NOTICE OF FINAL RULEMAKING DEPARTMENT OF ENVIRONMENTAL PROTECTION ENVIRONMENTAL QUALITY BOARD (25 Pa. Code Chapter 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's 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 <u>(date)</u>.

A. Effective Date

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

B. Contact Persons

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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 USTs). EPA initially promulgated these regulations in 1988. 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 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 EPA in the preamble to its 2015 Final Rule (80 FR at 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 finalform regulation, 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 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 website at 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 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 amended or added a number of definitions under § 245.1

"Containment structure or facility"

The Department has amended the definition of "containment structure or facility" in this finalform 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 the final-form rulemaking, in consideration of the comments received, the Department has instead defined "immediate threat of contamination," deleted the proposed addition to the definition of "release," deleted the definition "reportable release," and amended 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 has defined "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. § 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 has also defined 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 amended § 245.108(a)(4)(iii) 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 activities involving multiple certified individuals and certification categories, reports of modification inspection activities must be submitted within 30 days of the 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 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) seemed too restrictive, "corrosion engineering" has been 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 has amended § 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) has been 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 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" has been added to § 245.302 of this final-form regulation.

Section 245.304. Investigation of suspected releases.

For purposes of consistency and clarification, the word "suspected" has been added to § 245.304(a) in this final-form rulemaking.

Subsection 245.304(c) has been 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 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 has been revised in this final-form rulemaking to read: "Investigation and reporting of suspected releases."

Section 245.305. Reporting releases.

As described above, in this final-form rulemaking, the Department has defined the term "immediate threat of contamination" contained in the definition of "release." In conjunction, § 245.305(i) has been 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 also have 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" has been 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 above 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 above occurs, but all three of the above 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 has been 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 has been 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 (relating to designation, reportable quantities, and notification) 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 has been deleted from this final-form rulemaking, § 245.305(i)(2) in this final-form rulemaking has been 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 has clarified 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) has been 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 has amended § 245.403(d) in this final-form regulation to provide owners of previously excluded USTs 60 days from the effective date of the 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 an 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 were amended in § 245.432(a) in this final-form rulemaking to clarify and more accurately reflect the requirements of the subsection. For example, § 245.432(a)(2) has been 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) has

been amended in this final-form regulation 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) has been 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 has amended § 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 has amended § 245.512 in this final-form rulemaking to clarify that only changes or revisions to an initial Spill Prevention Response Plan – not the entire plan - need be submitted to the Department and that such must be submitted with 180 days. In addition, language has been 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) would have required the owner and operator of an aboveground storage tank 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) has been deleted and cathodic protection system inspection and testing requirements have been 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, § 245.514(b) (relating to security) has been amended from the proposed language in this finalform rulemaking to allow the log to be maintained in written or electronic form.

Section 245.516. Recordkeeping requirements.

Proposed § 245.514(b) has been 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) has been amended.

Subsection 245.516(c)(11) has been 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) has been 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 constructions.

Proposed § 245.522(g) has been 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)-(2) (relating to containment requirements for aboveground storage tank systems) has been 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 an 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) has been deleted and cathodic protection system inspection and testing requirements have been added in § 245.532(c) 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. 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 above ground storage tank systems.

Subsection 245.542(d)(1)-(2) has been 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 have been amended to clarify that large ASTs installed after October 11, 1997, must be installed within emergency containment having permeability less than 1×10^{-6} cm/sec.

Section 245.603. General storage tank facility requirements.

Subsection 245.603(a) (relating to general storage tank facility requirements) has been amended in this final-form rulemaking to clarify that it is only changes to the current Spill Prevention Response 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 has been 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) has been 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) 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) has been deleted and cathodic protection system inspection and testing requirements have been 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 the 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) has been 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) has been amended similarly.

A new § 245.615(b)(9) has been 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) has been 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 website at http://www.ahs.dep.pa.gov/eComment/. Comments from IRRC are available on IRRC's website 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 below.

General – Support for Primacy and Environmental Protection

Commentators expressed support for Pennsylvania'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 the final-form rulemaking, are consistent with the EHB's directive and do not contravene the act's definition of "release." Under § 103 of the act, 35 P.S. § 6021.103 (relating to definitions), 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 the final-form rulemaking.

In response to Merck's comments, as well as those from other commentators, the Department has deleted the language it proposed to add to the definition of "release" and replaced 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. § 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 has defined "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 to 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 the 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 [for approval of state program])).

Under the 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 Department 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 within 24 hours.

With regard to the amendments being consistent with the statutory definition of "release" in the act, please see the response to the preceding comment. With regard to the amendments being consistent with the General Assembly's intentions, the amendments in the 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) (relating to legislative findings; powers and duties of Environmental Quality Board; and aboveground storage tank requirements)).

The addition of the definition of "immediate threat of contamination" and the amendment in § 245.305(i) relating to releases and reportable releases are needed to produce increased compliance and more efficient oversight to ensure protection of the environment. As set forth above 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 EPA in the preamble to its July 15, 2015 Final Rule (80 FR at 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 the 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 actions obligations for spills into emergency and secondary containment 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 the 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 the final-form regulation.

In response to comments received, the Department has altered its approach in the final-form rulemaking to require reporting of releases into containment in fewer situations. In the 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 the 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 the 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 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 the 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 Pennsylvania to re-apply 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 has been retained in the finalform 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. § 1317(b) or § 1342) (relating to toxic and effluent pretreatment standards; and national pollutant discharge elimination system permits). This existing exclusion has been 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 Pennsylvania to receive revised State Program Approval from EPA.

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. 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, 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, has been retained in the final-form rulemaking. Similarly, the proposed amendments to § 245.403(c) have been retained, with an amendment added in the 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)-(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 stringent 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, have been retained in the final-form rulemaking and will apply to these UST systems. New § 245.403(c)(4) has been added in Subchapter E to the 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.

<u>Subchapter B – Certification Program for Installers and Inspectors of Storage Tanks and</u> <u>Storage Tank Facilities</u>

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 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 the final-form rulemaking, the essential approach taken in the proposed rulemaking remains the same in the final-form rulemaking.

As noted above, 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 retained in the 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 Departmentcertified 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.

<u>Subchapter D – Corrective Action Process for Owners and Operators of Storage Tanks and</u> <u>Storage Tank Facilities and Other Responsible Parties</u>

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 the final-form regulation.

In considering these comments, the Department provided clarification in § 245.304(a) in the 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" has been carried over into the phrase "indication of a suspected release" in this subsection in the 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 confirms that no release has occurred. This approach was included in proposed § 245.304(d), which is deleted in the final-form rulemaking. Subsection 245.304(c) has been amended in the 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 percent 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 non-petroleum 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 that the Federal requirement, what is the need for it?

In consideration of these comments, the Department has deleted in the 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 the final-form rulemaking mirrors the requirements of Federal regulations at 40 CFR 280.32(a) 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 amended § 245.433(b) in the 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 the final-form rulemaking provides four ways for UST owners and owners 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 the final-form rulemaking 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" has been deleted in the final-form § 245.433(c), and the provision has been 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 logbook is burdensome for large facilities with many tanks, especially for the detail required by a logbook. 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 has amended §§ 245.514(b), 245.516(c)(8), 245.603(c) and 245.615(b)(8) in the 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 identified above 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 indicate 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 he did not contribute to the damage, contamination or pollution discovered, under § 1311 of the act (35 P.S. § 6021.1311) (relating to presumption). 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 above ground 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 the final-form rulemaking, the Department deleted proposed § 245.522(g) and amended § 245.542(d)(1)-(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 has amended § 245.542(d)(1) and (2) in the 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 subsection 245.531(c) 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 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 (relating to cathodic protection systems; and interior linings and coatings)." 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. The 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 deterioration. The final-form regulation in § 245.531 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 Aboveground Storage Tanks

Section 245.616. Inspection requirements.

Commentators noted that subsection § 245.616(c) (relating to inspection requirements) proposes to have small aboveground storage tanks storing regulated substances with a capacity of greater than 5,000 gallons and small aboveground storage tanks 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. 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) have been retained in the final-form rulemaking.

G. Benefits, Costs and Compliance

Benefits

In enacting the act, the General Assembly found and declared the following under 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 the final-form regulations 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.

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) 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) that all ASTs in underground vaults that require an in-service inspection be inspected within 6 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, 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 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:

Evaluation or Test	Estimated Range of Annual Costs	Estimated Average Annual Cost		
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 onetime 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:

	Annualized Operation and Maintenance Costs ¹	One-Time Costs ²	Number of Potentially Affected Facilities/Systems	Total Annualized Operation and Maintenance Costs ³	Total One- Time Costs ⁴
Maintenance walkthrough inspections	\$0	\$0	7,655 facilities	\$0	\$0
Periodic testing and inspection of overfill prevention equipment, spill prevention equipment and containment sumps ⁵	\$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

¹ Per UST facility.

² Per UST system. One-time costs do not apply to all UST systems.

³For all UST facilities.

⁴ For all UST systems. One-time costs do not apply to all UST systems.

⁵ 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 to 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 discussed above that will be incurred by AST system owners under this final-form rulemaking:

	Annualized	One-	Number of	Total Annualized	Total
	Operation and	Time	Potentially	Operation and	One-Time
	Maintenance Costs	Costs	Affected Systems	Maintenance Costs	Costs
Increased inspection	\$416	\$0	35 AST systems	\$14,560	\$0
frequency for vaulted ASTs			-		
Increased inspection	\$98	\$0	6,756 AST	\$662,088	\$0
frequency for small ASTs			systems		
		\$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 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 the 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 the 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 overfill 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 on 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) (relating to variances) 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 the 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 overfill 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)-(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), 245.516(c)(16), and 245.615(b)(9)-(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).

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 have been 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 has been 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 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 email) 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 the 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, 245.551-554, 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 non-compliance with regulatory requirements. A storage tank system that is non-compliant 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 materials, 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 inservice inspection to be inspected within 6 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 the Independent Regulatory Review Commission (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 the 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 <u>(date)</u>, the 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 <u>(date)</u> and approved the 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 *Pennsylvania Bulletin* 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, are amended to read as set forth in Annex A.

(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 the Independent Regulatory Review Commission 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