

RULES AND REGULATIONS

Title 25—ENVIRONMENTAL PROTECTION

ENVIRONMENTAL QUALITY BOARD

[25 PA. CODE CH. 245]

Administration of the Storage Tank and Spill Prevention Program

The Environmental Quality Board (Board) by this order amends 25 Pa. Code Chapter 245 (relating to administration of the Storage Tank and Spill Prevention Program).

This order was adopted by the Board at its meeting of June 19, 2007.

A. Effective Date

These amendments will go into effect upon publication in the *Pennsylvania Bulletin* as final-form rulemaking.

B. Contact Persons

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C. Statutory Authority

This rulemaking is being made 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 aboveground and underground storage tanks (USTs) to accomplish the purposes and carry out the provisions of the act; sections 107(d) and 108 of the act (35 P. S. §§ 6021.107(d) and 6021.108), which authorize the Department of Environmental Protection (Department) to establish a certification program by regulation for installers and inspectors of storage tanks; section 301(a) and (d) of the act (35 P. S. § 6021.301(a) and (d)), which requires the Department to establish a regulatory program for aboveground storage tanks (ASTs) and a simplified program for small ASTs; sections 301(b) and 501(b) of the act (35 P. S. §§ 6021.301(b) and 6021.501(b)), which authorize the Department to establish classes and categories of tanks by regulation; sections 302(a) and 303(a) of the act (35 P. S. §§ 6021.302(a) and 6021.303(a)), which authorize the Department to establish registration and fee requirements for ASTs; section 501(a) of the act (35 P. S. § 6021.501(a)), which requires the Department to establish a regulatory program for USTs; sections 502(a) and 503(a) of the act (35 P. S. §§ 6021.502(a) and 6021.503(a)), which authorize the Department to establish registration and fee requirements for USTs; section 701(a) and (b) of the act (35 P. S. § 6021.701(a) and (b)), which authorizes the Board to establish regulations necessary for maintaining financial responsibility and methods of coverage; 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 of the Amendments

The Board established the initial rulemaking governing administration of the storage tank and spill prevention program with its final-form publication of Chapter 245, Subchapters A and B (relating to general provisions; and certification program for installers and inspections of storage tanks and storage tank facilities), which was published at 21 Pa.B. 4345 (September 21, 1991). In that initial rulemaking, Federal requirements in 40 CFR Part 280 (relating to technical standards and corrective action requirements for owners and operators of underground storage tanks (UST)) were adopted by reference in Subchapter A. Later, in August 1993, the Board established comprehensive corrective action process regulations when it adopted Subchapter D, which the Board last amended at 31 Pa.B. 6615 (December 1, 2001). With the exception of Subchapter D, these regulations have been in use without any significant changes since amendments to Subchapters A, C and E—G became final in 1997 (27 Pa.B. 5341 (October 11, 1997)) and since the last substantial amendments of Subchapter B were published at 26 Pa.B. 4735 (September 28, 1996). Through the operation of these regulations over the past several years, the Department has identified many changes that are necessary to provide clarity, improvements in storage tank operations and administrative processes and to protect public health, safety and the environment.

The amendments to Subchapter A add three new definitional terms, change several existing terms and delete one term that is no longer needed. The amendments provide needed clarifications on regulated tank systems and regulated substances. This includes the reregulation of previously regulated and subsequently exempted large ASTs storing heating oil that is consumed on the premises. These tanks pose the same risk as other large ASTs and were unintentionally exempted when definitional terms from the UST requirements in 40 CFR Part 280 were previously codified in the Commonwealth's current regulations. The Department wants to correct this and reregulate these large aboveground heating oil tanks. The regulated substance changes include the addition of several nonpetroleum oils, biodiesel, synthetic fluids, and ethanol in its pure form, all substances that should be properly managed in regulated storage tank systems. The final-form rulemaking adds clarity to existing tank handling and tightness testing provisions in Subchapter A, as well as recordkeeping, reporting requirements and appropriate release detection references. The final-form rulemaking also adds comprehensive storage tank registration provisions and references the statutory registration fees in Subchapter A. The registration procedures are representative of longstanding Department policy on storage tank registration.

The amendments to Subchapter B include changes to tank installer, inspector and company certification provisions. These amendments pertain to qualifications, training, testing, education and renewal of certification. They place increased emphasis on training and standards of performance and reduce the number of qualifying activities required to obtain certification. Certified entities have expressed significant interest in moving from current qualifications that are based more on activities to more training qualifications, as activities in the field have

declined over the years. The amendments are needed to help ensure that adequate numbers of qualified installers and inspectors are certified and available to perform tank handling and inspection activities in this Commonwealth. Certified companies already incur technical and safety training costs for their certified employees and should be able to use that training to meet most of the amended certification requirements. Also, the Department provides administrative training and seminars at minimal or no cost.

This final-form rulemaking changes permitting provisions in Subchapter C (relating to permitting of underground and aboveground storage tank systems and facilities), by adding clarity, simplifying certain site-specific installation permit (SSIP) requirements and addressing when construction design criteria or engineering specifications may be required with permit applications. The amendments should reduce paperwork and administrative processes for many SSIP applicants and combines the operating permit application and tank registration application process. Construction design criteria and engineering specifications are a necessary part of tank construction. The Department currently reviews this information for permits that require specific plans to mitigate certain conditions at the site. The amendments are needed to further clarify this requirement and do not place a new burden or cost on the tank owner or SSIP applicant.

The final-form rulemaking also amends technical standards for UST systems in Subchapter E (relating to technical standards for underground storage tanks). The most significant changes in Subchapter E involve requirements for totally contained double-wall UST systems when new or replacement UST systems are installed, changes in monitoring for releases, the need for line leak detectors that automatically shut down the system when triggered and increases in UST inspection frequencies. These final-form amendments are more restrictive than Federal requirements in 40 CFR Part 280 that allow single-wall UST systems and additional or alternative monitoring methods for leak detection. Secondly contained UST systems and increased UST inspection frequencies are however, addressed in the UST compliance provisions of the Federal Energy Policy Act of 2005, August 8, 2005, Pub. L. No. 109-58, 119 Stat. 594 (Energy Policy Act) Energy Policy Act. The final-form rulemaking also clarifies recordkeeping requirements and addresses additional recordkeeping requirements that are necessary to support operational compliance with both the Commonwealth's regulations and Federal requirements in 40 CFR Part 280, but which are not clearly stated in the current regulations. The final-form rulemaking also contains provisions that preclude future UST internal lining, and requires removal of UST systems with failed linings. These amendments are necessary due to continuing problems with releases of regulated substances to the environment, particularly from single-wall USTs, from failed lined USTs and piping systems, and due to failure of many owners or operators to properly perform leak detection or to maintain operational records. The Department is concerned about the continuing releases and the inadequacy of storage tank leak detection and current operations. The final-form rulemaking also provides a phase-in period of temporary exclusions from certain technical requirements or equipment upgrades needed for existing tanks that become regulated due to the addition of new regulated substances in § 245.1 (relating to definitions). Amendments to UST variance provisions will allow for additional variances and promote the development and implementation of new technologies.

The final-form rulemaking amends technical standards for AST systems and facilities in Subchapter F (relating to technical standards for aboveground storage tanks and facilities) and requirements for small AST systems in Subchapter G (relating to simplified program for small aboveground storage tanks). The final-form rulemaking provides a phase-in period of temporary exclusions from certain technical requirements and inspection schedules needed for existing tanks that become regulated due to the definitional changes and addition of new regulated substances in § 245.1. The final-form rulemaking also contains additional information on AST system design requirements, engineering specifications and inspection or testing criteria. This should be helpful in determining when tanks are properly constructed, modified and maintained, and how best to determine suitability for service or to resolve tank system deficiencies noted during construction or inspection. Amendments to AST variance provisions will allow for additional variances and encourage the development and implementation of new technologies.

Lastly, the final-form amendments to Subchapter H (relating to financial responsibility requirements for owners and operators of underground storage tanks and storage tank facilities) clarify the financial responsibility requirements established in the act for appropriate methods of meeting the UST indemnification fund deductible coverage and would correct other minor errors in Subchapter H.

The Department worked closely with informal technical workgroups and advisory subcommittees, as well as the Storage Tank Advisory Committee (STAC), during development of this final-form rulemaking. The Department also met with several organizations, associations and groups, such as the Electric Power Generator Association, the National Association of State Aboveground Storage Tank Programs and the Tank Installers of Pennsylvania, a State association. The 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 by section 105 of the act, the STAC has been given the opportunity to review and comment on this final-form rulemaking. At meetings on February 5, 2002, June 4, 2002, June 3, 2003, December 9, 2003, and December 7, 2004, the STAC reviewed and discussed the proposed rulemaking. At its September 19, 2006 meeting, the Department presented the STAC with a draft Comment Document and discussed final-form rulemaking concepts. The STAC reviewed and discussed the final-form rulemaking at its meetings on December 12, 2006 and February 20, 2007. A Financial Responsibility and Certification Subcommittee meeting was held on February 9, 2007.

At the February 20, 2007, meeting, the STAC voted unanimously to approve Chapter 245 as written. However, some members of the STAC believe that the United States Environmental Protection Agency (EPA) may provide additional flexibility to the states to carry out the provisions of the Energy Policy Act, given the fact that Congress has provided no additional funding to the states to carry out the mandates. The concern is the impact that this flexibility will have on this rulemaking. The chairperson subsequently prepared a written report on the final-form rulemaking for presentation to the Board. A listing of STAC members and minutes of STAC meetings are available on the PA Power Port at www.state.pa.us (PA Keyword: DEP Storage Tanks) and may also be obtained

from Charles M. Swokel, whose contact information appears in Section B of this preamble.

E. Summary of Changes to and Comments and Responses on the Proposed Rulemaking

During a 60-day public comment period, the Board received comments from 21 commentators, including the Independent Regulatory Review Commission (IRRC). Based on the comments received, several changes have been made to the text of the proposed regulatory amendment described previously.

General

A major development in the regulation of USTs in the United States was the passage of the Federal Underground Storage Tank Compliance Act as part of the Energy Policy Act (42 U.S.C.A. §§ 6991—6991m) in August 2005. This legislation represented the first major amendments to the Federal UST program since its initial adoption in 1984. Several commentators recommended that the Department and the Board delay this rulemaking until the EPA issues all prescribed and final guidelines to implement the UST compliance provisions of the Energy Policy Act. The Board shares the commentators' concerns that the UST program in this Commonwealth be no less stringent than the Federal requirements.

The Board does not agree, however, with delaying this rulemaking until EPA issues final guidelines under the Energy Policy Act. First, the process that led to this final-form rulemaking began in 2002, based on the Department's experience in administering the act, as well as the United States General Accounting Office's 2001 report reviewing the National UST program. The Board believes it is in Pennsylvania's best interest to have an UST program that addresses the specific issues facing this Commonwealth, while meeting the letter and spirit of the act. Second, the Energy Policy Act is fairly clear on its face, and the Board feels that the final-form rulemaking addresses almost every issue raised in that legislation. It is the Board's belief that the EPA will have no problem approving the Commonwealth's UST program as meeting the requirements of 40 CFR Part 281 (relating to approval of state underground storage tank programs) after the rulemaking is in effect, even in light of the Federal statutory changes. Third, the Energy Policy Act only addresses USTs, and so does not affect significant areas addressed in the rulemaking—ASTs, certification, permitting and registration, to name several. Fourth, some Energy Policy Act grant guidelines were not required to be in place as final until August 2007. This is not simply a "short-term delay," and allowing Pennsylvania's rulemaking process to be held hostage to the EPA's schedules does not seem appropriate. Finally, it might make some sense to wait if the EPA was actually proposing to amend the UST regulations at 40 CFR Parts 280 and 281, but instead the EPA is only issuing "grant guidelines." These are only policy documents, and only impact Federal funding of the state UST programs, rather than binding the regulated community. This means that the EPA should have flexibility and discretion to approve continued and expanded funding for this Commonwealth, even when the exact program requirements are not identical (compare, for example 40 CFR 280.50 (relating to reporting of suspected releases) with 25 Pa. Code §§ 245.304 and 245.305 (relating to investigation of suspected releases; and reporting releases)).

One commentator suggested that the final-form rulemaking should contain a 6 month "phase-in period" from the time the regulations are adopted to the time when they are effective to allow time for affected parties to set up policies and procedures to comply with the new regulations. The Board does not agree that a "regulation-wide" phase-in period should be provided. When phase-in periods are appropriate, they are narrowly focused and included as a part of the rulemaking in the specific area where they are needed (see, such as, §§ 245.403(c) and 245.505 (relating to applicability)). Also, the Board believes that the long development period noted previously, combined with the ongoing regulatory review process, should suffice to give the regulated community adequate notice of the requirements of the rulemaking to allow for planning and design.

Subchapter A

"Consumptive use"

A commentator suggested that the "reregulation" of large heating oil ASTs should be deleted from the final-form rulemaking because although these ASTs do pose risks, they are already regulated under 40 CFR 112.8(c) (relating to Spill Prevention, Control, and Countermeasure Plan requirements for onshore facilities (excluding production facilities); Bulk storage containers). In addition, the commentator was concerned that the 30,000-gallon capacity for inclusion in the definition of consumptive use was arbitrary and suggested a change to only include ASTs of 50,000 gallons or less capacity.

The Board agrees with the commentator that this class of ASTs poses risks and should be regulated. Further, we believe that regulation of these ASTs is consistent with the original intent behind the act, and they should therefore be regulated under that Storage Tank Act. That is true regardless of the existence of a Federal program that also regulates these tanks; the Commonwealth's regulatory program contains many items missing from the Federal Oil Pollution Act of 1990, act of August 18, 1990 (Pub. L. No. 161-380, 104 Stat. 484). A critical argument in favor of independent act regulation from the Board's perspective is the ability to respond to releases from the tanks under the Commonwealth's authority, rather than waiting for Federal action that may not be forthcoming.

As for the size cutoff, the Board does not agree that the proposed definition is "arbitrary and capricious." The "30,000 gallons capacity" cutoff is valid because that size AST is generally the largest size AST that is routinely manufactured, as that term is used in § 245.1 (see, for example as, definition of "aboveground manufactured metallic storage tank"). Thus, most ASTs regulated by this amendment will require some level of fabrication and assembly at the tank facility. "Field-constructed" tanks are safe and effective when properly installed, but such proper installation requires specialized expertise to accomplish and so it is particularly important to regulate those ASTs with over 30,000 gallons capacity. For these reasons, the definition is retained unchanged in the final-form rulemaking.

"Regulated substance"

The Board received several comments about the proposed expansion in the definition of "regulated substance," and the final-form version of this definition reflects several changes from the proposed rulemaking. The primary focus of these comments was on the addition of substances included on a list maintained by the Department of Labor and Industry in 34 Pa. Code Chap-

ter 323 (relating to hazardous substance list) (Chapter 323 list). Concerns expressed included the breadth of the Chapter 323 list, the focus of that list on worker safety rather than environmental concerns, the obscurity and age of the Chapter 323 list and the fact that the list is outside of the jurisdiction of the Department and the Board.

After further review of the Chapter 323 hazardous substances list, the Board removed this proposed amendment from the final-form rulemaking. The number of substances on the Labor and Industry list, but not already on the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) list, is fairly limited. Further, at this time, the Board does not have specific information concerning the number or size of storage tanks containing those limited substances. Therefore, this amendment has been removed from the final-form rulemaking.

IRRC expressed a concern that the definition contained several "substantive" provisions. Specifically, IRRC was concerned that each of the subsections includes provisions that specify when a substance would be regulated or not regulated. The Board does not agree with IRRC that the proposed changes are substantive in nature and maintains that the changes are definitional in that they define in which class of "regulated substance" certain compounds will be included (that is, either hazardous substances or petroleum).

The final-form rulemaking has been amended to reflect treating newly regulated substances in subparagraph (i)(C)(I) (nonpetroleum oils) and (II) (pure ethanol) the same as petroleum in subparagraph (i)(B) of the definition of "regulated substance." The actual substantive requirements are found later in Chapter 245, where the definitional distinction directs regulated entities to the proper requirements for their tank (see, for example, § 245.443 (relating to requirements for hazardous substance underground storage tank systems)). The General Assembly already addressed conditional differences between petroleum and hazardous substances in the definition of "regulated substance" in section 103 of the act (35 P. S. § 6021.103).

The last change to this definition in the final-form rulemaking replaces the "Compounds for use as additives in gasoline" category in subparagraph (i)(C)(II) with ethanol in its pure, unblended state. Most ethanol is denatured with more than a de minimis amount of petroleum when intended for use as fuel, and would therefore be regulated as "petroleum" under subparagraph (i)(B). This amendment limits this definition and addresses the concern raised by IRRC, previously.

§ 245.41. Tank registration requirements.

Several commentators noted that because all USTs and ASTs put into temporary closure will no longer be in operating status, this section should be amended to address Department withdrawal of the out-of-service tank's operating permit. The Board agrees, and this section has been amended in the final-form rulemaking to include routine withdrawal of the operating permit when a tank is reported in temporary closure or temporary out-of-service status.

One commentator was concerned that the requirements in subsection (f)(4) could cause excessive or frequent notification to the Department. The commentator requested that notification requirements should not apply when minor changes in tank product storage occur. For example, products such as kerosene and diesel fuel are

very similar in composition and storage tanks are often switched back and forth between these products depending on inventories and supply demands. The commentator suggested that notification of changes in substances stored should only apply when there is a significant change, such as a change from a petroleum product to a hazardous substance, and not when a change is only in the type of petroleum product (such as, from diesel to kerosene). The Board recognizes that some operations change substances frequently because of business practices and included the ability to address this issue in the final-form rulemaking. The substance in a tank is important, however, as the substance stored determines technical regulatory requirements and Underground Storage Tank Indemnification Fund (USTIF) billing.

§ 245.43. Failure to pay registration fee.

The IRRC raised several enforcement-related issues concerning this section of the proposed rulemaking. First, the IRRC was concerned about the Board's authority to include the language in proposed subsection (a) stating that an owner who fails to pay the registration fee shall be subject to "Commonwealth policy and guidelines" for collection of delinquent debts due the Commonwealth. To a large degree, this language is included here merely to put the regulated community on notice of the consequences of failure to pay this fee (see, for example, 25 Pa. Code § 245.212(b) (relating to minimum requirements for obtaining a permit-by-rule)); therefore, the "shall" in this section has been changed to "may." The Board notes, however, that there is a Management Directive, 310.10, relating to Collection, Requests for Compromise, and Write-Off of Delinquent Claims, that directly establishes an applicable process. The Department's Storage Tank Program follows Management Directive 310.10 when collecting delinquent registration fees, along with exercising other enforcement options (such as, civil penalties, administrative orders, withholding or revoking permits, and the like). In addition, any enforcement policy of the Department undergoes public notice and comment, along with review by the STAC, and is available from the Department directly or on the Department's website. Therefore, the language is retained in the final-form rulemaking.

IRRC noted that subsection (b) states that failure to pay the registration fee could result in Departmental action against the storage tank owner and the operator. Section 245.42(a) and (b) (relating to tank registration fees), states that registration fees are to be paid by tank owners. Therefore, IRRC requested that the reference to tank operators be deleted from those subsections. The Board acknowledges that the act places the responsibility to pay annual registration fees on the owner of the aboveground (35 P. S. § 6021.303(a)) or underground (35 P. S. § 6021.503(a)) storage tank. Those same subsections contain language that states:

It shall be unlawful for any owner or operator to operate or use, in any way, any [aboveground or underground] storage tank that has not been currently registered as required by this section.

Therefore, although the obligation to register the regulated storage tank rests with the tank owner, operation of a regulated storage tank that is not properly registered is also a violation of the act. The intention of this section was to put the operator on notice of this requirement, and of the potential liability for operating a regulated storage tank for which annual registration fees have not been paid. The proposed language is retained in the final-form rulemaking.

Finally, IRRC was concerned about the language in subsection (c) stating that the Department may withhold an operating permit for a tank if the owner has a delinquent registration debt for any regulated storage tank. IRRC questioned what circumstances would lead the Department to withhold a permit. Failure to pay required registration fees is a violation of either section 303(a) (aboveground) or 503(a) (underground) of the act. Section 1301 of the act (35 P. S. § 6021.1301) establishes the criteria upon which the Department may withhold or revoke a permit under the act. The Department is bound by and follows section 1301 of the act when making decisions concerning the withholding or revoking of operating permits for storage tanks.

Subchapter B

§ 245.110. Certification of installers.

The USTIF raised a concern about the proposal to eliminate separate categories for aboveground and underground installers. The USTIF was concerned that the change would make it difficult to properly and accurately bill fees for the Tank Installers Indemnification Program (TIIP), particularly with regard to new companies or companies that previously had only worked on ASTs but now want to work on USTs as well. The final-form rulemaking retains the existing, separate categories for underground and aboveground tank installers in the final-form rulemaking.

§ 245.114. Renewal and amendment of certification.

Several commentators noted that in subsection (c), for the certification category AMNX, the proposed requirement of 12 installations or major modifications needed for renewal of certification is excessive. Very few nonmetallic ASTs are installed or modified today. This requirement should be changed to six installations or major modifications. The Board acknowledges the commentators' concern. The number of activities for renewal should be equal to the number of activities required for initial certification. Proposed activity requirements have been adjusted for all categories in the final-form rulemaking. For the AMNX category, the Board has changed the activity requirement from 12 to 9 activities in the final-form rulemaking.

The Board received several comments concerning the transition proposed in this section concerning renewal from qualifications based on activities to qualifications based on training. Specifically, commentators were concerned that more detail was needed in the regulations on what specific training meets these requirements. Among the suggestions for amendments was a requirement for a minimum annual continuing education for certified installers and inspectors, or at least establishing a minimum number of hours of training for each category. Clarifying language concerning the difference between technical training requirements for initial and renewal of certification and course expectations has been added to the final-form rulemaking, but no minimum number of hours of training requirements are established. The Board believes that flexibility will be needed to require training when appropriate. In some instances this might require more than the suggested minimum requirements, and for specific certification categories less training might be acceptable. Because the training courses are category-specific and approved by the Department, based on course outline and content, there is no need or desire to assign credit hours for a course or require a specific number of training hours for renewal. Course content is the important factor, not the time spent in training.

Subchapter C

§ 245.203. General requirements for permits.

§ 245.222. Application requirements.

A commentator noted that because all USTs and ASTs put into temporary closure will no longer be in operating status, these sections should be amended to address Department withdrawal of the out-of-service tank's operating permit. These sections are amended in the final-form rulemaking to include routine withdrawal of the operating permit when a tank is reported in temporary closure or temporary out-of-service status. This revision correlates with changes in the final-form rulemaking to § 245.41.

§ 245.231. Scope.

Two commentators requested that the proposed rulemaking be amended to create an exemption from the requirement to obtain an SSIP in the situation when a new large AST replaces an existing tank at the same location. Although the final-form rulemaking does not contain such an exemption, it does reduce the required submissions for an AST being constructed on the footprint of a previous AST.

Subchapter E

§ 245.405. Codes and standards.

One commentator raised a concern over the proposed language stating that "[r]egulatory requirements prevail over codes and standards whenever there is a conflict." The commentator suggested that the Department should list those conflicts either directly in the regulations or in some publicly accessible manner. Given the detailed nature of the industry standards and codes applicable to the storage of regulated substances in USTs, it would be administratively difficult to list every instance of conflict. This would also be a shifting target, since generally the industry codes and standards are updated or amended more frequently than the Chapter 245 regulations. In many instances, the conflict is in the nature of a mandatory command in the regulations ("owner shall do X"), versus a discretionary option in a code or standard ("owner may do X"), or a firm deadline for an action established in the regulations versus an open-ended code or standard. Given the highly fact-specific nature of these issues, the Board has retained the proposed language in the final-form rulemaking, and recommends contacting the Storage Tank Program to determine whether or not a conflict truly exists.

IRRC raised three concerns about this section. The first concern targeted the use of the indefinite phrase "when appropriate" in this section. The Board acknowledges IRRC's concern. The final-form rulemaking has been amended to simply delete the phrase "when appropriate" or to replace it with "when approved by the Department."

Second, IRRC questioned the inclusion of the phrase "will not automatically be required to be upgraded to meet the new standards." The IRRC felt that use of the term "automatically" implies that the facilities or storage tank systems may have to be updated in the future, and suggested that the final-form regulation should include specific details on when the upgrades will be required. The rationale behind this language is to indicate that the industry standard in effect at the time the activity is done is the industry standard that should be followed. It may be appropriate in certain circumstances (such as, when there is an imminent threat to public safety) to require tank owners to meet an updated industry stan-

dard. Meeting the new requirement could involve a specific facility or it could be an industry-wide change. It is nearly impossible to anticipate every instance in which the upgrades might be necessary. If the Department were to require upgrades, however, it would do so only by means of notice to the affected tank owners. To clarify this, the Board added language to the final-form rulemaking indicating that existing tanks will not be required to automatically upgrade to a new standard, unless the revised standard or the Department specifies that upgrade is required.

Finally, IRRC was concerned with the language in subsection (d) which states: "Regulatory requirements prevail over codes and standards whenever there is a conflict." IRRC commented that this provision is not needed because regulations have the full force and effect of law and already prevail over codes and standards, but that if the Board decided to retain this provision, similar language should also be added to §§ 245.504 and 245.604 (relating to referenced organization). The Board does not agree with the commentator regarding the necessity of this language. After all, the industry standards are incorporated by reference into the regulations in this section. Absent this language, it is at least arguable that the industry standard would prevail over the conflicting regulatory requirement. To the extent that the commentator suggests adding similar language to other sections, the Board agrees and has made the recommended changes to the final-form rulemaking.

§ 245.411. Inspection frequency.

Several commentators commended the Department for proposing to require operator training when related violations are documented through an inspection, but noted that the proposed rulemaking does not appear to meet the requirements for routine operator training contained in the Energy Policy Act. The Board agrees with the commentators that the rulemaking only addresses owner and operator training in the context of verification of violations. The Energy Policy Act does contain requirements for additional training for owners and operators whose storage tank systems are determined to be out of compliance. The final-form rulemaking does not, however, address the Energy Policy Act requirements concerning routine operator training. The Energy Policy Act did not require the EPA to develop guidelines for this requirement until August 2007 (42 U.S.C.A. § 6991i(a)(1)), and the EPA has not released draft grant guidelines on this issue for public comment to date. Further, Pennsylvania and other states are not required to have routine operator training requirements in place until August 2009 (42 U.S.C.A. § 6991i(b)). The final-form rulemaking retains subsection (d), however, to address owner and operator training after verification of violations.

In response to several comments, this section of the final-form rulemaking is also amended to include a phase-in period for routine inspections of tanks that have current inspection due dates greater than 3 years at the time of final adoption of the rulemaking. This phase-in period is consistent with the August 8, 2010, deadline that the EPA has established for meeting the 3-year inspection frequency requirements in the Energy Policy Act.

Finally, in response to a comment from IRRC, the final-form rulemaking has been amended to include examples of the type of training that could be used. Because the Department will typically require the training as part of the enforcement follow-up after the verification of facility violations, the specific course necessary will be

addressed at that time. The final-form rulemaking is also amended to note that the tank owner or operator shall incur the cost of the training.

§ 245.421. Performance standards for underground tank systems.

Several commentators raised concerns about the proposed amendments to this section as they related to options granted to the states to comply with the Energy Policy Act. Primarily, these commentators were concerned that the requirement for total secondary containment of all new and replacement USTs is more stringent than the secondary containment requirement included in the Energy Policy Act, which is limited to USTs located near navigable waters or drinking sources, and that this requirement would cost Pennsylvania UST owners a great deal of additional money for little environmental benefit.

The Board agrees that the total secondary containment regulation is new and is more stringent than the secondary containment option included in the Energy Policy Act. The Pennsylvania UST program will require total secondary containment for new and replacement UST systems throughout this Commonwealth while the Federal program would require total secondary containment only if the tank system "is within 1,000 feet of any existing community water system or any potable drinking water well." 42 U.S.C.A. § 6991b(i)(1). Further, the Department has acknowledged in the past and continues to acknowledge that the UST system equipment costs are increased with the total secondary containment requirement. Even so, the Board believes that the approach outlined in the final-form rulemaking is in the best interest of the regulated community, the public, the environment and the Department.

First and foremost, requiring total secondary containment for new and replacement UST systems (double walled tanks and piping with sumps at tank and piping junctions, and under dispensers) will provide the maximum protection against releases of regulated substances. Federal study indicates total secondarily-contained systems have fewer failures or releases of regulated substances than single-walled UST systems. Fewer releases, and less severe releases, means less exposure to the public and environment to those regulated substances, and fewer resources needing to be devoted to corrective action. Interested parties currently incur those costs—the Department (both in terms of oversight of responsible party corrective action and direct state-lead corrective action), the USTIF, the regulated community and the public. The public may be impacted directly, for example, where a homeowner's drinking water well is impacted, or indirectly, through the imposition of the "per gallon throughput" USTIF fee paid on each gallon of gasoline sold in this Commonwealth.

Second, since 1998, Department records show approximately 60% of tanks and 80% of piping systems installed in this Commonwealth have been double-walled. Thus, the Department does not expect a major impact on industry practices from this decision. The regulated community already appears to realize the benefits of installing protective systems. The installer community already recommends installation of these systems, and notes that there is only very minimal increased installation cost associated with a total secondary containment UST system.

In addition to the benefits of a Statewide "total secondary containment" option, there are several reasons why the Board does not believe that the Energy Policy Act's "1,000 foot" limitation makes sense. First, the Board notes

that the act contains a presumption of liability in section 1311 of the act (35 P. S. § 6021.1311(a)):

for all damages, contamination or pollution within 2,500 feet of the perimeter of the site of a storage tank containing or which contained a regulated substance of the type, which caused the damage, contamination or pollution.

At a minimum, then, the "total secondary containment" option in this Commonwealth should extend to 2,500 feet.

The Department also notes that the Federal "total secondary containment" option only extends protection to "existing community water systems" and "existing potable drinking water wells." The Board agrees that protecting those items is crucial, but protecting those items alone is not enough. Other items that are also deserving of protection, but not covered by the Energy Policy Act, might include:

- planned locations for new community water systems or new potable drinking water wells;
- the entire extent of aquifers used to provide drinking water (the Energy Policy Act requirements are unclear as to whether or not the aquifer is protected, or only the well itself);
- wells providing water for "agricultural purposes," as that phrase is defined in 25 Pa. Code § 250.1 (relating to definitions);
- buildings with subsurface features that might be impacted by vapors from a release;
- "waters of the Commonwealth," as that phrase is defined in section 1 of The Clean Streams Law (35 P. S. § 691.1); and,
- other water supplies ("water supply" is defined in section 245.1 as "[e]xisting, designated or planned sources of water or facilities or systems for the supply of water for human consumption or for agricultural, commercial, industrial or other legitimate use, protected by the applicable water supply provisions of § 93.3 (relating to protected water uses)").

By requiring total secondary containment for all new and replacement UST systems, the rulemaking protects these other items to the same extent the Energy Policy Act protects certain water supplies.

The Board further notes that extending the total secondary containment requirement Statewide avoids a significant administrative burden. This burden consists of the effort required to determine whether or not a new or replacement UST system falls within the Energy Policy Act's limits, when the information can even be determined with any accuracy. Whether or not that burden is borne by the Department or the regulated community, it may swallow up any cost savings associated with the installation of a "lower quality" single-walled UST system. It should also be noted that there would be a delay in installation due to the necessity of conducting this review and making this determination that is avoided by the Department's preferred Statewide approach. This delay could also include any litigation before the Environmental Hearing Board (including third-party appeals) over the Department's decision that a particular UST system is or is not within 1,000 feet of a protected feature.

Finally, the Department notes that there is the possibility of decreases in USTIF fees in the future as the UST system population in this Commonwealth is replaced by the more protective total secondary containment systems.

For all of these reasons, the Board believes that the approach outlined in the final-form rulemaking is in the best interest of the regulated community, the public, the environment and the Department, and so that approach is retained in the final-form rulemaking.

A second concern raised by a commentator regarding the proposed amendments to this section is directed to the option offered by the Energy Policy Act for states to protect groundwater through a combination of UST installer certification, and the maintenance of financial responsibility by UST installers along with manufacturers of USTs and piping systems.

In supporting the "financial responsibility and certification" option for protecting groundwater over the "total secondary containment" option, the commentator appears to overlook a critical, and from our perspective, insurmountable obstacle to implementing that option. That obstacle is the requirement that:

A person who manufactures an underground storage tank or piping for an underground storage tank system . . . is required to maintain evidence of financial responsibility under section 9003(d) in order to provide for the costs of corrective actions directly related to releases caused by improper manufacture . . .

42 U.S.C.A. § 6991b(i)(2)(A). As a preliminary matter, it appears that the General Assembly might need to amend the act to allow the Department to require, through regulations, the "manufacturer financial responsibility." Even if such a requirement was authorized, however, it is difficult to see how the requirement could be implemented at the State level. Most manufacturers are located outside of this Commonwealth's jurisdiction, with their products coming into this Commonwealth through interstate commerce. Commerce is traditionally a Federal concern, and there are limits on the states' ability to regulate commerce. If that hurdle were not high enough, the Department will be hard-pressed to pursue enforcement actions or cost recovery against manufacturers located outside of this Commonwealth. Finally, an informal survey of other state's agencies implementing the UST program revealed that the overwhelming majority of other states are meeting the Energy Policy Act requirement through the secondary containment option.

Addressing the commentator's second concern, the Board acknowledges the additional requirements placed on the Commonwealth by the Energy Policy Act. The most implementable alternative, from an administrative perspective, is to meet the groundwater protection requirements by having all new and replacement UST systems be installed with total secondary containment. This avoids the need to implement a new manufacturer financial responsibility program, and avoids the burdens of attempting to determine whether a new or replacement UST is located in an area protected under the EPA grant guidelines.

The proposed amendment to § 245.421(b)(2) (relating to performance standards for underground storage tanks systems) required upgrading of all piping associated with a UST system to satisfy secondary containment standards whenever more than 30% of the system piping is going to be replaced. Several commentators expressed concern that this requirement was too stringent, and the final-form rulemaking has been amended to reflect the requirement that replacement of all piping that routinely contains and conveys regulated substances from the tank with secondarily-contained piping must occur only when more than 50% of this piping is replaced.

Several commentators went further, and suggested that replacement of piping with identical materials should not trigger the upgrade requirement, regardless of the percentage of piping replaced (up to and including 100%). The Board does not agree and believes that this would be in conflict with the Energy Policy Act (see, Final Secondary Containment Grant Guidelines, issued by the EPA on November 15, 2006, pages 4-5). Piping associated with USTs is a significant source of contamination in the Commonwealth. When piping replacement is over the 50% threshold, the replacement must meet the new UST system standards, that is, total secondary containment piping, rather than simply replacing old piping with equipment that is less protective than total secondary containment.

In response to comments, this section of the final-form rulemaking has been amended to clarify that the double walled piping requirement applies only to piping that routinely contains a regulated substance, which does not include vapor recovery, vent or fill piping.

Finally, subsection (a) is amended in the final-form rulemaking to designate those that can certify the system installation, when it must be certified and what documentation must be provided to the Department. These additions are consistent with tanks initially installed for storing regulated substance and for reuse of removed tanks.

§ 245.422. Upgrading of existing underground storage tank systems.

A major concern raised with the proposed amendments to this section concerned the requirement that release detection equipment be upgraded for systems using interstitial monitoring or electronic line leak detection from an alarm to an automatic shut-off device. The Board acknowledges the commentator's concerns about a potentially major upgrade program. The final-form rulemaking has been amended to require upgraded release detection and line leak detectors only for new and replacement UST systems. Questions about line leak detectors and concerns that they should only apply to pressurized piping systems have been addressed and clarified in § 245.445 (relating to methods of release detection for piping) of the final-form rulemaking.

In response to comments, the final-form rulemaking paragraph on interior lining explicitly references API RP 1631 and National Leak Prevention Association (NLPA) Standard 631 "Entry, Cleaning, Interior Inspection, Repair and Lining of Underground Storage Tanks."

§ 245.432. Operation and maintenance including corrosion protection.

The final-form rulemaking has been amended to indicate that no amount of water is desirable in gasoline containing ethanol. The proper management of water is a good beginning to this task, especially in gasoline tanks containing ethanol additives.

The IRRC raised a concern that under subsection (f), excess water in petroleum tanks must be disposed in accordance with "applicable State and Federal requirements," suggesting that the final-form regulation should reference the applicable requirements. The Board notes that this language is included in Chapter 245 to put tank owners, operators and certified individuals on notice that requirements outside of the act may apply to the management of excess water removed from a petroleum UST. The proper management of excess water removed from petroleum USTs is determined on a case-by-case basis depending on the particular characteristics of the contaminated

water and the end use of the material. Therefore, tank owners, operators and certified individuals faced with the question of proper handling should contact the Department's Waste Management Program in the regional office where the facility is located for detailed assistance. The final-form rulemaking has been amended to show examples of state and Federal requirements.

§ 245.435. Reporting and recordkeeping.

One commentator raised a concern about the availability of records for existing facilities when a change in ownership occurs. Short of excavating the system, appropriate records are the only method of establishing what cannot be seen. Failure to maintain records, either through an ownership change or other circumstances should not be an excuse. Current state regulations and Federal requirements in 40 CFR 280.20(b)(3)(ii) require the retention of these records for the operating life of the piping system. In deference to the commentator's concern, subsection (b)(2)(ii) has been amended in the final-form rulemaking to indicate that some similar form of information that demonstrates compliance with § 245.421(b)(2)(ii)(B) and § 245.422(b)(2) and (c)(2) (relating to upgrading of existing underground storage tank systems) may be acceptable.

The final-form rulemaking has also been amended to require owners and operators to only maintain the most recent or last tightness test records of containment sumps and dispenser pans as listed in subsection (b)(3)(viii) of the final-form rulemaking.

§ 245.441. General requirements for underground storage tank systems.

A reference to the interstitial section of the subchapter has been added to the final-form rulemaking to clarify that interstitial monitoring is the method to use to monitor the interstice and a future date to meet this requirement has also been added.

§ 245.444. Methods of release detection for tanks.

Several commentators raised concerns regarding the need for a professional geologist for certain methods of release detection. The Board acknowledges that the language in the proposed rulemaking may have been too limiting, yet concerned that professionals with proper experience and credentials perform work associated with regulated storage tanks. For those reasons, this requirement is deleted in the final-form rulemaking. In its place, the final-form rulemaking contains a broad requirement similar to that already found in the corrective action process regulations in § 245.314 (relating to professional seals). If an activity consists of a practice regulated by the Engineer, Land Surveyor and Geologists Registration Law (63 P. S. §§ 148—158.2), a properly licensed individual shall perform the activity or provide a seal on a report submitted to the Department. The Department of State administers that statute and retains authority over its implementation. However, section 501(a)(2) and (7) of the act requires the Department to develop and implement a regulatory program concerning leak detection systems and the proper installation of USTs. Because the laws of the Commonwealth require that properly qualified individuals carry out certain tasks relating to storage tanks, the final-form rulemaking reflects those requirements.

In response to a comment, the final-form rulemaking has been amended to remove the requirement for the tank to be filled to the overfill set point when using an automatic tank gauge (ATG) to perform a tank tightness test. The requirement for certification of an ATG in

paragraph (4) applies only to an ATG installed prior to December 22, 1990, as established in Federal requirements at 40 CFR Part 280, which were not certified by the ATG manufacturer to perform product monitoring that can detect a 0.2 gallon per hour leak rate (not a tank tightness test). The final-form rulemaking has been amended to clarify this issue.

§ 245.445. Methods of release detection for piping.

In response to concerns raised by a commentator regarding replacing automatic line leak detectors (aLLD) on an existing system with a leak detector that shuts off the flow of product when triggered, the final-form rulemaking is amended to require only the upgrade of an existing line leak detector to an aLLD that shuts off the flow of product, when the entire piping system to the dispenser or the entire release detection system is replaced. Paragraph (1) of the final-form rulemaking explicitly allows for other line leak detection devices besides electronic line leak detectors to meet aLLD requirements.

§ 245.451. Temporary closure (out-of-service).

In response to comments, several changes have been made to this section of the final-form rulemaking. First, the final-form rulemaking has been amended to reflect the waiver of inspections and withdrawal or withholding of operating permits when tanks are placed in temporary closure or out-of-service status. Second, the final-form rulemaking has been amended to require that a temporary out-of-service UST be emptied within 30 days or prior to reporting the UST change in operating status to the Department, whichever occurs first, unless notified otherwise by the Department. The final-form rulemaking also establishes a time frame and conditions for long-term retention of an UST in temporary out-of-service status.

§ 245.453. Assessing the site at closure or change-in-service.

A commentator expressed a concern that subsection (a) appeared to incorporate a guidance document by reference. This was not the Board's intent. The final-form rulemaking has been amended to clarify that the standard of performance established by this section is for the tank owner/operator to "measure for the presence of a release where contamination is most likely to be present at the underground storage tank site" upon closure of the UST. If a tank owner/operator chooses to follow the Department's technical guidance document, the owner will have met the standard of performance. Alternatively, the tank owner/operator may choose not to follow the guidance document, but instead use another process for proper site assessment that equally protects the public and the environment and that meets all regulatory and statutory requirements.

Subchapter F

§ 245.523. Aboveground storage tanks in vaults.

IRRC raised a concern about the proposed amendments to this section, specifically that paragraph (11) requires certain underground piping distribution systems to "be appropriately monitored," which is an indefinite term. The final-form rulemaking has been amended to clarify that the underground piping must be monitored as required in paragraph (7) and monitoring records retained for 12 months as required under § 245.516 or § 245.615 (relating to recordkeeping requirements).

§ 245.541. Overfill prevention requirements.

Several commentators raised concerns about the proposed amendment to subsection (e), arguing for allowing

for the use of a visual gauge, in lieu of a high-level alarm, if the large AST also has a manned operator shutdown procedure. The installation of high-level alarms will require emptying and cleaning of the large ASTs prior to working on them. That is an expensive and potentially dangerous proposition, and is not justified prior to the next scheduled removal from service (that is, an out-of-service inspection). The Board acknowledges the commentators' concerns. The current regulatory requirements for installation of high-level alarm when a large AST is taken out-of-service have been in place since October 11, 1997, and the Board believes these requirements are appropriate. No additional deadlines are necessary for these tanks. However, ASTs that do not routinely undergo out-of-service inspections may still need to address overfill prevention. Therefore, the final-form rulemaking has been amended to reflect overfill protection requirements consistent with National industry standards, such as API 2350, NFPA 30 or PEI RP 200 for saddle-mounted ASTs and ASTs that are not routinely required to conduct out-of-service inspections.

§ 245.542. Containment requirements for aboveground storage tank systems.

Several commentators raised concerns over the proposed language, which appeared to mandate the use of Department guidance documents to comply with the requirements to verify permeability of emergency containment structures. The final-form rulemaking is amended to clarify that the standard of performance established by this section is "verification by a professional engineer that the emergency containment structure, coupled with the tank monitoring program and response plan is capable of detecting and recovering a release and is designed to prevent contamination of the waters of this Commonwealth." If a tank owner chooses to follow the procedures in the technical guidance document, the owner will have met the standard of performance. Alternatively, the tank owner/operator may choose not to follow the guidance document, but instead use another verification process that equally protects the public and the environment and that meets all regulatory and statutory requirements. In addition, examples of industry standards on test methods for determining permeability (such as, various ASTM methods and engineering standards listed in API Publication 351) have been added to this section of the final-form rulemaking.

§ 245.543. Leak detection requirements.

Two commentators requested clarification on the issue of the timing of testing ASTs for tightness. The current requirement for testing the AST is applicable to both in-service and out-of-service inspections. However, the Board believes that changes in § 245.553(c) (relating to out-of-service inspections) reflecting nondestructive examinations that must be performed during an out-of-service inspection now adequately satisfy evaluation of the tank bottom during the out-of-service inspection. Therefore, the final-form rulemaking has been amended to only require a separate leak test during the in-service inspection for tanks not having secondary containment (double bottoms), tank lining or corrosion protection.

Another commentator noted that API Publication 334, A Guide to Leak Detection for Aboveground Storage Tanks, describes methods for detecting leaks, which is not necessarily the same thing as "tightness testing," which the proposed rulemaking was intended to address. In response, the final-form rulemaking has been amended to require a leak test, rather than testing for tightness. This is consistent with the testing terminology in API Publica-

tion 334. Further, specific leak test methods that will satisfy this requirement have been added to this section of the final-form rulemaking.

The IRRC raised several questions with regard to subsection (d). The final-form rulemaking has been amended and the requirement for certification clarified. The final-form rulemaking also addresses the test methods that may be used to satisfy the testing requirement and that a third-party inspector or an industry technician experienced in the test method and certified under American Society for Nondestructive Testing (ASNT) standards recognized by the test equipment manufacturer must perform the test. The STAC recommended that the tests to be performed by a third-party expert and not an employee of the tank owner and the leak tests be conducted as part of the inspection process. Typically, industry leak testing experts other than employees of the tank owner perform such highly technical work on ASTs, and the Board believes that this approach is appropriate.

§ 245.561. Permanent closure or change-in-service.

Several commentators noted that the proposed rulemaking language appeared to mandate the use of Department guidance documents to comply with the requirements to properly close large AST systems. This was not the Board's intent. The final-form rulemaking has been amended to clarify that the standard of performance established by this section is for the tank owner/operator to "complete a site assessment to measure for the presence of any release from the storage tank system" upon closure of the AST. If a tank owner/operator chooses to follow the Department's technical guidance document, the owner will have met the standard of performance. Alternatively, the tank owner/operator may choose not to follow the guidance document, but instead use another process for proper site assessment that equally protects the public and the environment and that meets all regulatory and statutory requirements.

§ 245.562. Temporary removal-from-service.

In response to several comments, this section of the final-form rulemaking has been amended to allow routine scheduled service inspections to be delayed on tanks that are in temporary closure or out-of-service status. The delayed inspections must be performed, submitted to the Department and deficiencies remedied prior to placing regulated substance back into the tanks and returning them to operational service.

Several commentators suggested that the requirement in subsection (f) that temporary out-of-service large ASTs to be closed within 5 years be replaced with unlimited temporary closure combined with in-service and out-of-service inspections. The Board does not believe that an unlimited temporary out-of-service period is appropriate for all large ASTs. However, the final-form rulemaking amends the variance provisions in § 245.503, which may be used to allow for extending the temporary out-of-service time frame where ASTs may need to be retained further for anticipated or potential future operational use.

Subchapter G

§ 245.612. Performance and design standards.

One commentator requested clarification in subsections (d) and (e) regarding the intention of the Board to have any one of the listed controls meet the need for additional spill and overfill protection on double-walled small ASTs. The measures addressed for double-walled small aboveground storage tanks are required by the EPA to meet Oil Program requirements in 40 CFR 112.7 (relating

to general requirements for Spill Prevention Control, and Countermeasure) and are also reflected in NFPA 30, and PEI Recommended Practice 200 (PEI RP 200) for installation of manufactured aboveground storage tanks. PEI RP 200 provides detailed diagrams with instructions on when specific valves, cutoffs and controls should be used. To help clarify when each of the listed controls are needed, the final-form rulemaking has been amended to include specific reference to PEI RP 200 and NFPA 30. The 3-year delay for tanks containing newly regulated substances and heating oil consumed on the premises has been addressed in the final-form rulemaking in § 245.605 (relating to applicability).

§ 245.614. Requirements for closure.

Similar to §§ 245.453 and 245.562 (relating to assessing the site at closure or change-in-service; and temporary removal-from-service), a commentator suggested that this section should be amended to waive service inspections for small ASTs in temporary closure status, or when permits are withheld or withdrawn. Instead, the Department should require inspection of the tanks prior to permitting, or changing the tank status from nonoperating back to operating. The Board acknowledges the commentator's concerns, and the final-form rulemaking has been amended to allow routine scheduled service inspections to be delayed on tanks that are in temporary closure or removal from service status. The delayed inspections must be performed, submitted to the Department and deficiencies remedied prior to placing regulated substance back into the tanks and returning them to operational service.

Subchapter H

§ 245.704. General requirements.

One commentator requested clarification whether the Board will require submission of individual deductible coverage mechanisms for approval, or if the Board is proposing to deem the listed methods as approved by rule. The Board is not requiring routine submission of individual deductible coverage mechanisms for approval. Rather, the changes are intended only to address the mechanisms an owner may use to meet coverage requirements. The final-form rulemaking has been amended to further clarify this point.

F. Benefits, Costs and Compliance

Benefits

Subchapter A: The changes and additions to definitional terms will provide clearer interpretations of current and amended regulations and will help to ensure that several substances not previously addressed are regulated and treated like other similar (currently regulated) substances to protect public health, safety and the environment. These changes include newly developed fuels or alternatives such as biodiesel, synthetic fuels and ethanol. The reregulation of many large ASTs holding heating oil will help to ensure that these tanks are operated, inspected and eventually upgraded to meet the same protective standards that other currently regulated oil tanks must meet.

The new registration provisions will provide tank owners and the Department a much needed and comprehensive publication of tank registration requirements. These requirements are currently only available through several publications such as fact sheets, program guidance and registration form instructions, and are fractionalized in several sections of the current technical and permitting rules and interim requirements in the act.

Subchapter B: The changes to the installer and inspector certification provisions will provide much more flexibility for new certification candidates and renewal applicants. The increased reliance on continued training will help to ensure that certified individuals stay current with changes in industry practices, and take advantage of available recognized industry training. Changes to the company certification provisions will help to ensure that companies are held to the same standards the certified individuals are held to and provides incentive for certified companies to continue investing in training for their certified employees. The changes to standards of performance provisions will help to ensure the quality, proper verification and reporting of work by installers and inspectors.

Subchapter C: The changes to permitting provisions will help simplify the site-specific installation permit process for many applicants, while ensuring that appropriate design criteria and engineering considerations are used to mitigate specific conditions that pose potential problems at some tank sites. The changes will also clarify that the tank registration process and single application also serve as the operating permit application. Routine withdrawal of operating permits for tanks that are empty and reported to the Department in temporary closure or removal-from-service status will allow tank owners and operators to delay scheduled inspections and thus defer related inspection costs.

Subchapter E: The changes to UST technical requirements will help to reduce the number and significance of releases from UST systems. The changes will help to ensure that best practices and state-of-the-art storage tank systems and ancillary equipment are used, while encouraging new technologies and providing more flexibility through variance provisions. The temporary exclusions for newly regulated tanks will provide owners additional time to plan for and to meet all of the UST technical requirements. The use of totally contained (double-wall) tank systems for new or replacement systems and phase-in of specific release detection methods will significantly aid in preventing future releases and will help to identify and capture leaks before they enter the environment. Fewer and less serious releases should help lower USTIF fees in years to come. More frequent inspections will help to ensure that operational and compliance problems are identified and resolved more quickly, which should also reduce the frequency and severity of releases. Recordkeeping changes will help tank owners to substantiate compliance with Commonwealth requirements and current Federal UST requirements, which are not as clear as they should be.

Subchapters F and G: The changes to the AST technical requirements will add clarity, needed references and increase the reliance on appropriate industry practices and publications to achieve the standards set forth in the regulations. AST owners and operators will save considerably with costs associated with in-service and out-of-service inspections, which are delayed or waived for existing tanks placed in temporary removal-from-service status. The additional information on AST system design requirements, engineering specifications and inspection or testing criteria should be helpful in determining when tanks are properly constructed, modified and maintained, and how best to determine suitability for service or to resolve tank system deficiencies noted during construction or inspection. The references to program guidance documents will lead persons to proven technical processes

and procedures that will help them to comply with the regulatory requirements, similar to the current guidance reference in Subchapter E.

Compliance Cost

Subchapter E: The cost of the average UST facility third-party operations inspection is approximately \$350 per inspection. UST owners or operators will incur this cost every 3 years under this rulemaking, rather than every 5 years or 10 years under the current inspection frequencies. The cost of total secondary containment (double-wall) UST systems is approximately 15% to 30% greater than the cost of single-wall UST systems. Costs will vary depending on the types of tank systems and materials used (fiberglass, steel or composite tank wall and hard or flexible piping). These costs are only incurred when new or replacement systems are installed. Approximately 150 UST systems were installed annually during the past 4 years. Department records indicate that 60% of the UST systems and approximately 80% of piping systems installed since 1998 already meet the double-wall requirement. Costs for testing containment sumps for tightness could range from \$50 to \$100. The cost of upgrading a line leak detector that only slows product flow or sounds an alarm, to a line leak detector with an automatic pump shut-off device ranges from \$100 to \$500 depending on availability of electric service and circuitry in the current system. This cost is only incurred when installing new or replacement tank, piping or release detection systems.

Generally, certified companies and tank owners should not incur significant new costs for certified individual training requirements, technical requirements to perform tests on ancillary equipment or to follow industry standards or applicable engineering practices when operating, modifying, installing or inspecting storage tank systems. These are costs that should already be incurred and industry practices that should be currently adhered to. These requirements are reinforced in several areas throughout the final-form rulemaking, but they are not new to the industry. Finally, the Department does not anticipate that it will need any new staff resources or incur significant expenditures as a result of the adoption of the final-form rulemaking.

Compliance Assistance Plan

At this time, it is not anticipated that the Commonwealth will provide sources of financial assistance to aid in compliance with this final-form rulemaking.

As for technical and educational assistance, the Department currently operates a fairly extensive program of outreach activities designed to assist owners and operators of storage tanks as well as individuals. This program includes a series of fact sheets that focus on single issues in the storage tank program (for example, Leak Detection: Meeting the Requirements); periodic seminars and conferences focusing on storage tank technical and administrative issues; training sessions presented by regional and central office training teams on a variety of issues; many guidance documents addressing technical and policy issues; and a great deal of information available on the Department's website. The Department will revise and update applicable fact sheets, guidance documents, forms and publications to reflect changes necessary as a result of adoption of the final-form rulemaking.

The Department expects these efforts to continue and to intensify after adoption of this final-form rulemaking and as phase-in deadlines approach. The Department will also communicate directly with individuals, companies,

associations, organizations and groups to assist in the understanding and implementation of the rulemaking.

Paperwork Requirements

Generally, there are very few new paperwork requirements established by this rulemaking. The paperwork requirements addressed with the new registration provisions in Subchapter A follow current processes established by policy and ongoing routine procedures under the act. By further clarifying in Subchapter C that the new storage tank registration provisions and application form will also serve as the tank operating permit application form, the final-form rulemaking avoids two separate applications. Additionally, the amendments to the site-specific installation permit process in Subchapter C for replacement tanks, tanks located on the footprint of previous tanks and new small ASTs at facilities with an aggregate capacity greater than 21,000 gallons, include a shortened application and less paperwork.

The amendments to the certification regulations in Subchapter B attempt to recognize current and ongoing industry training in certification qualifications for all installer and inspector certification categories. Most certified companies already maintain records on their employees training and will welcome recognition of the training for certification. The amendments also shorten the time frame for submission of applications for approval of training providers and will allow the Department to recognize industry training without the submission of an application. For example, the Department will readily recognize training provided by equipment manufacturers and National associations or organizations such as the American Petroleum Institute, the Steel Tank Institute and the Petroleum Equipment Institute.

The UST provisions in Subchapter E contain some new recordkeeping requirements and further clarification of current requirements. However, most of these changes are necessary to demonstrate operational compliance with current regulations and Federal requirements in 40 CFR Part 280, and represent National association and manufacturer's recommendations for installation or operation of UST systems and ancillary equipment.

Finally, there are provisions in Subchapters C, F and G that indicate the Department may request or require the tank owner to submit documentation of construction design criteria and engineering specifications for review. The provisions are addressed in the context of mitigating certain conditions at the storage tank site or correcting inspection findings or deficiencies on AST systems. Tank owners should already be consulting with tank manufacturers, certified companies and design engineers on these issues. The Department anticipates its use of these provisions will be very limited.

G. Pollution Prevention

Generally speaking, the term "pollution prevention" refers to the minimization of waste generated in a commercial process by altering that process. The storage tank program has a slightly different approach. The goal is to keep regulated substances from being released in the first instance. The programs set out in this rulemaking package and in the current regulations are designed to halt the release and spread of regulated substances from storage tanks located in this Commonwealth. They create a program similar to the cradle-to-grave process with the goal of making sure that the storage tank is installed, maintained, operated, closed and removed in a manner that will minimize the likelihood of a release occurring. If a release does occur, these amendments and regulations

that currently exist in Chapter 245 are designed to detect the release quickly, contain it if possible, and make sure that corrective action is carried out expeditiously, minimizing exposure to the public and the environment.

In this final rulemaking, the Department is attempting to reach or improve upon these goals through a combination of performance standards, with built-in flexibility (including the possibility of a variance) as to how the regulated community achieves the goals, and reliance on industry standards, and trained industry professionals. By taking this approach, the Department hopes to reduce pollution, lower the number of corrective actions that must eventually be performed, decrease the amounts of contaminated soil and groundwater that must be dealt with, and do so in a manner that is flexible, reasonable and cost effective.

H. Sunset Review

These regulations will be reviewed in accordance with the sunset review schedule published by the Department to determine whether the regulations effectively fulfill the goals for which they were intended.

I. Regulatory Review

Under section 5(a) of the Regulatory Review Act (71 P. S. § 745.5(a)), on April 7, 2006, the Department submitted a copy of the notice of proposed rulemaking, published at 36 Pa.B. 1851 (April 22, 2006) to the Independent Regulatory Review Commission (IRRC) and the Chairpersons of the House and Senate Environmental Resources and Energy Committees (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 Committees and the public.

Under section 5.1(j.2) of the Regulatory Review Act (71 P. S. § 745.5a(j.2)), on September 19, 2007, this final-form rulemaking was deemed approved by the Committees. Under section 5.1(e) of the Regulatory Review Act, IRRC met on September 20, 2007, and approved the final-form rulemaking.

J. Findings

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 in 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) These regulations do not enlarge the purpose of the proposal published at 36 Pa.B. 1851 (April 22, 2006).

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

L. Order

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

(a) The regulations of the Department, 25 Pa. Code Chapter 245, is amended by amending §§ 245.1, 245.21, 245.31, 245.102, 245.104—245.106, 245.108—245.114,

245.121—245.125, 245.132, 245.141, 254.203, 245.222, 245.231, 245.232, 245.234, 245.235, 245.311, 245.403—245.405, 245.411, 245.421—245.423, 245.425, 245.432, 245.434, 245.435, 245.441, 245.442, 245.444, 245.445, 245.451, 245.453, 245.503—245.505, 245.514, 245.522—245.524, 245.534, 245.541—245.543, 245.552—245.554, 245.561, 245.562, 245.604, 245.611, 245.612, 245.614, 245.616, 245.704 and 245.707; by adding §§ 245.41—245.43, 245.142 and 245.605; and by deleting § 245.103 to read as set forth in Annex A, with ellipses referring to the existing text of the regulations.

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

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

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

(e) This order shall take effect immediately upon publication.

KATHLEEN A. MCGINTY,
Chairperson

(Editor's Note: For the text of the order of the Independent Regulatory Review Commission relating to this document, see 37 Pa.B. 5447 (October 6, 2007).)

Fiscal Note: Fiscal Note 7-395 remains valid for the final adoption of the subject regulation.

Annex A

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

Subpart D. ENVIRONMENTAL HEALTH AND SAFETY

ARTICLE VI. GENERAL HEALTH AND SAFETY

CHAPTER 245. ADMINISTRATION OF THE STORAGE TANK AND SPILL PREVENTION PROGRAM

Subchapter A. GENERAL PROVISIONS
GENERAL

§ 245.1. Definitions.

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

* * * * *

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

* * * * *

Air Pollution Control Act—The Air Pollution Control Act (35 P. S. §§ 4001—4015).

* * * * *

Certification categories—

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

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

(A) Storage tank inspector certification categories:

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

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

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

(B) Storage tank installer certification categories:

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

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

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

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

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

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

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

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

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

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

(XI) UMR—Underground storage tank system removal.

Certified company—An entity, including, but not limited to, a sole proprietorship, a partnership or a corporation, which is certified by the Department and employs certified installers or certified inspectors to conduct tank handling activities, tightness testing activities or inspection activities.

* * * * *

Consumptive use—The term means, with respect to heating oil, that which is stored in an aboveground storage tank of 30,000 gallons or less capacity or that which is stored in an underground storage tank and is consumed on the premises.

* * * * *

Hazardous substance storage tank system—

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

(ii) The term does not include a storage tank system that contains a substance regulated as a hazardous waste under Subtitle C of CERCLA, or mixture of the substances and petroleum, and which is not a petroleum system.

* * * * *

*New facility—*A storage tank facility which did not exist prior to August 5, 1989.

*Noncommercial purposes—*The term means, with respect to motor fuel, motor fuel not for resale.

*Nontank handling project activities—*Activities performed by a certified individual, certified company or employee of a certified company on a project that may not be tank handling activities, but are part of the certified individual's or company's responsibility while completing tank handling or inspection activities on a storage tank system project.

* * * * *

*Person—*An individual, partnership, corporation, association, joint venture, consortium, institution, trust, firm, joint-stock company, cooperative enterprise, municipality, municipal authority, Federal Government or agency, Commonwealth Department, agency, board, commission or authority, or other legal entity which is recognized by law as the subject of rights and duties. In provisions of the act prescribing a fine, imprisonment or penalty, or a combination thereof, the term includes the officers and directors of a corporation or other legal entity having officers and directors.

* * * * *

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

(i) The term includes tanks essential to the operation of the pipeline, such as tanks used to hold substances that operate compressors or pumps directly connected to the pipeline and breakout tanks used solely to relieve pressure surges from the pipeline and then reinject substances from the pipeline back into the pipeline.

(ii) The term does not include tanks which dispense substances to vehicles, railcars, barge or tanker truck transports or tanks at complex facilities which serve as storage tanks or feed stock tanks for the purposes of this chapter.

* * * * *

Regulated substance—

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

(A) A substance defined as a hazardous substance in section 101(14) of CERCLA, including hazardous substances that are liquid or gaseous, or suspended therein

regardless of holding temperature, but not including a substance regulated as a hazardous waste under Subtitle C of the Resource Conservation and Recovery Act of 1976 (42 U.S.C.A. §§ 6921—6931).

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

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

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

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

* * * * *

*Tightness testing activities—*Testing activities which are designed and intended to detect leaks when performing precision tests, volumetric and nonvolumetric tests on underground storage tank systems.

* * * * *

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

* * * * *

TANK HANDLING ACTIVITIES

§ 245.21. Tank handling and inspection requirements.

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

(b) Tank handling activities conducted on all field constructed storage tanks and tank handling activities conducted on all aboveground storage tanks having a capacity greater than 21,000 gallons shall be inspected by

a certified inspector, except in the case of a minor modification or removal from service.

(c) The operation of storage tank facilities shall be inspected by a certified inspector. The frequency of inspection shall be based on:

- (1) The age of the storage tank systems located at the storage tank facility.
 - (2) The type of regulated substances contained in the storage tank systems located at the storage tank facility.
 - (3) The distance of the storage tank facility from public and private surface water and groundwater supplies.
 - (4) The total capacity of the storage tank systems located at the storage tank facility.
 - (5) The geologic conditions at the storage tank facility.
 - (6) Whether the storage tank facility, owner or operator has violated the act or the regulations promulgated thereunder.
 - (7) Whether the storage tank facility has storage tank systems which are periodically taken out of service.
 - (8) Whether there is suspected contamination at the storage tank facility.
 - (9) The level of quality control maintained at the storage tank facility.
- (d) Storage tank facilities shall also be inspected upon written notification from the Department or as required by permit.

TIGHTNESS TESTING ACTIVITIES

§ 245.31. Underground storage tank tightness test- ing requirements.

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

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

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

* * * * *

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

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

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

TANK REGISTRATION AND FEES

§ 245.41. Tank registration requirements.

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

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

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

- (1) Tank owner, operator and contact information.
- (2) General facility, site and location information.
- (3) Specific tank description and usage information, including regulated substance or substances that will be stored in each tank.
- (4) Specific tank construction, system components and installation information.
- (5) Owner or owner's representative certification validating the registration information and operating permit application.

(6) Certified tank installer information and signature (when required).

(7) Certified tank inspector information and signature for certain classes of tanks addressed in § 245.21 (relating to tank handling and inspection requirements).

(8) Other applicable information that may be required by the Department.

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

(e) A combination of tanks that operate as a single unit require registration of each tank unless otherwise agreed upon by the Department. A tank that has separate compartments within the tank shall be registered separately and charged a separate tank fee for each compartment unless the compartments are connected in a manner

that fills, dispenses and operates as a single unit maintaining the same regulated substance at the same operating level in each compartment.

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

(1) Removal or relocation of a storage tank to a new facility.

(2) Temporary or permanent closure or removal from service of a storage tank.

(3) Change in use of a storage tank to or from regulated or nonregulated status, for example, changing a storage tank to use as a process vessel.

(4) Change in substance or substances stored in the tank, unless otherwise agreed upon by the Department.

(5) Change of ownership or change of operator—new and previous owner.

(6) Change of contact, mailing address or telephone number.

(7) Installation of a new or replacement storage tank at an existing facility.

(g) The Department may require submission of supporting documentation and process information for exemption or exclusion from regulation for a tank change in status or use from a regulated to a nonregulated status.

§ 245.42. Tank registration fees.

(a) Annual registration fees to be paid by owners of aboveground storage tanks are established under section 302 of the act (35 P. S. § 6021.302) as follows:

(1) \$50 for each aboveground storage tank with a capacity less than or equal to 5,000 gallons.

(2) \$125 for each aboveground storage tank with a capacity of more than 5,000 gallons and less than or equal to 50,000 gallons.

(3) \$300 for each aboveground storage tank with a capacity of more than 50,000 gallons.

(b) Annual registration fees to be paid by owners of underground storage tanks are established under section 502 of the act (35 P. S. § 6021.502) as \$50 for each underground storage tank.

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

(d) Registration expiration dates are established for storage tanks according to facility location. The Department will prorate the registration fee established by this section to reflect the percentage of time remaining in the registration year from the date of initial registration of a storage tank. The Department will not refund registration fees if an owner permanently closes a storage tank or exempts a storage tank through a change-in-service to store a nonregulated substance or change to nonregulated use (such as a process vessel) prior to the expiration of the storage tank's registration.

(e) The Department will issue a certificate of registration to an owner upon payment of the required registration fee. The tank owner shall have the current valid certificate of registration available for inspection by the

Department, certified storage tank inspector or installer and product distributor. At facilities where a regulated substance is sold at retail to the public, the certificate of registration or an exact copy shall be publicly displayed in a noticeable area at the facility.

(f) The Department will issue an annual invoice to the tank owner for the annual renewal of all regulated tanks at the owner's facility once per year, at least 60 days prior to the expiration of the certificate of registration.

(g) Fees are payable no later than 60 days after the invoice date, and will be considered delinquent 90 days after the invoice date.

§ 245.43. Failure to pay registration fee.

(a) An owner who fails to pay the required registration fee may be subject to Commonwealth policy and guidelines for collection of delinquent debts due the Commonwealth.

(b) Failure to pay registration fees could result in Departmental actions against the storage tank owner and the operator, including revocation of operating permits issued by the Department under this chapter.

(c) The Department may register a tank, but may withhold or deny the operating permit for the tank if the owner has a delinquent registration debt for any regulated storage tank.

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

§ 245.102. Requirement for certification.

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

(1) Possesses minimum experience and qualifications as provided under § 245.111 (relating to certified installer experience and qualifications).

(2) Achieves a passing grade on a certification examination administered or approved by the Department for one or more of the certified installer categories described in § 245.110 for which the person is requesting certification.

(3) Submits an accurate and complete application.

(4) Is not found to be in violation of the act or this chapter, or has not had a certification revoked by the Department under § 245.109 (relating to revocation of certification).

(b) A person may not conduct inspection activities at a storage tank system or storage tank facility required by the Department under the act and this part unless that person holds a current inspector certification issued by the Department for the applicable inspector certification category. Inspector certification will only be issued by the Department to a person who:

(1) Possesses minimum experience and qualifications as provided under § 245.113 (relating to certified installer experience and qualifications).

(2) Achieves a passing grade on a certification examination administered or approved by the Department for

one or more of the certified inspector categories described in § 245.112 for which the person is requesting certification.

(3) Submits an accurate and complete application.

(4) Is not found to be in violation of the act or this chapter, or has not had a certification revoked by the Department under § 245.109.

(c) Certified installers and certified inspectors shall successfully complete additional periodic training and testing administered or approved by the Department to maintain their certification. Successful completion means attendance at all sessions of training and attainment of the minimum passing grade established by the Department in the approval of the training course under § 245.141 (relating to training approval), for all sections of all qualifying tests given as part of the training program.

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

(e) If the EQB deletes or consolidates certification categories or amends qualifications for certification prior to the expiration date of an installer or inspector's category certification, the category certification may still be used until the expiration date of that category certification.

§ 245.103. (Reserved).

§ 245.104. Application for installer or inspector certification.

(a) The applicant shall be a natural person.

(b) An application for installer or inspector certification shall be submitted to the Department on current forms provided by the Department and must contain the following information:

(1) Evidence that the applicant has the certification prerequisites contained in § 245.111 or § 245.113 (relating to certified installer experience and qualifications; and certified inspector experience and qualifications).

(2) The applicant's name, address and telephone number.

(3) Other information necessary for a determination of whether the issuance of a certification conforms to the act and this chapter.

(c) An application for certification shall be received by the Department no later than 60 days prior to the announced date of the certification examination.

(d) An application must be complete upon submission.

(e) An applicant meeting the requirements of § 245.102(a)(4) or (b)(4) (relating to requirement for certification) will be granted admission to the certification examinations for which the applicant has requested certification and is qualified.

§ 245.105. Certification examinations.

(a) The Department will establish separate administrative and technical content for the examinations and the standards and criteria against which they will be evaluated to be used in determining the fitness of candidates for certification as certified installers or certified inspectors under the categories established by this chapter.

(b) The Department will schedule a date and location for the examinations for certified installer and certified inspector at least once in each calendar year.

(c) Only applicants who have been authorized by the Department, in accordance with this chapter, to take an examination will be admitted to an examination or issued a certification as a result of passing an examination. Authorization to take an examination will be based on compliance with this chapter. Applicants who are authorized to take an examination are eligible to take the examination for up to 1 year from the date of authorization.

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

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

§ 245.106. Conflict of interest.

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

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

(2) A certified installer on the same tank handling activity for which he is a certified inspector.

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

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

§ 245.108. Suspension of certification.

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

(1) A violation of the act or this chapter.

(2) Incompetency on the part of the certified installer or certified inspector as evidenced by errors in conducting duties and activities for which the certification in question was issued.

(3) Failure to successfully complete a training program required by the Department.

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

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

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

(iii) Submit reports of inspection activities to the Department within 60 days of conducting the inspection activities.

(5) In the case of a certified installer's failure to:

(i) Be present during tank handling activities at the storage tank system or storage tank facility as required by the act or this chapter.

(ii) Conduct tank handling activities in accordance with the requirements of the act or this chapter.

(iii) Submit tank handling reports and activities to the Department within 30 days of conducting the tank handling activities. For tank handling activities involving multiple certified individuals and certification categories, the tank handling report shall be submitted within 30 days of the completion of all project tank handling and inspection activities.

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

(7) Failure to meet one or more of the standards for performance in § 245.132 (relating to standards of performance).

(8) Submission of false information to the Department.

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

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

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

(10) Failure to perform underground tightness testing activities and documentation in accordance with § 245.31 (relating to underground storage tank tightness testing requirements).

(b) The suspension of a certification in a single category shall prevent the person from engaging in activities in all categories of certification.

(c) The Department may require that the person successfully complete a special training program sponsored or approved by the Department designed to strengthen the specific weakness in the certified installer's or certified inspector's duties, as required under the act or this part identified in the suspension order. Successful completion means attendance at all sessions of training and attainment of the minimum passing grade established by the Department in the approval of the training course under § 245.141 (relating to training approval), for all sections of all qualifying tests given as part of the training program.

(d) A certified installer or certified inspector shall surrender certification documents to the Department upon notification of suspension.

(e) The Department may reinstate the certification if:

(1) The cause for the suspension has been removed.

(2) The person is competent to execute duties and responsibilities for which certification was issued.

§ 245.109. Revocation of certification.

(a) The Department may revoke the certification of a certified installer or certified inspector if the certified installer or certified inspector has done one or more of the following:

(1) Demonstrated a willful disregard of, or willful or repeated violations of the act or this chapter.

(2) Willfully submitted false information to the Department.

(3) Committed an act requiring suspension under § 245.108 (relating to suspension of certification) after having certification suspended previously.

(b) The revocation of a certification in a single category shall prevent the person from engaging in activities in all categories of certification.

(c) A certified installer or certified inspector shall surrender certification documents to the Department upon notification of revocation.

§ 245.110. Certification of installers.

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

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

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

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

(3) *Underground storage tank system-tightness tester {UTT}*. Tightness testing activities involved in conducting and interpreting results of volumetric and nonvolumetric tests on underground storage tank systems or storage tank facilities.

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

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

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

(7) *Aboveground field constructed metallic storage tank-installation, modification and removal {AFMX}*. Installation, modification and removal of aboveground field constructed metallic storage tanks and corrosion protection

systems. This category also covers the modification of tank components of an aboveground manufactured storage tank system.

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

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

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

(11) *Storage tank-liner {TL}*. Activities involved in installation or modification of internal linings for underground and aboveground storage tank systems or storage tank facilities and the evaluation of underground storage tank linings as required in § 245.422(b)(1)(ii) (relating to upgrading of existing underground systems).

§ 245.111. Certified installer experience and qualifications.

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

<i>Category</i>	<i>Experience, Education, Training or Certification</i>	<i>Total Number of Activities Completed</i>
UMX	2 years, or college degree and 1 year Technical training	9 installations
UMR	2 years, or college degree and 1 year Technical training	6 removals
UTT	Department-approved training with testing equipment manufacturer's certification	None
AMMX	2 years, or college degree and 1 year Technical training or UMX certification	9 installations
	Technical training or AFMX certification	None
AMNX	2 years, or college degree and 1 year Technical training or AMMX certification	9 which may be installations or major modifications 6 AST installations

<i>Category</i>	<i>Experience, Education, Training or Certification</i>	<i>Total Number of Activities Completed</i>
AMR	2 years, or college degree and 1 year Technical training or UMR certification or AFR certification	6 removals None None
AFMX	3 years, or college degree and 2 years Technical training	12 which may be installations or major modifications
AFR	2 years, or college degree and 1 year Technical training	6 removals
AMEX	3 years, or college degree and 2 years Technical training	12 installations or modifications (at least 6 installations)
ACVL	3 years, or college degree and 2 years Technical training	12 installations or modifications (at least 6 installations)
TL	2 years/ Manufacturer's certification	9 tank linings

(b) The total number of activities completed required by subsection (a) shall have been completed within the 3-year period immediately prior to submitting the application for certification. The activities shall have been completed in compliance with Federal and State requirements and the applicant shall have had substantial personal involvement at the storage tank site in the activities. Noncertified individuals may work at the site but the certified installer is directly responsible to assure that the activities are conducted properly. This work qualifies toward the total number of activities completed requirements.

(c) A college degree being substituted for experience shall be in civil engineering, mechanical engineering, environmental engineering, petroleum engineering, chemical engineering, structural engineering or geotechnical engineering.

(d) The total experience requirement for underground storage tank-tightness tester {UTT} shall be demonstrated through the submission of proof of successful completion of a training program sponsored or approved by the Department and possession of a current equipment manufacturer's certification for a specific method of testing. The Department's UTT certification is limited to the specific method of testing included in the equipment manufacturer's certification. Successful completion means attendance at all sessions of training and attainment of the minimum passing grade established by the Department in the approval of the training course under § 245.141 (relating to training approval), for all sections of all qualifying tests given as part of the training course.

(e) Except for UTT, the total experience requirement is experience gained working at a storage tank site while working towards the total number of activities completed requirement.

(f) In the category for aboveground field constructed metallic storage tank {AFMX}, for installation or reconstruction activities involving tanks greater than 90 feet in diameter, each activity shall count as two installations for purposes of meeting the total number of activities requirement.

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

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

§ 245.112. Certification of inspectors.

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

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

(1) IUM underground storage tank systems and storage tank facilities.

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

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

§ 245.113. Certified inspector experience and qualifications.

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

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

<i>Category</i>	<i>Experience, Education, Training or Certification</i>	<i>Total Number of Activities Completed</i>
IAF	4 years, or college degree and 2 years API 653 certification or Department-approved aboveground tank inspector certification	12 integrity or construction inspections

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

(c) A college degree being substituted for experience shall be in civil engineering, mechanical engineering, environmental engineering, petroleum engineering, chemical engineering, structural engineering, geotechnical engineering, hydrology, geology or environmental studies.

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

(e) The total experience requirement is experience gained working at a storage tank site while working towards the total number of activities completed requirement.

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

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

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

§ 245.114. Renewal and amendment of certification.

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

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

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

<i>Category</i>	<i>training</i>	<i>Total Number of Activities Completed (Renewal by activities to be phased out November 10, 2009)</i>
UMR	Examination or Technical training Administrative training	6 removals
UMX	Examination or Technical training Administrative training	9 installations or major modifications
UTT	Testing equipment manufacturer's certification Administrative training	None
AMMX	Examination or Technical training Administrative training	9 installations or major modifications
AMNX	Examination or Technical training Administrative training	9 installations or major modifications
AFMX	Examination or Technical training Administrative training	12 installations or major modifications
AFR	Examination or Technical training Administrative training	6 removals
AMR	Examination or Technical training Administrative training	6 removals
AMEX	Examination or Technical training Administrative training	12 installations or major modifications
ACVL	Examination or Technical training Administrative training	12 installations or major modifications
TL	Manufacturer's certification Administrative training	9 tank linings

<i>Category</i>	<i>Qualifications and Training</i>
IAM	API 653 certification or STI Inspector certification or Department approved inspector certification and Department inspector training
IAF	API 653 certification or Department-approved inspector certification and Department inspector training

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

(f) Technical and administrative training shall be obtained within 2 years prior to application submission.

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

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

(g) An applicant for renewal shall:

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

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

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

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

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

(2) The certified installer or certified inspector wishes to conduct tank handling or inspection activities in

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

<i>Category</i>	<i>Qualifications and Training</i>
IUM	Department inspector training

installer or inspector certification categories other than those approved by the Department as set forth on the certification.

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

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

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

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

COMPANY CERTIFICATION

§ 245.121. Certification of companies.

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

§ 245.122. Applications for company certification.

(a) Applications for certification shall be submitted to the Department on forms provided by the Department and include information that will enable the Department to determine if issuance of the certification conforms to the act and this chapter. The following information shall be included:

(1) The full name, address and telephone number of the company.

(2) The names held by the company within the previous 7 years.

(3) Information on previous certification revocations under §§ 245.109 and 245.124 (relating to revocation of certification; and revocation of company certification) of company officers, the company and the company under a previous or fictitious name.

(4) Identification of industry or government licenses or certifications held by the company and the officers of the company relating to underground or aboveground storage tanks.

(5) The names and certification numbers of all certified installers and certified inspectors employed by the company.

(6) A statement signed by a person authorized to bind the company certifying that the company:

(i) Has obtained a copy of the act and this chapter.

(ii) Will comply with the act and this chapter and will direct the employees, principals and agents of the company to perform tank handling and inspection activities in a manner that is consistent with the act and this chapter.

(7) Other information necessary for a determination whether the issuance of a certification conforms to the requirements of the act and this chapter.

(b) Applications shall be complete upon submission.

(c) The Department may not issue company certification if one or more of the following apply:

(1) The company is found to be in violation of the act or this chapter.

(2) The company certification was previously revoked under § 245.124.

(3) An officer of the company has had their individual certification revoked under § 245.109.

(4) An officer of the company was an officer in a company whose company certification was revoked under § 245.124 at the time the conduct resulting in revocation occurred.

§ 245.123. Suspension of company certification.

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

(1) A violation of the act or this chapter by the company or a certified installer or certified inspector employed by the company.

(2) Incompetency on the part of the company as evidenced by errors in executing duties and responsibilities for which the certification was issued.

(3) Failure to meet one or more of the standards of performance in § 245.132 (relating to standards of performance).

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

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

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

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

(6) Failure to provide oversight of employee certification applications, tank handling and inspection reports.

(7) Submission of false information to the Department or tank owner.

(8) Failure to have a properly certified installer in direct onsite supervision and control of a tank handling activity.

(b) A certified company shall surrender certification documents to the Department upon notification of suspension.

(c) The Department may reinstate the certification if the following apply:

(1) The certified company and certified installers and certified inspectors employed by the certified company are competent to execute the duties and responsibilities for which certification was issued.

(2) The cause for the suspension has been removed.

(d) Suspension of a certification by the Department shall prevent a company from conducting tank handling, tightness testing or inspection activities during the suspension.

§ 245.124. Revocation of company certification.

(a) The Department may revoke the certification of a certified company for one or more of the following conditions:

- (1) A willful disregard for, or willful or repeated violations of the act or this chapter.
- (2) The certification of an installer or inspector employed by the company is revoked.
- (3) There has been a prior suspension of the certification.
- (4) Willfully submitting false information to the Department.

(b) Revocation of a certification by the Department shall prevent a company from conducting tank handling, tightness testing or inspection activities.

(c) A certified company shall surrender certification documents to the Department upon notification of revocation.

§ 245.125. Renewal and amendment of company certification.

(a) Company certification shall be for 3 years from the date of issuance unless suspended or revoked before that date. An applicant for renewal shall submit a completed application for renewal to the Department 60 to 120 days prior to the expiration date.

(b) A certified company shall notify the Department and file an amendment to its company certification on a form approved by the Department whenever there is a change in the information provided in the application for the certification. This form shall be submitted within 14 days of the date of a change in information.

STANDARDS FOR PERFORMANCE

§ 245.132. Standards of performance.

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

(1) Maintain current technical and administrative specifications and manuals, Nationally-recognized codes and standards, and State and Federal regulations which pertain to the categories for which certification was issued. Nationally-recognized organizations are identified in §§ 245.405, 245.504 and 245.604 (relating to codes and standards; and referenced organizations).

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

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

(4) Report to the Department a release of a regulated substance or confirmed or suspected contamination of soil, surface or groundwater from regulated substances observed while performing services as a certified installer or certified inspector. This notification shall be submitted to

the Department in writing within 48 hours of observing suspected or confirmed contamination on a form provided by the Department. If the notification is being submitted because of a failed valid tightness test, a copy of the test results shall also be provided to the Department with the notification report. When there is a reportable release, the notification may be submitted jointly by the owner, operator, certified installer and certified inspector. In this instance, the written notification report shall be submitted to the Department, at the appropriate regional office, in accordance with § 245.305 (relating to reporting releases).

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

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

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

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

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

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

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

(C) The tank is suitable for operational service.

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

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

(9) Provide requested records and documentation to the Department under section 107(c) of the act (35 P. S. § 6201.107(c)).

(b) A certified installer or certified inspector shall display a certification identification card or certificate upon request.

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

Health Administration (OSHA) and the National Institute for Occupational Safety and Health (NIOSH).

TRAINING APPROVAL

§ 245.141. Training approval.

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

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

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

(2) The title of the course.

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

(4) A narrative describing the preparation and administration of a test to be given at the conclusion of the course. This test must test the participant's knowledge of the technical, administrative and legal requirements related to the subject matter of the course. The narrative must also describe a procedure for conducting and grading of the test that assures careful monitoring and expeditious transmission of test results to the applicant and the Department.

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

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

§ 245.142. Training courses.

(a) Technical training for initial category-specific certification in § 245.111 (relating to certified installer experience and qualifications) must be based on Nationally-recognized codes and standards in conjunction with manufacturers specifications.

(b) Technical training for renewal of category-specific certification in § 245.114(c) (relating to renewal and amendment of certification) must at a minimum review the technical and regulatory material appropriate for the certification category.

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

GENERAL

§ 245.203. General requirements for permits.

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

(b) A person is not required to submit a separate application for a permit if the storage tank system is subject to a permit-by-rule. The storage tank system must be registered with the Department in accordance with Subchapter A (relating to general provisions) and be

maintained and operated in compliance with the standards and requirements of the Department under the act and this chapter. Failure to comply with standards could result in administrative or other Departmental actions against the storage tank owner/operator.

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

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

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

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

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

GENERAL OPERATING PERMITS

§ 245.222. Application requirements.

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

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

(i) The storage tank system is properly registered.

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

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

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

(3) In addition to the requirements of paragraph (1), an owner of an aboveground storage tank system shall meet the following requirements:

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

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

SITE-SPECIFIC INSTALLATION PERMITS

§ 245.231. Scope.

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

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

(2) New large aboveground storage tank facilities.

(3) New highly hazardous substance tank systems.

(4) New underground field constructed storage tank systems.

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

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

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

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

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

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

§ 245.232. General requirements.

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

(1) Certification that the tank handling and inspection activities will be performed by Department-certified individuals, as specified in Subchapter B (relating to certification program for installers and inspectors of storage tanks and storage tank facilities).

(2) Certification that the storage tank system will be in compliance with applicable administrative, technical and operational requirements as specified in Subchapters E—G (relating to technical standards for underground

storage tanks; technical standards for aboveground storage tanks and facilities; and simplified program for small aboveground storage tanks).

(3) The information required by §§ 245.233 and 245.234 (relating to mapping requirements; and siting requirements).

(4) The environmental assessment required by § 245.235 (relating to environmental assessment).

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

(1) A current Spill Prevention Response Plan that is in compliance with Chapter 9 of the act (35 P. S. §§ 6021.901—6021.904).

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

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

§ 245.234. Siting requirements.

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

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

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

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

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

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

(2) If any part of a proposed facility has been previously mined by deep mining methods, the applicant shall provide the results of an engineering study of the proposed site by a Pennsylvania-registered professional engineer or Pennsylvania-registered professional geologist. The study must be detailed enough to assess the potential for and degree of surface subsidence. The study must also include methods which have been used or will be used to stabilize the surface. The applicant shall provide assurance that minerals providing surface support will not be mined as long as the facility stores regulated substances.

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

§ 245.235. Environmental assessment.

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

(b) An environmental assessment in a permit application must include detailed analysis of the potential impact of the proposed facility on the environment, public health and public safety, including air quality, water quality, threatened or endangered species and water uses. The applicant shall consider environmental features such as recreational river corridors, State and Federal parks, historic and archaeological sites, National wildlife refuges, State and Federal natural areas, prime farmland, wetlands, special protection watersheds designated under Chapter 93 (relating to water quality standards), public water supplies and other features deemed appropriate by the Department or the applicant.

(c) The Department will evaluate the assessment proposed under subsection (a) to determine whether the proposed operation has the potential to cause environmental harm. The Department will consult with appropriate governmental agencies and potentially affected persons concerning potential environmental harm. If the Department determines that the proposed operation has that potential, it will notify the applicant in writing.

(d) If the Department or the applicant determines that the proposed operation may cause environmental harm, the applicant shall provide the Department with a written explanation of how it plans to mitigate the potential harm.

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

§ 245.311. Remedial action plan.

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

(1) A brief summary of the site characterization report conclusions.

(2) A copy of the plans relating to worker health and safety, management of wastes generated and quality assurance/quality control procedures, as they relate to the remedial action, if different from the plans submitted in accordance with § 245.310(a)(25).

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Subchapter E. TECHNICAL STANDARDS FOR UNDERGROUND STORAGE TANKS

GENERAL

§ 245.403. Applicability.

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

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

(c) *Temporary exclusions.* Existing tanks that become regulated due to the addition of new regulated substances in § 245.1 (relating to definitions) (See the definition of "regulated substance" (i)(C)(I) and (II)) are subject to this chapter and shall be registered with the Department by January 9, 2008. In addition, these tanks are temporarily excluded from the requirements of §§ 245.421, 245.422, 245.431, 245.432 and 245.441—245.446, until November 10, 2010.

§ 245.404. Variances.

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

(1) A variance may only be granted when the storage tank system meets alternative technical standards that fully protect human health and the environment.

(2) A written application for a variance shall be submitted to the Department and provide the following information:

(i) The facility name and identification number for which the variance is sought.

(ii) The specific sections of this subchapter from which a variance is sought.

(iii) The unique or peculiar conditions which make compliance with the sections identified in subparagraph (ii) technically impractical, infeasible or unsafe.

(iv) Evidence, including plans, specifications and test results, which supports an alternative design, practice, schedule or method as being no less protective of human health and the environment than the requirements of the sections identified in subparagraph (ii).

(3) New technologies may be granted a variance. New technologies shall be reviewed and documented by a professional engineer and documentation provided to the Department with the variance request.

(4) When granting the variance, the Department may impose specific conditions necessary to ensure the adequate protection of human health and the environment.

(5) The Department will provide to the applicant a written notice of approval, approval with additional conditions or denial. Granted variances will be published in the *Pennsylvania Bulletin*.

(6) The Department may not grant any variance which would result in regulatory controls less stringent than other applicable Federal or State regulations, such as 37

Pa. Code Part I, Subpart B (relating to flammable and combustible liquids) and 40 CFR Part 280 (relating to technical standards and corrective action requirements for owners and operators of underground storage tanks (UST)).

§ 245.405. Codes and standards.

(a) The following Nationally-recognized associations and their codes and standards shall be used in conjunction with manufacturer's specifications to comply with this subchapter:

- (1) American Concrete Institute (ACI).
- (2) American National Standards Institute (ANSI).
- (3) American Petroleum Institute (API).
- (4) American Society for Testing and Materials (ASTM).
- (5) Association of Composite Tanks (ACT).
- (6) Fiberglass Petroleum Tank and Pipe Institute.
- (7) NACE International—The Corrosion Society (NACE).
- (8) National Fire Protection Association (NFPA).
- (9) National Leak Prevention Association (NLPA).
- (10) Petroleum Equipment Institute (PEI).
- (11) Steel Tank Institute (STI).
- (12) Underwriters Laboratory (UL).

(b) The most current or latest edition of the codes and standards shall be applied when used to meet the technical standards and requirements of this subchapter. Other Nationally-recognized associations and their codes and standards not referenced in this part may also be used to comply with this subchapter, when approved by the Department.

(c) When Nationally-recognized codes and standards or manufacturer's specifications are updated, facilities or storage tank systems installed to previously existing standards prior to the update will not automatically be required to be upgraded to meet the new standards, unless specifically required in the revised standards or by the Department.

(d) Regulatory requirements shall prevail over Nationally-recognized codes and standards whenever there is a conflict.

FACILITY INSPECTIONS

§ 245.411. Inspection frequency.

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

(b) *Initial inspections.*

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

(2) Newly installed storage tank systems shall be inspected between 6 to 12 months after installation. If the facility ownership changes, an inspection of the facility

shall be completed between the first 6 to 12 months of operation unless another time frame is agreed to by the Department.

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

(c) *Subsequent routine facility inspections.*

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

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

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

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

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

(d) *Additional inspections and mandatory training.* Inspections in addition to those in subsections (b) and (c) may be required by the Department when the prior inspection determined release detection, corrosion protection or operational violations occurred, or when the Department determines the inspections are necessary to verify compliance with this subchapter. The Department may require facility owners and operators to successfully complete a release detection or operator training course, such as those offered by PEI or professional industry trainers approved under § 245.141 (relating to training approval), when related violations are documented through an inspection. The owner or operator shall incur the costs of the training.

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

§ 245.421. Performance standards for underground storage tank systems.

(a) *New underground storage tank systems.*

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

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

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

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

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

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

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

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

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

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

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

(iii) The tank is constructed of a steel-fiberglass-reinforced-plastic composite.

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

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

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

(2) *Piping.* The piping and ancillary equipment that routinely contain regulated substances shall be protected from corrosion and deterioration. New piping systems that routinely contain and convey regulated substances from the tank must be double-walled with liquid-tight containment sumps and dispenser pan sumps installed in accordance with paragraph (4)(ii). Whenever more than 50% of the existing piping that routinely contains and conveys product from the tank is replaced, the entire piping system that routinely contains and conveys product from the tank shall be replaced meeting the requirements for new piping systems in this subsection. The portions of the product piping system, including joints, flexible connectors and ancillary equipment that are in contact with the ground must be properly designed, constructed and protected from corrosion in accordance with a code of practice developed by a Nationally-recognized association or independent testing laboratory using one of the following methods:

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

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

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

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

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

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

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

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

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

(3) *Spill and overflow prevention equipment.*

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

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

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

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

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

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

(ii) Bypassing overflow protection is prohibited for example, bypassing the flow vent valve with coax vapor recovery or a spill bucket drain valve is prohibited.

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

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

(4) *Installation.*

(i) Tanks and piping shall be properly installed and system integrity tested in accordance with a code of practice developed by a Nationally-recognized association

or independent testing laboratory such as API 1615 and PEI RP100, and in accordance with the manufacturer's instructions.

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

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

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

§ 245.422. Upgrading of existing underground storage tank systems.

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

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

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

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

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

(1) *Interior lining.* A tank may only be upgraded by internal lining prior to November 10, 2007. The following conditions of existing lined tanks shall be met:

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

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

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

* * * * *

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

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

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

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

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

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

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

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

(e) *Under dispenser containment.* When a vertical riser, dispenser and interconnected piping and fittings are added to a storage tank system or replaced, the dispenser must have containment (liquid-tight dispenser pan) meeting requirements in § 245.421(b)(4)(ii).

§ 245.423. Registration requirements.

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

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

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

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

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

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

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

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

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

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

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

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

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

§ 245.425. Reuse of removed tanks.

A storage tank removed from the ground may be reused as a regulated underground storage tank under the following circumstances:

(1) The tank was properly closed in accordance with § 245.452 (relating to permanent closure and changes-in-service) at the site where previously used.

(2) The tank is installed at the new site by a certified installer.

(3) The new installation meets the requirements of § 245.421 (relating to performance standards for underground storage tank systems).

(4) The tank is compatible with the substance to be stored in accordance with §§ 245.2(c) and 245.433 (relating to general; and compatibility).

(5) Either the manufacturer, a person certified by the manufacturer or a registered professional engineer warrants that the tank meets the requirements of § 245.421(b)(1).

GENERAL OPERATING REQUIREMENTS

§ 245.432. Operation and maintenance including corrosion protection.

(a) Owners and operators of steel underground storage tank systems with corrosion protection shall comply with the following requirements to ensure that releases due to corrosion are prevented for as long as the underground storage tank system is used to store regulated substances:

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

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

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

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

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

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

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

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

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

(c) Required equipment, including line leak detectors, product sensors and probes, dispenser pans, containment sumps, measuring devices (including gauge sticks), gauges, corrosion protection, spill prevention, overfill prevention and other appurtenances whose failure could contribute to a release of product, shall be maintained in a good state of repair to ensure they function as designed.

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

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

(i) Ten years after lining installation.

(ii) Every 5 years after the preceding evaluation.

(2) Each evaluation finding shall be documented on a form approved by the Department and shall be maintained at the facility for the duration of the tank's operating life.

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

(f) Primary and secondary containment structure must be maintained in a leak free condition. If infiltration or a release is detected within the secondary containment, the defective component shall be repaired in accordance with § 245.434 (relating to repairs allowed). Repairs, including

those performed to stop infiltration, shall be tested in accordance with § 245.434(5).

(g) A check for water in petroleum tanks shall be performed monthly and excess water shall be promptly removed as necessary. Water may not exceed the tank manufacturer's recommendations, product supplier's guidelines, or 2 inches of accumulation in the bottom of the tank, whichever is less. No amount of water is desirable in gasoline containing ethanol. Therefore, water should not be allowed to accumulate in tanks containing ethanol. Excess water shall be properly managed in accordance with applicable State and Federal requirements, such as Chapter 299 (relating to storage and transportation of residual waste), 40 CFR 261, Subpart B (relating to hazardous waste identification) and 29 CFR 1910 (relating to occupational safety and health standards).

§ 245.434. Repairs allowed.

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

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

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

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

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

(5) Tanks, containment sumps, and piping repaired in response to a release shall be tightness tested in accordance with §§ 245.421(b)(4)(ii), 245.444(3) and 245.445(2) (relating to performance standards for underground storage tank systems; methods of release detection for tanks; and methods of release detection for piping), respectively, prior to placing the system back into service except as provided as follows:

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

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

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

(6) Within 6 months following the repair of a cathodically protected underground storage tank system, the cathodic protection system shall be tested in accordance

with § 245.432(a)(2) and (3) (relating to operation and maintenance including corrosion protection) to ensure that it is operating properly.

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

§ 245.435. Reporting and recordkeeping.

(a) Owners and operators of underground storage tank systems shall cooperate fully with inspections, monitoring and testing conducted by the Department, certified installers or certified inspectors, as well as requests for document submission, testing and monitoring by the owner or operator under section 107(c) of the act (35 P. S. § 6201.107(c)).

(b) Owners and operators shall maintain required records either onsite at the underground storage tank facility or at a readily available alternative site. Records maintained at the underground storage tank facility shall be immediately available for inspection by the Department and certified inspectors. If records are maintained offsite, the records shall be easily obtained and provided for inspection or for review by the Department upon request.

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

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

(ii) Reports of confirmed, reportable releases (§ 245.305(d) (relating to reporting releases)).

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

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

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

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

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

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

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

(iii) Documentation of tank system installation, system modification and tank upgrade activities.

(iv) Tank system assessment records prior to upgrading in accordance with § 245.422(b).

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

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

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

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

(3) Temporary records shall be maintained as follows:

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

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

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

(iv) Documentation of the last two impressed current cathodic protection system inspection checks for each 60-day test period (§ 245.432).

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

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

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

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

RELEASE DETECTION

§ 245.441. General requirements for underground storage tank systems.

* * * * *

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

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

(e) For existing tank systems equipped with double-walled pressurized piping that routinely contains regu-

lated substance, and containment sumps at the piping junctures and dispensers, the containment sumps and dispenser pan sumps of these systems shall be monitored monthly beginning November 10, 2009, and monthly monitoring records maintained for the last 12 months of monitoring. Monitoring shall be accomplished by one of the following methods:

(1) Monthly visual check of the sumps.

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

§ 245.442. Requirements for petroleum underground storage tank systems.

(a) Owners and operators of underground storage tank systems installed after November 10, 2007, shall perform interstitial monitoring, at least once every 30 days, in accordance with § 245.444(7) (relating to methods of release detection for tanks) of both the tank and underground piping that routinely contains a product (regulated substance). In addition, pressurized piping for these systems must be equipped and operated with an automatic line leak detector with an automatic pump shut off device in accordance with § 245.445(1) (relating to methods of release detection for piping).

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

(1) *Tanks.* Tanks shall be monitored at least every 30 days for releases using one of the methods listed in § 245.444(4)—(9) except that:

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

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

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

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

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

(i) *Pressurized piping.* Underground piping that conveys regulated substances under pressure shall meet the following requirements:

(A) Be equipped with an automatic line leak detector in accordance with § 245.445(1) (relating to methods of release detection for piping).

(B) Have an annual line tightness test conducted in accordance with § 245.445(2) or have monthly monitoring conducted in accordance with § 245.445(3).

(ii) *Suction piping.* Underground piping that conveys regulated substances under suction shall either have a line tightness test conducted at least every 3 years and in accordance with § 245.445(2), or use a monthly monitoring method conducted in accordance with § 245.445(3). Release detection is not required for suction piping that is designed and constructed to meet the following standards:

(A) The below grade piping operates at less than atmospheric pressure.

(B) The below grade piping is sloped so that the contents of the pipe will drain back into the storage tank if the suction is released.

(C) No more than one check valve is included in each suction line.

(D) Check valves are located directly below and as close as practical to or within the suction pump.

(E) A method is provided that allows compliance with clauses (B)—(D) to be readily determined.

§ 245.444. Methods of release detection for tanks.

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

* * * * *

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

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

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

(ii) For tank gauges installed prior to December 22, 1990, that do not meet the requirements of subparagraph (i), inventory control, or another test of equivalent performance, shall also be conducted in accordance with paragraph (1). Tank gauges shall be replaced or be certified by an independent third party verifying the gauge's ability to detect the leak rate in subparagraph (i) following EPA evaluation protocol by November 10, 2008.

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

* * * * *

(vi) In the underground storage tank excavation zone, the site is evaluated by a licensed professional under the Engineer, Land Surveyor and Geologist Law (63 P. S. §§ 148—158.2) to ensure compliance with subparagraphs (i)—(iv) and to establish the number and positioning of monitoring wells that will detect releases within the excavation zone from any portion of the tank that routinely contains product. The written site evaluation report

authenticated by the person completing the evaluation must be maintained at the facility for the duration of the leak detection method.

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

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

(ii) Groundwater is never more than 20 feet from the ground surface and the hydraulic conductivity of the soils between the underground storage tank system and the monitoring wells or devices is not less than 0.01 cm/sec—for example, the soil should consist of gravels, coarse to medium sands, coarse silts or other permeable materials.

(iii) The slotted portion of the monitoring well casing shall be designed to prevent migration of natural soils or filter pack into the well and to allow entry of regulated substances on the water table into the well under both high and low groundwater conditions.

(iv) Monitoring wells shall be sealed from the ground surface to the top of the filter pack.

(v) Monitoring wells or devices intercept the excavation zone or are as close to it as is technically feasible.

(vi) The continuous monitoring devices or manual methods used can detect the presence of at least 1/8 of an inch of free product on top of the groundwater in the monitoring wells.

(vii) Within and immediately below the underground storage tank system excavation zone, the site is evaluated by a licensed professional under the Engineer, Land Surveyor and Geologist Law to ensure compliance with subparagraphs (i)—(v) and to establish the number and positioning of monitoring wells or devices that will detect releases from any portion of the tank that routinely contains product. The written site evaluation report authenticated by the person completing the evaluation must be maintained at the facility for the duration of the leak detection method.

(viii) Monitoring wells are clearly marked and secured to avoid unauthorized access and tampering in accordance with § 245.432(b).

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

* * * * *

§ 245.445. Methods of release detection for piping.

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

(1) *Automatic line leak detectors.* Methods which alert the operator to the presence of a leak by restricting or automatically shutting off the flow of regulated substances through piping or triggering an audible or visual alarm may be used only if they detect leaks of 3 gallons per hour at 10 pounds per square inch line pressure within 1 hour. An annual test of the operation of the leak detector shall be conducted in accordance with the manufacturer's requirements. Underground storage tank systems installed or replaced after November 10, 2007, must

have line leak detectors with an automatic pump shut-off device that shuts off the flow of regulated substances through pressurized piping that routinely contains and conveys product from the tank (See § 245.421(a)(1) (relating to performance standards for underground storage tank systems)).

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

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

OUT-OF-SERVICE UNDERGROUND STORAGE TANK SYSTEMS AND CLOSURE

§ 245.451. Temporary closure (out-of-service).

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

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

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

(d) Subchapter D (relating to corrective action process for owners and operators of storage tanks and storage tank facilities and other responsible parties) shall be complied with if a release is suspected or confirmed.

(e) Routine facility inspection requirements at 3-year intervals in § 245.411(c) (relating to inspection frequency) may be delayed for a storage tank facility with all tank systems temporarily closed, unless notified otherwise by the Department under § 245.21(c) and (d) (relating to tank handling and inspection requirements). A delayed inspection shall be performed on a storage tank system or facility in temporary closure when returning the tank system to operating status.

(f) When an underground storage tank system is temporarily closed for 3 months or more, owners and operators shall also comply with the following requirements:

(1) Vent lines shall be open and functioning.

(2) All other lines, pumps, manways and ancillary equipment shall be capped and secure.

(g) When an underground storage tank system is temporarily closed for more than 12 months, owners and operators shall:

(1) Permanently close the underground storage tank system if it does not meet either performance standards in § 245.421 (relating to performance standards for underground storage tank systems) for new underground storage tank systems or the upgrading requirements in § 245.422 (relating to upgrading of existing underground storage tank systems), except that the spill and overflow equipment requirements do not have to be met.

(2) Permanently close the substandard underground storage tank systems at the end of this 12-month period in accordance with §§ 245.452—245.455, unless the Department provides an extension of the 12-month temporary closure period.

(3) Complete a site assessment in accordance with § 245.453 (relating to assessing the site at closure or change-in-service) before an extension may be applied for.

(h) Underground storage tank systems that meet performance standards in § 245.421 or the upgrading requirements in § 245.422 shall be permanently closed within 3 years of being placed temporarily out-of-service or by November 10, 2010, whichever is later, unless the Department grants an extension to this temporary closure period. The Department may establish conditions and require submission of documentation associated with extension of the temporary closure period, such as the following:

(1) Requirements for inspection under §§ 245.21 and 245.411.

(2) Verification and testing of cathodic protection systems under § 245.432.

(3) Site assessment under § 245.453.

(4) Other considerations determined by the Department.

§ 245.453. Assessing the site at closure or change-in-service.

(a) Before permanent closure or a change-in-service is completed, owners and operators shall measure for the presence of a release where contamination is most likely to be present at the underground storage tank site. Owners and operators shall sample for releases. Sampling may be accomplished in a manner consistent with the Department technical document entitled "Closure Requirements for Underground Storage Tank Systems" or in a manner at least as protective of public health and safety and the environment and which meets all statutory and regulatory requirements.

(b) If contaminated soils, contaminated groundwater or free product as a liquid or vapor is discovered under subsection (a), or by another manner, owners and operators shall begin corrective action in accordance with Subchapter D (relating to corrective action process for owners and operators of storage tanks and storage tank facilities and other responsible parties).

Subchapter F. TECHNICAL STANDARDS FOR ABOVEGROUND STORAGE TANKS AND FACILITIES

GENERAL

§ 245.503. Variances.

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

(1) A variance may only be granted if the storage tank system meets alternative technical standards that fully protect human health and the environment.

(2) A written application for a variance shall be submitted to the Department and provide the following information:

(i) The facility name and identification number for which the variance is sought.

(ii) Specific sections of this subchapter from which the variance is sought.

(iii) The unique or peculiar conditions which make compliance with the sections identified in subparagraph (ii) technically impractical, infeasible or unsafe.

(iv) Evidence, including data, plans, specifications and test results, which supports an alternative design, practice, schedule or method as being at least as protective of human health and the environment as the requirement of the sections identified in subparagraph (ii).

(3) New technologies may be granted a variance. New technologies shall be reviewed and documented by a professional engineer and documentation provided to the Department with the variance request.

(4) The Department will not grant a variance which would result in regulatory controls less stringent than other applicable Federal or State regulations, such as 37 Pa. Code Part I, Subpart B (relating to flammable and combustible liquids) and 40 CFR Part 112 (relating to oil pollution prevention).

(5) When granting the variance, the Department may impose specific conditions necessary to assure that the variance will adequately protect the public health, safety or welfare and the environment.

(6) The Department will provide to the applicant a written notice of approval, approval with conditions or denial.

§ 245.504. Referenced organizations.

(a) Nationally-recognized associations which are referenced throughout this subchapter are as follows:

- (1) American Concrete Institute (ACI).
- (2) American National Standards Institute (ANSI).
- (3) American Petroleum Institute (API).
- (4) American Society of Mechanical Engineers (ASME).
- (5) American Society for Nondestructive Testing (ASNT).
- (6) American Society for Testing and Materials (ASTM).
- (7) NACE International—The Corrosion Society (NACE).
- (8) National Fire Protection Association (NFPA).

(9) Petroleum Equipment Institute (PEI).

(10) SSPC—The Society for Protective Coatings (SSPC).

(11) Steel Tank Institute (STI).

(12) Underwriters Laboratory (UL).

(b) Nationally-recognized codes and standards shall be used in conjunction with manufacturer's specifications to comply with this subchapter. When used to meet the technical standards and requirements of this subchapter, the most current or latest edition of the codes and standards shall be applied. Other Nationally-recognized codes and standards, not referenced in this part, may also be used to comply with this subchapter, when approved by the Department.

(c) When Nationally-recognized codes and standards or manufacturer's specifications are updated, facilities or storage tank systems installed to previously existing standards prior to the update, will not automatically be required to be upgraded to meet the new standard, unless specifically required in the revised standards or by the Department.

(d) Regulatory requirements shall prevail over Nationally-recognized codes and standards whenever there is a conflict.

§ 245.505. Applicability.

Existing tanks that become regulated due to the addition of new regulated substances as defined in § 245.1 (relating to definitions) (See definition of "regulated substance" (i)(C)(I) and (II))), and the regulation of aboveground tanks greater than 30,000 gallons capacity, storing heating oil that is consumed on the premises (See definition of "consumptive use" in § 245.1) are subject to the requirements of this chapter and shall be registered with the Department by January 9, 2008. In addition, these tanks are temporarily excluded from the following requirements:

(1) Monitoring requirements in § 245.541(c) (relating to overfill prevention requirements) until November 10, 2010.

(2) In-service inspection requirements in § 245.552 (relating to in-service inspections) until within 5 years of the date of construction or the date of the last inspection or by November 10, 2010, whichever is greater.

(3) Out-of-service inspection requirements in § 245.553 (relating to out-of-service inspections) until November 10, 2010, for tanks not previously inspected or 10 years after construction for tanks without known corrosion rates, whichever is greater, or within projected inspection intervals based on corrosion rates determined at the last out-of-service inspection, but not to exceed 20 years from the date of the last inspection.

OPERATIONS AND MAINTENANCE

§ 245.514. Security.

An owner/operator is responsible to assure that appropriate security measures and procedures based on the facility location are established and implemented to protect the environment and the public. These security measures and procedures may include, but are not limited to monitoring, fencing, lighting, access control, locked entrances and securing of valves and dispensers.

DESIGN, CONSTRUCTION AND INSTALLATION

§ 245.522. New aboveground tank installations and reconstructions.

(a) Tanks must be designed and constructed in accordance with an appropriate current code of practice devel-

oped by Nationally-recognized associations such as UL, ACI, API, ASME, ASTM, STI or NACE and will follow applicable engineering specifications.

(b) Tanks must have a stable foundation, capable of supporting the total weight of the tank when full of product without movement, rolling or unacceptable settling. The foundation must minimize corrosion of the tank bottom and meet or exceed the specifications of the tank manufacturer. The foundation design and construction must be based on sound engineering practices.

(c) Tanks shall be tested for tightness in accordance with current codes of practice developed by Nationally-recognized associations and manufacturer's specifications. If a pneumatic test is used for manufactured (shop built) tanks, the fittings, welds, joints and connections shall be coated with a soap solution and checked for leaks. Aboveground field constructed storage tanks shall be hydrostatically tested. Deficiencies shall be remedied prior to tanks being placed into service. Hydrostatic test fluids shall be discharged or disposed of in accordance with State and Federal requirements.

(d) Reconstruction of tanks must follow the current codes of practice developed by Nationally-recognized associations and be accomplished in accordance with sound engineering practices. Reconstructed tanks must be inspected and hydrostatically tested before being placed into service. Reconstructed tanks must meet or exceed requirements specified in § 245.521 (relating to performance standards for aboveground storage tanks). Hydrostatic test fluids shall be discharged or disposed of in accordance with State and Federal requirements.

(e) Aboveground manufactured storage tanks that are relocated to another service site must meet the performance requirements for aboveground storage tanks and shall be tested according to industry standards and inspected before being put back in service.

(f) The Department may require the tank owner to submit documentation of construction design criteria and engineering specifications for review.

§ 245.523. Aboveground storage tanks in underground vaults.

The following requirements shall be met when an owner or operator chooses to install an aboveground storage tank in an underground vault:

(1) The vault shall completely enclose the tank. There may be no openings in the vault enclosure except those necessary for access to, inspection of, and filling, emptying and venting of the tank. The walls and floor of the vault must be constructed of reinforced concrete at least 6 inches thick. The top, walls and floor shall be designed to withstand the anticipated loading including loading from traffic, soil and groundwater.

(2) The vault must be compatible with the stored substance and have a permeability of less than 1×10^{-7} cm/sec for substance stored and be water tight.

(3) A tank must be in its own vault. Adjacent vaults may share a common wall.

(4) There may be no backfill around the tank and there shall be sufficient space between the tank and the vault to allow inspection of the tank and ancillary equipment.

(5) A vault and its tank must be suitably anchored to withstand uplifting by either water or released substance, including when the tank is empty.

(6) Connections shall be provided to permit venting of each vault to dilute, disperse and remove vapors prior to personnel entering the vault.

(7) A vault must be equipped with a continuous leak detection system capable of detecting vapors and liquids including water. The detection system must activate an alarm that automatically shuts down the dispensing system if a release occurs.

(8) A vault must have a means for personnel entry. The entry point must have a warning sign indicating the need for procedures for safe entry into a confined space. An entry point must be secured against unauthorized entry and vandalism.

(9) A suitable means to admit a fire suppression agent shall be provided for each vault.

(10) Tanks and ancillary equipment shall be installed, maintained and inspected in accordance with the requirements for aboveground storage tanks in this subchapter.

(11) Underground piping distribution systems for each tank system used to dispense class I or class II motor fuels for resale must be provided with release detection equivalent to underground piping release detection addressed in § 245.445 (relating to methods of release detection for piping) and monitored as required in paragraph (7) with monitoring records retained for 12 months as required under § 245.516 or § 245.615 (relating to recordkeeping requirements).

§ 245.524. Aboveground tank modifications.

(a) Modifications shall be designed and implemented in accordance with current codes of practice developed by Nationally-recognized associations such as API, ACI, ASME, ASTM, NACE, STI or UL.

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

(c) Aboveground tanks which are modified shall be inspected and tested according to industry standards before being put in service when a major modification has been performed on the tank shell, tank roof or tank bottom. Deficiencies shall be remedied before being returned to service.

(d) The Department may require the tank owner to submit documentation of construction modification design criteria and engineering specifications for review.

CORROSION AND DETERIORATION PREVENTION

§ 245.534. Interior linings and coatings.

(a) Coating or lining systems may be used to protect tank interiors from corrosion. The coating or lining system shall be designed in accordance with current codes of practices such as API 652 or associations such as NACE. Any appropriate coating which is bonded firmly to the interior surfaces may be used to protect a tank from corrosion.

(b) Specific requirements are as follows:

(1) Coatings and linings shall be chemically compatible with the substance to be stored.

(2) Coating material shall be applied and cured in strict accordance with manufacturer's specifications.

(3) Surfaces shall be prepared and inspected in accordance with applicable Nationally-recognized codes and standards.

(4) Coatings used to protect the bottom of a tank shall extend up the side of the tank a minimum of 18 inches, while some forms of lining may cover the entire tank interior.

(5) Coatings shall be examined for blisters and air pockets, and tested for pinholes. The coating thickness shall be checked to assure compliance with manufacturer's specifications.

(6) Defects in coating or lining systems shall be repaired or corrected prior to putting the tank or system into service.

(c) Interior linings or coatings shall be inspected by a third-party, Department-certified, aboveground storage tank inspector at installation, when undergoing a major modification, and at least every 10 years or as warranted or recommended by the manufacturer or design engineer.

RELEASE PREVENTION AND LEAK DETECTION

§ 245.541. Overfill prevention requirements.

(a) An owner/operator shall ensure that releases from overfills do not occur. Transfer of stored substance may not exceed the volume available in the receiving tank and the transfer shall be adequately monitored. Immediate action shall be taken to stop the flow of regulated substance prior to exceeding tank capacity or in the event that an equipment failure occurs.

(b) Tanks must be installed with the following:

(1) A gauge or monitoring device which accurately indicates the level or volume in the tank and is visible to the individual responsible for the transfer of product. The monitoring device shall be installed, calibrated and maintained in accordance with manufacturer's specifications.

(2) A high-level alarm with an automatic high-level cut-off device or a high-level alarm with a manned operator shutdown procedure in operation.

(c) Existing tanks must have a gauge or monitoring device installed by October 11, 2000.

(d) An existing tank system which is taken out of service to perform a scheduled out-of-service inspection or a major modification to the tank shall be upgraded with a high-level alarm with a cut-off device or a high-level alarm with a manned operator shutdown procedure prior to being put back in service.

(e) An existing tank system which has not been required to be taken out of service to perform a scheduled inspection or modification must have overfill protection consistent with National industry standards, such as API 2350, NFPA 30 or PEI RP 200 by November 10, 2010.

§ 245.542. Containment requirements for aboveground storage tank systems.

(a) Containment structures must be compatible with the substance stored and minimize deterioration to the storage tank system.

(b) Containment areas shall be designed, maintained and constructed in accordance with sound engineering practices adhering to Nationally-recognized codes of practice such as NFPA, NACE, ACI or API and in compliance with State and Federal requirements.

(c) Secondary containment under the tank bottom and around underground piping must be designed to direct any release to a monitoring point to meet leak detection requirements. Secondary containment shall be provided on a new tank at installation, and shall be provided on an existing tank at reconstruction or relocation of the tank

or when the tank floor is replaced (See API 650 Appendix I). Permeability of the secondary containment must be less than 1×10^{-7} cm/sec at anticipated hydrostatic head and shall be verified at the time of installation.

(d) Aboveground tanks must have emergency containment structures, such as dike fields, curbing and containment collection systems, which contain releases from overfills, leaks and spills, when a new tank system is installed or at the next out-of-service inspection for existing tank systems as established in § 245.553(d) (relating to out-of-service inspections) or by November 10, 2010, whichever occurs first.

(1) Permeability of newly installed or replacement emergency containment structures must be less than 1×10^{-6} cm/sec at anticipated hydrostatic head and be of sufficient thickness to prevent the released substance from penetrating the containment structure for a minimum of 72 hours, and until the release can be detected and recovered.

(2) Emergency containment structures for existing aboveground storage tanks must meet one of the following standards by November 10, 2010, or at the next out-of-service inspection, prior to the tank being placed back into service, whichever occurs first:

(i) The standards for new emergency containment structures for aboveground storage tanks in paragraph (1).

(ii) Verification by a professional engineer that the emergency containment structure, coupled with the tank monitoring program and response plan, is capable of detecting and recovering a release and is designed to prevent contamination of the waters of this Commonwealth. Verification may be conducted in a manner consistent with the Department's technical document entitled "Verification of Emergency Containment Structures for Aboveground Storage Tanks" or in a manner at least as protective of public health and safety and the environment and which meets all statutory and regulatory requirements. Verification of earthen structures should include determination of the containment structure permeability following Nationally-recognized testing methods such as ASTM Methods and Engineering Standards Listed in API Publication 351.

(3) Verification of the containment structure is valid until conditions at the site, monitoring program, response plan or procedures change.

(4) Transfers of regulated substances to a tank within the emergency containment shall be monitored by designated personnel for the duration of the transfer.

(e) Emergency containment areas, such as dike fields, must be able to contain 110% of the capacity of the largest tank in the containment area.

(f) Stormwater shall be removed from the emergency containment area as soon as possible or when the water is in contact with the tank or piping and prior to the capacity of containment being reduced by 10% or more. Manually operated pumps or siphons and manually operated gravity drains may be used to empty the containment. If drain valves are used they shall be secured in the closed position when not in use. Discharge or disposal of substances from the containment structure must comply with applicable State and Federal requirements.

§ 245.543. Leak detection requirements.

(a) Aboveground tank systems shall be provided a method of leak detection at installation that is capable of

detecting a release. The leak detection method shall be monitored at least monthly and shall be installed, calibrated, operated and maintained in accordance with industry practices and manufacturer's specifications.

(1) The area beneath the tank bottom shall be monitored for leakage by visual, mechanical or electronic leak detection methods.

(2) Observation wells outside of the secondary containment structure do not satisfy the leak detection requirements.

(b) Existing aboveground storage tank systems with secondary containment shall implement a monthly leak detection method as required by subsection (a). Monthly visual inspections shall be an acceptable method of leak detection.

(c) Existing aboveground storage tanks without secondary containment under the bottom of the tank that are in contact with the soil, such as vertical flat bottom tanks, and do not have cathodic protection or an internal lining shall be leak tested at the next scheduled in-service inspection consistent with subsection (d) and continue to be leak tested at each in-service inspection thereafter, until the tank is upgraded.

(d) Tank leak test must follow a Nationally-recognized procedure that is based on a volumetric/mass measurement, an acoustic measurement, or a soil-vapor monitoring method, such as those addressed in API Publication 334 "Guide to Leak Detection in Aboveground Storage Tanks." The test shall be performed by a third-party inspector or a technician who has experience with the selected method and is qualified by the test equipment manufacturer or certified by the relevant industry association such as ASNT (See Recommended Practice No. SNT-TC-1A) and is not an employee of the tank owner.

(e) Aboveground piping shall be visually checked for leaks in accordance with the facility operations and maintenance plan.

ABOVEGROUND STORAGE TANK INSPECTIONS

§ 245.552. In-service inspections.

(a) The in-service inspection must follow the guidelines of a Nationally-recognized association such as API 653, API 570 and applicable engineering criteria (See §§ 245.524(b), 245.542(d)(2) and 245.543(d) (relating to aboveground tank modifications; containment requirements for aboveground storage tank systems; and leak detection requirements)).

(b) The in-service inspection must evaluate the following:

- (1) Containment areas.
- (2) Foundation.
- (3) Tank shell.
- (4) Tank roof.
- (5) Appurtenances.
- (6) Ancillary equipment including piping.
- (7) Leak detection method.
- (8) Cathodic protection system, if installed.
- (9) Tank system integrity and suitability for service.

(c) Inspection information shall be submitted to the Department on a form provided by the Department and include the results of the evaluation in subsection (b) and the following:

(1) A determination of the corrosion rate of the shell and piping.

(2) A calculation of the life of the tank shell and piping based on corrosion rate.

(3) The next inspection schedule based on the API 653 calculated service life method or 1/4 of the corrosion rate life with a maximum of 5 years between inspections. Other site-specific conditions, for example, maintenance practices, previous repairs, the nature of the substance stored or soil conditions that may affect corrosion rate life or tank system integrity and should be considered when projecting tank service life and the next inspection interval.

(4) The recommendations for maintaining tank system integrity.

(d) Inspection intervals for in-service inspections are as follows:

(1) Aboveground tanks installed after October 11, 1997, shall be initially inspected within 5 years of installation.

(2) Existing tanks shall be initially inspected as follows:

(i) Tanks over 5 years old without a previous inspection shall be inspected by October 11, 1999.

(ii) Tanks with an inspection more than 3 years prior to October 11, 1997, shall be inspected by October 11, 2000.

(iii) Tanks with an inspection within 3 years prior to October 11, 1997, shall be inspected within 6 years of the previous inspection.

(3) Tanks shall have an in-service inspection within 1/4 of the corrosion rate life with a maximum of 5 years from the previous inspection or installation.

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

(5) An in-service inspection interval may be delayed under § 245.562 (relating to temporary removal-from-service) for a tank that is temporarily removed from service. The delayed inspection shall be conducted prior to placing regulated substance in a tank and returning the tank to operating status. Deficiencies noted during inspection shall be addressed and remedied and an amended registration form submitted to the Department prior to returning the tank to operating status.

(e) Inspection recommendations shall be addressed and deficiencies remedied. When substantial modifications are necessary to correct deficiencies, they shall be made in accordance with manufacturer's specifications and engineering design criteria (See §§ 245.522(a) and (b), 245.524(b)(2), 245.532(b) and (c) and 245.534(c)). The Department may require submission and review of all documentation relating to these remedies. Required tank handling activities are reported to the Department by the certified installer. Tank handling activities involving major modifications shall also be inspected by a certified aboveground storage tank inspector and reported to the Department.

(f) The complete inspection report shall be kept at the facility until the next out-of-service inspection is completed.

§ 245.553. Out-of-service inspections.

(a) Inspections must follow the guidelines of a Nationally-recognized association such as API 653, API 570 or

ASME and applicable engineering criteria (See §§ 245.524(b), 245.534(c), 245.542(d)(2) and 245.543(d)).

(b) The out-of-service inspection must evaluate the following:

- (1) Containment areas.
- (2) Foundation and supports.
- (3) Tank shell.
- (4) Tank roof.
- (5) Tank bottom.
- (6) Appurtenances.
- (7) Ancillary equipment including piping.
- (8) Leak detection method.
- (9) Cathodic protection system, if installed.
- (10) Internal linings and coatings, if installed.
- (11) Tank system integrity and suitability for service.

(c) The tank bottom evaluation of metallic floors must be based on ultrasonic testing and visual examination and include at least one other method of nondestructive examination such as magnetic flux tests or vacuum tests of bottom lap welds (See API 653 and ASTM metallography—nondestructive testing Vol. 03.03). The ultrasonic evaluation must be statistically representative of the whole floor, excluding the release prevention barrier or secondary containment on double bottom tanks.

(d) Inspection information shall be submitted to the Department on a form provided by the Department and include the results of subsection (b) and the following:

- (1) A determination of the corrosion rate for tank shell, bottom plates and piping.
- (2) A calculation of the tank life and piping life based on the corrosion rate.
- (3) The schedule for next out-of-service inspection, based on the API 653 calculated service life method or 1/2 of the corrosion rate life, with a maximum of 20 years between inspections. Other site-specific conditions, for example, maintenance practices, previous repairs, internal linings, the nature of the substance stored or soil conditions that may affect corrosion rate life and should be considered when projecting tank service life and the next inspection interval.

(4) The recommendations for maintaining tank system integrity and meeting performance standards.

(e) Inspection intervals for out-of-service inspections are as follows:

- (1) Tanks installed after October 11, 1997, shall be initially inspected based on measured or similar service corrosion rates. When the corrosion rate is unknown the tank's actual bottom thickness shall be determined by inspection within 10 years of installation to determine the corrosion rate.
- (2) Existing tanks shall be initially inspected as follows:
 - (i) If corrosion rates are not known, tanks shall be inspected within 10 years of installation or by October 11, 2000, whichever is later.
 - (ii) If corrosion rates can be determined or are known, tanks shall be inspected at their API 653 calculated service life method or 1/2 the corrosion rate life, from installation or previous out-of-service inspection or by October 11, 2000, whichever is later.

(3) Tanks shall have an out-of-service inspection at their API 653 calculated service life method or 1/2 of the corrosion rate life, with a maximum of 20 years from the last out-of-service inspection.

(4) An out-of-service inspection interval may be delayed under § 245.562 (relating to temporary removal-from-service) for a tank that is temporarily removed from service. The delayed inspection shall be conducted prior to placing regulated substance in a tank and returning the tank to operating status. Deficiencies noted during inspection shall be addressed and remedied and an amended registration form submitted to the Department prior to returning the tank to operating status.

(f) Deficiencies shall be remedied before the tank is returned to service. When substantial modifications are necessary to correct deficiencies, they shall be made in accordance with manufacturer's specifications or an engineer's design criteria (See §§ 245.522(a) and (b), 245.524(b)(2) and 245.532(b) and (c) (relating to new aboveground tank installations and reconstructions; aboveground tank modifications; and cathodic protection system)). The Department may require submission and review documentation relating to these remedies. Required tank handling activities are reported to the Department by the certified installer. Tank handling activities involving major modifications shall also be inspected by a certified aboveground storage tank inspector and reported to the Department.

(g) Aboveground storage tanks which can be completely examined from the exterior are exempt from out-of-service inspections except for tanks that are internally lined.

(h) The completed inspection report for out-of-service inspections shall be kept with the facility records under § 245.516 (relating to recordkeeping requirements).

§ 245.554. Installation and modification inspections.

(a) Aboveground storage tank systems shall be inspected by a Department-certified inspector at the time of installation in accordance with § 245.522 (relating to new aboveground tank installations and reconstructions), and current Nationally-recognized association's code of practice and manufacturer's specifications. The inspection report shall be kept for the operational life of the tank.

(b) Major modifications shall be inspected by a Department-certified inspector at the time of modification under § 245.524 (relating to aboveground tank modifications) and current codes of practice developed by Nationally-recognized associations prior to being put back in service. The inspection report shall be kept for the operational life of the tank. When substantial modifications are made to the tank floor, the next inspection date projections shall be determined based on the condition of the tank subsequent to those modifications and reported to the Department by the certified inspector on the appropriate inspection form provided by the Department. Other site-specific conditions, for example, maintenance practices, previous repairs, the nature of the substance stored or soil conditions that may affect corrosion rate life or tank system integrity should be considered when projecting tank service life and the next inspection interval.

(c) Tanks which are relocated or reconstructed shall be inspected by a Department-certified inspector and tested for tightness in accordance with § 245.522 and current codes of practice developed by Nationally-recognized associations prior to being put in service. The inspection report shall be kept for the operational life of the tank.

**CLOSURE AND REMOVAL FROM SERVICE
REQUIREMENTS**

§ 245.561. Permanent closure or change-in-service.

Before permanent closure or change-in-service is completed, the owner/operator shall comply with the following:

(1) At least 30 days before beginning either a permanent closure or change-in-service to an unregulated tank, or within a lesser time as determined by the Department, the owner/operator shall notify the Department of its intent to permanently close or change-in-service from a regulated tank to an unregulated tank, unless the action is in response to a corrective action or waived by the Department.

(2) The owner/operator shall submit an amended registration form to the Department indicating the change in tank status within 30 days after the change in tank status.

(3) The owner/operator shall complete a site assessment to measure for the presence of any release from the storage tank system and a closure report. The assessment of the site shall be made after the notification to the Department and may be conducted in a manner consistent with the Department's technical document entitled "Closure Requirements for Aboveground Storage Tank Systems" or in a manner at least as protective of public health and safety and the environment and which meets all statutory and regulatory requirements. The results of the site assessment and the closure report shall be retained for 3 years.

(4) If contaminated soil, sediment, surface water or groundwater, or free product is discovered or confirmed by either direct observation or indicated by the analytical results of sampling, the owner/operator shall proceed with the corrective action as required in Subchapter D (relating to corrective action process for owners and operators of storage tanks and storage tank facilities and other responsible parties) or, if applicable, in accordance with remedial action agreements.

(5) Regulated substance and contents removed from the tank system including piping shall be reused, treated or disposed of in a manner consistent with applicable State and Federal waste management requirements.

(6) Tank systems shall be cleaned, rendered free of hazardous vapors and ventilated if left onsite or tank systems shall be emptied and removed from the site in a manner consistent with current industry practices and Bureau of Waste Management requirements such as Chapters 263a and 299 (relating to transporters of hazardous waste; and storage and transportation of residual waste).

(7) Tanks to be permanently closed and left onsite shall be legibly marked with the date of permanent closure.

(8) The appropriate State agency, county and local jurisdiction shall be notified if the tank is under a fire marshal, flammable and combustible liquids or other State agency, county or local jurisdiction permit.

(9) Tanks that are to be closed in place shall:

(i) Be rendered inoperable and incapable of storing liquid substance.

(ii) Be secured against unauthorized entry.

(iii) Meet the requirements specified in paragraphs (1)—(8).

§ 245.562. Temporary removal-from-service.

(a) The owner/operator shall complete and submit an amended registration form to the Department within 30 days after the change in tank status.

(b) A tank system shall be emptied and regulated substances and contents shall be reused, treated or disposed of in accordance with State and Federal requirements.

(c) A tank shall be secured against unauthorized entry and all piping entering or exiting the tank, excluding vents, shall be capped or blinded.

(d) Tank integrity shall be maintained throughout the temporary removal-from-service time and the tank shall be protected against flotation.

(e) Inspection requirements shall be maintained as specified in §§ 245.551—245.554 (relating to aboveground storage tank inspections). In-service and out-of-service inspection intervals may be delayed for a tank that is temporarily removed from service. The delayed inspections shall be conducted prior to placing regulated substance in a tank and returning the tank to operating status. Deficiencies noted during inspection shall be addressed and remedied and an amended registration form submitted to the Department prior to returning the tank to operating status.

(f) Tanks which are temporarily removed-from-service for 5 years or longer must meet the requirements for permanent closure, unless the time frame for retaining the tank or tanks in temporary removal-from-service status is extended under § 245.503 (relating to variances).

**Subchapter G. SIMPLIFIED PROGRAM FOR
SMALL ABOVEGROUND STORAGE TANKS
GENERAL**

§ 245.604. Referenced organizations.

(a) Nationally-recognized associations which are referenced throughout this subchapter are as follows:

(1) American National Standards Institute (ANSI).

(2) American Petroleum Institute (API).

(3) American Society of Mechanical Engineers (ASME).

(4) American Society for Testing and Materials (ASTM).

(5) NACE International—The Corrosion Society (NACE).

(6) National Fire Protection Association (NFPA).

(7) Petroleum Equipment Institute (PEI).

(8) SSPC—The Society for Protective Coatings (SSPC).

(9) Steel Tank Institute (STI).

(10) Underwriters Laboratory (UL).

(b) Nationally-recognized codes and standards shall be used in conjunction with manufacturer's specifications to comply with this subchapter. When used to meet the technical standards and requirements of this subchapter, the most current or latest edition of the codes and standards shall be applied. Other Nationally-recognized codes and standards, not referenced in this part, may also be used to comply with this subchapter, when approved by the Department.

(c) When Nationally-recognized codes and standards are updated, facilities or storage tank systems installed to previously existing standards prior to the update will not

automatically be required to be upgraded to meet the new standard, unless specifically required in the revised standards or by the Department.

(d) Regulatory requirements shall prevail over Nationally-recognized codes and standards whenever there is a conflict.

§ 245.605. Applicability.

Existing tanks that become regulated due to the addition of new regulated substances as defined in § 245.1 (relating to definitions) (See “regulated substance” (i)(C)(I) and (II)) are subject to the requirements of this chapter and shall be registered with the Department by January 9, 2008. In addition, these tanks are temporarily excluded from the following technical requirements:

(1) Emergency and secondary containment requirements in § 245.612(e) (relating to performance and design standards) until November 10, 2010.

(2) A method of leak detection as required in § 245.613(a) (relating to monitoring standards) until November 10, 2008.

(3) In-service inspections required in § 245.616(c)(3) (relating to inspection requirements) until November 10, 2010.

TECHNICAL REQUIREMENTS

§ 245.611. Testing requirements for new and substantially modified small aboveground storage tanks.

(a) Tanks shall be tested for tightness at installation in accordance with current codes of practice developed by Nationally-recognized associations and manufacturer’s specifications, except for manufactured, shop built tanks that meet the requirements of subsection (b). The testing shall be completed, as part of the installation process, prior to putting the tank in service.

(b) Manufactured, shop built tanks that are initially tested after full assembly at the plant do not require additional testing at installation if the manufacturer certifies that the tank was tested at the plant and the manufacturer’s installation instructions do not specify additional testing.

(c) Tanks that receive major modifications to the tank shell or the tank bottom shall be tested for tightness, in accordance with current codes of practice developed by Nationally-recognized associations or manufacturer’s specifications, prior to being returned to service.

§ 245.612. Performance and design standards.

(a) Tanks shall be designed, constructed and installed or modified in accordance with current codes of practice developed by Nationally-recognized associations such as API, ASME, ASTM, ANSI, STI and UL and the manufacturer’s specifications. Tank handling activities shall be accomplished by a Department-certified aboveground storage tank installer or under the installer’s direct, onsite supervision and control.

(b) Tanks must have a stable support or foundation capable of adequately supporting the total weight of the tank and its contents when in use. The support or foundation must meet or exceed the specifications of the tank manufacturer and be designed and constructed in accordance with sound engineering practices.

(c) Ancillary equipment, including piping, shall be designed, installed and modified in accordance with current codes of practice developed by Nationally-recognized associations such as API, SSPC, NACE, ASME, PEI and UL

and the manufacturer’s specifications. Ancillary equipment must be compatible with the substance stored and must be adequately protected from corrosion, excessive wear and deterioration. Protective coatings shall be maintained throughout the entire operational life of the storage tank system.

(d) Tanks shall be installed with secondary containment in or under the tank bottom to provide monitoring capability to satisfy leak detection requirements in § 245.613 (relating to monitoring standards) and emergency containment to contain possible releases, such as overfills, leaks and spills. Emergency containment must be sufficiently impermeable to contain any potential release for a minimum of 72 hours and until the release can be detected and fully recovered in an expeditious manner. Double walled tanks may meet both emergency and secondary containment requirements when the tank system is operated with spill and overfill protection controls including the following:

(1) A spill containment bucket at the tank fill point or containment at the remote fill point.

(2) An overfill alarm or prevention device or monitoring gauge and shut down procedure.

(3) Block valves on product lines.

(4) Solenoid valve or antisiphon device, if appropriate (See PEI RP 200).

(e) Existing tanks which do not meet the requirements specified in subsection (d) shall be upgraded with secondary containment by October 11, 2007, and emergency containment by October 11, 2000.

(f) Tanks installed in underground vaults after October 11, 1997, and used for dispensing Class I and Class II motor fuels must comply with § 245.523 (relating to aboveground storage tanks in underground vaults).

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

(h) Tanks which are internally lined must comply with § 245.534 (relating to interior linings and coatings).

(i) Tanks shall be labeled or marked in a manner consistent with industry standards and which provides for identifying the regulated substance stored from outside the containment area.

§ 245.614. Requirements for closure.

(a) Tank systems shall be cleaned, rendered free from hazardous vapors and ventilated if left onsite or shall be emptied and removed from the site in a manner consistent with current industry practices and Bureau of Waste Management requirements such as Chapters 263a and 299 (relating to transporters of hazardous waste; and storage and transportation of residual waste). Piping shall be removed or capped and fill ports shall be secured, capped or dismantled.

(b) The owner shall conduct a visual examination of the surface, soil and area surrounding and underlying the storage tank system for obvious indications or evidence of a release of regulated substance.

(1) If a release is suspected, it shall be investigated in accordance with § 245.304 (relating to investigation of suspected releases).

(2) If a release is confirmed, it shall be reported to the appropriate Department regional office responsible for the

county in which the tank is located in accordance with § 245.305 (relating to reporting releases).

(c) The owner shall complete and submit an amended tank registration form to the Department within 30 days of:

- (1) The completion of permanent closure.
- (2) Change-in-service status of the tank.
- (3) Temporary removal from service.

(d) Temporary removal from service requires that the owner/operator empty the tank system of regulated substances and conduct a visual examination of the area surrounding the tank as required in subsection (b), excluding the surface and soil underlying any tank bottom in contact with the ground. A tank may be considered to be in a temporary removal from service status when the tank is emptied and intended to remain out of use for 1 year or more.

(1) Temporary removal from service may not exceed 5 years, unless the owner can demonstrate an operational need to retain the tank in temporary removal-from-service beyond 5 years and the Department agrees to extend this time frame.

(2) Monitoring standards in § 245.613 (relating to monitoring standards) are not required when a tank is reported to the Department as temporarily removed from service.

(3) Inspection of tanks temporarily removed from service shall be performed in accordance with § 245.616 (relating to inspection requirements). In-service inspection interval may be delayed for a tank that is temporarily removed-from-service. The delayed inspection shall be conducted prior to placing regulated substance in a tank and returning the tank to operating status. Deficiencies noted during inspection shall be addressed and remedied and an amended registration form submitted to the Department prior to returning a tank to operating status.

§ 245.616. Inspection requirements.

(a) Required inspections of small aboveground storage tanks shall be conducted by Department-certified aboveground storage tank inspectors according to a current Nationally-recognized association's code of practice such as API, STI or ASME or according to manufacturer's specifications and applicable engineering criteria (See § 245.612 (relating to performance and design standards)). Deficiencies noted during the inspection shall be addressed and remedied. When substantial modifications are necessary to correct deficiencies, they shall be made in accordance with manufacturer's specifications and applicable engineering design criteria. The Department may require submission and review of documentation relating to these remedies. The associated tank handling activities are reported to the Department by a certified installer.

(b) Small aboveground field constructed storage tanks shall be inspected at installation, reconstruction or relocation and when a major modification activity is performed on the tank shell or the tank bottom plates.

(c) The owner/operator of small aboveground storage tanks storing regulated substances with a capacity greater than 5,000 gallons and owner/operator of small aboveground storage tanks storing highly hazardous substances with a capacity greater than 1,100 gallons shall have in-service inspections conducted every 10 years or more often when corrosion, deterioration or other specific conditions necessitate. Other specific conditions may in-

clude maintenance practices, previous repairs, the nature of the substance stored and coatings or linings that should be considered when projecting tank service life and the next inspection interval. Internally lined tanks and flat bottom tanks without an interstice or external access to the tank bottom may require further evaluation or internal examination. Inspections shall be phased in for tanks without a previous inspection as follows:

(1) New tanks shall be initially inspected within 10 years of installation.

(2) Existing tanks, less than 10 years old without a previous inspection, shall be inspected by October 13, 2003, or 10 years from the date of installation, whichever is later.

(3) Existing tanks over 10 years old, without a previous inspection, shall be inspected by October 11, 2002.

(4) When an inspection is delayed under § 245.614 (d)(3) (relating to requirements for closure) for a tank in temporary removal-from-service status, the inspection shall be completed and deficiencies remedied prior to returning the tank to operational service.

(d) In-service inspections must evaluate the following:

- (1) Containment areas.
- (2) Foundation and tank supports.
- (3) Tank shell and tank roof, where a roof exists.
- (4) Appurtenances.
- (5) Ancillary equipment including piping.
- (6) Leak detection method, including monthly leak detection records and maintenance checklists.
- (7) Cathodic protection system, if installed.
- (8) Coatings and protections from deterioration.
- (9) Tank system integrity and suitability for service.

Subchapter H. FINANCIAL RESPONSIBILITY REQUIREMENTS FOR OWNERS AND OPERATORS OF UNDERGROUND STORAGE TANKS AND FACILITIES

§ 245.704. General requirements.

(a) An owner or operator of an underground storage tank shall continuously participate in the USTIF, unless the EQB has determined that the underground storage tank is an exempt underground storage tank.

(b) An owner or operator of an underground storage tank shall have sufficient financial resources available to continuously meet the USTIF deductibles for both corrective action and third party liability as determined in accordance with § 245.707 (relating to coverage amounts for financial responsibility). The deductible coverage must be in a method required under section 701(b) of the act (35 P. S. § 6021.701(b)) including a guarantee, surety bond, qualification as a self-insurer, insurance or risk retention coverage, letter of credit, indemnity contract, trust fund, stand by trust fund, or other method approved or deemed satisfactory by the Department.

(c) The owner or operator shall have written documentation of the USTIF deductible coverage readily available and provide this documentation to the Department upon request to demonstrate that the owner or operator has sufficient financial resources to meet the USTIF deductible for both corrective action and third party liability as determined in accordance with § 245.707.

§ 245.707. Coverage amounts for financial responsibility.

The owner or operator of an underground storage tank, other than an exempt underground storage tank, shall comply with the financial responsibility requirements of this subchapter by maintaining sufficient financial resources to provide the coverage for both corrective action and third party liability, in the amounts set forth in paragraphs (1) and (2) for the applicable number of tanks:

(1) *For corrective action:*

<i>Number of tanks</i>	<i>Amount of required coverage</i>
1—6	1 × USTIF deductible
7—12	2 × USTIF deductible
13—18	3 × USTIF deductible
19—24	4 × USTIF deductible
25—30	5 × USTIF deductible
31—36	6 × USTIF deductible

<i>Number of tanks</i>	<i>Amount of required coverage</i>
37—42	7 × USTIF deductible
43—48	8 × USTIF deductible
49—60	9 × USTIF deductible
61—100	10 × USTIF deductible
101—200	11 × USTIF deductible
201—300	12 × USTIF deductible
301—600	13 × USTIF deductible
over 600	14 × USTIF deductible

(2) *For third party liability:*

<i>Number of tanks</i>	<i>Amount of required coverage</i>
1—100	1 × USTIF deductible
over 100	2 × USTIF deductible

[Pa.B. Doc. No. 07-2060. Filed for public inspection November 9, 2007, 9:00 a.m.]