

PROPOSED RULEMAKING

ENVIRONMENTAL QUALITY BOARD

[25 PA. CODE CH. 245]

Storage Tank Program

The Environmental Quality Board (Board) proposes to amend Chapter 245 (relating to administration of the storage tank and spill prevention program). This proposed rulemaking mainly concerns amendments to Subchapter D (relating to corrective action process for owners and operators of storage tanks and storage tank facilities and other responsible parties). This subchapter is commonly known as the "Corrective Action Process regulation" (CAP regulation). The CAP regulation was originally adopted at 23 Pa.B. 4033 (August 21, 1993). This proposal contains changes necessary to update the CAP regulation because of several developments since its adoption in 1993. This proposal also adds, modifies or deletes several definitions in Subchapter A (relating to general provisions) and makes a minor technical change in Subchapter E (relating to technical standards for underground storage tanks).

This proposal was adopted by the Board at its meeting of June 20, 2000.

A. Effective Date

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

B. Contact Persons

For further information contact Charles Swokel, Chief, Storage Tank Cleanup Section, P. O. Box 8471, Rachel Carson State Office Building, Harrisburg, PA 17105-8471, (717) 783-7509, or Kurt E. Klapkowski, Assistant Counsel, Bureau of Regulatory Counsel, P. O. Box 8464, Rachel Carson State Office Building, Harrisburg, PA 17105-8464, (717) 787-7060. Information regarding submitting comments on this proposal appears in Section J of this Preamble. Persons with a disability may use the AT&T Relay Service by calling (800) 654-5984 (TDD users) or (800) 654-5988 (voice users). This proposal is available electronically through the Department of Environmental Protection's (Department) Web site (<http://www.dep.state.pa.us>).

C. Statutory Authority

The proposed rulemaking is being made under the authority of section 106 of the Storage Tank and Spill Prevention Act (Storage Tank Act) (35 P. S. § 6021.106), which authorizes the Board to adopt rules and regulations governing aboveground and underground storage tanks to accomplish the purposes and carry out the provisions of the Storage Tank Act; sections 301(a)(5) and 501(a)(5) of the Storage Tank Act (35 P. S. §§ 6021.301(a)(5) and 6021.501(a)(5)), which direct the Department to adopt regulations governing corrective action by responsible parties for releases from aboveground and underground storage tanks, respectively; sections 301(a)(6) and 501(a)(6) of the Storage Tank Act, which direct the Department to adopt regulations governing reporting of releases and corrective actions taken in response to releases from aboveground and underground storage tanks, respectively; section 501(a)(2) and (3) of the Storage Tank Act, which directs the

Department to adopt regulations concerning release detection system operation and recordkeeping for underground storage tanks; section 501(a)(13)—(15) of the Storage Tank Act, which directs the Department to adopt regulations concerning the handling of soil and subsurface material affected by a release of a regulated substance; section 5(b)(1) of The Clean Streams Law (35 P. S. § 691.5(b)(1)), which authorizes the Department to formulate, adopt and promulgate rules and regulations that are necessary to implement the provisions of that act; section 105(a) of the Solid Waste Management Act (35 P. S. § 6018.105(a)), which requires the Board to adopt the rules and regulations of the Department to accomplish the purposes and carry out the provisions of that act; 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 may be determined by the Board to be for the proper performance of the work of the Department.

D. Background and Purpose

Releases of regulated substances have occurred from thousands of storage tanks in this Commonwealth. These releases have resulted in substantial quantities of regulated substances entering the environment, including contamination of numerous public and private water supplies. The CAP regulation establishes a process under which these releases are to be reported and remediated.

As noted, the CAP regulation was originally promulgated nearly 7 years ago. Since that time, several developments have occurred which now necessitate amending these regulations. First and foremost is the passage in 1995 of the Land Recycling and Environmental Remediation Standards Act (35 P. S. §§ 6026.101—6026.909) (Act 2), and the promulgation of regulations under that statute in 1997, codified in Chapter 250 (relating to administration of land recycling program). See 27 Pa.B. 4181 (August 16, 1997). Act 2's environmental remediation standards expressly apply to the remediation of releases under section 106(a) of Act 2. Therefore, changes to the CAP regulation are needed to harmonize the two programs' approach to remediation of releases.

It should be noted, however, that section 904(c) of Act 2 (35 P. S. § 6026.904(c)) states:

The environmental remediation standards established under this act shall be used in corrective actions undertaken pursuant to the [Storage Tank Act]. However, *the procedures in the [Storage Tank Act] for reviewing and approving corrective actions shall be used in lieu of the procedures and reviews required by this act.* (emphasis added).

Because of this provision in Act 2, the Department is proposing changes to the CAP regulation to harmonize its provisions with those of Act 2, yet maintaining a separate procedural system for corrective actions at regulated storage tank facilities.

Additional changes to the CAP regulation were identified by the Department as necessary as part of its review of all regulations under the commands of the Department's Regulatory Basics Initiative (RBI) and Executive Order 1996-1. Because there are counterpart Federal regulations regarding corrective actions for releases from regulated underground storage tanks in 40 CFR Part 280, the Department reviewed the CAP regulation for consistency with those provisions, along with the other factors

identified in the Executive Order and the RBI. Several of the proposed changes reflect the conclusions of that review.

Third, several changes to the CAP regulation are required to harmonize the CAP regulation with Legislative changes to the Storage Tank Act (primarily the act of June 26, 1995 (P. L. 79, No. 16) (Act 16 of 1995)).

Finally, several changes proposed in this rulemaking are simply the result of the experience of carrying out the corrective action program in this Commonwealth over the past 7 years. As the program has matured, the Department and the regulated community have worked on overcoming obstacles and identifying opportunities for improving the operation of the corrective action program. Several of these proposed changes reflect that experience.

In addition to comment on the specific changes contained in this proposed rulemaking, the Department is interested in receiving comments on the entire CAP regulation. Therefore, the Department invites public comment on those portions of the CAP regulation that the Department is proposing to leave unchanged. The Department is specifically interested in comments that would further streamline the CAP regulation, provide for an even better interface with the Act 2 standards or would result in better quality report and plan submissions by responsible parties and more timely report and plan reviews by the Department.

This proposal was reviewed by the Storage Tank Advisory Committee (STAC) at its meetings on October 5, 1999, and February 1, 2000. The STAC, which was established by section 105 of the Storage Tank 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 Storage Tank Act, the STAC was given the opportunity to review and comment on these proposed amendments. The minutes of the October 1999 and February 2000 STAC meetings were presented to the Board along with this proposed rulemaking. A listing of the members of the STAC may be obtained from the contact persons listed in Section B of this Preamble.

E. Summary of Regulatory Requirements

A brief description of the rulemaking is as follows:

Subchapter A. General Provisions

1. Section 245.1. Definitions.

The proposal adds, modifies or deletes several definitions. Definitions for the terms "background," "cleanup or remediation," "contaminant," "property," "remediation standard" and "risk assessment" are proposed to be added as those terms are defined in either Act 2 or Chapter 250. Existing definitions for the terms "aquifer," "free product," "groundwater," "site" and "survey" are proposed to be modified to match the definitions for those terms in Act 2 or Chapter 250. The Department is proposing deletion of the term "groundwater degradation," as the term is no longer necessary after the passage of Act 2.

The definition of the term "reportable release" is proposed to be modified to match the Federal definition of the term in 40 CFR Part 280 (relating to technical standards and corrective action requirements for owners and operators of underground storage tanks (UST)), in accordance with the Department's RBI. Although there is no direct definition for the term in 40 CFR 280.12 (relating to definitions), the substance of the term is outlined in 40 CFR 280.53(a)(1) (relating to reporting and

cleanup of spills and overfills). The proposal replaces the hierarchical approach to spill or overfill amounts requiring reporting with a straight 25 gallon cutoff for petroleum releases and the CERCLA reportable quantity for hazardous substance releases. It should be noted that these amounts do not apply to underground releases, which must be reported regardless of the amount released.

Finally, the term "responsible party" is proposed to be revised in accordance with amendments made to the Storage Tank Act by Act 16 of 1995. Section 503(b) of the Storage Tank Act (35 P. S. § 6021.503(b)) originally held any person who filled an unregistered storage tank potentially liable for a release from that tank. Act 16 of 1995 amended this section by limiting this "delivery liability" to tanks that never held a valid registration in any previous year. Section 303(b) of the Storage Tank Act (35 P. S. § 6021.303(b)) contains a similar provision regarding "delivery liability" for filling aboveground tanks that do not possess a current valid registration; that section was not amended by Act 16 of 1995.

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

1. Section 245.304. Investigation of suspected releases.

The proposal amends subsection (c) to clarify that corrective action must be initiated in addition to "reporting" a reportable release once a release is confirmed.

2. Section 245.305. Reporting releases.

Currently, subsection (a) requires the owner or operator to verbally notify the Department of a reportable release within 2 hours. In 40 CFR 280.50 (relating to reporting of suspected release), the Federal regulation allows 24 hours to notify, but requires reporting of both suspected and confirmed releases. This subsection is proposed to be modified to conform to the Federal requirement for timely reporting of releases and allows owners and operators 24 hours to verbally notify the Department of reportable releases. It should be noted that the requirement to immediately initiate interim remedial action under § 245.306(a) is not affected by this reporting time frame change.

3. Section 245.306. Interim remedial actions.

Act 16 of 1995 amended the Storage Tank Act to add the requirement that the Department develop regulations regarding the proper handling of soil and subsurface material affected by a release. The proposal amends this section to reflect those statutory amendments.

First, section 501(a)(13) of the Storage Tank Act requires the minimization of the amount of soil and subsurface material affected by a release by segregating the unaffected soil and subsurface material during removal of an underground storage tank from the material affected by a release. The proposal adds this requirement to this section in subsection (b)(4).

Second, section 501(a)(15) of the Storage Tank Act requires that the person removing the material affected by a release provide to the responsible party a receipt documenting acceptance of the material at a permitted treatment or disposal facility. The proposal adds a new subsection (d) to reflect this requirement.

4. Section 245.309. Site characterization.

The Department is proposing changes to this section to bring storage tank site characterizations in line with the requirements of Act 2.

Subsection (b) outlines the objectives of a site characterization. Paragraph (5) is proposed to be added to have the responsible party determine more site-specific information during the site characterization for use in fate and transport analysis. The possibility of reliance on fate and transport analysis in demonstrating attainment of Act 2 standards necessitates this change.

This proposal also adds a paragraph (6) to indicate that the site characterization must provide sufficient information to allow selection of an Act 2 remediation standard.

Subsection (c) provides a list of potential tasks and activities which may be necessary to satisfy the site characterization objectives. The Department is proposing the following amendments to subsection (c):

a. Paragraphs (5) and (6) involve identifying affected populations and sensitive environmental receptors and populations and sensitive environmental receptors with the potential to be affected. Some examples are provided. The proposal replaces these two activities with the single activity in paragraph (5) of "determining the location of the ecological receptors identified in § 250.311(a)" of the Act 2 regulations. Only direct impacts to the four specific receptors listed in § 250.311(a) need to be assessed and addressed.

b. Adding a new paragraph (11) to provide for a demonstration that groundwater is not used or currently planned to be used. This activity is necessary when the remediator intends to use the Act 2 nonuse aquifer Statewide health standard.

c. Paragraph (15) currently requires the remediator to identify and apply appropriate groundwater modeling methodologies to characterize the site. The proposal rephrases this activity as "developing a conceptual site model that describes the sources of contamination, fate and transport of contaminants and potential receptors" in order to be more consistent with the terms used in Act 2. Use and discussion of groundwater models comes later in the corrective action process.

d. Revising paragraph (18) to indicate that a site must be remediated as opposed to completely recovering or removing the regulated substance which was released.

e. Adding two new activities: first, paragraph (20), "selection of a remediation standard"; and, second, paragraph (21), "if the site-specific standard is selected, performance of a risk assessment in accordance with §§ 250.601—250.606." These additions are necessary to bring the CAP regulation site characterization requirements in line with Act 2.

5. Section 245.310. Site characterization report.

The Department is proposing changes to this section to bring storage tank site characterization reports into line with the requirements of Act 2.

Subsection (a) provides a list of potential elements for an acceptable site characterization report. The Department is proposing the following changes to subsection (a):

1. Amending subsection (a)(4)(v)(C) to implement the requirements of Act 16 of 1995. This proposal mirrors the requirement proposed to be added to § 245.306(d).

2. Subsection (a)(4)(v)(F) is required to demonstrate attainment; however, the Department is proposing to delete this subsection and address this requirement under § 245.310(b).

3. Moving and rewriting paragraphs (11) and (12). The impacts to ecological receptors and surface water are to be reported in new paragraphs (28) and (29), respectively.

4. Revising paragraph (23) to read "A conceptual site model describing the sources of contamination, fate and transport of contaminants and potential receptors."

5. Adding a new paragraph (26) to establish that the site characterization report should identify the Act 2 remediation standard that has been chosen.

6. Adding a new paragraph (27) to include the Department's written determination under § 250.303 (relating to aquifer determination; current use and currently planned use of aquifer groundwater) that groundwater is not used or currently planned to be used. This should be included in the report when the nonuse aquifer standards are being utilized under the Act 2 Statewide health standard.

7. Deleting existing paragraph (28). The Department believes that the discussion of the remedial action options selected is sufficient (paragraph (30)). A new paragraph (28) is proposed to be added to identify the impacts to ecological receptors as a result of the receptor evaluation conducted in accordance with § 250.311 or § 250.402(d) (relating to evaluation of ecological receptors; and human health and environmental protection goals).

8. Adding a new paragraph (29) to identify the impacts to surface water as a result of the evaluation conducted in accordance with § 250.309 or § 250.406 (relating to medium specific concentrations for surface water; and relationship to surface water quality requirements).

9. Revising paragraph (30) to indicate that a site shall be remediated as opposed to completely recovering or removing the regulated substance which was released.

10. Adding a new paragraph (31) to include a risk assessment report in accordance with § 250.409 (relating to risk assessment report).

11. Adding a new paragraph (32) to require demonstration that no current or future exposure pathways exist.

Subsection (b) affords the responsible party the opportunity to submit a site characterization report as the "final report," when soil is the only media of concern and all contaminated soil has been excavated as an interim remedial action. Further, this subsection is intended to allow a "closure report" to serve as the final report in localized contamination situations. This § 245.310(b) report is intended to be applicable only for use with the Act 2 Statewide health standard. With this rationale in mind, the Department is proposing the following revisions to subsection (b):

1. Amending subsection (b) to clarify that this report is not appropriate where groundwater is a medium of concern, and to indicate that a site shall be remediated as opposed to completely recovering or removing the regulated substance which was released.

2. With respect to the items for inclusion in the report, revising paragraph (2) to indicate that data demonstrating attainment with the Statewide health standard should be provided in accordance with Chapter 250, Subchapter G (relating to demonstration of attainment).

3. Adding paragraph (3) to require explanation of the basis for selecting residential or nonresidential Statewide health standards.

4. Adding paragraph (4) to require reporting the results of the evaluation of ecological receptors.

Subsection (c) describes the potential actions of the Department upon submission of a site characterization report. The proposal revises paragraph (5) to indicate that

the Department may review and approve the "limited" site characterization report under subsection (b).

The proposal deletes subsection (d). Under Act 2 and Chapter 250, a responsible party is entitled to choose the remediation standard it will use when remediating a release from a storage tank.

6. *Section 245.311. Remedial action plan.*

Subsection (a) describes the requirements for submission of a remedial action plan and provides a list of potential elements for the remedial action plan. The Department is proposing the following revisions to subsection (a):

a. Revising paragraph (4) to provide for a discussion of how the remedial action will attain the selected remediation standard for the site (as opposed to how the remedial action will completely recover or remove the regulated substance which was released).

b. Adding a new paragraph (5) to provide for the results of treatability, bench scale or pilot scale studies or other data collected to support the remedial action.

c. Revising paragraph (11) to provide for a description of the methodology that will be utilized to demonstrate attainment of the selected remediation standard (as opposed to the methodology that will be utilized to completely recover or remove the regulated substance which was released).

d. Adding a new paragraph (12) to provide for a description of any proposed postremediation care that may be required.

The proposal deletes subsection (b). Under Act 2 and Chapter 250, a responsible party is entitled to choose the remediation standard it will use when remediating a release from a storage tank.

A new subsection (c) is proposed to be added to indicate that when the Act 2 site-specific standard is chosen, a remedial action plan is not required and no cleanup is required to be proposed or completed if no current or future exposure pathways exist.

7. *Section 245.312. Remedial action.*

The proposal revises subsection (c) to indicate that remedial action progress reports are to show the progress toward attainment of the selected remediation standard (as opposed to cleanup levels established by the Department). A new paragraph (6) is proposed to be added to require specific information to be provided for fate and transport analyses.

The proposal revises subsection (e), which sets forth the process for terminating a remedial action plan if the responsible party feels the selected remediation standard (as opposed to the cleanup levels established by the Department) will not be achieved.

Subsection (e)(1) is proposed to be deleted, as it no longer applies. Subsection (e)(1) was an option under the defunct Groundwater Quality Protection Strategy and allowed a remedial action completion report to be submitted where the cleanup levels would not be achieved.

The proposal makes two modifications to subsection (e)(2). The first is to require the responsible party to request and receive Department approval prior to termination of its approved remedial action plan. The second is to clarify that the new or modified remedial action plan is to include selection of a new remediation standard.

Subsection (f) establishes the process for suspending remedial action if continued implementation of the reme-

dial action plan will cause additional environmental harm. The proposal revises this subsection to require Departmental approval to cease the remedial action and require selection of a new remediation standard.

Subsection (f)(1), which allowed for submission of a remedial action completion report, is proposed to be deleted since it was an option under the defunct Groundwater Quality Protection Strategy.

Subsection (f)(2), which currently requires submission of a new or modified remedial action plan, is proposed to be modified to require Department approval of the suspension and further requires that the new or modified remedial action plan include selection of a new remediation standard.

As originally adopted in 1993, subsection (g) required that when groundwater contamination occurred and the level of cleanup had been achieved, that groundwater be sampled quarterly for 1 year to demonstrate "attainment." Since this is an "attainment" requirement and has been superseded by the attainment requirements of the Act 2 remediation standards, this subsection is proposed to be deleted. The attainment requirements are now addressed in §§ 245.310(b) and 245.313(b).

Subsection (h) is related to and follows the requirements of subsection (g). Therefore, the Department is also proposing to delete this subsection.

8. *Section 245.313. Remedial action completion report.*

Subsection (a) provided for the submission of a remedial action completion report upon achieving the level of cleanup established by the remedial action plan and indicated that the report must demonstrate that the remedial goals have been achieved. This subsection is still appropriate, but is proposed to be revised to delete the terms "level of cleanup" and "remedial goals." These terms have been replaced with "selected remediation standard," in accordance with Act 2.

The proposal deletes the existing subsection (b) since it no longer applies. Subsection (b) was an option under the defunct Groundwater Quality Protection Strategy and allowed a remedial action completion report to be submitted where the cleanup levels were not achieved. The subsection is proposed to be replaced with the required contents of the remedial action completion report, including references to the specific and relevant attainment demonstration sections from Chapter 250 that must be addressed depending on which of the Act 2 remediation standards was used by the remediator. In addition, since heavy reliance may be placed on fate and transport analyses in demonstrating attainment of Act 2 standards, specific requirements are proposed to be added for including this information in a completion report.

Subsection (c) describes the potential actions of the Department upon submission of a remedial action completion report. Paragraph (5) is proposed to be deleted since it does not result in a final remedial action determination by the Department. The Department will review and approve or disapprove all remedial action completion reports, providing final resolution to storage tank remedial actions.

9. *Section 245.314. Professional seals.*

This section is proposed to be added to require report submittals to be sealed by appropriate registered professionals where the practice of geology or engineering is performed. This requirement is in accordance with the Engineer, Land Surveyor and Geologist Registration Law (63 P. S. §§ 148—158.2).

Subchapter E. Technical Standards for Underground Storage Tanks

1. *Section 245.444. Methods of release detection for tanks.*

Section 245.444(8) provides procedures and reporting requirements for conducting leak detection on underground storage tanks using the Statistical Inventory Reconciliation (SIR) method. Section 245.444(8)(ii)(A) currently requires final reports from SIR vendors to be available within 7 days of the end of the monitoring period. The regulated community and SIR vendors have expressed difficulties with thoroughly processing SIR data and providing reports within this 7 day period. Operation of these rules since their adoption in October 1997 has shown that this reporting requirement simply does not allow enough time to complete the necessary SIR analysis and return the report. In addition, other states that have established reporting time periods for SIR have set this reporting requirement at 20 days. This proposal changes the reporting requirement to 20 days, which should be achievable in this Commonwealth and is in line with those other states' regulations.

F. *Benefits, Costs and Compliance*

Executive Order 1996-1 requires a cost/benefit analysis of the proposed rulemaking.

Benefits

This proposed rulemaking is primarily intended to harmonize the requirements of the CAP regulation and the requirements of Act 2 and the Chapter 250 regulations. By making these changes, the Department hopes to reduce confusion faced by responsible parties for releases from regulated storage tanks regarding what requirements they need to meet. By making the changes necessary to have the CAP regulation reflect the most recent statutory amendments affecting storage tanks, owners and operators of storage tanks can be confident that the requirements outlined in Chapter 245 represent a comprehensive overview of their responsibilities for corrective action should a release occur. Finally, the citizens of this Commonwealth should benefit through quicker and more efficient remediations occurring, along with the reuse of contaminated sites under the Act 2 program.

With the proposed deletion of § 245.313(c)(5), responsible parties are guaranteed a final result, either approval or disapproval, from the Department regarding remedial action completion reports.

By extending the time allowed for preparing SIR reports under Subchapter E's release detection rules, this proposal should allow for sufficient time for proper reports to be generated when tank owners use this leak detection method.

An alternative approach might be to delete Subchapter D entirely, and simply have storage tank cleanups proceed under Act 2 and Chapter 250's procedures. Given the requirements of section 904(c) of Act 2 (35 P. S. § 6026.904(c)), the Department felt that the General Assembly recognized that the procedures established for corrective actions under the Storage Tank Act were working, and so should be preserved. Therefore, this proposal only represents the modifications needed to integrate the programs.

Compliance Costs

Persons responsible for corrective actions under the Storage Tank Act should see no net increases in compliance costs as a result of this rulemaking. Generally speaking, all requirements in this proposal to amend the

CAP regulation are already in place through statutory amendment (such as Act 2 of 1995, Act 16 of 1995, the Engineer, Land Surveyor and Geologist Registration Law) or regulations which are already in effect (such as Chapter 250). The Department does not anticipate any additional costs to the Commonwealth as a result of this proposal.

Compliance Assistance Plan

The Department currently operates a fairly extensive program of outreach activities designed to assist owners and operators of storage tanks and other potentially responsible parties. This program includes the *Storage Tank Monitor*, a biannual newsletter; a series of detailed fact sheets that focus on single issues in the program (such as release reporting) and seminars and training sessions presented by both central and regional office training teams on a variety of issues. The Department has also prepared a number of detailed guidance documents on specific topics to assist both program staff and regulated persons in understanding and meeting the requirements of the Storage Tank Act and Chapter 245. Department personnel regularly present and participate in program seminars jointly with the regulated community and the Underground Storage Tank Indemnification Fund (USTIF) and consult with the STAC on regulatory, policy and program development. As with any new or amended regulations, the Department will make every effort to inform the regulated community and the general public about the new requirements.

The costs of corrective actions for most releases from underground storage tanks should be covered by the USTIF created by Chapter 7 of the Storage Tank Act (35 P. S. §§ 6021.701—6021.712) and administered by the Insurance Department. The Department does have a limited amount of funding under section 710(b.1) of the Storage Tank Act (35 P. S. § 6021.710(b.1)) for special environmental cleanup projects. This money is limited to use in carrying out remedial actions at sites where owners of underground storage tanks are not eligible for USTIF coverage, for remediation not completed due to financial hardship and for owners of retail gasoline facilities or commercial distribution centers that are no longer in business. Corrective actions at storage tank sites may also be eligible for funding under the programs established by Acts 2 and 4 of 1995.

Paperwork Requirements

This proposed rulemaking does not require responsible parties for storage tank releases to prepare any reports not already required by statute or regulation. One area where paperwork required to be submitted to the Department should decrease is in release reports. By following the Federal standard in 40 CFR 280.53, fewer release reports will be submitted to the Department, reducing the paperwork burden on the regulated community.

G. *Pollution Prevention*

"Pollution prevention (P2)" is defined as measures taken to avoid or reduce generation of all types of waste—solid/hazardous waste, wastewater discharges and air emissions—at their points of origin. It does not include activities undertaken to treat, control or dispose of pollution once it is created, such as end-of-the-stack or pipe control equipment or procedures. Because the CAP regulation only becomes applicable after a release of regulated substances occurs from a regulated storage tank, it does not generally provide P2 opportunities. It should be noted, however, that this regulation was designed to be flexible, rather than prescriptive, with the

goal of having cleanups completed more quickly, thus minimizing the polluting impacts of a release. In addition, the proposal in § 245.306(b)(4) regarding segregation of soils should help to reduce the volume of contaminated soils at storage tank remediation sites.

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 July 11, 2000, the Department submitted a copy of these proposed amendments to the Independent Regulatory Review Commission (IRRC) and the Chairpersons of the House and Senate Environmental Resources and Energy Committees. In addition to submitting the proposed amendments, the Department has provided IRRC and the Committees with a copy of a detailed regulatory analysis form prepared by the Department in compliance with Executive Order 1996-1, "Regulatory Review and Promulgation." A copy of this material is available to the public upon request.

Under section 5(g) of the Regulatory Review Act, if IRRC has objections to any portion of the proposed amendments, it will notify the Department within 10 days of the close of the Committees' review period. The notification shall specify the regulatory review criteria which have not been met by that portion of the proposed amendments to which an objection is made. The Regulatory Review Act specifies detailed procedures for review, prior to final publication of the amendments, by the Department, the General Assembly and the Governor of objections raised.

J. *Public Comments*

Written Comments—Interested persons are invited to submit comments, suggestions or objections regarding the proposed amendments to the Environmental Quality Board, P. O. Box 8477, Harrisburg, PA 17105-8477 (express mail: Rachel Carson State Office Building, 15th Floor, 400 Market Street, Harrisburg, PA 17101-2301). Comments submitted by facsimile will not be accepted. Comments, suggestions or objections must be received by the Board by September 27, 2000 (within 60 days of publication in the *Pennsylvania Bulletin*). Interested persons may also submit a summary of their comments to the Board. The summary may not exceed one page in length and must also be received by September 27, 2000 (within 60 days following publication in the *Pennsylvania Bulletin*). The one-page summary will be provided to each member of the Board in the agenda packet distributed prior to the meeting at which the final rulemaking will be considered.

Electronic Comments—Comments may be submitted electronically to the Board at RegComments@dep.state.pa.us and must also be received by the Board by September 27, 2000. A subject heading of the proposal and a return name and address must be included in each transmission. If an acknowledgment of electronic comments is not received by the sender within 2 working days, the comments should be retransmitted to ensure receipt.

JAMES M. SEIF,
Chairperson

Fiscal Note: 7-355. No fiscal impact; (8) recommends adoption.

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:

* * * * *

Aquifer—A geologic formation, group of formations or part of a formation capable of [yielding sufficient groundwater for monitoring purposes] a sustainable yield of significant amount of water to a well or spring.

Background—The concentration of a regulated substance determined by appropriate statistical methods that is present at the site, but is not related to the release of regulated substance at the site.

* * * * *

Cleanup or remediation—To clean up, mitigate, correct, abate, minimize, eliminate, control or prevent a release of a regulated substance into the environment to protect the present or future public health, safety, welfare or the environment, including preliminary actions to study or assess the release.

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Contaminant—A regulated substance released into the environment.

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Free product—A regulated substance that is present as a [nonaqueous] separate phase liquid; that is, liquid not dissolved in water.

* * * * *

Groundwater—Water [beneath] below the land surface [of the ground that exists] in a zone of saturation.

[Groundwater degradation—A measurable increase in the concentration of one or more contaminants in groundwater above background levels for those contaminants.]

* * * * *

Property—A parcel of land defined by the metes and bounds set forth in the deed for that land.

* * * * *

Remediation standard—The background, State-wide health or site-specific standard, or any combination thereof, as provided for in the Land Recy-

cling and Environmental Remediation Standards Act (35 P. S. §§ 6026.101—6026.909).

* * * * *

Reportable release—A quantity or an unknown quantity of regulated substance released to or posing an immediate threat to surface water, groundwater, bedrock, soil or sediment. The term does not include the following, if the owner or operator has control over the release, the release is completely contained and, within 24 hours of the release, the total volume of the release is recovered or removed in the corrective action:

(i) A release to the interstitial space of a double-walled aboveground or underground storage tank.

(ii) [A release of less than 25 gallons to a containment area, structure or facility around an aboveground storage tank.

(iii) A release of less than 5 gallons to a synthetic surface, such as asphalt or concrete, which prevents migration of the regulated substance to surface water, groundwater, bedrock, soil or sediment.

(iv) A release of less than 1 gallon to surface soils.]

A release of petroleum to the surface of the ground that is less than 25 gallons.

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

* * * * *

Responsible party—A person who is responsible or liable for corrective action under the act. The term includes: the owner or operator of a storage tank; the landowner or occupier; [and] a person who on or after August 5, 1990, knowingly sold, distributed, deposited or filled an [unregistered] underground storage tank regulated by the act which never held a valid registration, with a regulated substance[,] ; and a person who on or after August 5, 1990, knowingly sold, distributed, deposited or filled an unregistered aboveground storage tank regulated by the act, with a regulated substance, prior to the discovery of the release.

Risk assessment—A process to quantify the risk posed by exposure of a human or ecological receptor to regulated substances. The term includes baseline risk assessment, development of site-specific standards and risk assessment of the remedial alternatives.

* * * * *

Site—For purposes of § 245.303(c) and (d) (relating to general requirements), the term means the [tract of land] property which includes the storage tank facility. For other purposes, the term means the [area of surface and subsurface land or water that has been affected by a release of regulated substances] extent of contamination originating within the property boundaries and all areas in close proximity to the contamination necessary for the implementation of remedial activities to be conducted.

* * * * *

Survey—For purposes of § 245.303(d) (relating to general requirements), the term means a study at a sufficient level of detail to establish [baseline levels] background for surface water, groundwater, soil and sediment prior to the use of a storage tank facility.

* * * * *

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

§ 245.304. Investigation of suspected releases.

* * * * *

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

* * * * *

§ 245.305. Reporting releases.

(a) The owner or operator of storage tanks and storage tank facilities shall notify the appropriate regional office of the Department as soon as practicable, but no later than [2] 24 hours, after the confirmation of a reportable release.

* * * * *

§ 245.306. Interim remedial actions.

* * * * *

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

* * * * *

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

* * * * *

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

§ 245.309. Site characterization.

* * * * *

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

* * * * *

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

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

(7) Provide sufficient information to define and assess the relative merits of the remedial action options.

[(6)] (8) Provide sufficient information to allow for completion of a remedial action plan or a design for remedial action.

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

* * * * *

(5) [Identifying affected populations and populations with the potential to be affected including humans, fish and wildlife, plants, aquatic life and threatened or endangered species] Determining the location of the ecological receptors identified in § 250.311(a) (relating to evaluation of ecological receptors).

(6) [Identifying affected sensitive environmental receptors and sensitive environmental receptors with the potential to be affected, including groundwater recharge areas for water supplies, wetlands and special protection watersheds designated under Chapter 93 (relating to water quality standards)].

(7)] A review of the site history.

[(8)] (7) * * *

[(9)] (8) * * *

[(10)] (9) * * *

[(11)] (10) * * *

* * * * *

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

* * * * *

(15) [Identifying and applying appropriate groundwater modeling methodologies to characterize the site] Developing a conceptual site model that describes the sources of contamination, fate and transport of contaminants and potential receptors.

* * * * *

(18) Identification, screening, evaluation and selection of available remedial action options to [remove or eliminate the pollution or contamination resulting from a release of regulated substances, prevent groundwater degradation and restore any groundwater affected by the release] remediate the site.

* * * * *

(20) Selection of a remediation standard.

(21) If the site-specific standard is selected, performance of a risk assessment in accordance with §§ 250.601—250.606 (relating to exposure and risk determinations).

(22) Recommendation of preferred remedial action options.

[(21)] (23) * * *

[(22)] (24) * * *

[(23)] (25) * * *

§ 245.310. Site characterization report.

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

* * * * *

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

* * * * *

(v) Where excavation of contaminated soil is performed:

* * * * *

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

* * * * *

(F) [A demonstration, with supporting documentation, that contaminated soil has been excavated and that Department remedial goals have been achieved.

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

* * * * *

(11) [The location and description of affected populations and populations with the potential to be affected, including humans, fish and wildlife, plants, aquatic life and threatened or endangered species.

(12) The location and description of affected sensitive environmental receptors and sensitive environmental receptors with the potential to be affected, including groundwater recharge areas for water supplies, wetlands and special protection watersheds designated under Chapter 93 (relating to water quality standards).

(13)] A description of further site characterization work needed.

[(14)] (12) * * *

[(15)] (13) * * *

[(16)] (14) * * *

[(17)] (15) * * *

[(18)] (16) * * *

[(19)] (17) * * *

[(20)] (18) * * *

[(21)] (19) * * *

[(22)] (20) * * *

[(23)] (21) * * *

[(24)] (22) * * *

[(25)] (23) [The results of groundwater modeling performed] A conceptual site model describing the sources of contamination, fate and transport of contaminants and potential receptors.

[(26)] (24) * * *

[(27)] (25) * * *

* * * * *

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

(27) The Department's written determination that groundwater is not used or currently planned to be used.

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

[(28) A description of each remedial action option considered and the process used to select the remedial actions identified in paragraph (29).]

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

[(29)] (30) A discussion of the remedial action options selected to [:] remediate the site.

[(i) Remove or eliminate pollution or contamination resulting from a release.

(ii) Prevent groundwater degradation.

(iii) Restore groundwater affected by the release.]

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

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

[(30)] (33) * * *

[(31)] (34) * * *

(b) If the responsible party determines, after completion of interim remedial actions, that further site characterization is not required, that groundwater is not a media of concern, and that interim remedial actions have [removed or eliminated the pollution or contamination resulting from the release, prevented groundwater degradation and restored groundwater affected by the release,] remediated the site, the responsible party [shall] may submit a site characterization report to the Department which contains the following:

* * * * *

(2) [A demonstration] Data demonstrating that the interim remedial actions have [removed or eliminated the pollution or contamination resulting

from the release, prevented groundwater degradation and restored groundwater affected by the release] attained the Statewide health standard for the site in accordance with Chapter 250, Subchapter G (relating to demonstration of attainment).

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

(4) The results of the evaluation of ecological receptors.

[(3)] (5) * * *

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

* * * * *

(5) Review and approve the site characterization report submitted under subsection (b), and waive the requirement to complete a remedial action plan in accordance with § 245.311 (relating to remedial action plan).

* * * * *

[(d) During the Department's review of the site characterization report, the Department will determine that the level of cleanup identified in the site characterization report or as performed by the responsible party as an interim remedial action will remove or eliminate the pollution or contamination resulting from the release, prevent groundwater degradation and restore groundwater affected by the release. Under subsection (c), the Department retains the authority to establish the specific level of cleanup necessary to remove or eliminate the pollution or contamination resulting from the release, prevent groundwater degradation and restore groundwater affected by the release; to modify or approve the site characterization report, disapprove the site characterization report or to take other action which is necessary.]

§ 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) 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 shall be complete and concisely organized and shall contain the following elements, as necessary, based on the nature, extent, type, volume or complexity of the release:

* * * * *

(4) A discussion of how the remedial action will [remove or eliminate the pollution or contamination resulting from the release, prevent groundwater degradation and restore groundwater affected by the release] attain the selected remediation standard for the site.

(5) The results of treatability, bench scale or pilot scale studies or other data collected to support the remedial action.

(6) Design and construction details for the remedial action, including expected effectiveness.

[(6)] (7) * * *
* * * * *

[(7)] (8) * * *

[(8)] (9) * * *

[(9)] (10) * * *

[(10)] (11) A description of the methodology that will be utilized to [verify that the pollution or contamination resulting from the release has been removed or eliminated, that groundwater degradation has been prevented and that groundwater affected by the release has been restored] demonstrate attainment of the selected remediation standard.

(12) A description of proposed postremediation care requirements.

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

(b) [The Department will establish the level of cleanup necessary to remove or eliminate pollution or contamination resulting from the release, prevent groundwater degradation and restore groundwater affected by the release, which shall become part of the remedial action plan.

(c) [Following submission of a complete remedial action plan, the Department may do one or more of the following:

* * * * *

(c) A remedial action plan is not required and no remedy is required if the site-specific standard is chosen and no current or future exposure pathways exist.

§ 245.312. Remedial action.

* * * * *

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

* * * * *

(6) For fate and transport analyses, the following information, in addition to that required by § 250.204(f)(5) (relating to form of application):

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

(ii) Sufficient information from monitoring data to establish whether the plume is stable, shrinking or expanding.

(iii) Input parameters for the analysis and the rationale for their selection.

(iv) Figures showing the orientation of the model or analysis to the field data.

(v) Comparison and analysis of the model or mathematical output to the actual field data.

(7) Reporting period and cumulative amounts of free product recovered, groundwater treated, and soil and sediment treated or disposed.

[(7)] (8) * * *

[(8)] (9) * * *

[(9)] (10) * * *

* * * * *

(e) If during implementation of the remedial action plan the responsible party determines that continued implementation of the remedial action plan will not achieve the [cleanup levels established in the remedial action plan] selected remediation standard, the responsible party [may do one of the following:] shall

[(1) Submit a remedial action completion report in accordance with § 245.313(b) (relating to remedial action completion report).

(2) Notify] write to the Department [in writing that they intend] requesting to terminate the remedial action plan[, and]. Upon Department approval, the responsible party shall prepare and submit, to the Department, a new or modified remedial action plan, to include selection of the new remediation standard, in accordance with § 245.311 (relating to remedial action plan).

(f) If during implementation of the remedial action plan the responsible party determines that continued implementation of the remedial action plan will cause additional environmental harm, the responsible party [may do one of the following:] shall

[(1) Submit a remedial action completion report in accordance with § 245.313(b).

(2) Suspend] suspend remedial action[,] and notify the Department, by telephone, within 24 hours[, and]. Upon Department approval, the responsible party shall prepare and submit a new or modified remedial action plan, to include selection of the new remediation standard, to the Department in accordance with § 245.311.

[(g) Where groundwater degradation has occurred and the level of cleanup established in the remedial action plan has been achieved, designated monitoring wells shall be sampled quarterly for 1 year for the contaminants which were identified at the site. During the conduct of groundwater monitoring, groundwater monitoring reports shall be submitted to the Department quarterly and shall contain the following information:

(1) The location of monitoring wells.

(2) Quantitative analytical results from groundwater sampling.

(h) If the quantitative analytical results from groundwater sampling according to subsection (g) indicate that the level of cleanup established in the remedial action plan has not been achieved, the responsible party shall resample the wells 30 days after the initial exceeding level was obtained. If these additional analyses confirm the initial result, the responsible party shall perform additional site characterization or remedial action, as necessary.]

§ 245.313. Remedial action completion report.

(a) When the [level of cleanup established in the remedial action plan] selected remediation stan-

ard has been [achieved, and following required groundwater monitoring] attained, the responsible party shall submit a remedial action completion report to the Department. [The remedial action completion report shall demonstrate, with supporting documentation, that these remedial goals have been achieved.]

(b) [When the level of cleanup established in the remedial action plan has not been achieved, the responsible party may submit a remedial action completion report to the Department. The remedial action completion report shall demonstrate, with supporting documentation, that remediation as close to the level of cleanup established in the remedial action plan as possible has been achieved, and that further remediation is not feasible or will cause additional environmental harm. The report may also contain a description of site-specific measures which have been or will be taken to assure that human health and the environment are protected. When groundwater monitoring is implemented or when other site-specific measures are taken, the responsible party may be required to submit periodic reports to the Department to assure that human health and the environment are being protected.] The remedial action completion report shall be complete and concisely organized and shall contain the following elements, as necessary, based on the remediation standard attained:

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

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

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

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

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

(ii) Sufficient information from monitoring data to establish whether the plume is stable, shrinking or expanding.

(iii) Input parameters for the analysis and the rationale for their selection.

(iv) Figures showing the orientation of the model or analysis to the field data.

(v) Comparison and analysis of the model or mathematical output to the actual field data.

(c) Following submission of the remedial action completion report, the Department may do one or more of the following:

* * * * *

[(5) Accept the remedial action completion report and take other action which is necessary based on the circumstances of the release.]

§ 245.314. Professional seals.

Reports submitted to satisfy this subchapter containing information or analysis that constitutes professional geologic or engineering work as defined by the Engineer, Land Surveyor and Geologist Registration Law (63 P. S. §§ 148—158.2) shall be sealed by a professional geologist or engineer who has complied with the requirements of that statute.

Subchapter E. TECHNICAL STANDARDS FOR UNDERGROUND STORAGE TANKS

RELEASE DETECTION

§ 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:

* * * * *

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

* * * * *

(ii) A separate report for each tank monitored shall be maintained by the owner/operator in accordance with § 245.446(2) (relating to release detection recordkeeping). Each report shall meet the following requirements:

(A) Owners and operators shall have reports available within [7] 20 days of the end of the monitoring period.

* * * * *

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