection systems will be required to be tested within 6 months following installation and repair. These added cathodic protection system inspection and testing requirements are replacing the proposed monthly maintenance inspection of cathodic protection systems. These cathodic protection inspection and testing requirements are no more stringent than the inspection and testing requirements established in Nationally recognized codes and standards established by such organizations as the American Petroleum Institute and NACE International—The Corrosion Society. Current § 245.532(c) requires cathodic protection systems to be “monitored periodically as determined by the corrosion system design.” The specific requirements added to this final-form rulemaking provide owners and operators with the necessary information to properly monitor the cathodic protection systems.

*Section 245.542. Containment requirements for aboveground storage tank systems.*

Subsection 245.542(d)(1) and (2) is amended in this final-form rulemaking to clarify the emergency containment requirements based on installation date of the AST. The intent of § 245.542(d)(1) is to apply to new tank systems, a position the Department has maintained since the provisions were initially promulgated on October 11, 1997. A new tank system includes a tank being reactivated in a shared, existing emergency containment area. In this instance, the emergency containment area must be upgraded to meet the requirements of § 245.542(d)(1). The provisions are amended to clarify that large ASTs installed after October 11, 1997, must be installed within emergency containment having permeability less than  $1 \times 10^{-6}$  cm/sec.

*Section 245.603. General storage tank facility requirements.*

Subsection 245.603(a) (relating to general storage tank facility requirements) is amended in this final-form rulemaking to clarify that it is only changes to the current Spill Prevention Response Plan (Plan) that are required to be submitted. In consideration of comments received, the Department replaced the proposed requirement to submit plan revisions or addenda within 120 days to a requirement to submit them within 180 days. In addition, language is added to allow revisions of the Plan to be submitted in writing or electronically.

In response to requests to allow the written log book to be maintained in electronic form, § 245.603(c) is amended in this final-form rulemaking to allow the log to be maintained in written or electronic form. In addition, this final-form rulemaking allows equivalent verification of presence onsite, in place of a signature, for identification in each log book entry of the individual performing tank handling and inspection activities.

*Section 245.613. Monitoring standards.*

The proposed language in § 245.613(b)(5) (relating to monitoring standards) would have required the owner and operator of a small AST to verify that cathodic protection systems are functioning as designed as part of the required monthly maintenance inspection. This monthly inspection would have included inspection of junction boxes, test stations, and other equipment to ensure all connections are secure and unaffected by corrosion and any installed rectifier is providing appropriate output.

Consistent with the amendments made to proposed §§ 245.513(b)(2)(v) and 245.532, proposed § 245.613(b)(5) is deleted and cathodic protection system inspection and testing requirements are added in § 245.613 in this final-form rulemaking. These amendments will require testing of galvanic cathodic protection systems at least every 3 years and annual testing for impressed current systems. Impressed current systems will also be required to have current output recorded every 60 days. Both types of cathodic protection systems will be required to be tested within 6 months following installation and repair. These added cathodic protection system inspection and testing requirements are replacing the proposed monthly maintenance inspection of cathodic protection systems. These cathodic protection inspection and testing requirements are no more stringent than the inspection and testing requirements established in Nationally recognized codes and standards established by such organizations as the American Petroleum Institute and NACE International—The Corrosion Society. The specific requirements added to this final-form rulemaking are necessary to provide owners and operators with the information needed to properly monitor the cathodic protection systems.

*Section 245.615. Recordkeeping requirements.*

Subsection § 245.603(c) is amended in this final-form rulemaking to allow the log to be maintained in written or electronic form. Therefore, the corresponding recordkeeping requirement in § 245.615(b)(8) (relating to recordkeeping requirements) is amended similarly.

A new § 245.615(b)(9) is added to this final-form rulemaking to require documentation of the last three impressed current cathodic protection system checks for each 60-day period as required under § 245.613.

A new § 245.615(b)(10) is added to this final-form rulemaking to require documentation of the last two cathodic protection surveys, done at 3-year intervals on galvanic and annually on impressed current cathodic protection systems as required under § 245.613.

*F. Summary of Comments and Responses on the Proposed Rulemaking*

The proposed rulemaking was approved by the Board on October 17, 2017, and published at 48 Pa.B. 1101 (February 24, 2018). Public comments on the proposed rulemaking were accepted through March 26, 2018. The Board received comments from 19 commentators during the public comment period and comments from the Independent Regulatory Review Commission (IRRC). The comments were considered and are addressed in the comment and response document that accompanies this final-form rulemaking. All public comments are available on the Department's web site at <http://www.ahs.dep.pa.gov/eComment/>. Comments from IRRC are available on IRRC's web site at <http://www.irrc.state.pa.us/regulations/RegSrchRslts.cfm?ID=3210>. A summary of the major comments and responses that represent significant topics addressed from a variety of constituents is set forth as follows.

*General—Support for Primacy and Environmental Protection*

Commentators expressed support for the Commonwealth's efforts to retain primacy over the Federal requirements relating to the UST program contained in 40 CFR Part 280. Commentators noted that a significant number of the proposed changes to Chapter 245 appear to be designed to update Chapter 245 in light of the recent changes to 40 CFR Part 280.

One commentator supports the provisions of the proposed rulemaking that will minimize the frequency of releases from storage tank systems that may adversely impact the environment, including those amendments designed to ensure that equipment functions properly and that tank systems are timely inspected.

*Subchapters A and D—Definitions of Release and Reportable Release; and Release Reporting*

*Section 245.1. Definitions.*

*Section 245.305. Reporting releases.*

One commentator stated that “spills that pose no threat of contamination are not releases.” The commentator cited the 2016 Environmental Hearing Board (EHB) decision in *Merck Sharp & Dohme Corp. (“Merck”) v. Department of Environmental Protection*, 2016 EHB 411. In that decision (2016 EHB at 421), the EHB stated: “The definition of ‘release’ is clear and unambiguous. There is no ‘release’ (and therefore, no reportable release) unless the spill is from a storage tank into environmental media or ‘into a containment structure or facility that poses an immediate threat of contamination of’ environmental media. Under the definitions of both ‘release’ and ‘reportable release,’ it is clear that fully contained spills that pose no immediate threat need not be reported.”

The Department responded that, as an initial matter, the *Merck* case involved the legal interpretation of the terms “release” and “reportable release,” as those terms are currently defined in Chapter 245. The EHB held that *Merck* correctly interpreted the regulatory requirements of Chapter 245 within its spill prevention response plan (SPRP) for *Merck's* West Point facility. The EHB did not comment on whether any type or amount of spill might constitute an “immediate threat of contamination,” nor did it review or endorse *Merck's* West Point facility's SPRP or containment structure as an effective means of containing spills or dealing with an “immediate threat of contamination.” Instead, the EHB commented that the Department should propose its policy preference—that spills to a containment structure should be reported—to the Board. (2016 EHB at 420).

The Department's amendment of the “release” definition in the proposed rulemaking, and its addition of a definition of “immediate threat of contamination” in this final-form rulemaking, are consistent with the EHB's directive and do not contravene the act's definition of “release.” Under section 103 of the act (35 P.S. § 6021.103), and under existing § 245.1, a “release” is defined to include spilling “from a storage tank into a containment structure or facility that poses an immediate threat of contamination of soils, subsurface soils, surface water or groundwater.” (Emphasis added.) Neither the act nor existing Chapter 245 defines “immediate threat of contamination,” which has confused the analysis and reporting of spills within a containment structure. The Department clarifies what constitutes an “immediate threat of contamination” and resolves these issues in this final-form rulemaking.

In response to *Merck's* comments, as well as those from other commentators, the Department is deleting the language it proposed to add to the definition of “release” and is replacing it with a definition of “immediate threat of contamination” to clarify that spills from a storage tank into a containment structure that equal or exceed applicable CERCLA reportable quantity thresholds or are an amount equal to or greater than a “discharge” under § 311 of the Federal Water Pollution Control Act (Clean Water Act) (33 U.S.C.A. § 1321) pose an immediate

threat of contamination to soils, subsurface soils, surface water or groundwater, and are therefore “releases.” As a result, the Department does not believe that there will be a scenario, like the one proposed by the commentator, in which a spill that is less than CERCLA-reportable quantities and is otherwise not a “release” qualifies as an “immediate threat of contamination” because it is in a containment structure.

In addition, the Department defines “immediate threat of contamination” to exclude spills of petroleum less than 25 gallons that are a result of a tank handling activity if a certified installer responds to them promptly. The Department believes that this revision streamlines analysis of whether a spill is a “release” and, if so, whether the “release” needs to be reported. In addition, the proposed revision avoids burdening facilities that have efficient containment and response capabilities while preserving the Department’s need and ability to implement the act effectively.

IRRC commented that the Board proposes to amend the definition of “release” and delete the definition of “reportable release.” These amendments have generated interest from the regulated community. They believe the changes will require the reporting of every spill into emergency and secondary containment structures as a “release” and argue that a spill into a secure containment area is not necessarily a threat to the environment. They contend that the revisions would trigger new reporting, corrective action and other obligations that are not necessary for the protection of human health and the environment. In addition, commentators contend that these amendments conflict with the statutory definition of “release” found in section 103 of the act (35 P.S. § 6021.103) and the intention of the General Assembly.

IRRC raised several questions about these amendments and the issues raised by commentators. First, are these amendments needed to align Chapter 245 with EPA amendments to its UST regulations? Second, why does the Board believe the amendments being proposed are consistent with the statutory definition of “release” and the intention of the General Assembly? Third, what is the need for the changes? Are the existing requirements allowing spills to reach the environment and causing harm? Finally, will the amendments require additional reporting and corrective action for spills into emergency and secondary containment structures? If yes, what are the differences between existing requirements and the new requirements?

The Department noted in its response to these comments that the amendments are not needed to align Chapter 245 with EPA amendments to its UST regulations. Rather, the amendments are needed to ensure protection of the environment in a streamlined fashion. The definition in this final-form rulemaking of “immediate threat of contamination” in regard to USTs is only slightly more stringent than Federal regulations, which require that State programs, at a minimum, require prompt reporting of all confirmed underground releases and any spills and overfills that are not contained and cleaned up. (40 CFR 281.34(b) (relating to release reporting, investigation, and confirmation)). State programs must be no less stringent than EPA requirements but may be more stringent. (40 CFR 281.11(b) (relating to general requirements)).

Under these final-form regulations, the Department will require a report of a release of hazardous substances within containment if the release exceeds applicable reportable quantities established by CERCLA. The De-

partment will also require a report of a petroleum release within containment if the release equals or exceeds 25 gallons or, if less than 25 gallons, the release is not cleaned up within 24 hours.

With regard to the amendments being consistent with the statutory definition of “release” in the act, see the response to the preceding comment. With regard to the amendments being consistent with the General Assembly’s intentions, the amendments in this final-form rulemaking meet the expressed intentions of the General Assembly for the Department to prevent releases from storage tanks, to establish with the Board a regulatory scheme to prevent releases and require prompt cleanup and removal of pollution, and through the Board to adopt regulations that cover release reporting and remediation of releases from storage tanks. (35 P.S. §§ 6021.102, 6021.106(a) and 6021.301(a)(6)).

The addition of the definition of “immediate threat of contamination” and the amendment in § 245.305(i) regarding releases and reportable releases are needed to produce increased compliance and more efficient oversight to ensure protection of the environment. As previously set forth under Section D, Background and Purpose, there were 210 confirmed releases from USTs in this Commonwealth from October 1, 2016, through September 30, 2017, which were the result of improper operation and maintenance of UST systems. Releases from piping and spills and overfills associated with deliveries, and releases at the dispenser, have emerged as common issues. In addition, as noted by the EPA in the preamble to its July 15, 2015 Final Rule published at 80 FR 41567, release detection equipment is only successfully detecting approximately 50% of releases it is designed to detect.

This is occurring under the existing regulations, which define “reportable release” in § 245.1 to require a storage tank owner or operator to report a release of a regulated substance that “poses an immediate threat” to environmental media, unless the owner or operator has control over the release, completely contains it and, within 24 hours of the release, removes the total volume of the release. This definition requires an owner or operator first to determine if the spill “poses an immediate threat,” and then, if it does, to report it to the Department. Section 245.1 defines a “release” to include, “. . .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. . .”

The phrase “immediate threat” in the existing regulations requires an undefined, qualitative analysis by a facility owner or operator. As a result, the Department’s ability to oversee and enforce relies in large part on the discretion of owners and operators to report spilling, leaking, emitting, discharging, escaping, leaching or disposing from a storage tank. The Department’s addition of the definition of “immediate threat of contamination” and deletion of the definition of “reportable release” in this final-form rulemaking provide a simple quantitative approach that streamlines the analysis of spills, balances the facility owner and operator’s desire to exclude certain small spills from reporting, and ensures the Department’s ability to adequately oversee the program. These clarified reporting requirements will enable the Department to confirm that facilities are reporting spills and to determine whether those spills impact the environment.

The Department does not agree that this new reporting structure will result in new reporting or corrective action obligations for spills into emergency and secondary con-

tainment structures. Facility owners and operators have always been required to report releases that pose an immediate threat to the environment. Rather, this clarification may result in more frequent reports to the Department, though the Department also believes that the definition of “immediate threat of contamination” in this final-form rulemaking will result in increased compliance and more efficient oversight because it is quantitatively based, rather than left entirely to the discretion of the facility owners and operators. Other than clarifying reporting obligations, the Department is not amending the corrective action requirements in Chapter 245 to a significant degree.

IRRC commented that § 245.305 specifies procedures to be followed after the confirmation of a release. New subsection (i) identifies types of releases that do not need to be reported to the Department. Commentators believe the exemptions are narrow and do not properly consider the actual threat to the environment. IRRC asked why the Board adopted this approach which relies on reportable quantities compared to an approach that would allow the owner or operator of a storage tank system or storage tank facility to evaluate the actual threat to the environment. IRRC requested that the Board explain the reasonableness of this approach in the preamble to this final-form rulemaking.

In response to comments received, the Department has altered its approach in this final-form rulemaking to require reporting of releases into containment in fewer situations. In this final-form rulemaking, the Department added a definition in § 245.1 for the phrase “immediate threat of contamination” because the term is used in the existing and final-form definition of “release” with regard to spills into containment. The new definition of “immediate threat of contamination” excludes most spills into a containment structure or facility below the applicable Federal reportable quantity limits. Though different in respect to the location of the spill, this language mirrors language in existing statutory and regulatory definitions of “release,” which exclude spills into environmental media below Federal reportable quantity limits. 35 P.S. § 6021.103; 25 Pa. Code § 245.1.

With this new definition of “immediate threat of contamination,” most spills below the applicable Federal reportable quantity limits will not be subject to the reporting requirements of § 245.305.

Regarding spills of petroleum absent a certified installer’s onsite involvement, as included under the definition of “immediate threat of contamination,” a spill from a storage tank will be a “release” under the definitions of “immediate threat of contamination” and “release.” However, under § 245.305(i) of this final-form rulemaking an owner or operator will not need to report a spill of less than 25 gallons to an aboveground surface or a spill that is below the lowest containment sump penetration, if the owner or operator contains and controls the spill, and removes the total volume of the spill within 24 hours. In addition, the definition of “immediate threat of contamination” does not include spills of petroleum that are less than 25 gallons into either a liquid-tight containment sump or emergency containment structure that occur as a result of “tank handling activity,” as that term is defined in § 245.1. Consequently, reporting would not be required.

The addition of a definition of “immediate threat of contamination” and the amendments in this final-form rulemaking to the reporting exemptions under § 245.305(i) create a broad exemption for small spills

that do not need to be reported while balancing the Department’s need to effectively oversee the threat to the environment and to protect against pollution. The Department believes that defining “immediate threat of contamination” is a reasonable approach because a quantitative review of a spill, rather than a qualitative analysis of a spill and its possible effects, significantly simplifies release reporting analysis and clarifies the roles of owners, operators and the Department in the process. Note that while containment structures help to prevent contamination, they do not alone completely mitigate the risk of contamination to the environment.

Finally, this simplification will benefit the Department, the regulated community and, most importantly, the environment and public health. Among its various duties, the Department is also responsible under § 245.305(g) for determining when a release poses an immediate threat to public health and safety. The Department cannot promptly respond to this duty if facilities spend valuable time determining if a spill poses a threat.

#### *Subchapter A—General Provisions*

##### *Section 245.1. Definitions.*

A number of commentators raised concern about the regulation of UST systems containing radioactive materials or coolants that are regulated under The Atomic Energy Act of 1954 (42 U.S.C.A. §§ 2011—2297) and UST systems that are 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). In addition, commentators expressed concern that the exclusion of wastewater tank systems from the universe of USTs regulated under Chapter 245 is too narrow. Commentators suggested that the proposed changes to Chapter 245, which include limiting language that provides that to be excluded, wastewater tank systems must be part of a water treatment facility that is either regulated under the National pollutant discharge elimination system (“NPDES”) permitting program or the industrial wastewater pretreatment program under the Federal Clean Water Act, would subject certain wastewater tank systems to Chapter 245 for the first time.

Commentators stated that the proposed rule should be revised to be consistent with, and no more stringent than, the requirements and exclusions in EPA’s July 15, 2015 Final Rule. Additionally, a commentator requested that the Department clarify that the Part 280 Subpart A installation requirements apply to the installation of new tanks, which the commentator believes is the intent of the Part 280 regulation. The commentator asserted that this would not impose any new requirements for existing tanks within these two categories of nuclear-related tanks. IRRC asked the Board to explain why the changes being proposed are needed and how they are consistent with and not more stringent than the Federal regulation on this subject matter.

In its response to these comments, the Department noted that the definition of “underground storage tank” in § 245.1 of this final-form rulemaking retains the proposed deletion in subparagraphs (xiii) and (xviii) of the exclusions for “Tanks containing radioactive materials or coolants that are regulated under The Atomic Energy Act of 1954 (42 U.S.C.A. §§ 2011—2297)” and “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.)” Deletion of these existing exclusions is consistent with the Federal definition of “underground storage tank” in 40 CFR 280.12 (relating to definitions) and necessary for the Commonwealth to reapply for State Program Approval from EPA. Also, the proposed amendment to the definition of “underground storage tank” in subparagraph (xiv) to modify the exclusion for a wastewater treatment tank system is retained in this final-form rulemaking. The amended definition clarifies that the exclusion only applies to systems regulated under section 307(b) or 402 of the Clean Water Act (33 U.S.C.A. § 1317(b) or § 1342). This existing exclusion is amended to be consistent with the Federal regulations at 40 CFR 280.10(b)(2) (relating to applicability). Modification of this existing exclusion is necessary for the Commonwealth to receive revised State Program Approval from EPA.

The EPA has long regulated these UST systems, and owners and operators have been required to comply with “interim prohibition” requirements pertaining to corrosion protection and compatibility with the regulated substance stored since May 7, 1985. The “interim prohibition” requirements were established in 1984 when Subtitle I was added to the Solid Waste Disposal Act (42 U.S.C.A. §§ 6921—6939g) through the Hazardous and Solid Waste Amendments which authorized the Federal program to regulate USTs. On December 22, 1988, the same “interim prohibition” requirements, along with release response and corrective action requirements, were promulgated in 40 CFR Part 280 Subparts A and F (relating to program scope and installation requirements for partially excluded UST systems; and release response and corrective action for UST systems containing petroleum or hazardous substances). At that time, these UST systems were deferred from Federal regulation with the exception of Subparts A and F. In its July 15, 2015 Final Rule, the EPA maintained its position that these regulated USTs only need to comply with Subparts A and F. To summarize the Federal requirements, these UST systems installed on or after May 7, 1985, need to be protected against corrosion and be compatible with the substance stored. Further, these UST systems regulated as of December 22, 1988, need to comply with the release response and corrective action requirements in 40 CFR Part 280.

The Department currently excludes these UST systems from regulation but to be as stringent as Federal requirements, will now regulate them. The proposed amendment to § 245.403(a), which states that these USTs must meet the same requirements that all other regulated UST systems must meet, is retained in this final-form rulemaking. Similarly, the proposed amendments to § 245.403(c) are retained, with an amendment added in this final-form rulemaking for these UST systems installed on or after May 7, 1985, to provide that UST owners and operators will not need to comply with §§ 245.411, 245.421(b)(3), 245.421(b)(4)(ii) and (iii), 245.422(d), 245.432(g) and 245.436—245.446. UST owners will not be required to conduct facility inspections, install spill and overfill prevention equipment, check for water in petroleum storage tanks, implement operator training, conduct periodic operation and maintenance walkthrough inspections, or perform release detection.

Although these USTs will be exempt from certain requirements, the Department believes that it is important for owners of these USTs to register the USTs, use Department-certified installers and inspectors, and maintain financial responsibility. These three requirements are specific to Chapter 245 and while considered more strin-

gent than Federal requirements, are beneficial to both the storage tank owner and the Department. These USTs are now regulated and all regulated USTs need to be registered with the Department under existing § 245.41 (relating to tank registration requirements). If the USTs are not registered with the Department, then the Department will not know where these USTs are, the number of these newly regulated USTs, and whether the USTs are in compliance with applicable regulations.

In addition, all regulated USTs in the Commonwealth need to be installed, modified and removed by Department-certified installers. Since UST owners and operators will need to meet the corrective action process requirements of Chapter 245, Subchapter D (relating to corrective action process for owners and operators of storage tanks and storage tank facilities and other responsible parties), it follows that the financial responsibility requirements of Subchapter H (relating to financial responsibility requirements for owners and operators of underground storage tanks and storage tank facilities) will apply. Financial responsibility is met by participating in the Underground Storage Tank Indemnification Fund (USTIF), which provides coverage for corrective action and third-party damages should a release occur. In addition, specifically with regard to Subchapter E (relating to technical standards for underground storage tanks), provisions concerning variances, applicable codes and standards, performance standards for new UST systems, upgrade requirements for existing UST systems, reuse of removed USTs, spill and overfill control, operation and maintenance including corrosion protection, compatibility, repairs allowed, reporting and recordkeeping, and closure, is retained in this final-form rulemaking and will apply to these UST systems. New § 245.403(c)(4) is added in Subchapter E to this final-form rulemaking to clarify that UST systems installed before May 7, 1985, are not required to comply with §§ 245.411—245.422, 245.424, 245.432, 245.433 and 245.436—245.446.

*Subchapter B—Certification Program for Installers and Inspectors of Storage Tanks and Storage Tank Facilities*

*Section 245.132. Standards of performance.*

Several commentators expressed concern that the proposed changes to § 245.132(a)(4) and (6) mandate that certified companies, certified installers and certified inspectors report to the Department where a regulated substance is observed in a containment structure or facility. Commentators stated that this type of requirement extends well beyond existing reporting requirements and is divorced from any analysis of whether the presence of a regulated substance in a containment structure is posing a significant threat to the environment. Further, a commentator stated that the proposed rulemaking would require certified installers and inspectors to report to the Department releases, even though the owner or operator would have no reporting obligation under § 245.305(i). IRRC requested that the Board explain the need for and reasonableness of the new language being added to these subsections.

The Department does not believe that the reporting requirements in final-form § 245.132 are overly broad. Existing storage tank regulations require Department-certified individuals to report a release of a regulated substance or suspected or confirmed contamination while performing services as a certified installer or certified inspector. In addition, facility owners and operators are required under § 245.304(a)(1) to perform a suspected release investigation where, for instance, there is a

regulated substance of unknown origin at a facility, even if the facility later determines that spill is ultimately not a reportable release.

While containment structures help to prevent contamination, they do not, alone, completely mitigate the risk of contamination to the environment. Containment structures that comply with § 245.542 help prevent contamination to environmental media. Containment systems, however, may malfunction, may require maintenance, or may be unsupervised for prolonged periods. The Department's proposed amendments of § 245.132(a)(4) and (6) reflect the Department's position that, in the context of reporting a spill, preventing contamination includes addressing the quantity of the spill as well as determining whether the containment structure contained the spill and whether the owner of the facility removed the spill within 24 hours. If the system is damaged—if the integrity of the system is not satisfactory—it is not containing the spill, thus potentially triggering reporting requirements. This is important information, without which the Department cannot perform its oversight duties. While changes from the proposed rulemaking are made in this final-form rulemaking, the essential approach taken in the proposed rulemaking remains the same in this final-form rulemaking.

As previously noted, reporting requirements for Department-certified individuals to report a release of a regulated substance or suspected or confirmed contamination are listed in § 245.132 and are separate from reporting requirements for storage tank owners and operators contained in Subchapter D. The Department retains in this final-form rulemaking the proposed requirement that Department-certified individuals report regulated substances observed in a containment structure or facility. Regulated substances present in a containment structure may or may not be a "release" and may or may not have to be reported to the Department by the storage tank owner or operator. However, for a storage tank owner or operator, the presence of any amount of regulated substance in a containment structure or facility would at a minimum be a suspected release and would require a suspected release investigation under § 245.304. Department-certified individuals provide assurance that owners and operators are complying with regulatory requirements. These Department-certified individuals install, modify, remove and inspect storage tanks and are required to meet standards of performance in the conduct of their work. As part of their standards of performance, the certified individuals are to report information to the Department that a storage tank owner or operator would not need to report. This allows the Department to follow up with a storage tank facility owner or operator to assure the required corrective actions are being taken to protect the public and the environment.

*Subchapter D—Corrective Action Process for Owners and Operators of Storage Tanks and Storage Tank Facilities and Other Responsible Parties*

*Section 245.304. Investigation of suspected releases.*

One commentator expressed concern that proposed Section 245.304(a)(6) would classify the discovery of any damage to a storage tank system as an "indication of release." First, the commentator explained that it is unclear whether every "indication of release" is a "suspected release" and therefore triggers the obligation to investigate. Second, the commentator suggested that classifying any "damage to a storage tank system" as an indication of release is overly broad. The commentator

stated that certain types of damage such as peeling paint, dents or surficial rust are not signs of a release. The commentator wrote that, if the existing language in Section 245.304(6), "the discovery of holes in a storage tank," is inadequate to cover conditions presenting a risk of release, then "damage" should be qualified by additional language, such as "damage creating a pathway for a regulated substance from a storage tank system to be released."

IRRC stated that § 245.304(a)(6) is being amended to include the discovery of "damage" to a storage tank system. IRRC noted that a commentator believes this addition is vague and as an example asks if chipped paint would be considered damage. IRRC requested that the Board explain in the preamble how it will implement this provision and clarify § 245.304(a)(6) accordingly in this final-form rulemaking.

In considering these comments, the Department provides clarification in § 245.304(a) in this final-form rulemaking to avoid ambiguity. The proposed addition in § 245.304(a) of the word "suspected" in the phrase "investigation of a suspected release" is carried over into the phrase "indication of a suspected release" in this subsection in this final-form rulemaking. The discovery of damage to a storage tank system is an indication of a suspected release and requires the owner or operator to investigate the suspected release to confirm whether a release of a regulated substance has occurred. The investigation must include a sufficient number of procedures as outlined in § 245.304(b).

The addition in § 245.304(a)(6) of "damage to a" storage tank system as an indication of a release is not overly broad and will not result in unnecessary investigations or recordkeeping requirements. The Department notes that § 245.304(b)(1)—(7) requires an investigation of an indication of a release, including damage to a storage tank system, by one of a number of means, such as checks of equipment, monitoring devices and visual inspections. An investigation does not require every listed analysis. Instead, it requires enough to confirm whether a release occurred. This is important to protect the environment. For instance, if a storage tank owner or operator discovers that damage such as dents or paint peeling has occurred, the owner may perform a visual inspection of the storage tank system and need not pursue further corrective action if the visual inspection confirms that no release has occurred. This approach was included in proposed § 245.304(d), which is deleted in this final-form rulemaking. Subsection 245.304(c) is amended in this final-form rulemaking to incorporate proposed § 245.304(d). Subsection 245.304(c) is also amended in this final-form rulemaking to incorporate language from existing § 245.304(d) to clarify the actions an owner or operator needs to take upon completion of a suspected release investigation, to include when the investigation cannot determine whether or not a release of a regulated substance occurred.

*Subchapter E—Technical Standards for Underground Storage Tanks*

*Section 245.433. Compatibility.*

Commentators noted concern with regard to § 245.433(b) and (c). The proposed amendments require owners and operators to demonstrate UST system compatibility when storing alternative fuel blends, biodiesel or biodiesel blended fuel. One commentator stated that the term "alternative fuel blend" is not defined in the proposed amended rule and, therefore, would be subject

to interpretation. The commentator also stated that all diesel fuel may contain some quantity of biodiesel. Therefore, potentially all diesel fuel would be a biodiesel blended fuel. The commentator suggested that the proposed rule should be limited to diesel fuel containing greater than 2% biodiesel. Otherwise, according to the commentator, owners and operators will incur a significant paperwork burden with no added benefit in protecting the environment. Another commentator recommended the Department revise the proposed language of § 245.433 to limit the documentation requirement to petroleum fuel blends containing greater than 10% ethanol and 20% biodiesel and other nonpetroleum regulated materials, as required by Federal regulations.

To improve the clarity of the regulation, IRRC asked that the term “alternative fuel blends” be defined. IRRC also asked for clarification as to whether all diesel fuel would be considered biodiesel fuel. IRRC noted that § 245.433(c) only requires the submittal of information to demonstrate compatibility upon the request of the Department. IRRC asked several questions. How will the Department implement this provision? Under what circumstances would the Department require the information? Would it apply to all USTs? If § 245.433(c) is more stringent than the Federal requirement, what is the need for it?

In consideration of these comments, the Department deletes in this final-form rulemaking the terms “alternative fuel blends,” “biodiesel” and “biodiesel blended fuels” from the amendments that were proposed to § 245.433. Certain proposed reporting requirements remain.

Subsection 245.433(a) in both the proposed and this final-form rulemaking mirrors the requirements of Federal regulations at 40 CFR 280.32(a) (relating to compatibility) and states, “Owners and operators shall use an underground storage tank system made of or lined with materials that are compatible with the substance stored in the underground storage tank system.” Section 280.32(b)(1) of the Federal regulations at 40 CFR 280.32(b)(1) requires owners and operators to notify the implementing agency (in this case, the Department) and demonstrate compatibility for any regulated substance. As such, compatibility documentation is to be maintained for all regulated UST systems. Section 245.435 requires regulated UST owners and operators to cooperate fully with Department requests for documentation and retain UST installation documentation for the life of the UST system.

In recognition of the concern that the requirement to submit compatibility information for “alternative fuel blends or biodiesel or biodiesel blended fuel” is subject to interpretation and lacks clarity, and due to the fact that the Department may request an owner or operator to provide compatibility documentation for any regulated substance under § 245.435, the Department amends § 245.433(b) in this final-form rulemaking to require an owner and operator of an underground storage tank to 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, upon Department request.

Subsection 245.433(c) of this final-form rulemaking provides four ways for UST owners and operators to document compatibility. These are modified slightly from the proposed rulemaking to account for removing the terms “alternative fuel blends” and “biodiesel blended fuels.” Subsection 245.433(c)(2) in this final-form rule-

making requires the manufacturer’s approval to be in writing, indicate an affirmative statement of compatibility with the substance stored, and be from the equipment or component manufacturer.

By providing several means for a UST owner and operator to provide compatibility documentation for a regulated UST system, the Department is balancing the need to protect the environment with a UST owner and operator’s ability to show compatibility of the UST system with the substance stored. Since compatibility documentation is to be maintained for all regulated UST systems, the proposed wording “Upon Department request” is deleted in this final-form § 245.433(c), and the provision is amended to require that an owner and operator of an underground storage tank system demonstrate compatibility of the underground storage tank system with the substance stored by using one or more of a list of options.

#### *Section 245.435. Reporting and recordkeeping.*

One commentator requested that § 245.435 be revised to explicitly state that wherever recordkeeping is required in the regulations, electronic records and documentation are permitted. Many UST owners and operators have modernized many aspects of UST compliance to electronic applications and dispatch systems. As a result, physical paper documentation may not exist. This modernization simplifies archiving, accountability and distribution of information. Additionally, these systems are a benefit to the environment as less paper is consumed.

The Department responded with acknowledgment of the statement regarding the increased use of electronic means for storing and transmitting data. Section 245.435 states what records are required and is for the most part silent on how those records must be stored or submitted to the Department. Records and documentation may be submitted to the Department electronically and will be acceptable to the Department provided that the submission meets the requirements of the regulations.

#### *Subchapter F—Technical Standards for Aboveground Storage Tanks and Facilities*

##### *Section 245.514. Security.*

##### *Section 245.516. Recordkeeping requirements.*

Several commentators requested that the proposed conditions in §§ 245.514(b), 245.516(c)(8), 245.603(c) and 245.615(b)(8) be removed and that the Department continue its existing practice of allowing the storage tank facility to select and implement the security measures that are most appropriate for the facility. These subsections would require owners and operators of AST facilities to maintain a written log book. One commentator noted that the use of a log book containing the proposed information is a best management practice for storage tank owners and operators and most facilities already have a procedure in place for maintaining the requested documentation. One commentator stated that the requirement to keep a detailed log book is burdensome for large facilities with many tanks, especially for the detail required by a log book. A consideration to shift this responsibility to the inspector or installer should be considered. One commentator noted that they have employed the security measures that they feel are appropriate for their facility, including the implementation of a robust system to control facility access. They stated that requiring that a written log book be maintained on top of an already strong access control system is overly burdensome, impractical, unnecessary and would not serve to improve site security. IRRC asked how this provision will be implemented and to implement the least burdensome

alternative for the regulated community while ensuring the proper protection of the environment.

The Department responded that it does not believe that the maintenance of a written log is overly burdensome, impractical or unnecessary, or that it would not serve to improve site security. The use of a log containing the proposed information is a best management practice for storage tank owners and operators. However, it has been the Department's experience that facilities do not have such logs as documented in several enforcement cases. The commentator states that they already implement a robust system to control facility access. Upon further review, they may find that the system already meets the written log requirements. To facilitate compliance with this requirement to maintain a written log, the Department amends §§ 245.514(b), 245.516(c)(8), 245.603(c) and 245.615(b)(8) in this final-form rulemaking to allow the log to be maintained in written or electronic form.

One commentator expressed concern that proposed § 245.516(c)(15) would require documentation of investigations of suspected releases to be maintained for the operational life of the tank system and retained for a minimum of 1 year after the tank system has been permanently closed. Proposed §§ 245.435(d)(22) and 245.615(b)(7) would impose similar requirements. The commentator stated if the investigation of a suspected release reveals that no release occurred, the records are of limited value. Further, they stated that the records are not relevant to any corrective action mandated by the regulation or to any damages to third persons. The commentator recommended that the proposed amendment adding § 245.516(c)(15) and the similar sections previously identified be withdrawn, or the retention period be limited to no more than 6 months. IRRC asked the Board to explain why it needs this information.

The Department responded that it currently requires regulated storage tank owners and operators to investigate an indication of a suspected release. Indications of a suspected release include: presence of a regulated substance or an unusual level of vapors from a regulated substance; unusual operating conditions; and test, sampling or monitoring results, including the sounding of an alarm from a release detection method, which indicates a release. These records are important in understanding the storage tank's operational history when performing required inspections and site assessments and responding to inquiries or complaints from the public. By retaining these records, a regulated storage tank owner may be able to overcome by clear and convincing evidence that the owner did not contribute to the damage, contamination or pollution discovered, under section 1311 of the act (35 P.S. § 6021.1311). The Department respectfully disagrees with the commentator and believes requiring maintenance of records associated with investigating suspected releases is imperative in providing protection for the environment and public health.

*Section 245.522. New aboveground tank installations and reconstructions.*

One commentator noted that proposed § 245.522(g) would require previously regulated tanks being reactivated to meet new storage tank system requirements which is consistent with existing regulations. However, the commentator requested clarity for tanks being reactivated in shared existing emergency containment areas. The commentator wrote that those containment areas should not be required to be upgraded as a result of activating a tank.

The Department responded that it respectfully disagrees that emergency containment areas should not be required to be upgraded when a tank returns to regulated status. In this final-form rulemaking, the Department deletes proposed § 245.522(g) and amends § 245.542(d)(1) and (2) to clarify the emergency containment requirements based on installation date of the AST.

The intent of § 245.542(d)(1) is to apply to new tank systems, a position the Department has maintained since the provisions were initially promulgated on October 11, 1997. A new tank system includes a tank being returned to regulated status in a shared, existing emergency containment area. In this instance, the emergency containment area must be upgraded to meet the requirements of § 245.542(d)(1).

To provide clarity, the Department amends § 245.542(d)(1) and (2) in this final-form rulemaking to clarify that large ASTs installed after October 11, 1997, must be installed within emergency containment having permeability less than  $1 \times 10^{-6}$  cm/sec.

*Section 245.531. General corrosion and deterioration requirements.*

A commentator noted that § 245.531(c) (relating to general corrosion and deterioration requirements) currently states that "Existing tank bottoms that do not meet the standards in subsection (b) shall be upgraded when the tank bottom is replaced." Proposed subsection (c) states that tank bottoms that are not adequately protected from corrosion and deterioration shall be upgraded to meet § 245.532 and § 245.534 (relating to cathodic protection systems; and interior linings and coatings). The commentator proposes to keep the same requirement in place that is already there or at the very least allow the upgrade to take place at the next "out-of-service" inspection. The commentator notes that the proposed requirement presents a significant burden and potential shutdown of plant operations by requiring immediate upgrades unless this work is performed either when the tank bottom is replaced or scheduled during an "out-of-service" inspection. IRRC asked the Board if the amendments to § 245.531 being proposed are new requirements, and if so, to explain the need for the revisions. If the requirements are new, IRRC asked the Board to quantify the costs associated with the amendments.

The Department responded that § 245.531(a), as proposed, clarifies that AST systems are to be continuously protected from corrosion and deterioration. Subsection 245.531(b), as proposed, clarifies that tank bottoms in direct contact with the soil are to be evaluated by a corrosion expert to determine if cathodic protection is necessary. Subsection 245.531(c), as proposed, clarifies that, "Tank bottoms that are not adequately protected from corrosion and deterioration [which is to be determined by the corrosion expert under § 245.531(b)] shall be upgraded to meet §§ 245.532 and 245.534." These regulatory amendments do not modify existing requirements. Rather the regulatory amendments included in this final-form rulemaking clarify existing requirements under § 245.531. Therefore, no additional costs will be incurred in complying with these amendments. This final-form rulemaking retains these proposed amendments. The Department does not believe it to be prudent or appropriate to allow a large AST to continue to operate knowing that the tank bottom is not protected from corrosion and deterioration. Section 245.531 of this final-form rulemaking allows large ASTs that have tank bottoms that need corrosion protection to be upgraded

through tank bottom replacement, cathodic protection being installed or with a tank liner. Allowing upgrades to be performed only when the tank bottom is scheduled to be replaced or allowing upgrades to wait until the next out-of-service inspection (which could be up to 20 years) is not acceptable, is not in the best interest of the tank owner, and may result in a release of regulated substance to the environment.

*Subchapter G—Simplified Program for Small Above-ground Storage Tanks*

*Section 245.616. Inspection requirements.*

Commentators noted that § 245.616(c) (relating to inspection requirements) proposes to have small ASTs storing regulated substances with a capacity of greater than 5,000 gallons and small ASTs storing highly hazardous substances with a capacity greater than 1,100 gallons to conduct in-service inspections every 5 years (previously 10 years) or more often when corrosion, deterioration or other specific conditions necessitate. Two commentators stated that increasing the frequency of small AST inspections is unnecessary when industry tank standards already provide a sound scientific and engineering basis for tank inspection schedules. One commentator stated that these small tanks offer minimal potential environmental harm and requiring more frequent inspections because people are failing to meet the current regulatory obligation is a flawed justification. One commentator believes that this change, which essentially doubles the costs for in-service inspections, does little but penalize facilities that appropriately manage their ASTs for the actions of facilities that do not and imposes an unnecessary financial burden on the tank owner with little environmental benefit. They proposed that the Department continue its existing practice of allowing Department-certified inspectors to manage in-service inspection frequencies on a case-by-case and site-specific basis.

The Department responded that the existing inspection frequency for USTs is once every 3 years, under § 245.411 (relating to inspection frequency). The Department saw a marked improvement in UST facility compliance rates when the UST inspection frequency changed from 5 or 10 years to the existing 3-year inspection cycle. Department inspection records show that less than 50% of ASTs inspected meet existing requirements. The Department strongly believes that a mandated shortened inspection frequency is needed to help improve compliance with these systems. Therefore, the proposed amendments to § 245.616(c) are retained in this final-form rulemaking.

*G. Benefits, Costs and Compliance*

*Benefits*

In enacting the act, the General Assembly found and declared the following under section 102(a) of the act (35 P.S. § 6021.102(a)): 1) the lands and waters of this Commonwealth constitute a unique and irreplaceable resource from which the well-being of the public health and economic vitality of this Commonwealth is assured; 2) these resources have been contaminated by releases and ruptures of regulated substances from both active and abandoned storage tanks; 3) once contaminated, the quality of the affected resources may not be completely restored to their original state; 4) when remedial action is required or undertaken, the cost is extremely high; 5) contamination of groundwater supplies caused by releases from storage tanks constitutes a grave threat to the health of affected residents; and 6) contamination of these

resources must be prevented through improved safeguards on the installation and construction of storage tanks.

The General Assembly declared its intent under 35 P.S. § 6021.103 to prevent releases by establishing a regulatory system to contain them and to establish liability for any damages caused. The Department's regulatory structure authorized by the act to prevent releases of regulated substances from storage tanks, as implemented through Chapter 245, provides the important benefits articulated in the General Assembly's findings.

The Department's primary purpose of this final-form rulemaking is to maintain its State Program Approval for its UST program. Incorporation of these UST amendments in this final-form rulemaking into Chapter 245 will enable the Commonwealth to retain approval of its UST program from the EPA and remain eligible for continued substantial Federal funding for the UST program.

In addition, this final-form rulemaking will further reduce the potential for releases of regulated substances from USTs by strengthening the requirements regarding properly operating and maintaining release detection equipment. This final-form rulemaking will require that UST equipment be inspected and tested regularly, which will help to further reduce the number of releases from USTs and in turn protect public health and the environment.

The Department anticipates that a substantial portion of the beneficial impacts associated with this final-form rulemaking will be the improved release detection and reporting, and, consequently, avoided cleanup costs. The EPA, in its analysis of the potential costs, benefits and other impacts associated with its July 15, 2015 Final Rule on pages 4—9 of the regulatory impact analysis found at <https://www.epa.gov/sites/production/files/2015-07/documents/regs2015-ria.pdf>, estimated the typical cost of a small-extent, soil-only remediation to be \$25,300, and the typical cost of a large-extent, groundwater-contamination remediation to be \$428,200. These costs are in 2008 dollars. During calendar year 2017, the average cost per closed claim paid by the USTIF was \$308,389, and the total paid for all open claims was \$33,287,724, as reported at [https://ustif.pa.gov/documents/10184/0/2017\\_PAUSTIF\\_Annual+Report\\_Final\\_2018-03-01.pdf/178c0ef5-8ef1-4931-b6fa-528014d9be38](https://ustif.pa.gov/documents/10184/0/2017_PAUSTIF_Annual+Report_Final_2018-03-01.pdf/178c0ef5-8ef1-4931-b6fa-528014d9be38).

While the reduced cleanup costs associated with this final-form rulemaking cannot be accurately quantified, a decrease in release frequency and severity is expected to result in both a reduction of the average cost per closed claim and the total annual claim payments made by the USTIF. The Department expects that groundwater contamination incidents and vapor intrusion remediation costs will be reduced or avoided as a result of operation and maintenance improvements and release prevention improvements, which will reduce the need for USTIF claims and payments and potentially reduce fees paid by UST owners to fund USTIF. These fees are typically passed on to consumers at motor fuel retail locations. Thus, any decrease in release frequency achieved by this final-form rulemaking will benefit the public and the environment by protecting soil and water resources, and reducing costs associated with necessary corrective action.

Other benefits of decreasing the frequency of releases from storage tanks that cannot be quantified or monetized include the avoidance of human health risks, protection of ecological receptors, protection of gallons of groundwater each year and avoided property devaluation.

This final-form rulemaking will also benefit storage tank owners and operators, and certified installers and

companies. For example, this final-form rulemaking adds a new UST certification category under § 245.110(b)(2) (relating to certification of installers) to allow individuals to perform tank handling activities such as repairs that do not involve excavation without having to obtain the (full) certification to install and modify storage tank systems, and to perform tests of UST systems required by this final-form rulemaking. Creation of this new certification category will afford UST owners the opportunity to employ individuals who specialize in modifications only, which could save UST owners some of the costs associated with minor modification work and system testing. This “minor modification” certification category will also provide opportunities for existing certified companies to employ individuals who specialize in minor modification work. In addition, it may create an incentive for persons interested in only performing “minor modification” work to become certified and establish their own companies. In either case, the establishment of this new certification category is expected to result in the creation of a significant number of jobs within the certified installer community, which may reduce the cost of UST system testing over time.

The increase in required inspections and testing by storage tank owners is expected to reduce Department costs. For example, this final-form rulemaking requires under § 245.552(d)(5) (relating to in-service inspections) that all ASTs in underground vaults that require an in-service inspection be inspected within 6 months and 12 months of installation and at least every 3 years thereafter due to their history of noncompliance. This mirrors the inspection requirement for USTs. Also, the initial inspection requirement and in-service inspection cycle for small ASTs is shortened under § 245.616(c) from 10 years to 5 years. Based on current in-service inspections, the compliance rate with regulatory requirements is less than 50%. When the facility operations inspection cycle for USTs was shortened from 5 years to 3 years in a prior rulemaking, the Department observed increased regulatory compliance, fewer releases and a reduction in the severity of releases from USTs, which reduced Department staff time needed to follow-up on noncompliant facilities and corrective action cases.

#### *Compliance costs*

In general, this final-form rulemaking requires additional storage tank testing for USTs and inspection of small ASTs and ASTs in vaults, and does not require large-scale investments in equipment or significant changes to operations at the facility level. The only exceptions that may require significant investment are the one-time costs to replace ball float valves following failure of the UST overfill prevention evaluation with alternate overfill prevention equipment and the need to add release detection to those emergency generator USTs that were previously deferred from regulation. See § 245.421(b)(3)(iii) (relating to performance standards for underground storage tank systems) and § 245.403(b)(1)—(3).

These one-time costs apply to a limited number of UST systems. Of the 22,203 existing UST systems regulated in this Commonwealth, 3,306 have ball float valves for overfill prevention and 605 are emergency generator UST systems without a form of release detection.

Many of the changes, especially those related to USTs, are necessary for the Department’s regulations in Chapter 245 to be consistent with Federal requirements for USTs and to retain EPA approval of the State program. Without these amendments, the EPA will not continue to approve the State program and will instead implement

the Federal UST program in this Commonwealth. Therefore, UST owners would incur the increased costs for their UST facilities to comply with 40 CFR Part 280 if Chapter 245 was not amended due to the EPA’s revised regulations for USTs.

#### *Analysis of UST compliance costs*

Within this Commonwealth, the Department regulates 7,655 UST facilities, which, in the aggregate, consist of 22,203 UST systems, for an average of 2.90 UST systems per facility. Compliance costs for these new UST regulatory requirements are estimated in this analysis based on a UST facility with 3 UST systems that have the following features: three 10,000-gallon UST systems with two storing gasoline and one storing diesel; 100 feet of piping per UST system; one fill port per UST system; spill prevention equipment at each UST system; two drop tube shut-off devices and one ball float valve for overfill prevention equipment; four dispensers each with an under-dispenser containment sump; one submersible turbine pump sump/tank top sump per UST system; and one automatic tank gauge (ATG) with an ATG probe per UST system.

Costs presented on a facility basis were adjusted for the fact that each UST facility has on average 2.90 UST systems. The Department contacted five Department-certified companies from various regions of this Commonwealth to estimate cost for the various requirements in this final-form rulemaking for the UST facility described in the preceding paragraph. In doing so, the Department requested the companies to provide cost estimates to include mobilization fees, paperwork fees, labor costs and any necessary waste disposal costs.

The maintenance walkthrough inspection requirement for UST facilities under § 245.438 (relating to periodic operation and maintenance walkthrough inspections) involves a visual inspection of spill prevention equipment and release detection every 30 days and a visual inspection of containment sumps and handheld release detection devices annually. All 7,655 UST facilities are required to conduct 30-day maintenance walkthrough inspections. The 5,806 UST facilities with containment sumps are required to conduct the annual visual inspection. These inspections may be performed by the UST owner, operator or other employee of the UST owner resulting in no cost other than the necessary time to conduct the inspections. However, some UST owners may choose to utilize third-party companies to conduct the maintenance walkthrough inspections. If a UST owner chooses to hire a third-party company, the owner will incur costs. However, this action will be voluntary and is not required by this final-form rulemaking.

Testing of spill prevention equipment and containment sumps and evaluation of overfill prevention equipment at UST facilities is required every 3 years, under § 245.437 (relating to periodic testing). All 22,203 UST systems have overfill prevention equipment and are required to conduct evaluations. Likewise, all UST systems require spill prevention equipment tests. Forty-one percent, or 9,103 UST systems at 3,324 UST facilities, have containment sumps used for interstitial monitoring of piping that will need to be tested. These tests and evaluations will need to be conducted by appropriate certified individuals.

Although the cost for testing and evaluation will only be incurred every 3 years, the costs are estimated on an annualized basis for purposes of this analysis (that is, the testing and evaluation costs are divided by three to estimate the cost per year). The estimated annual cost range and average annual cost for each evaluation or test per facility are summarized as follows:

<i>Evaluation or Test</i>	<i>Estimated Range of Annual Costs</i>	<i>Estimated Average Annual Cost</i>
Overfill prevention equipment	\$97—\$161	\$113
Spill prevention equipment	\$89—\$209	\$127
Containment sump	\$258—\$902	\$548

Based on the estimated average annual cost, the total annualized cost to a UST facility owner for equipment testing and evaluation every 3 years is estimated to range from \$240—\$788. The lower cost will apply to a facility that does not have containment sumps used for interstitial monitoring of piping. Based on these per facility costs, the annualized cost to evaluate and test equipment at all UST facilities is estimated to be \$3,658,752.

This final-form rulemaking prohibits continued use of ball float valves as an option for overfill prevention when these devices need to be replaced. A total of 3,306 UST systems are reported to have ball float valves as the form of overfill prevention. The increased cost to repair a ball float valve or replace a ball float valve with another ball float valve versus providing another form of overfill prevention (for example, shut-off device or alarm) is estimated to range from \$975—\$1,100 with the average cost to be \$1,038. The average cost represents the one-time increased cost to a UST owner for this overfill prevention equipment replacement. Replacement of a ball float valve will only be necessary when the equipment no longer functions as originally designed and fails the 3-year overfill evaluation requirement. Based on the average cost, the total one-time increased cost to replace ball float valves with another form of overfill prevention for all UST systems is estimated to be \$3,431,628.

Annual release detection equipment testing is required by this final-form rulemaking for all 22,203 UST systems. Operability tests will need to be conducted of the electronic and mechanical components of release detection equipment. The annualized cost to a UST facility owner for this release detection testing requirement is estimated to range from \$338—\$1,039, with the average cost to be \$595. Based on the average cost, the annual cost to test release detection equipment at all UST facilities is estimated to be \$4,554,725. These costs are based on an average UST facility consisting of three UST systems and four dispensers. Facilities that have fewer UST systems are expected to have lower costs.

This final-form rulemaking requires release detection for emergency generator USTs. An estimated 605 UST systems are reported as not having any form of release detection. For this analysis, an ATG is used as the form of release detection for these systems and will need to be tested annually for operability, however, other lower cost methods of tank release detection could be chosen by the UST owner depending on type and location of the UST system. The cost for the operability tests for these systems were included in the cost for release detection equipment testing previously described. The cost for the addition of an ATG ranges from \$4,000—\$30,000 with the average estimated cost to be \$16,875. Cost estimates are dependent on several factors, including amount of excavation required to install wiring and conduit, access to the UST system and location of the UST system to utilities and buildings. The average cost represents the one-time cost to a UST owner to add an ATG for release detection. Based on the average cost, the total one-time cost to add release detection to emergency generator USTs is estimated to be \$10,209,375.

The following table and discussion summarizes the total estimated annualized cost that UST facilities will incur for the testing and inspections in this final-form rulemaking when UST owners, operators or other employees of the UST owner conduct all maintenance walkthrough inspections:

	<i>Annualized Operation and Maintenance Costs<sup>1</sup></i>	<i>One-Time Costs<sup>2</sup></i>	<i>Number of Potentially Affected Facilities/Systems</i>	<i>Total Annualized Operation and Maintenance Costs<sup>3</sup></i>	<i>Total One-Time Costs<sup>4</sup></i>
Maintenance walkthrough inspections	\$0	\$0	7,655 facilities	\$0	\$0
Periodic testing and inspection of overfill prevention equipment, spill prevention equipment and containment sumps <sup>5</sup>	\$240—\$788	\$0	7,655 facilities	\$3,658,752	\$0
Eliminate ball float valves when overfill prevention equipment is replaced	\$0	\$1,038	3,306 UST systems	\$0	\$3,431,628
Operability tests for release detection	\$595	\$0	7,655 facilities	\$4,554,725	\$0
Remove release detection deferral for emergency generator USTs	\$0	\$16,875	605 UST systems	\$0	\$10,209,375
	\$835—\$1,383			\$8,213,477	\$13,641,003

<sup>1</sup> Per UST facility.

<sup>2</sup> Per UST system. One-time costs do not apply to all UST systems.

<sup>3</sup> For all UST facilities.

<sup>4</sup> For all UST systems. One-time costs do not apply to all UST systems.

<sup>5</sup> The lower range of the annualized operation and maintenance costs is for facilities that do not have containment sumps used for interstitial monitoring of piping.

The annualized increased operation and maintenance costs to conduct maintenance walkthrough inspections, inspect overfill prevention equipment, test spill prevention equipment and containment sumps, and test release detection equipment per UST facility is estimated to range from \$835—\$1,383. The total annualized increased costs for these inspections and tests at all UST facilities are estimated to be \$8,213,477.

The total one-time costs to replace all ball float valves with alternate overfill prevention equipment and to add release detection to emergency generator USTs is estimated to be \$13,641,003. These one-time costs apply to a limited number of UST systems. Currently, 3,306 UST systems (less than 15%) have ball float valves for overfill prevention and 605 UST systems (less than 3%) are emergency generator USTs that will need to add release detection equipment. Owners of emergency generator UST systems will be afforded 1 year to 2 years under this final-form rulemaking to make an informed decision to either add the necessary release detection, close the UST system or close the UST system and install a new AST.

#### *Analysis of AST compliance costs*

As with UST systems, the primary focus of this final-form rulemaking for AST systems is on an increased inspection frequency for small ASTs and ASTs in vaults. The Department contacted five Department-certified companies from various regions of this Commonwealth to estimate the increased cost to AST owners for the revised inspection requirements. In doing so, the Department requested the companies to provide cost estimates to include paperwork fees.

This final-form rulemaking requires all ASTs in underground vaults that require an in-service inspection to be inspected within 6 months and 12 months of installation and at least every 3 years thereafter. ASTs with a capacity greater than 5,000 gallons, and ASTs storing highly hazardous substances with a capacity greater than 1,100 gallons, are subject to these inspection requirements.

Currently, no large ASTs in underground vaults are registered with the Department and 35 small AST systems in underground vaults will need to increase inspections from once every 10 years to once every 3 years. These small ASTs have an average size of approximately 10,000 gallons.

The reported annualized cost range for an in-service inspection of a vaulted AST every 10 years, as currently required, is \$78 to \$315, and the average annualized cost is \$179. The estimated annualized cost range for an in-service inspection of a vaulted AST every 3 years is \$260 to \$1,050, and the estimated average annualized cost is \$595. Thus, the annualized increased cost to a AST owner of a vaulted AST for an in-service inspection every 3 years is estimated to be \$416. The total annualized increased cost to all AST owners who will be subject to the 3-year inspection requirement is estimated to be \$14,560.

This final-form rulemaking also shortens the initial inspection requirement and in-service inspection cycle for small ASTs (other than small ASTs in underground vaults) from 10 years to 5 years. This requirement applies to small ASTs with a capacity greater than 5,000 gallons, and small ASTs with a capacity greater than 1,100 gallons that store highly hazardous substances. An estimated 6,756 small ASTs with an average size of 11,400 gallons will need to increase their inspections to every 5 years under this final-form rulemaking.

The reported annualized cost range for an in-service inspection of a small AST every 10 years, as currently required, is \$44 to \$200, and the average annualized cost is \$98. The estimated annualized cost range for an in-service inspection of a small AST every 5 years is \$88 to \$400, and the estimated average annualized cost is \$196. Thus, the annualized increased cost to a AST owner of a small AST for the 5-year inspection period is estimated to be \$98. The total annualized increased cost to all AST owners who will be subject to the 5-year inspection period is estimated to be \$662,088.

The following table summarizes the estimated increased annualized costs previously discussed that will be incurred by AST system owners under this final-form rulemaking:

	<i>Annualized Operation and Maintenance Costs</i>	<i>One-Time Costs</i>	<i>Number of Potentially Affected Systems</i>	<i>Total Annualized Operation and Maintenance Costs</i>	<i>Total One-Time Costs</i>
Increased inspection frequency for vaulted ASTs	\$416	\$0	35 AST systems	\$14,560	\$0
Increased inspection frequency for small ASTs	\$98	\$0	6,756 AST systems	\$662,088	\$0
		\$0		\$676,648	\$0

Additional compliance costs associated with this final-form rulemaking that cannot be estimated are the costs to UST systems that were previously excluded from the definition of a UST, but are subject to Chapter 245 under this final-form rulemaking (for example, tanks containing radioactive materials or coolants that are regulated under The Atomic Energy Act of 1954, wastewater treatment tank systems that are not part of a wastewater treatment facility regulated under section 307(b) or 402 of the Clean Water Act, and UST systems that are part of an emergency generator system at nuclear power generation facilities regulated by the Nuclear Regulatory Commis-

sion (NRC) under 10 CFR Part 50, Appendix A). In addition, existing field-constructed USTs installed on or before October 11, 1997, are regulated under § 245.403 of this final-form rulemaking.

The number of USTs in these categories that will be subject to Chapter 245 under this final-form rulemaking is unknown because they are not currently required to be registered with the Department. Registration will be required within 60 days after the effective date of this final-form rulemaking. Field-constructed USTs installed on or before October 11, 1997, are temporarily excluded from other regulatory requirements in Chapter 245 until

1 year after the effective date of this final-form rulemaking. Upon registration of a UST that was previously excluded from regulation, the Department will work with the tank owner to bring the UST into regulatory compliance. Due to the unique nature of these USTs, the steps that will be necessary to bring the USTs into compliance are expected to vary widely. Thus, compliance costs associated with the regulation of this universe of USTs cannot be estimated.

USTs containing radioactive material and emergency generator UST systems at nuclear power generation facilities regulated by the NRC are subject to United States Department of Energy Orders and NRC regulations that are comparable to the Chapter 245 requirements for new and existing USTs regarding spill and overflow control, operation and maintenance of corrosion protection, and release detection. Since owners and operators of these UST systems had to meet Federal requirements dating back to May 7, 1985, that required systems to be designed and constructed to prevent releases during the operating life of the facility due to corrosion or structural failure, these systems should already be in compliance with most requirements and therefore incur minimal additional costs.

#### *Analysis of Department costs*

Under this final-form rulemaking, the Department will incur minimal additional costs to publish notices in the *Pennsylvania Bulletin* for the following: acknowledgment of receipt of the remedial action plan under § 245.311 (relating to remedial action plan); notice of the Department's final action on the remedial action plan under § 245.313(c) (relating to remedial action completion report); acknowledgment of receipt of the remedial action completion report under § 245.313(c); notice of the Department's final action on the remedial action completion report under § 245.313(c); and notice of variances approved by the Department under §§ 245.503(6) and 245.606(6) (relating to variances). No additional central or regional office program staff are needed to implement these regulatory amendments. No new data system requirements are required.

#### *Compliance assistance plan*

As previously noted, this final-form rulemaking will affect approximately 7,000 storage tank owners at nearly 12,600 storage tank facilities. Industry sectors potentially affected by this final-form rulemaking include retail motor fuel sales, commercial, institutional, manufacturing, transportation, communications and utilities, and agriculture. Federal, State and local government owners of regulated storage tanks will also be affected.

Department-certified storage tank installers, inspectors and companies will also need to comply with this final-form rulemaking. Nearly 875 individuals and approximately 350 companies have certifications from the Department under Chapter 245. It is anticipated that Department-certified tank installers and inspectors will have the capacity to provide the increased testing and inspections that will be required by this final-form rulemaking. This is especially true with the addition of a new certification category for minor modifications to allow individuals to perform tank handling activities such as repairs that do not involve excavation without having to obtain the (full) certification to install and modify storage tank systems. With this new certification, individuals will also be able to perform tests of UST systems required by this final-form rulemaking.

The visual inspection of spill prevention and release detection equipment, containment sumps and handheld

release detection devices could be performed by the UST owner, operator or other employee of the UST owner. However, UST owners may choose to utilize a third-party company to conduct the maintenance walkthrough inspections.

Owners of existing storage tank systems will be provided with adequate timeframes to adjust and comply with the new requirements. Owners of storage tank systems installed on or after the effective date of this final-form rulemaking shall comply with the requirements immediately.

Financial assistance is not anticipated or planned. The Department will provide technical and compliance assistance outreach through its website, publications, forms and presentations to various industry groups and organizations. Webinars explaining the regulatory amendments are also planned.

#### *Paperwork requirements*

This final-form rulemaking includes the following new notification, reporting and other paperwork requirements:

- Certified installers and inspectors will need to report regulated substance observed in a containment structure or facility within 48 hours on a form provided by the Department. See § 245.132(a)(6).
- Certified installers and inspectors will need to report failed tests of UST spill prevention equipment, containment sumps, and overflow prevention equipment within 48 hours on a form provided by the Department. A copy of the test results will also need to be provided to the Department with the notification report. See § 245.132(a)(6).
- If a suspected release investigation fails to determine whether or not a release of a regulated substance has occurred, owners and operators will need to report the suspected release within 15 days of the indication of a suspected release on a form provided by the Department. See § 245.304(c)(2).
- If a suspected release investigation confirms that a release has not occurred, and removal of the regulated substance cannot be accomplished within 24 hours, owners and operators will need to immediately notify the Department by telephone or electronic mail. See § 245.304(c)(3).
- Responsible parties will need to 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 in response to a release. See § 245.306(e) (relating to interim remedial actions).
- Responsible parties will need to notify the Department, by telephone or electronic mail, within 24 hours of providing an alternate source of water to the owner of an affected or diminished water supply in response to a release. See § 245.307(e) (relating to affected or diminished water supplies).
- Responsible parties will need to notify the Department by telephone or electronic mail as soon as practicable, but no later than 24 hours after the initiation of site characterization activities in response to a release. See § 245.309(c)(24) (relating to site characterization).
- The Department will need to publish an acknowledgment of receipt of the remedial action plan and notice of its final action on the plan in the *Pennsylvania Bulletin*. See § 245.311.
- The Department will need to publish an acknowledgment of receipt of the remedial action completion report

and notice of its final action on the report in the *Pennsylvania Bulletin*. See § 245.313(c).

- Owners and operators will need to notify the Department of the proposed installation of specific UST system components such as the piping system and dispenser, and not just when a tank or tank system is being installed, on a form provided by the Department. See § 245.421(a)(2).

- Certified installers and inspectors will need to document tests or evaluations of UST spill prevention and overfill prevention equipment, containment sumps, and release detection equipment on a form provided by the Department. Owners and operators will need to maintain test or evaluation results onsite at the storage tank facility or at a readily available alternative site and shall provide the forms to the Department upon request. See § 245.31(f) (relating to underground storage tank system testing requirements) and § 245.435(a) and (b).

- Surveys of UST cathodic protection systems will need to be documented on a form provided by the Department and must be provided to the Department upon request. See § 245.432(a)(2)(iii).

- Upon Department request, owners and operators will need to submit, on a form provided by the Department, information verifying that all system components are compatible with the proposed substance to be stored, prior to storing the substance in the UST. See § 245.433(b).

- Owners and operators will need to maintain documentation showing that their UST systems are continuously participating in the USTIF. See § 245.435(d)(9).

- Owners and operators will need to maintain documentation of the last test of UST spill prevention equipment and containment sumps used for interstitial monitoring of piping and evaluation of overfill prevention equipment. See § 245.435(d)(19).

- For containment sumps used for interstitial monitoring of piping and spill prevention equipment not required to be tested, UST owners and operators will need to maintain documentation showing that the equipment is double-walled and the integrity of both walls is periodically monitored. See § 245.435(d)(20).

- UST owners and operators will need to maintain records of walkthrough inspections for the past 12 months. See § 245.435(d)(21).

- Owners will need to ensure that Class A, Class B and Class C operators are identified on a form provided by the Department prior to placing the UST system into use. See § 245.436(d)(1) (relating to operator training).

- Owners and operators of AST facilities with an aggregate aboveground storage capacity greater than 21,000 gallons will need to maintain a written or electronic log. Each log entry will need to identify the name of the individual performing tank handling and inspection activities, the individual's signature or equivalent verification of presence onsite, the company name, the date of work, start and end times and a brief description of work performed, including tank identification. See §§ 245.514(b) and 245.603(c).

- In addition to routine monthly inspections, AST owners and operators will need to maintain 72-hour maintenance inspections for the past 12 months. See § 245.516(c)(12).

- AST owners and operators will need to maintain documentation of investigations of suspected releases. See §§ 245.516(c)(15) and 245.615(b)(7).

- AST owners and operators will need to maintain the results of testing from the last two cathodic protection surveys and the results of the last three impressed current cathodic protection system checks for each 60-day period. See §§ 245.516(c)(11) and (16) and 245.615(b)(9) and (10).

- Should a high-level alarm with a manned operator shutdown procedure be utilized, owners and operators of ASTs will need to document the shutdown procedure and provide it to the Department upon request. See § 245.541(b)(2) (relating to overfill prevention requirements).

- When an overfill alarm or prevention device or monitoring gauge is utilized, owners and operators of ASTs will need to document the shutdown procedure. See § 245.612(d)(2) (relating to performance and design standards).

The following new forms will be used to implement this final-form rulemaking:

- Underground Storage Tank Groundwater/Vapor Monitoring System Functionality Testing Form

- Underground Storage Tank Sensor Functionality Testing Form

- Underground Storage Tank Automatic Line Leak Detector Functionality Testing Form

- Underground Storage Tank Pressure/Vacuum Monitoring Functionality Testing Form

- Underground Storage Tank Spill Prevention Equipment/Containment Sump Integrity Testing Form

- Underground Storage Tank Automatic Tank Gauge Functionality Testing Form

- Underground Storage Tank Overfill Prevention Evaluation Form

- Aboveground Storage Tank Lining Inspection Summary and Instructions

The following existing forms are revised to implement this final-form rulemaking:

- Underground Storage Tank Facility Operations Inspection Report Form Instructions (2630-FM-BECB0501)

- Underground Storage Tank Facility Operations Inspection (2630-FM-BECB0501a)

- Underground Storage Tank System Installation/Closure Notification Form (2630-FM-BECB0127)

- Planning for Permanent Closure Checklist—Underground Storage Tank Systems (2630-FM-BECB0126)

- Underground Storage Tank Modification Report (2630-FM-BECB0575)

- Underground Storage Tank System Closure Report Form (2630-FM-BECB0159)

- Aboveground Storage Tank Integrity/Installation Inspection Summary and Instructions (2630-FM-BECB0150)

- Aboveground Storage Tank System Closure Report Form (2630-FM-BECB0514)

- Planning for Permanent Closure Checklist—Aboveground Storage Tank Systems (2630-FM-BECB0512)

- Aboveground Storage Tank System Closure Notification Form (2630-FM-BECB0513)

- Notification of Release/Notification of Contamination (2620-FM-BECB0082)
- Storage Tanks Registration/Permitting Application Form and Instructions (2630-PM-BECB0514)
- Storage Tank Installer/Inspector Certification Application Form and Instructions (2630-PM-BECB0506)
- Storage Tank Training Course Approval Application and Instructions (2630-PM-BECB0402)
- Storage Tank Site-Specific Installation Permit Application Instructions (2630-PM-BECB0002)
- Initial Qualifications—Storage Tank Installer and Inspector Certification (2630-PM-BECB0506b)
- Renewal Qualifications—Storage Tank Installer and Inspector Certification (2630-PM-BECB0506b2)
- Instructions—Storage Tank Installer and Inspector Certification—Attachment A (2630-PM-BECB0506c)

The following form is deleted under this final-form rulemaking and is being incorporated into the Aboveground Storage Tank Integrity/Installation Inspection Summary and Instructions (2630-FM-BECB0150):

- Aboveground Storage Tank Installation Inspection Summary (2630-FM-BECB0602).

While this final-form rulemaking adds additional notification, reporting and recordkeeping requirements, some of the notification is simply verbal or electronic notification. Where information is required to be documented, the Department is providing a significant number of forms to facilitate compliance with the various requirements. Most of the forms will be completed by Department-certified installers and inspectors who will be instructed by Department staff on how to complete them. Department-certified installers and inspectors often request standardized forms from the Department so that they are fully aware of what the Department expects to be reported. Having standardized forms, completed by certified installers and inspectors, should limit the time and expense required to fill them out.

With regard to verbal or electronic notification requirements, a responsible party will need to notify the Department either verbally or electronically (such as by telephone or e-mail) upon initiation of an interim remedial action, within 24 hours of providing an alternate source of water to an affected water supply owner, and within 24 hours of initiation of site characterization activities in response to a release of a regulated substance from a storage tank, under §§ 245.306(e), 245.307(e) and 245.309(c)(24). The first corrective action report required to be submitted by the responsible party is the site characterization report, required under § 245.310 (relating to site characterization report). It is to be submitted to the Department after the responsible party takes interim remedial actions, provides an alternate source of water (if necessary) and completes site characterization activities. Therefore, it is important for the Department to know in a timely manner that these required corrective actions are taking place. Interim remedial actions, when conducted properly and promptly, limit the extent and severity of contamination, thereby limiting the amount of site characterization that needs to be performed and further remedial action that needs to be conducted. The result is protection of the public and the environment, and a reduction in the cost of corrective action to storage tank owners and operators.

In addition, if a suspected release investigation confirms that a “release” has not occurred, and removal of

the regulated substance cannot be accomplished within 24 hours, owners and operators will need to immediately notify the Department by telephone or e-mail. An example is a spill of a hazardous substance to an aboveground surface in an amount less than the reportable quantity that cannot be fully removed within 24 hours.

The Department anticipates that costs associated with these additional verbal or electronic notification requirements should be minimal because the owner, operator or consultant is typically communicating with the Department at this point and informing the Department when actions that have been proposed are initiated.

The vast majority of the reporting requirements will be handled by Department-certified installers and inspectors, as well as by consultants. The Department is providing the necessary forms to facilitate compliance with the various requirements. Department-certified installers and inspectors, as well as consultants welcome these forms and will be instructed by Department staff as to how to complete them. The vast majority of reporting forms associated with this final-form rulemaking are existing forms that have undergone minor revisions. Completion of these revised forms will result in no additional cost to the regulated community. The few new forms that have been developed are testing and evaluation forms that are necessary to record the results of the new periodic UST testing requirements established in § 245.437 to meet the Federal requirements of ensuring that installed equipment for release detection and prevention is operating properly. The Department contacted five Department-certified companies from various regions of the Commonwealth to provide cost estimates for the various testing requirements. The Department requested the companies to provide cost estimates to include mobilization fees, paperwork fees, labor costs and any necessary waste disposal costs. Therefore, the costs presented in Section G of the preamble and Item 19 of the Regulatory Analysis Form to this final-form rulemaking for the new UST testing requirements are inclusive of the reporting requirements.

With regard to the new recordkeeping requirements, the vast majority of the documentation that owners and operators will need to maintain is necessary to comply with the new Federal UST requirements. However, in general, the records are important because review of storage tank system records is necessary for Department-certified inspectors to determine compliance with regulatory requirements. Department-certified inspectors are required to periodically inspect ASTs and UST facilities, under §§ 245.411, 245.551—245.554, and 245.616. Record review is an integral part of the inspection. Without the records, inspectors would not be able to determine regulatory compliance. In fact, the absence of required records means that a storage tank system is in noncompliance with regulatory requirements. A storage tank system that is noncompliant is at risk for releases which may impact the public and the environment. While the Department cannot quantify the costs associated with the maintenance of additional records, any costs should be minimal.

#### H. Pollution Prevention

The Federal Pollution Prevention Act of 1990 (42 U.S.C.A. §§ 13101—13109) established a National policy that promotes pollution prevention as the preferred means for achieving state environmental protection goals. The Department encourages pollution prevention, which is the reduction or elimination of pollution at its source, through the substitution of environmentally friendly ma-

terials, more efficient use of raw materials and the incorporation of energy efficiency strategies. Pollution prevention practices can provide greater environmental protection with greater efficiency because they can result in significant cost savings to facilities that permanently achieve or move beyond compliance.

The primary purpose of this final-form rulemaking is to strengthen the UST requirements by increasing the emphasis on properly operating and maintaining equipment. The amendments require that UST equipment be operated and maintained properly, which will help to further reduce the number of releases from USTs and in turn protect public health and the environment.

This final-form rulemaking also will require all ASTs in underground vaults that require an in-service inspection to be inspected within 6 months and 12 months of installation and at least every 3 years thereafter due to their history of noncompliance. This mirrors the inspection requirement for USTs. Also, the initial inspection requirement and in-service inspection cycle for small ASTs will be shortened from 10 years to 5 years. Based on current in-service inspections, the compliance rate with regulatory requirements is less than 50%. The facility operations inspection cycle for USTs was shortened from 5 years to 3 years in a prior rulemaking, which has resulted in increased regulatory compliance. Increased compliance with these regulatory requirements will mean fewer releases and a reduction in the severity of releases from ASTs.

#### I. Sunset Review

The Board is not establishing a sunset date for these regulations, since they are needed for the Department to carry out its statutory authority. The Department will continue to closely monitor these regulations for their effectiveness and recommend updates to the Board as necessary.

#### J. Regulatory Review

Under section 5(a) of the Regulatory Review Act (71 P.S. § 745.5(a)), on February 13, 2018, the Department submitted a copy of the notice of proposed rulemaking, published at 48 Pa.B. 1101, to IRRC and the Chairpersons of the House and Senate Environmental Resources and Energy Committees for review and comment.

Under section 5(c) of the Regulatory Review Act, IRRC and the Committees were provided with copies of the comments received during the public comment period, as well as other documents when requested. In preparing this final-form rulemaking, the Department has considered all comments from IRRC, the House and Senate Committees and the public.

Under section 5.1(j.2) of the Regulatory Review Act, on October 17, 2018, this final-form rulemaking was deemed approved by the House and Senate Committees. Under section 5.1(e) of the Regulatory Review Act, IRRC met on October 18, 2018, and approved this final-form rulemaking.

#### K. Findings of the Board

The Board finds that:

(1) Public notice of proposed rulemaking was given under sections 201 and 202 of the act of July 31, 1968 (P.L. 769, No. 240) (45 P.S. §§ 1201 and 1202) and regulations promulgated thereunder at 1 Pa. Code §§ 7.1 and 7.2.

(2) A public comment period was provided as required by law, and all comments were considered.

(3) This final-form rulemaking does not enlarge the purpose of the proposed rulemaking published at 48 Pa.B. 1101, 1130 (February 24, 2018).

(4) These regulations are necessary and appropriate for administration and enforcement of the authorizing acts identified in Section C of this preamble.

#### L. Order of the Board

The Board, acting under the authorizing statutes, orders that:

(a) The regulations of the Department, 25 Pa. Code Chapter 245 is amended by adding §§ 245.437, 245.438, 245.606, 245.617 and 245.618, deleting §§ 245.107, 245.211, 245.212, 245.221, 245.423 and 245.614 and amending §§ 245.1, 245.21, 245.31, 245.41, 245.42, 245.102, 245.105, 245.106, 245.108, 245.110—245.114, 245.121, 245.123, 245.132, 245.141, 245.203, 245.222, 245.231—245.236, 245.301—245.307, 245.309—245.313, 245.402—245.404, 245.411, 245.421, 245.422, 245.432—245.436, 245.441—245.446, 245.451, 245.452, 245.501, 245.503, 245.505, 245.511—245.516, 245.521—245.526, 245.531—245.534, 245.541—245.543, 245.551—245.554, 245.561, 245.562, 245.603, 245.605, 245.611—245.613, 215.615, 215.616, 245.704 and 245.708 to read as set forth in Annex A, with ellipses referring to the existing text of the regulations.

(b) The Chairperson of the Board shall submit this order and Annex A to the Office of General Counsel and the Office of Attorney General for review and approval as to legality and form, as required by law.

(c) The Chairperson of the Board shall submit this order and Annex A to IRRC and the Senate and House Environmental Resources and Energy Committees as required by the Regulatory Review Act.

(d) The Chairperson of the Board shall certify this order and Annex A and deposit them with the Legislative Reference Bureau, as required by law.

(e) This order shall take effect immediately upon publication in the *Pennsylvania Bulletin*.

PATRICK McDONNELL,  
Chairperson

(Editor's Note: See 48 Pa.B. 7085 (November 3, 2018) for IRRC's approval order.)

**Fiscal Note:** Fiscal note 7-530 remains valid for the final adoption of the subject regulations.

#### Annex A

### TITLE 25. ENVIRONMENTAL PROTECTION PART I. DEPARTMENT OF ENVIRONMENTAL PROTECTION

#### Subpart D. ENVIRONMENTAL HEALTH AND SAFETY

#### ARTICLE VI. GENERAL 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 regulated under 58 Pa.C.S. Chapter 32 (relating to 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.

\* \* \* \* \*

(ix) Other tanks excluded by regulations promulgated under the act.

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

*Act*—The Storage Tank and Spill Prevention Act (35 P.S. §§ 6021.101—6021.2104).

*Adjacent*—Next to or contiguous with.

\* \* \* \* \*

*Cathodic protection tester*—A person who can demonstrate an understanding of the principles and measurements of common 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:

\* \* \* \* \*

(B) Storage tank installer certification categories:

\* \* \* \* \*

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

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

(XI) UTT—Underground storage tank system tightness tester.

(XII) UMR—Underground storage tank system removal.

*Certified company*—An entity, including a sole proprietorship, a partnership or a corporation, which is certified by the Department and employs certified installers or certified inspectors to conduct tank handling activities, tightness testing activities or inspection activities.

*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 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 of a tank owner.

\* \* \* \* \*

*Containment structure or facility*—Anything built, installed or established and designed to contain regulated substances that are spilled, leaked, emitted, discharged, escaped, leached or disposed from a storage tank or storage tank system, including a vault, a dike, a wall, a building or secondary containment.

*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).

*Corrective action*—

\* \* \* \* \*

*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 Safety Data Sheet (SDS). The term does not apply to section 507 of the act (35 P.S. § 6021.507) as it pertains to site contamination.

\* \* \* \* \*

*Environmental audit*—Activities which may be conducted by a certified inspector to evaluate the storage tank system or storage tank facility site, equipment and records to determine evidence of an actual or possible release of regulated substance.

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

*Environmental media*—Soil, sediment, surface water, groundwater, bedrock and air.

*Excavation zone*—The volume containing the tank system and backfill material bounded by the ground surface, walls and floor of the pit and trenches into which the underground storage tank system is placed at the time of installation.

*Exempt underground storage tank*—An underground storage tank which has been exempted by regulation from participation in USTIF.

*Existing underground storage tank system*—An underground storage tank system used to contain an accumulation of regulated substances for which installation has either started or been completed in accordance with this chapter. Installation is considered to have started 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 sections 3001—3024 of the Solid Waste Disposal Act (42 U.S.C.A. §§ 6921—6939g), or mixture of the substances and petroleum, and which is not a petroleum system.

\* \* \* \* \*

*Hydraulic lift tank*—A tank holding hydraulic fluid for a closed loop mechanical system that uses compressed air or hydraulic fluid to operate lifts, elevators and other similar devices.

*Immediate threat of contamination*—Spilling, leaking, emitting, discharging, escaping, leaching or disposing of a regulated substance from a storage tank into a containment structure or facility 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 of petroleum into a liquid-tight containment sump or emergency containment structure in an amount less than 25 gallons as a result of a tank handling activity unless 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.

*In-service inspection*—A scheduled aboveground storage tank external inspection to determine tank system serviceability and compliance with requirements in this chapter and applicable industry standards. This inspection shall be conducted by a Department-certified aboveground storage tank inspector. The tank system may be in operation during this inspection.

\* \* \* \* \*

*Install*—Activities to construct, reconstruct or erect to put into service a storage tank, a storage tank system or storage tank facility.

*Intrafacility piping*—A common piping system serving more than one storage tank system within a storage tank facility.

\* \* \* \* \*

*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 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.

*Modify*—To conduct an activity that constitutes a major modification or a minor modification.

*Monitoring system*—A system capable of detecting releases in connection with an aboveground or underground storage tank.

*Motor fuel*—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 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.

\* \* \* \* \*

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

*Regulated substance*—

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:

(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).

(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 oil, petroleum, petroleum mixed with ethanol, fuel oil, oil sludge, oil refuse, oil mixed with other nonhazardous wastes and crude oils, gasoline and kerosene.

(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:

(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 subparagraph (ii) apply for this group of substances.

(B) Pure ethanol intended for blending with motor fuel. The requirements in this chapter for petroleum tanks in subparagraph (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.

*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.

*Remediation standard*—The background, Statewide health or site-specific standard, or any combination thereof, as provided for in the Land Recycling and Environmental Remediation Standards Act (35 P.S. §§ 6026.101—6026.908).

*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 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) Closure-in-place and permanent closure.

(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, overflow prevention equipment, corrosion protection equipment, release detection equipment or other storage tank system component that has failed to function properly.

*Residential tank*—A tank located on property used primarily for dwelling purposes.

\* \* \* \* \*

*Solid Waste Management Act*—The Solid Waste Management Act (35 P.S. §§ 6018.101—6018.1003).

*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 a catchment basin, spill containment bucket or spill containment box.

*Spill prevention response plan*—Emergency plans and procedures developed by an aboveground storage tank or tank facility owner, operator, or both, for response to an accident or spill on the facility by facility personnel or contractors.

*Stationary tank*—An aboveground storage tank that is permanently affixed to the real property on which the tank is located.

*Storage tank*—An aboveground or underground storage tank which is used for the storage of a regulated substance.

*Storage tank facility*—One or more stationary tanks, including associated intrafacility pipelines, fixtures, monitoring devices and other equipment. A facility may include aboveground tanks, underground tanks or a combination of both. For the purposes of the act and this part,

the associated intrafacility pipelines, fixtures, monitoring devices and other equipment for an aboveground storage tank shall be that which lies within the emergency containment area. The term storage tank facility does not encompass portions of a facility that do not contain storage tank systems.

*Storage tank system*—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:

\* \* \* \* \*

*Tank handling activities*—Activities to install, modify, perform change-in-service or 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) which is one of the following:

(A) Regulated under 49 U.S.C.A. §§ 60101—60141.

(B) An intrastate pipeline facility regulated under state laws as provided in 49 U.S.C.A. §§ 60101—60141 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 pipeline facility regulated under State laws comparable to the provisions of law in subparagraph (iv).

\* \* \* \* \*

(xii) An underground storage tank system with capacity of 110 gallons or less.

(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.A. §§ 1317(b) and 1342).

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

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

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

(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 shall use persons who are 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 tank systems and tank handling activities conducted on all aboveground storage 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.

\* \* \* \* \*

#### **TESTING ACTIVITIES**

##### **§ 245.31. Underground storage tank system 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 in § 245.444(2) and (3) (relating to methods of release detection for tanks).

(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).

(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 and reporting of suspected releases). A failed valid tightness test conducted as part of an investigation of a suspected release constitutes a confirmed release.

(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 in § 245.444(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.

(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).

(f) Tests or evaluations of spill prevention and overflow 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 in 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'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 under § 245.436 (relating to operator training).

(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 in 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 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.
- (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). The tank owner 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 in 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. The Department will not refund registration fees due to a change of ownership.

\* \* \* \* \*

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

§ 245.102. Requirement for certification.

(a) A person may not conduct tank handling or tightness testing activities unless that person holds a current installer certification issued by the Department for the applicable certification category as indicated in § 245.110 (relating to certification of installers), except as provided in § 245.31 (relating to underground storage tank system testing requirements). Installer certification will only be issued by the Department to a person who:

\* \* \* \* \*

(d) 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 examination and a minimum score of 80% on the administrative examination.

(e) An applicant who fails an examination is eligible to retake the examination for up to 1 year from the failed examination test date, but no later than 18 months from date of authorization.

(f) Passing examination scores are valid for 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 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 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 an underground storage tank 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 during an integrity, installation or modification inspection of an aboveground storage tank system.

(c) A certified inspector may not perform an inspection as required under § 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. (Reserved).

## § 245.108. Suspension of certification.

(a) The Department may suspend the certification of a certified installer or certified inspector for good cause which includes:

- (1) A violation of the act or this chapter.
- (2) Incompetency on the part of the certified installer or certified inspector as evidenced by errors in conducting duties and activities for which the certification in question was issued.
- (3) Failure to successfully complete a training program required by the Department.
- (4) 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 a report of an inspection activity to the Department within 60 days of conducting an inspection activity, except for reports of modification inspection activities, which must be reported to the Department within 30 days of conducting a modification inspection activity. For inspection activities involving multiple certified individuals and certification categories, reports of modification inspection activities must be submitted within 30 days of the completion of all project tank handling and inspection activities.
- (5) A certified installer's failure to:
  - (i) Be present during tank handling activities at the storage tank system or storage tank facility as required by the act or this chapter.
  - (ii) Conduct tank handling activities in accordance with the requirements in the act or this chapter.
  - (iii) Submit tank handling reports and activities to the Department within 30 days of conducting the tank handling activities. 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.
- (6) Working as a certified installer or certified inspector in a certification category for which the person has failed to obtain or maintain certification.
- (7) Failure to meet one or more of the standards of performance in § 245.132 (relating to standards of performance).
- (8) Submission of false information to the Department.
- (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 causes pollution, causes a threat of pollution or causes harm to the public health, safety or welfare.
- (10) Failure to perform underground tightness testing activities and documentation in accordance with § 245.31 (relating to underground storage tank system testing requirements).

\* \* \* \* \*

## § 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 tank systems including 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.

(3) *Underground storage tank system removal {UMR}*. Removal from service of underground storage tank systems.

(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. This category also includes containment sump and spill prevention equipment testing and release detection equipment testing.

(5) *Aboveground manufactured metallic storage tank system installation and modification {AMMX}*. Installation and modification of aboveground manufactured metallic storage tank systems, including 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.

(6) *Aboveground nonmetallic storage tank system installation and modification {AMNX}*. Installation and modification of aboveground nonmetallic storage tank systems, including 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.

(7) *Aboveground manufactured storage tank system removal {AMR}*. Removal from service of aboveground manufactured storage tank systems.

(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.

(9) *Aboveground field constructed storage tank system removal (AFR)*. Removal from service of aboveground field constructed and manufactured aboveground storage tank systems.

(10) *Aboveground storage tank system mechanical installation, modification and removal (AMEX)*. Installation, modification and removal of tank related mechanical appurtenances, including 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.

(11) *Aboveground storage tank system civil (ACVL)*. Installation and modification of tank related structural components, including 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.

(12) *Storage tank liner (TL)*. Activities involved in installation or modification of internal linings for underground and aboveground storage tank systems 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 or UMI certification	10 installations or major modifications (at least 5 installations)  10 installations or major modifications (at least 5 installations)
UMI	2 years, or college degree and 1 year Technical training	10 minor modifications
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 or UMX certification Technical training or AFMX certification	10 installations or major modifications (at least 5 installations)  None  None
AMNX	2 years, or college degree and 1 year Technical training or AMMX certification	10 installations or major modifications (at least 5 installations)  6 AST installations
AMR	2 years, or college degree and 1 year Technical training or UMR certification or AFR certification	6 removals  None  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, geotechnical engineering, hydrology, geology or an 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.

\* \* \* \* \*

**§ 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</i>	<i>Experience, Education, Training or Certification</i>	<i>Total Number of Activities Completed</i>
IUM	4 years, or college degree and 2 years and Department-approved tank tightness testing familiarization course or UTT certification and UMX certification and Corrosion protection training	None
IAM	4 years, or college degree and 2 years API 653 certification or STI inspector certification or Department-approved aboveground storage tank inspector certification	None
IAF	4 years, or college degree and 2 years API 653 certification or Department-approved aboveground storage tank inspector certification	12 integrity or construction inspections

(b) The total number of activities completed required by subsection (a) shall have been completed within the 3-year period immediately prior to submitting the application for certification. The activities shall have been completed in compliance with Federal and State requirements and the applicant shall have had substantial personal involvement at the storage tank site in the activities.

(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, corrosion engineering, hydrology, geology or an equivalent degree as determined by the Department.

(d) The total number of activities completed required by subsection (a) may be met through the conducting of inspection activities. Noncertified individuals may work at the site but the certified inspector is directly responsible to assure that the activities are conducted properly. This work qualifies toward the total number of activities completed requirements.

(e) The total experience requirement is experience gained working at a storage tank site while working

towards the total number of activities completed requirement.

(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.

(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).

(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 Part 1910 (relating to occupational safety and health standards).

(i) A certified inspector of underground storage tanks (IUM) shall complete Department-provided inspector

training prior to conducting inspections on underground storage tank systems as required in § 245.411 (relating to inspection frequency).

(j) A certified inspector of aboveground storage tanks (IAF and IAM) shall complete Department-provided inspector training prior to conducting installation, modification, in-service and out-of-service inspections on aboveground storage tank systems as required under §§ 245.551—245.554 and 245.616.

**§ 245.114. Renewal and amendment of certification.**

(a) Certification categories 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) 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 training requirements in the appropriate category for renewal of installer certification:

Category	Training
UMR	Examination or Technical training Administrative training
UMX	Examination or Technical training Administrative training
UMI	Examination or Technical training Administrative training
UTT	Testing equipment manufacturer's certification Administrative training
AMMX	Examination or Technical training Administrative training
AMNX	Examination or Technical training Administrative training
AFMX	Examination or Technical training Administrative training
AFR	Examination or Technical training Administrative training
AMR	Examination or Technical training Administrative training
AMEX	Examination or Technical training Administrative training
ACVL	Examination or Technical training Administrative training
TL	Manufacturer's certification Administrative training

(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

Category	Qualifications and Training
IAF	API 653 certification or Department-approved inspector certification and Department inspector training

(e) Technical, administrative and inspector training must be obtained within 2 years prior to application submission.

(1) Administrative and inspector training will be provided by the Department.

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

(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; and 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 Part 1910.

(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.

(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.

(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.

(i) Certified installers or certified inspectors required to amend their certifications in accordance with subsection

(g)(2) shall comply with the applicable requirements in 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 causes pollution, causes a threat of pollution or causes harm to the public health, safety or welfare.

(5) Withholding from a certified installer or certified inspector, individual correspondence or certification documents issued by the Department.

\* \* \* \* \*

**STANDARDS 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 codes and standards, and State and Federal regulations which pertain to the categories for which certification was issued. Nationally recognized organizations are identified in §§ 245.405, 245.504 and 245.604 (relating to codes and standards; referenced organizations; and referenced organizations).

(2) Complete and submit to the Department a Department-approved form certifying that the tank handling activity or inspection activity conducted by the certified installer or certified inspector meets the requirements in the act and this chapter and accurately describing the conditions of the storage tank system and facility in accordance with the following requirements:

(i) Submit a report of an inspection activity to the Department within 60 days of conducting an inspection activity, except for a report of modification inspection activities, which must be reported to the Department within 30 days of conducting a modification inspection activity.

(ii) Submit a report of a tank handling activity to the Department within 30 days of conducting the tank handling activity.

(iii) For tank handling activities or inspection activities involving multiple certified individuals and certification categories, submit a report of tank handling activities or inspection activities within 30 days of the completion of all project tank handling or 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 the following to the Department while performing services as a certified installer or certified inspector:

(i) A release of a regulated substance.

(ii) Suspected or confirmed contamination of soil, surface or groundwater from regulated substances.

(iii) A regulated substance observed in a containment structure or facility.

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

(6) As required under 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 must also be provided to the Department with the notification report.

(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.

(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. § 6021.107(c)).

(b) A company that employs an 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 under section 704(a)(1) of the act (35 P.S. § 6021.704(a)(1)) and shall provide timely payment of TIIP fees as required under section 705(d)(1) and (e) of the act (35 P.S. § 6021.705(d)(1) and (e)) and § 977.19(b) (relating to certified company fees for the Underground 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 under 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 all of 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 certified activities and nontank handling activities that may have been performed as part of the project.

(d) A certified installer or certified inspector shall display the Department-issued certification identification card or certificate upon request.

(e) A certified company is responsible for employees having appropriate safety and technical training. Certified companies, certified installers and certified inspectors shall adhere to health and safety procedures, such as those required by the Federal Occupational Safety and Health Administration (OSHA) and the National Institute for Occupational Safety and Health (NIOSH).

**TRAINING APPROVAL**

**§ 245.141. Training approval.**

\* \* \* \* \*

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

\* \* \* \* \*

(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 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) 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) 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) 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.

(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 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 removal from service status to an operating status.

(e) A storage tank system may not be operated 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.

**§ 245.211. (Reserved).**

**§ 245.212. (Reserved).**

**OPERATING PERMITS**

**§ 245.221. (Reserved).**

**§ 245.222. Application requirements.**

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

\* \* \* \* \*

(3) In addition to the requirements in paragraph (1), an owner of a large aboveground storage tank or large aboveground storage tank facility shall file a current Spill Prevention Response Plan that is in compliance with sections 901—904 of the act (35 P.S. §§ 6021.901—6021.904) with the Department.

**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).

(2) Large aboveground storage tank system at an existing large aboveground storage tank facility on new location requires compliance with § 245.232(a)(3) and (b).

(3) Large aboveground storage tank system at an existing large aboveground storage tank facility on the footprint of previous aboveground storage tank system requires compliance with § 245.232(b) and § 245.234(b) (relating to siting requirements).

(4) Small aboveground storage tank systems at a new large aboveground storage tank facility require compliance with § 245.232(a)(3) and (b).

(c) If the facility owner or operator can demonstrate that, on or before November 10, 2007, construction has commenced on an aboveground storage tank with a capacity greater than 30,000 gallons used or to be used for storing heating oil for consumptive use on the premises or on a tank regulated due to the addition of new regulated substances defined in § 245.1 (relating to definitions) (see subparagraphs (i)(C)(I) and (II)), the requirements of this section will not apply.

(d) Site-specific installation permits will expire 5 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 Spill Prevention Response Plan for the facility that includes the proposed storage tank systems demonstrating compliance with sections 901—904 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. § 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.

(c) Applications for site-specific installation permits shall be accompanied by the proper fee required by section 304(c) of the act (35 P.S. § 6021.304(c)) for aboveground storage tanks and section 504(c) of the act (35 P.S. § 6021.504(c)) for underground storage tanks.

#### § 245.233. Mapping requirements.

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

(1) The boundaries for the proposed facility site.

(2) The location of the proposed storage tanks.

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

(4) The location of proposed monitoring wells.

(5) The municipality and county.

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

(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.

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

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

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

(b) Maps, plans and cross sections required by this section shall be accurately surveyed and on a scale satisfactory to the Department, not less than 1 inch to 400 feet and in a manner satisfactory to the Department. The maps, plans and cross sections shall be prepared by a Pennsylvania registered professional engineer, Pennsylvania registered land surveyor or Pennsylvania registered professional geologist with assistance from experts in related fields.

#### § 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 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).

(3) The Department determines that construction design criteria or engineering specifications submitted by a professional engineer are not in accordance with generally accepted sound engineering practices or existing conditions at the site require mitigation to properly support the tank systems and the applicant's proposed mitigation actions are not deemed adequate.

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

(1) Over areas underlain by carbonate bedrock, the applicant shall provide information and analysis to the Department which assesses the prevalence of solution channels and the potential for sinkholes at the facility site.

(2) If any part of a proposed facility has been previously mined by deep mining methods, the applicant shall provide the results of an engineering study of the pro-

posed site by a Pennsylvania registered professional engineer or Pennsylvania registered professional geologist. The study must be detailed enough to assess the potential for and degree of surface subsidence. The study must also include methods which have been used or will be used to stabilize the surface. The applicant shall provide assurance that minerals providing surface support will not be mined as long as the facility stores regulated substances.

(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. The notice must 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.

**Subchapter D. CORRECTIVE ACTION PROCESS FOR OWNERS AND OPERATORS OF STORAGE TANKS AND STORAGE TANK FACILITIES AND OTHER RESPONSIBLE PARTIES**

**§ 245.301. Purpose.**

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

**§ 245.302. Scope.**

This subchapter applies to suspected releases and releases of regulated substances from storage 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.

(d) To overcome the presumption of liability established in subsection (c), the owner or operator shall affirmatively prove, by clear and convincing evidence, one of the following:

(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.

(4) The owner or operator did not contribute to the damage, contamination or pollution.

(e) The Department may waive or combine one or more of the requirements in 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.

(f) The Department's acceptance or approval of an interim remedial action, site characterization, site characterization report, remedial action plan, remedial action or remedial action completion report, does not constitute and may not be construed as a release from civil or criminal liability in an administrative, civil or criminal proceeding.

**§ 245.304. Investigation and reporting of suspected releases.**

(a) The owner or operator of a storage tank system or storage tank facility shall initiate and complete an investigation of a suspected release of a regulated substance as soon as practicable, but no later than 7 days after the indication of a suspected release. An indication of a suspected 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 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) Upon completion of the investigation under subsection (a), the owner or operator shall comply with one of the following requirements:

- (1) Except as provided in § 245.305(i) (relating to reporting releases), if the investigation confirms that a release has occurred, the owner or operator shall report the release under § 245.305 and initiate corrective action.
- (2) If the investigation cannot determine whether a release has occurred, the owner or operator shall report the suspected release within 15 days of the indication of the suspected release to the appropriate regional office of the Department on a form provided by the Department.
- (3) If the investigation confirms that a release has not occurred, no further corrective action is required except that the owner or operator shall completely recover and remove the regulated substance. If removal of the regulated substance cannot be accomplished within 24 hours, the owner or operator shall immediately notify the appropriate regional office of the Department by telephone or e-mail.

#### § 245.305. Reporting releases.

(a) The owner or operator of a storage tank system or storage tank 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 release.

(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, information concerning impacts to water supplies, buildings or to sewer or other utility lines, and interim remedial actions planned, initiated or completed.

(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 release occurred, and each municipality where that release has impacted environmental media or water supplies, buildings or sewer or other utility lines.

(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 (c). Written notification under this subsection shall be made within 15 days of the discovery of the new impact.

(e) Written notification required by this section must contain the same information as required by subsection (b) and must be on a form provided by the Department.

(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.

(g) Upon the occurrence of a release at the aboveground storage tank, the owner or operator of a storage tank facility with 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).

(h) The owner or operator of a storage tank system or storage tank facility shall immediately notify the local fire authority where fire, explosion or safety hazards exist 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 and the total volume of the release is recovered and removed within 24 hours of the release:

- (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 petroleum to a containment sump if the total volume of the release is contained below the lowest sump penetration.

#### § 245.306. Interim remedial actions.

(a) 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 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 (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 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 e-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.**

\* \* \* \* \*

(d) A permanent water supply shall be provided within 90 days, or within an alternative time frame as determined by the Department, after one of the following:

(1) The responsible party receives information which establishes that the responsible party has affected or diminished the water supply.

(2) The responsible party is notified by the Department that the responsible party has affected or diminished the water supply.

(e) A responsible party shall notify the Department, by telephone or e-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 release has occurred in accordance with § 245.304 (relating to investigation and reporting of suspected releases) or after a 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 necessary for fate and transport analysis including hydraulic conductivity, source dimensions, hydraulic gradient, water table fluctuation and fraction organic carbon.

(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 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 storage tanks and analyzing samples of the contents to determine the regulated substances stored in the tanks.

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

(4) 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) Reviewing the history of operations, releases and corrective actions at the site.

(7) 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) 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, 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) Determine the horizontal and vertical extent and evaluate the properties of free product in the subsurface.
- (iv) Analyze groundwater samples to determine the horizontal and vertical extent of groundwater contamination.

(11) Analyzing surface water and sediment samples to determine the extent of surface water and sediment contamination.

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

(13) Performing site surveying and topographic mapping.

(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.

(15) Handling and disposing of site characterization wastes.

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

(i) Worker health and safety in accordance with OSHA requirements in 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) 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 all data that will be collected during the corrective action, according to appropriate standards and guidelines for environmental remediation.

(17) Analyzing the data collected as a result of the site characterization.

(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, performing a risk assessment in accordance with Chapter 250, Subchapter F (relating to exposure and risk determinations).

(21) Developing preferred remedial action options to attain the selected remediation standard.

(22) Identifying additional investigations or pilot studies needed to design and implement the preferred remedial action options.

(23) Performing additional tasks necessary to meet the objectives in subsection (b).

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

#### § 245.310. Site characterization report.

(a) A responsible party shall prepare and submit to the Department within 180 days of reporting a release under § 245.305(a) (relating to reporting releases), or within an alternative time frame as determined by the Department, 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 must 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, 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) Details of actions conducted at the site in accordance with § 245.307 (relating to affected or diminished water supplies). These details must 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 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 statement certifying that the site-specific plan, prepared for worker health and safety in accordance with OSHA requirements in 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 analysis to demonstrate that the site characterization objectives 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 which describes the sources of contamination, the fate and transport of contaminants, 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) The identification, management and disposition of solid, hazardous, residual and other wastes generated as part of the site characterization.

(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 summary of the remedial action option that will be used at the site to attain the selected remediation standard. The summary must 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 report of additional tasks performed to meet the objectives in § 245.309(b).

(b) If the responsible party determines, after completion of interim remedial actions, that further site characterization is not required, that soil is the only media of concern, and that interim remedial actions have remediated the site, the responsible party may submit a site characterization report to the Department, in lieu of the report required in subsection (a), which contains the following:

(1) A concise statement that describes the release, including information such as the amount of regulated

substance that was released, the extent of contamination and interim remedial actions taken under § 245.306.

(2) Data demonstrating that the interim remedial actions have attained the Statewide health standard for the site in accordance with Chapter 250, Subchapter G (relating to demonstration of attainment).

(3) The basis for selection of the residential or nonresidential Statewide health standard.

(4) The results of the evaluation of ecological receptors conducted in accordance with § 250.311.

(5) Additional information as identified in subsection (a) necessary to fully describe the release, the extent of contamination and the interim remedial actions taken to address the release.

(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:

(1) Review and approve the site characterization report as submitted.

(2) Review and approve the site characterization report with modifications made by the Department.

(3) Review and disapprove the site characterization report, citing deficiencies.

(4) Review and disapprove the site characterization 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 site characterization report, perform the site characterization 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 performing the site characterization.

(d) The Department will take one or more of the actions listed in subsection (c) within 60 days of receipt of a site characterization report meeting the requirements in subsection (b) or within 90 days of receipt of a site characterization report selecting the site-specific standard. If the Department does not respond, in writing, within the allotted time, the report shall be deemed approved, unless the responsible party and the Department agree, in writing, to an alternative time frame.

#### § 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 must 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. The remedial action plan must be submitted prior to its implementation, be complete and concisely organized and contain all of 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 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) 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) 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.

\* \* \* \* \*

(9) Demonstration that required Federal, State and local permits and approvals are being complied with.

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

(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.

(e) If during implementation of the remedial action plan the responsible party decides to change the remedial action plan, the responsible party shall prepare and submit, to the Department, a new or modified remedial action plan, to include selection of the new remediation standard, if applicable, in accordance with § 245.311 (relating to remedial action plan).

(f) If during implementation of the remedial action plan the responsible party determines that continued implementation of the remedial action plan will cause additional environmental harm, the responsible party shall suspend remedial action and notify the Department, by telephone, within 24 hours of suspension. The responsible party shall 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.

(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 must be complete and concisely organized and must contain the following elements, as necessary, based on the remediation standard attained:

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

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

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

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

(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) Publish a notice of its final action in the *Pennsylvania Bulletin*.

(d) The Department will take one or more of the actions listed in subsection (c) within 60 days of receipt of the remedial action completion report demonstrating attainment of the background or Statewide health standard, or within 90 days of receipt of a remedial action completion report demonstrating attainment of the site-specific standard. If the Department does not respond, in writing, within the allotted time, the report shall be

deemed approved, unless the responsible party and the Department agree, in writing, to an alternative time frame.

### Subchapter E. TECHNICAL STANDARDS FOR UNDERGROUND STORAGE TANKS

#### GENERAL

##### § 245.402. Scope.

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

##### § 245.403. Applicability.

(a) *General.* The requirements in 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 (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 in §§ 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 December 21, 2020.

(2) Underground storage tank systems installed after November 10, 2007, must meet the requirements in §§ 245.441—245.446 on or before December 22, 2019.

(3) Underground storage tank systems installed after December 22, 2018, must meet the requirements in §§ 245.441—245.446 at installation.

(c) *Partial exclusions.* Except as provided in paragraph (4), the following underground storage tank systems are not required to comply with §§ 245.411, 245.421(b)(3) and (4)(ii) and (iii), 245.422(d), 245.432(g) and 245.436—245.446:

(1) A wastewater treatment tank system installed on or after May 7, 1985, that is not part of a wastewater treatment facility regulated under sections 307(b) or 402 of the Clean Water Act (33 U.S.C.A. §§ 1317(b) and 1342).

(2) An underground storage tank system installed on or after May 7, 1985, containing radioactive material that is regulated under the Atomic Energy Act of 1954 (42 U.S.C.A. §§ 2011—2296b-7).

(3) An underground storage tank system installed on or after May 7, 1985, that is part of an emergency generator system at a nuclear power generation facility licensed by the United States Nuclear Regulatory Commission and subject to United States Nuclear Regulatory Commission requirements regarding design and quality criteria, including 10 CFR Part 50 (relating to domestic licensing of production and utilization facilities).

(4) An underground storage tank system referenced in paragraph (1), (2), or (3) installed before May 7, 1985, is not required to comply with §§ 245.411—245.422, 245.424, 245.432, 245.433 and 245.436—245.446.

(d) *Previously excluded underground storage tanks.* Underground storage tank systems that were not required to be registered with the Department prior to December 22, 2018, shall be registered with the Department by February 20, 2019. Underground storage tanks include all of the following:

(1) Field-constructed underground storage tanks installed on or before October 11, 1997, that the Depart-

ment previously did not require to be registered as a matter of policy. These tanks are temporarily excluded from §§ 245.421, 245.422, 245.431, 245.432, 245.437 and 245.441—245.446, until December 22, 2019.

(2) Underground storage tank systems referenced in subsection (c)(1)—(3) installed on or before December 22, 2018.

##### § 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 of a storage tank system subject to this subchapter, grant a variance from one or more specific provisions of this subchapter:

\* \* \* \* \*

#### INSPECTIONS

##### § 245.411. Inspection frequency.

(a) *Inspection of underground storage tank systems.* Underground storage tank owners or operators shall have their underground storage tank systems inspected by a certified inspector at the frequency in subsections (b) and (c). The inspection shall include release detection, assessment of the underground storage tank system and ancillary equipment, operation of overflow and spill prevention equipment where practicable, corrosion protection testing, or verification that corrosion protection is functional, and release prevention measures.

(b) *Initial inspections.* Newly installed underground storage tank systems shall be inspected between 6 to 12 months after installation. If the tank ownership changes, an inspection of the 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.

(c) *Subsequent inspections.*

(1) The interval between subsequent inspections may not exceed 3 years (36 months) beginning after the last inspection, except as provided in paragraph (2).

(2) An inspection in addition to those required in subsection (b) and paragraph (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) *Training.* 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 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 EPA 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.*

(1) Underground storage tank systems installed or replaced after November 10, 2007, must have total secondary containment, which consists of double-walled tanks, double-walled piping (for piping that routinely contains and conveys regulated substances (product)) and liquid-tight containment sumps. The sumps must be installed at piping connections that routinely contain and convey product from the tank, such as tank-top sumps and dispenser pan sumps, that allow for release detection monitoring of the system (See PEI RP 100). Also, new or replacement tank systems installed with pressurized product piping systems must be equipped with automatic line leak detectors and automatic pump shutoff devices that meet the requirements of § 245.445(1) (relating to methods of release detection for piping).

(2) At least 30 days prior to the installation of a tank, piping system, replacement or additional dispenser, or underground storage tank system, or within another reasonable time frame 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 an underground storage tank changing from unregulated to regulated service shall provide certification by a Department-certified installer that the underground storage tank system meets new underground storage tank system requirements, on a form provided by the Department, 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 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 steel 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 installed in accordance with paragraph (4)(ii). Whenever 50% or more 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 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 association or independent testing laboratory using one of the following methods:

(i) The piping or component is constructed of nonmetallic material such as fiberglass reinforced plastic or other noncorrodible and UL listed material.

(ii) The piping or component is constructed of metal and cathodically protected in the following manner:

(A) The piping is coated with a suitable dielectric material. The wrapping of piping with tape or similar material alone does not meet this requirement.

(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).

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

(iii) The piping is constructed of metal without additional corrosion protection measures if:

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

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

(3) *Spill and overflow prevention equipment.*

(i) Except as provided in subparagraph (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) Overfill 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.

(ii) Bypassing overfill protection is prohibited. For example, bypassing the ball float valve with 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 overfill prevention is installed or replaced after December 22, 2018.

(iv) Existing 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 overfill 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.

(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) 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 and in accordance with the manufacturer's instructions.

(ii) Spill prevention equipment 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 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 association, and in accordance with manufacturer's instructions.

### § 245.422. Upgrading of existing underground storage tank systems.

(a) *Alternatives allowed.* By December 22, 1998, existing underground storage tank systems shall comply with one of the following requirements:

(1) Underground storage tank system performance standards under § 245.421(b) (relating to performance standards for underground storage tank systems).

(2) The upgrading requirements in subsections (b)—(d).

(3) Closure requirements under §§ 245.451—245.455 (relating to out-of-service underground storage tank systems and closure), including applicable requirements for corrective action under Subchapter D (relating to corrective action process for owners and operators of storage tanks and storage tank facilities and other responsible parties).

(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 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. Existing lined tanks must 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 NLP 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 removal from service (out-of-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 in § 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 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.

(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 subparagraph (i).

(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 in § 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) 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 association

or independent testing laboratory and meets the requirements in § 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, underground storage tank systems must comply with 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 meeting the requirements in § 245.421(b)(4)(ii) is required. This equipment may include check valves, shear valves, vertical risers, flexible connectors or other transitional components. Under-dispenser containment shall also 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. (Reserved).

**GENERAL OPERATING REQUIREMENTS**

**§ 245.432. Operation and maintenance including corrosion protection.**

(a) Owners and operators of metal underground storage tank systems with corrosion protection shall comply with all of the following requirements to ensure that releases due to corrosion are prevented until the underground storage tank system is permanently closed or undergoes a change-in-service in accordance with § 245.452 (relating to permanent closure and changes-in-service).

(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 tested 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 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 checked every 60 days to ensure the equipment is 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.

(4) For underground storage tank systems using cathodic protection, records of the operation of the cathodic protection shall be maintained, in accordance with § 245.435 (relating to reporting and recordkeeping) to demonstrate compliance with the performance standards in this section. These records must provide the following:

(i) The results of the last three checks required in paragraph (3).

(ii) The results of testing from the last two surveys required in paragraph (2).

(b) Monitoring and observation wells shall be clearly identified using industry codes and standards, and caps shall be secured to prevent unauthorized or accidental access.

(c) Underground storage tank systems and storage tank system components, including tanks, piping, line leak detectors, product sensors and probes, containment sumps, measuring devices (including gauge sticks), gauges, corrosion protection, spill prevention, overflow 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.

(d) Tanks which have been lined and have not had corrosion protection added in accordance with § 245.422(b)(2) (relating to upgrading of existing underground storage tank systems) shall have the lining evaluated by, or under the direct onsite supervision of, a TL certified tank installer or by a professional engineer.

(1) Evaluations must adhere to an evaluation process developed by a National association identified in § 245.405 (relating to codes and standards) (See API 1631 and NLP 631) as follows:

(i) Ten years after lining installation.

(ii) Every 5 years after the preceding evaluation.

(2) Each evaluation finding 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.

(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 (relating to temporary removal from service (out-of-service)) and § 245.452.

(f) Primary and secondary containment structures, containment sumps and spill prevention equipment must be maintained in a leak-free condition. If any liquid or regulated substance is detected, 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(4).

(g) A check for water in petroleum tanks shall be performed monthly and excess water shall be promptly removed as necessary. Water may not exceed the tank manufacturer's recommendations, product supplier's guidelines, or 2 inches of accumulation in the bottom of the tank, whichever is less. No amount of water is desirable in gasoline containing ethanol. Therefore, water should not be allowed to accumulate in tanks containing ethanol. Excess water shall be properly managed in accordance with applicable State and Federal requirements, such as Chapter 299 (relating to storage and transportation of residual waste), 40 CFR Part 261,

Subpart B (relating to criteria for identifying the characteristics of hazardous waste and for listing hazardous waste) and 29 CFR Part 1910 (relating to occupational safety and health standards).

**§ 245.433. Compatibility.**

(a) Owners and operators shall use an underground storage tank system made of or lined with materials that are compatible with the substance stored in the underground storage tank system.

(b) Upon Department request, an owner and operator of an underground storage tank 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) 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 with the substance stored, 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 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 association or an independent testing laboratory.

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

(4) Repairs to secondary containment areas of tanks and piping, containment sumps and spill prevention equipment shall 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 tanks, containment sumps and piping shall be tight-

ness tested in accordance with §§ 245.421(b)(4)(ii), 245.444(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 association or an independent testing laboratory.

(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 listed in subparagraph (i).

(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.

(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 under this chapter and provide records, as requested, and cooperate fully with inspections, monitoring and testing conducted by the Department, certified installers or certified inspectors. 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)).

(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.

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

(1) Notification in accordance with § 245.41 (relating to tank registration requirements) for underground storage tank systems, including change of ownership, closure of 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)).

(2) Reports of confirmed releases (§ 245.305(c) (relating to reporting releases)).

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

(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)).

(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)).

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

(d) *Recordkeeping.* Owners and operators shall maintain all of the following records for underground storage tank systems for the operational life of the system and retain the records for a minimum of 1 year after the underground storage tank system has been permanently closed:

(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)).

(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).

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

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

(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).

(6) Documentation of underground storage tank system repairs.

(7) Tank lining evaluation reports (§ 245.432(d)).

(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.

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

(11) Tank and piping release detection records for the past 12 months, including written certifications or performance claims for the release detection methods in use (§ 245.446 (relating to release detection recordkeeping)).

(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.

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

(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.

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

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

(17) Documentation of the last test that demonstrates each containment sump and spill 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(4) (relating to repairs allowed).

(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 under § 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 and reporting 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 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 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 34 Pa. Code §§ 14a.115 and 14a.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 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 shall be immediately available upon request.

(iii) For 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 must be prominently displayed at the site and visible to the storage tank user.

(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.

(iv) Department-certified 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 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 an 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 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 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 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 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 an 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.

(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) 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 removal from service (out-of-service) 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 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 in this chapter or Federal underground storage tank requirements in 40 CFR Part 280, or both, including the following:

- (i) Spill and overfill 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 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) *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 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, 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. 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 annu-

ally (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 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 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 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 readily available. (See § 245.435(d)(18) (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.

**§ 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 all of the following requirements:

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

(i) When the containment sump or spill prevention equipment is double-walled, the integrity of both walls shall be periodically monitored by maintenance walk-through inspections as required under § 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 shall be tested at least once every 3 years to ensure the equipment is liquid-tight by using vacuum, pressure or liquid.

(2) Overfill prevention equipment shall be evaluated at least once every 3 years. At a minimum, the evaluation shall 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 must activate when the regulated substance stored reaches that level.

(3) Electronic and mechanical components of release detection equipment shall be tested for proper operation

at least annually. At a minimum, required tests, as applicable to the facility, shall cover all of 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 shall be tested by:

- (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 shall be tested to meet criteria in § 245.445 (relating to methods of release detection for piping) by simulating a leak.

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

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

(b) Owners and operators of underground storage tank systems shall ensure tests and evaluations required under 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 in paragraphs (1) and (2).

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

(1) For underground storage tank systems installed on or before December 22, 2018, owners and operators shall ensure tests and inspections as required under this section are performed prior to the next required underground storage tank inspection occurring after December 22, 2019, or not later than December 21, 2021, whichever occurs first.

(2) For underground storage tank systems installed after December 22, 2018, 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 Chapters 91, 92a, 260a—270a and 287—299.

**§ 245.438. Periodic operation and maintenance walk-through inspections.**

(a) To properly operate and maintain spill prevention and release detection equipment part of underground storage tank systems, no later than December 22, 2019, 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 shall include, at a minimum, all of 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, no later than December 22, 2019, owners and operators shall conduct walk-through inspections at a minimum of every 12 months that include, at a minimum, all of 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, 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 walk-through inspections required under 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 in paragraphs (1) and (2).

**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 in §§ 245.444 and 245.445 must be capable of detecting the leak rate or quantity specified for that method in the corresponding section of this subchapter with a probability of detection (Pd) of 0.95 and a probability of false alarm (Pfa) of 0.05.

(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 in 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).

**§ 245.442. Periodic monitoring 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 contain regulated substances shall perform interstitial monitoring in accordance with § 245.444(6) (relating to methods of release detection for tanks) at least once every 30 days. Underground piping installed after November 10, 2007, that conveys regulated substances under pressure 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 in 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 in § 245.444(1)—(8).

(2) *Piping.* Underground piping that routinely contains regulated substances shall be monitored for releases in a manner that meets one of the following requirements:

\* \* \* \* \*

**§ 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) 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 hazardous substance underground storage tank systems installed on or before November 10, 2007, must meet the following requirements:

(i) Secondary containment systems.

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

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

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

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

(3) The provisions of 40 CFR 264.193 (relating to containment and detection of releases) may be used to comply with the requirements in this paragraph.

(i) Double walled tanks shall be designed, constructed and installed to:

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

(B) Detect the failure of the inner wall.

(ii) External liners, including vaults, shall be designed, constructed and installed to:

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

(B) Prevent the interference of precipitation or groundwater intrusion with the ability to contain or detect a release of regulated substances.

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

(4) Underground piping shall be equipped with secondary containment that satisfies the requirements in 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).

(5) Other methods of release detection may be used if owners and operators:

(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(1)—(8) can detect a release of petroleum.

(ii) 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.

(iii) 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 in §§ 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 all of the following:

(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>Nominal Tank Capacity</i>	<i>Minimum Duration of Test</i>	<i>Weekly Standard (one test)</i>	<i>Monthly Standard (average of four tests)</i>	<i>Periodic Tightness 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

(v) Owners and operators of underground storage tanks of greater than 1,000 gallons nominal capacity may not use this method to meet the requirements in this section.

(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.

(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) Tank gauges shall be certified by an independent third-party verifying the gauge's ability to detect the leak rate in subparagraph (i) following EPA evaluation protocol.

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

(i) The materials used as backfill are sufficiently porous—for example, gravel, sand or crushed rock—to readily allow diffusion of vapors from releases into the excavation area.

\* \* \* \* \*

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

(i) The regulated substance stored is immiscible in water and has a specific gravity of less than one.

\* \* \* \* \*

(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(b).

(iii) For tanks with an internally fitted liner, an automated device can detect a release between the inner wall of the tank and the liner, and the liner is compatible with the substance stored.

(7) *Statistical Inventory Reconciliation (SIR).* SIR shall meet the performance standards of paragraph (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) 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.

(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, 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 and reporting of suspected releases).

(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 (2)–(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 in § 245.442 (relating to periodic monitoring 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), 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 in 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 in 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(4)–(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.

**§ 245.446. Release detection recordkeeping.**

Underground storage tank system owners and operators shall maintain records in accordance with § 245.435 (relating to reporting and recordkeeping) demonstrating compliance with the applicable requirements of §§ 245.441–245.446 (relating to release detection). These records shall include the following:

(1) Written performance claims pertaining to a release detection system used, and the manner in which these claims have been justified or tested by the equipment manufacturer or installer, shall be maintained for the entire time the release detection system is in use at the facility.

(2) The results of any sampling, testing or monitoring shall be maintained for at least 1 year, except that the results of tank tightness testing conducted in accordance with § 245.444(2) (relating to methods of release detection for tanks) shall be retained until the next test is conducted.

(3) Written documentation of all calibration, maintenance and repair of release detection equipment permanently located onsite shall be maintained for at least 1 year after the servicing work is completed. Schedules of required calibration and maintenance provided by the release detection equipment manufacturer shall be retained for the entire time the equipment is in use at the facility.

**OUT-OF-SERVICE UNDERGROUND STORAGE TANK SYSTEMS AND CLOSURE**

**§ 245.451. Temporary removal from service (out-of-service).**

(a) When an underground storage tank system is temporarily 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 (relating to 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. 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 prior to submission of the registration form to the Department 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 Part 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) Inspection requirements at 3-year intervals in § 245.411(c) (relating to inspection frequency) shall be performed on an underground storage tank system in temporary out-of-service status.

(f) When an underground storage tank system is temporarily 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 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 overflow equipment requirements do not have to be met.

(2) Permanently close the substandard underground storage tank system 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 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 out-of-service period. The Department may establish conditions and require submission of documentation associated with extension of the temporary out-of-service period, such as the following:

(1) Requirements for inspection under § 245.21 (relating to tank handling and inspection requirements) and § 245.111.

(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 in-

clude tank and line tightness testing, verification of compatibility, operability testing as required under § 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 by removing the liquids and accumulated sludges. Tanks being 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 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.

(d) Before a change-in-service, owners and operators shall ensure that the tank is empty and clean in accordance with a Nationally recognized code of practice by removing the liquid and accumulated sludge, and conduct a site assessment in accordance with § 245.453.

(e) 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 either of the following:

(1) The completion of permanent closure.

(2) Change-in-service of the tank.

(f) A properly completed closure report is required to permanently close a site, including a change-in-service. A copy of the completed closure report shall be submitted to the Department when requested.

### **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 regu-

lated 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 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 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. 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 subparagraph (iii)(A) and (B))), 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 in this chapter and shall be registered with the Department.

**OPERATIONS AND MAINTENANCE**

**§ 245.511. General operations and maintenance.**

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), which addresses the requirements in sections 901—904 of the act (35 P.S. §§ 6021.901—6021.904) and this chapter, shall be submitted to the Department for a storage tank facility with an aggregate aboveground storage capacity greater than 21,000 gallons. Plan revisions or any addendum to the initial Plan shall be submitted to the Department in writing or electronically within 180 days of any occurrences as described in section 901(b) of the act. A current copy of the Plan shall be readily available at the facility at all times.

**§ 245.513. Preventive maintenance and housekeeping requirements.**

(a) 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 maintenance inspection procedures at each storage tank facility.

(1) The facility owner and operator 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) The facility owner and operator are responsible to assure that a maintenance inspection of each aboveground storage tank system is performed each month. The maintenance inspection shall include all of the following:

(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) The monthly maintenance inspection report shall be completed and signed by the individual who conducted the inspections and maintained for 1 year.

(3) The facility owner and operator are responsible to establish a process to assure that storage tank vents are operational and free of restrictions.

(c) 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) The storage tank facility owner and operator 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 shall maintain a written or electronic log. At a minimum, each log entry must identify the name of the individual performing tank handling and inspection activities, the individual's signature or equivalent verification of presence onsite, 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) The storage tank facility owner and operator 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 storage tank systems shall maintain records as required under this chapter and provide records, as requested, and cooperate fully with inspections, monitoring and testing conducted by the Department, certified installers or certified inspectors. 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)).

(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.

(c) *Recordkeeping.* Owners and operators shall maintain all of the following records for aboveground storage tank systems for the operational life of the tank system and retain the records for a minimum of 1 year after the tank system has been permanently closed:

(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 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 or electronic log entry information as required under § 245.514(b) (relating to security).

(9) The current registration certificate.

(10) The leak detection records for the past 12 months.

(11) The last two results of cathodic protection monitoring, when a cathodic protection system is in use under § 245.532 (relating to cathodic protection systems).

(12) The routine 72-hour visual and monthly maintenance inspections for the past 12 months.

(13) The last third-party in-service inspection report.

(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 and reporting of suspected releases).

(16) Documentation of the last three impressed current cathodic protection system checks for each 60-day period under § 245.532.

**DESIGN, CONSTRUCTION AND INSTALLATION**

**§ 245.521. Performance standards for aboveground storage tanks.**

(a) Aboveground storage tank construction shall meet or exceed Nationally recognized industry association codes of practice. New aboveground storage 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 modifications shall be in accordance with industry codes of practice as specified in § 245.524 (relating to aboveground tank modifications).

(c) Aboveground storage 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 overflow prevention requirements; and containment requirements for aboveground storage tank systems).

(f) Aboveground storage tanks shall be tested according to industry standards before being placed in service as specified in §§ 245.522 and 245.524.

(g) Aboveground storage 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 shall be designed and constructed in accordance with an appropriate current code of practice developed by Nationally recognized associations such as UL, ACI, API, ASME, ASTM, STI or NACE and will follow applicable engineering specifications.

(b) Aboveground storage 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 shall be tested for tightness in accordance with current codes of practice developed by 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.

**§ 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  $1 \times 10^{-7}$  cm/sec for substance stored and be water tight.

(3) 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) Vaults and aboveground storage 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 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 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 (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 associations such as API, ACI, ASME, ASTM, NACE, STI or UL.

(b) Modifications shall be performed in accordance with Nationally recognized codes and manufacturer's specifications or a professional engineer's design requirements.

(c) Aboveground storage 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 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 must 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 must allow the tank to breathe when transferring the stored product. Emergency venting must ensure that the safe pressure for the tank is not exceeded.

(c) Aboveground storage tank connections through which regulated substance can flow must be equipped with an operating valve adjacent to the tank to control flow of substance. Appropriate valves must 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 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.

(d) Piping shall be tested and inspected in accordance with current industry practices and §§ 245.552 and 245.553 (relating to in-service inspections; and out-of-service inspections).

(e) Aboveground piping shall be adequately supported and be protected from physical damage caused by freezing, frost heaving and vehicular traffic.

**CORROSION AND DETERIORATION PREVENTION**

**§ 245.531. General corrosion and deterioration requirements.**

(a) Aboveground storage tank systems must be continuously protected from corrosion and deterioration.

(b) Metallic tank bottoms 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) Tank bottoms that are not adequately protected from corrosion and deterioration shall be upgraded to meet §§ 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, cathodic protection systems must consist of one or more of the following:

- (1) Sacrificial anodes and dielectric coating.
- (2) Impressed current.
- (3) Another method specified in an appropriate Nationally recognized association code of practice.

(b) Cathodic protection systems shall be designed by a corrosion expert and maintained to provide protection against external corrosion for the operational life of the tank system.

(c) Each cathodic protection system shall have an access point which enables the owner or operator to check on the adequacy of cathodic protection. The cathodic protection systems shall be tested for proper operation by a qualified cathodic protection tester in accordance with the following requirements:

- (1) Impressed current cathodic protection systems must be tested at least annually.
- (2) Galvanic cathodic protection systems must be tested at least every 3 years.
- (3) Cathodic protection systems must be tested within 6 months following installation and 6 months following repair of the cathodic protection system.

(4) The criteria that are used to determine that cathodic protection is adequate under this section must be

in accordance with a code of practice developed by a Nationally recognized association.

(d) Aboveground storage tank systems with impressed current cathodic protection systems must be checked every 60 days to ensure the equipment is running properly. At a minimum, the operator or person conducting the 60-day check must 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.

(e) For aboveground storage tank systems using cathodic protection, records of the operation of the cathodic protection must be maintained under § 245.516 (relating to recordkeeping requirements) to demonstrate compliance with the performance standards in this section. The records must include the following:

- (1) The results of the last three checks required in paragraph (d).
- (2) The results of testing from the last two cathodic protection surveys required in paragraph (c).

(f) Tank and piping connections of two dissimilar metals which create a galvanic cell are prohibited.

**§ 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 practice. Coating or lining systems must be bonded firmly to the interior surfaces 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) 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 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 must be in writing and shall be 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 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 overflow protection consistent with National industry standards.

**§ 245.542. Containment requirements for aboveground 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 codes of practice 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  $1 \times 10^{-7}$  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.

(1) Permeability of newly installed or replacement emergency containment structures or emergency containment structures for aboveground storage tanks installed after October 11, 1997, must be less than  $1 \times 10^{-6}$  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 aboveground storage tanks installed on or before October 11, 1997, must meet one of the following standards:

(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 testing methods.

(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 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) Water shall be removed from the emergency containment area as soon as possible. Water shall be removed from the containment before it comes in contact with the aboveground storage tank or piping and before it reduces the capacity of containment 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, 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 procedure that is based on a volumetric/mass measurement, an acoustic measurement or a soil-vapor monitoring method. 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 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 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 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 tank modifications; containment requirements for aboveground storage tank systems; and leak detection requirements).)

\* \* \* \* \*

(d) Except as provided in paragraphs (5) and (6), inspection intervals for in-service inspections are as follows:

(1) Aboveground storage tanks shall be initially inspected within 5 years of installation.

(2) Aboveground storage 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.

(3) An out-of-service inspection may replace an in-service inspection.

(4) An in-service inspection interval, if agreed upon by the Department, may be delayed under § 245.562 (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.

(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 December 21, 2021, 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 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 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 shall 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 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 shall be initially inspected based on measured 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) Aboveground storage tanks shall have an out-of-service inspection at their API 653 calculated service life or 1/2 of the corrosion rate life, with a maximum of 20 years from the last out-of-service inspection.

(3) If agreed upon by the Department, an out-of-service inspection interval may be delayed under § 245.562 (relating to temporary removal from service (out-of-service)) for a tank that is temporarily removed from service. 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. Modifications or repairs performed on the aboveground storage tank system 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 tank modifications; and cathodic protection systems).) The Department may require submission of and review documentation relating to these remedies. Required tank handling activities 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 inspected from the exterior are 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 association's code of practice and manufacturer's specifications.

(b) Major modifications shall be inspected by a Department-certified inspector at the time of modification

under § 245.524 (relating to aboveground tank modifications) and current codes of practice developed by Nationally recognized associations prior to being put back in service. When 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 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 associations prior to being put in service.

(d) The completed inspection report for installation and modification inspections shall be retained with the facility records under § 245.516.

**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, or within a lesser time as determined by the Department, the owner and operator shall notify the Department of their intent to permanently close or perform a change-in-service, unless the action is in response to a corrective action or waived by the Department.

(2) 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 either of the following:

- (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 shall be reused, treated or disposed of in a manner consistent with applicable State and Federal waste management requirements.

(6) Aboveground storage tank systems shall be cleaned, rendered free of 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).

(7) Aboveground storage tanks 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 that are 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 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.

(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 a storage tank 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 in sections 901—904 of the act (35 P.S. §§ 6021.901—6021.904). Plan revisions or any addendum to the initial Plan shall be submitted to the Department in writing or electronically within 180 days of any occurrences as described in section 901(b) of the act. 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 storage tank facility 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 may include, but are not limited to, fencing, lighting, access control, locked entrances and securing of valves, drains and dispensers.

(c) The owner and operator of a storage tank facility with an aggregate aboveground storage capacity greater than 21,000 gallons shall maintain a written or electronic log. At a minimum, each log entry must identify the name of the individual performing tank handling and inspection activities, the individual's signature or equivalent verification of presence onsite, 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 subparagraph (iii)(A) and (B))) are subject to the requirements in this chapter and shall be registered with the Department.

**§ 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 must provide all of 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 under 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 under 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 shall be tested for tightness at installation in accordance with current codes of practice developed by Nationally recognized associations and manufacturer's specifications, except for manufactured, shop built tanks that meet the requirements in 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 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 associations or manufacturer's specifications, prior to being returned to service.

**§ 245.612. Performance and design standards.**

(a) Aboveground storage tanks shall be designed, constructed and installed or modified in accordance with current codes of practice developed by Nationally recognized associations 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 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 associations 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 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 overflow protection controls including the following:

(1) Permanently installed spill prevention equipment at the tank fill point or containment at the remote fill point.

(2) An overflow alarm or prevention device or monitoring gauge and written shutdown procedure.

(3) Block valves on product lines.

(4) Solenoid valve or antisiphon device, if applicable.

(e) The exterior of the aboveground storage tank system must be protected by an appropriate coating or paint which shall be maintained throughout the entire operational life of the aboveground storage tank system.

(f) Aboveground storage tanks which are internally lined must comply with § 245.534(a) and (b) (relating to interior linings and coatings).

(g) Aboveground storage 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 opera-

tor 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 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) Verification of the functionality of the leak detection system.

(5) A check of vents for restrictions.

(6) A check of ancillary equipment for operational malfunctions.

(7) An investigation of conditions that may be a fire or safety hazard, or pose an environmental hazard.

(8) Observation for evidence of a release of regulated substance from the aboveground storage tank system.

(c) An owner and operator of an aboveground storage tank system with a cathodic protection system must comply with the following requirements to ensure that releases due to corrosion are prevented for as long as the aboveground storage tank system is used to store regulated substances:

(1) An aboveground storage tank system equipped with a cathodic protection system must be tested for proper operation by a qualified cathodic protection tester in accordance with the following requirements:

(i) Impressed current cathodic protection systems must be tested at least annually.

(ii) Galvanic cathodic protection systems must be tested at least every 3 years.

(iii) Cathodic protection systems must be tested within 6 months following installation and 6 months following repair of the cathodic protection system.

(iv) The criteria that are used to determine that cathodic protection is adequate under this section must be in accordance with a code of practice developed by a Nationally recognized association.

(2) An aboveground storage tank system with impressed current cathodic protection systems must be checked every 60 days to ensure the equipment is running properly. 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.

(3) For an aboveground storage tank system using cathodic protection, records of the operation of the cathodic protection system must be maintained under § 245.615 (relating to recordkeeping requirements) to demonstrate compliance with the performance standards in this section. The records must include the following:

(i) The results of the last three checks required in paragraph (2).

(ii) The results of testing from the last two cathodic protection surveys required in paragraph (1).

§ 245.614. (Reserved).

#### § 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 system installation records and design specifications. This requirement is limited to records currently available for aboveground storage tank systems installed on or before October 11, 1997.

(2) Records of modification to the aboveground 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) 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 and reporting of suspected releases).

(8) Written or electronic log entry information as required under § 245.603(c) (relating to general storage tank facility requirements).

(9) Documentation of the last three impressed current cathodic protection system checks for each 60-day period in accordance with § 245.613 (relating to monitoring standards).

(10) The last two cathodic protection surveys, done at 3-year intervals on galvanic and annually on impressed current cathodic protection systems in accordance with § 245.613.

#### § 245.616. Inspection requirements.

(a) Required inspections of small aboveground storage tank systems shall be conducted by Department-certified aboveground storage tank inspectors according to a current Nationally recognized association's code of practice 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 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 owner and operator of small aboveground storage tanks storing regulated substances with a capacity greater than 5,000 gallons and owners and operators of small aboveground storage tanks storing highly hazardous substances with a capacity greater than 1,100 gallons shall have in-service

inspections conducted every 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.

(1) Aboveground storage tanks installed after December 22, 2018, shall be initially inspected within 5 years of installation.

(2) Existing aboveground storage tank systems with scheduled in-service inspections after December 21, 2023, 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.

(d) In-service inspections shall 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 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 shall empty the aboveground storage tank system of regulated substances and conduct a visual examination of the area surrounding the tank as required under § 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 and reporting 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 either of the following:

- (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 provisions in sections 1301—1315 of the act (35 P.S. §§ 6021.1301—6021.1315).

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