

Regulatory Analysis Form

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(1) Agency

Department of Environmental Protection

(2) I.D. Number (Governor's Office Use)

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REVIEW COMPLETED

IRRC Number: 2132

(3) Short Title

Storage Tank Program - Integration of Act 2 Provisions

(4) PA Code Cite

25 Pa.Code Chapter 245

(5) Agency Contacts & Telephone Numbers

Primary Contact: Sharon Trostle, 783-1303

Secondary Contact: Barbara Sexton, 783-1303

(6) Type of Rulemaking (Check One)

Proposed Rulemaking

Final Order Adopting Regulation

Final Order, Proposed Rulemaking Omitted

(7) Is a 120-Day Emergency Certification Attached?

No

Yes: By the Attorney General

Yes: By the Governor

(8) Briefly explain the regulation in clear and nontechnical language.

This final 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 regulation is commonly known as the Corrective Action Process regulation (CAP regulation). The CAP regulation was originally adopted on August 21, 1993 (23 Pa.B. 4033). This final rulemaking contains changes necessary to update the CAP regulation because of several developments since its original adoption in 1993. This regulation also adds, modifies or deletes several definitions and makes a minor technical change in Subchapter E (relating to technical standards for underground storage tanks).

(9) State the statutory authority for the regulation and any relevant state or federal court decisions.

The final 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 Environmental Quality Board (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), 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 (35 P.S. §§ 6021.301(a)(6), 6021.501(a)(6)), 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; sections 501(a)(2)-(3) of the Storage Tank Act, (35 P.S. § 6021.501(a)(2)-(3)), which direct the Department to adopt regulations concerning release detection system operation and recordkeeping for underground storage tanks; sections 501(a)(13)-(15) of the Storage Tank Act (35 P.S. § 6021.501(a)(13)-(15)), which direct 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.

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- (10) Is the regulation mandated by any federal or state law or court order, or federal regulation? If yes, cite the specific law, case or regulation, and any deadlines for action.

As noted in (9), above, several sections of the Storage Tank Act direct the Department and the Board to adopt regulations and implement a program concerning corrective action in response to releases from regulated storage tanks. These sections do not require action by any specific date.

There is a companion federal regulation relating to underground storage tanks at 40 CFR Part 280. The Part 280 regulations also contain a corrective action component in Subparts E and F. The Department is currently seeking program approval from EPA to implement the underground storage tank program in Pennsylvania. The federal storage tank regulations governing state program approval are codified at 40 CFR Part 281. 40 CFR 281.34 (relating to release reporting, investigation and confirmation) and 281.35 (relating to release response and corrective action) require states seeking program approval to implement a program similar to the CAP regulation.

- (11) Explain the compelling public interest that justifies the regulation. What is the problem it addresses?

Releases of regulated substances have occurred from thousands of storage tanks in the 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 by which such releases can be reported and remediated to an Act 2 standard.

Four developments since the initial adoption of the CAP regulation in 1993 made adoption of this final rulemaking necessary: the passage of the Land Recycling and Environmental Remediation Standards Act (35 P.S. §§ 6026.101-6026.908) (Act 2) and adoption of accompanying regulations; amendments to the Storage Tank Act; the Department's review of this regulation pursuant to Executive Order 1996-1 and the Department's Regulatory Basics Initiative; and the experience gained by the Department and the regulated community in implementing the existing regulatory program.

- (12) State the public health, safety, environmental or general welfare risks associated with non-regulation.

As noted in (11), above, and reflected by the commands of the Storage Tank Act, releases from regulated storage tanks pose a substantial risk to public health and the environment. As noted in (9), above, the Storage Tank Act requires the Department and the Board to develop and implement regulations governing corrective actions at storage tank release sites.

- (13) Describe who will benefit from the regulation. (Quantify the benefits as completely as possible and approximate the number of people who will benefit.)

As of May 25, 2001, there were 28,743 underground storage tanks and 21,114 aboveground storage tanks registered with the Department and regulated under the Storage Tank Act. The provisions of this final rulemaking cover any releases or suspected releases from these storage tanks. Since the bulk of these amendments address legislative developments since 1993, the Department believes that this rulemaking will make it easier for those persons to comply, if only from the standpoint that the CAP regulation will reflect all current statutory requirements. The citizens of the Commonwealth should benefit through quicker and more efficient remediations occurring, along with the reuse of contaminated sites under the Act 2 program.

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- (14) Describe who will be adversely affected by the regulation. (Quantify the adverse effect as completely as possible and approximate the number of people who will be adversely affected.)

See the answer to (13). Since this rulemaking mainly reflects statutory changes that have occurred since 1993, and are therefore already in effect, the Department does not believe that this final rulemaking will have a quantifiable adverse impact.

- (15) List the persons, groups or entities that will be required to comply with the regulation. (Approximate the number of people who will be required to comply.)

As noted in the title of Subchapter D, this final rulemaking will affect those persons who are responsible parties for releases of regulated substances from underground and aboveground storage tanks. At the current time, over 50,000 regulated storage tanks are registered with the Department. Releases from any of those tanks are required to be addressed by responsible parties in the manner outlined by the CAP regulation process and must be remediated to meet Act 2 standards. Owners and operators of regulated storage tanks include a diverse range of persons such as: service station owners; heating oil distributors; commercial businesses; petroleum refineries; chemical manufacturers, distributors and users; Federal, state and local government entities; and individuals who use regulated storage tanks.

The number of people required to comply is directly related to the number of releases that occur each year from regulated storage tanks in the Commonwealth. The Department's database of reported releases under the Storage Tank Act contains over 13,000 reported releases. It is important to remember that not all releases need to be reported, although all releases must be contained and remediated. Therefore, the number of actual releases (as opposed to those required to be reported) is probably significantly higher.

- (16) Describe the communications with and input from the public in the development and drafting of the regulation. List the persons and/or groups who were involved, if applicable.

Comments received on the proposed rulemaking and draft final regulatory language were reviewed by the Storage Tank Advisory Committee (STAC) at its meetings on March 6, 2001 and reviewed by a subcommittee of STAC at its meetings on April 30, 2001 and May 11, 2001. 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, STAC has been given the opportunity to review and comment on these final amendments. The STAC has prepared a report indicating its full support of this final rulemaking, and the chair of the STAC will be invited to participate in the presentation of the regulation to the Board. A list of members of the STAC may be obtained from the agency contacts noted in (5), above.

- (17) Provide a specific estimate of the costs and/or savings to the regulated community associated with compliance, including any legal, accounting or consulting procedures which may be required.

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 final rulemaking to amend the CAP regulation are already in place through statutory amendment (e.g., Act 2 of 1995, Act 16 of 1995, the Pennsylvania Engineer, Land Surveyor and Geologist Registration Law) or regulations which are already in effect (e.g., 25 Pa. Code Chapter 250). For the same reason, this rulemaking is not expected to decrease costs of compliance to the regulated community. While the change to the definition of "reportable release" in § 245.1 will result in fewer releases being reported to the Department, this change should not decrease costs significantly since the reporting requirement is fairly basic and does not require much time or expense.

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(18) Provide a specific estimate of the costs and/or savings to local governments associated with compliance, including any legal, accounting or consulting procedures which may be required.

To the extent that local governments are responsible parties for corrective actions for releases from regulated storage tanks, see answer to (17), above.

The Department does not anticipate any increased costs or savings to local governments in their governmental capacity as a result of this rulemaking.

(19) Provide a specific estimate of the costs and/or savings to state government associated with the implementation of the regulation, including any legal, accounting or consulting procedures which may be required.

To the extent that state government entities are responsible parties for corrective actions for releases from regulated storage tanks, see answer to (17), above.

The Department does not anticipate any additional costs or savings to the Commonwealth in its governmental capacity during the implementation and administration of these regulatory amendments. While the final regulatory language includes a commitment on the part of the Department to review corrective action process reports and plans in a timely manner, it is believed that implementation of these provisions can be handled by existing regional office staff. However, it has been acknowledged that shifting of staff in some regional offices may need to occur for effective implementation.

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(20) In the table below, provide an estimate of the fiscal savings and cost associated with implementation and compliance for the regulated community, local government, and state government for the current year and five subsequent years.

	Current FY Year	FY +1 Year	FY +2 Year	FY +3 Year	FY +4 Year	FY +5 Year
SAVINGS:	\$	\$	\$	\$	\$	\$
Regulated Community						
Local Government						
State Government						
Total Savings						
COSTS:						
Regulated Community						
Local Government						
State Government						
Total Costs						
REVENUE LOSSES:						
Regulated Community						
Local Government						
State Government						
Total Revenue Losses						

(20a) Explain how the cost estimates listed above were derived.

As noted in (13)-(19) above, the Department does not anticipate any significant quantifiable net savings, costs or revenue losses as a result of this rulemaking.

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(20b) Provide the past three-year expenditure history for programs affected by the regulation.

Program	FY 97/98	FY 98/99	FY 99/00	Current FY
(1)	\$1,770	\$1,819	\$2,200	\$2,583
(2)		\$1,196	\$3,270	\$2,691

NOTES: Figures are in thousands of dollars. The figures for FY 97/98 through 99/00 are actual expenditures. The figures for the current FY are budgeted amounts. Row (1) represents expenditures by the Department to administer the storage tank cleanup program and includes Storage Tank Fund money as well as federal Leaking Underground Storage Tank Trust Fund money. Row (2) represents money made available to the Department as part of the Underground Storage Tank Cleanup Program created by section 710 of the Storage Tank Act (35 P.S. § 6021.710), to be used for the purposes outlined in sections 710(b)-(b.2) (35 P.S. §§ 6021.710(b)-(b.2)).

(21) Using the cost-benefit information provided above, explain how the benefits of the regulation outweigh the adverse effects and costs.

It does not appear that this rulemaking will result in a net benefit or cost to the regulated community. The Department believes that the primary benefit of these amendments will be to make it easier for persons responsible for releases from regulated storage tanks to understand what is required of them, if only from the standpoint that the CAP regulation will reflect all current statutory requirements.

(22) Describe the nonregulatory alternatives considered and the costs associated with those alternatives. Provide the reasons for their dismissal.

As noted in (9) and (13), above, the Storage Tank Act requires the Department and the Board to develop and implement regulations governing corrective actions at storage tank release sites. The CAP regulation process combined with the Act 2 standards provides a flexible and situation-specific approach to the remediation of releases of regulated substances from storage tanks.

(23) Describe alternative regulatory schemes considered and the costs associated with those schemes. Provide the reasons for their dismissal.

Since this is an existing regulation, the primary alternative was to do nothing and leave the CAP regulation unchanged in the Pennsylvania Code. The Department did not feel that this was fair to the regulated community and the public, since both groups should have a clear understanding of what is required to be done in response to a release from a regulated storage tank.

A second alternative would have been to adopt the corrective action process established under Act 2. 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 making 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 tanks. However, note that the final rule does include a commitment on the part of the Department to review corrective action process reports and plans within timeframes similar to those established under the Act 2 process.

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(24) Are there any provisions that are more stringent than federal standards? If yes, identify the specific provisions and the compelling Pennsylvania interest that demands stronger regulation.

Changes to the CAP regulation were identified by the Department as part of its review of all regulations under 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 at 40 CFR Part 280, the Department reviewed the CAP regulation for consistency with those provisions, along with the other factors identified in the RBI and the Executive Order. Several of the amendments in this final rulemaking package were identified during that review as areas where the Commonwealth's regulations were more stringent than federal standards.

(25) How does the regulation compare with those of other states? Will the regulation put Pennsylvania at a competitive disadvantage with other states?

This regulation is fairly consistent with other states' regulations governing corrective actions for releases from regulated storage tanks. The CAP regulation has been recognized as a flexible and descriptive (rather than prescriptive) approach to addressing such releases and, as such, was preserved by section 904(c) of Act 2 (35 P.S. § 6026.904(c)). By combining the CAP regulation procedures with the remediation standards established under Act 2, Pennsylvania might even be said to have a competitive advantage over other states.

(26) Will the regulation affect existing or proposed regulations of the promulgating agency or other state agencies? If yes, explain and provide specific citations.

This final rulemaking amends existing provisions of 25 Pa.Code Chapter 245. It is not intended to affect any other existing regulations of the Department or any other state agencies.

(27) Will any public hearings or informational meetings be scheduled? Please provide the dates, times, and locations, if available.

Given the non-controversial nature of these amendments, the Department did not hold any public hearings. Department staff would be available and willing to attend informational meetings on the final rulemaking if requested, but no such meetings are currently planned.

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- (28) Will the regulation change existing reporting, record keeping, or other paperwork requirements? Describe the changes and attach copies of forms or reports which will be required as a result of implementation, if available.

This final rulemaking does require responsible parties for storage tank releases to prepare and submit to the Department and any municipality affected a release notification report where new impacts to environmental media or water supplies, buildings, or sewers or other utility lines are discovered after the initial notification already required by regulation. This notification process is already familiar to responsible parties, will not be necessary in all cases and will not pose a significant additional burden. 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 under this regulation.

- (29) Please list any special provisions which have been developed to meet the particular needs of affected groups or persons including, but not limited to, minorities, elderly, small businesses, and farmers.

N/A

- (30) What is the anticipated effective date of the regulation; the date by which compliance with the regulation will be required; and the date by which any required permits, licenses or other approvals must be obtained?

The regulation will be effective upon publication in the *Pennsylvania Bulletin* as final rulemaking. It is anticipated that this will occur by year-end.

- (31) Provide the schedule for continual review of the regulation.

This regulation will be reviewed in accordance with the sunset review schedule published by the Department to determine whether the regulation effectively fulfills the goals for which it was intended.

**FACE SHEET
FOR FILING DOCUMENTS
WITH THE LEGISLATIVE REFERENCE BUREAU**
(Pursuant to Commonwealth Documents Law)

#2132

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Copy below is hereby approved as to
form and legality. Attorney General

(DEPUTY ATTORNEY GENERAL)

DATE OF APPROVAL

Check if applicable
Copy not approved. Objections
attached.

Copy below is hereby certified to be a true and correct copy
of a document issued, prescribed or promulgated by:

**DEPARTMENT OF ENVIRONMENTAL PROTECTION
ENVIRONMENTAL QUALITY BOARD**
(AGENCY)

DOCUMENT/FISCAL NOTE NO. #7-355

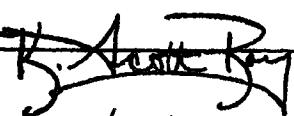
DATE OF ADOPTION: 9-18-01

BY: David E. Hess

TITLE: DAVID E. HESS, CHAIRMAN
(EXECUTIVE OFFICER, CHAIRMAN OR SECRETARY)

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9/20/01

DATE OF APPROVAL

(Deputy General Counsel)
(Chief Counsel, Independent Agency)
(Strike inapplicable title)

Check if applicable. No Attorney General approval or objection within 30 days after submission.

ORDER ADOPTING REGULATIONS

DEPARTMENT OF ENVIRONMENTAL PROTECTION
ENVIRONMENTAL QUALITY BOARD

Storage Tank Program - Integration of Act 2 Provisions

25 Pa. Code, Chapter 245

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.

* * * * *

Contaminant—A regulated substance released into the environment.

* * * * *

ENVIRONMENTAL MEDIA—SOIL, SEDIMENT, SURFACE WATER, GROUNDWATER, BEDROCK AND AIR

* * * * *

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.]

* * * * *

POTENTIAL TO BE AFFECTED--IN THE CONTEXT OF WATER SUPPLIES, A **WATER SUPPLY THAT, BY VIRTUE OF ITS LOCATION WITH RESPECT TO A RELEASE OF REGULATED SUBSTANCES, IS REASONABLY LIKELY TO BE IMPACTED BY THAT RELEASE, BASED ON AN EVALUATION OF THE KNOWN PHYSICAL AND HYDROGEOLOGIC ENVIRONMENT IN WHICH THE RELEASE**

**OCCURRED AND THE FATE AND TRANSPORT PROPERTIES OF THE
CONTAMINANTS RELEASED.**

* * * * *

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

* * * * *

**Remediation standard—The background, Statewide health or site-specific standard, or any
combination thereof, as provided for in the Land Recycling and Environmental
Remediation Standards Act (35 P. S. §§ 6026.101–6026.909).**

* * * * *

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] AN ABOVEGROUND surface [of the ground] that is less than 25 gallons.

(iii) A release of a hazardous substance to [the] AN ABOVEGROUND 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.

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

- (1) The presence of a regulated substance or an unusual level of vapors from a regulated substance of unknown origin, at a storage tank facility.
- (2) Evidence of a regulated substance or vapors in soils, basements, sewer lines, utility lines, surface water or groundwater in the surrounding area.
- (3) Unusual operating conditions, indicative of a release, such as the erratic behavior of product dispensing equipment.
- (4) The sudden or unexpected loss of a regulated substance from a storage tank, or the unexplained presence of water in a storage tank.

- (5) Test, sampling or monitoring results from a release detection method which indicate a release.
- (6) The discovery of holes in a storage tank during activities such as inspection, repair or removal from service.
- (7) Other events, conditions or results which may indicate a release.
 - (b) The investigation required by subsection (a) shall include a sufficient number of the procedures outlined in this subsection and be sufficiently detailed to confirm whether a release of a regulated substance has occurred. The owner or operator shall investigate the indication of a release by one or more of the following procedures:
 - (1) A check of product dispensing or other similar equipment.
 - (2) A check of release detection monitoring devices.
 - (3) A check of inventory records to detect discrepancies.
 - (4) A visual inspection of the storage tank or the area immediately surrounding the storage tank.
 - (5) Testing of the storage tank for tightness or structural soundness.
 - (6) Sampling and analysis of soil or groundwater.
 - (7) Other investigation procedures which may be necessary to determine whether a release of a regulated substance has occurred.
- (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**.

- (d) If the investigation confirms that a nonreportable release has occurred, the owner or operator shall take necessary corrective actions to completely recover or remove the regulated substance which was released.
- (e) If the investigation confirms that a release has not occurred, further investigation by the owner or operator is not required.

§ 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.
- (b) Upon the occurrence of a confirmed, nonreportable release, the owner or operator shall take necessary corrective actions to completely recover or remove the regulated substance which was released.
- (c) The notice required by subsection (a) shall be by telephone and describe, to the extent of information available, the regulated substance involved, the quantity of the regulated substance involved, when the release occurred, where the release occurred, THE AFFECTED ENVIRONMENTAL MEDIA, relevant, available information concerning [the contamination of surface water, groundwater, soil or sediment] IMPACTS TO WATER SUPPLIES, BUILDINGS OR TO SEWER OR OTHER UTILITY LINES and interim remedial actions planned, initiated or completed.
- (d) Within 15 days of the notice required by subsection (a), the owner or operator shall provide written notification to the Department and to EACH MUNICIPALITY [the municipality] in which the reportable release occurred, AND EACH MUNICIPALITY WHERE THAT

**RELEASE HAS IMPACTED ENVIRONMENTAL MEDIA OR WATER SUPPLIES,
BUILDINGS OR SEWER OR OTHER UTILITY LINES.**

**(e) THE OWNER OR OPERATOR SHALL PROVIDE WRITTEN NOTIFICATION TO
THE DEPARTMENT AND EACH IMPACTED MUNICIPALITY OF NEW IMPACTS
TO ENVIRONMENTAL MEDIA OR WATER SUPPLIES, BUILDINGS, OR SEWER
OR OTHER UTILITY LINES DISCOVERED AFTER THE INITIAL WRITTEN
NOTIFICATION REQUIRED BY SUBSECTION (d). WRITTEN NOTIFICATION
UNDER THIS SUBSECTION SHALL BE MADE WITHIN 15 DAYS OF THE
DISCOVERY OF THE NEW IMPACT.**

**(f) [The written] WRITTEN notification REQUIRED BY THIS SECTION shall contain the
same information as required by subsection (c).**

**(g) IF THE DEPARTMENT DETERMINES THAT A RELEASE POSES AN
IMMEDIATE THREAT TO PUBLIC HEALTH AND SAFETY, THE DEPARTMENT
MAY EVALUATE AND IMPLEMENT REASONABLE PROCEDURES TO PROVIDE
THE PUBLIC WITH APPROPRIATE INFORMATION ABOUT THE SITUATION
WHICH MAY, AT A MINIMUM, INCLUDE A SUMMARY OF THE DETAILS
SURROUNDING THE RELEASE AND ITS IMPACTS IN A NEWSPAPER OF
GENERAL CIRCULATION SERVING THE AREA IN WHICH THE IMPACTS ARE
OCCURRING.**

**[f][h] Upon the occurrence of a reportable release at the aboveground storage tank, the owner
or operator of aboveground storage tank facilities with a capacity greater than 21,000 gallons
shall immediately notify the county emergency management agency, the Pennsylvania
Emergency Management Agency and the Department. Downstream water companies,**

downstream municipalities and downstream industrial users within 20 miles of an aboveground storage tank facility located adjacent to surface waters shall be notified on a priority basis based on the proximity of the release by the owner or operator or the agent of the owner or operator within 2 hours of a release which enters a water supply or which threatens the water supply of downstream users. If the owner or operator or an agent fails to notify or is incapable of notifying downstream water users, the county emergency management agency shall make the required notification. This notification shall be done in accordance with section 904 of the act (35 P. S. § 6021.904).

[¶] (i) The owner or operator of storage tanks and storage tank facilities shall immediately notify the local fire authority where fire, explosion or safety hazards exist at the site.

§ 245.306. Interim remedial actions.

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

- (1) Remove the regulated substance from the storage tank to prevent further release to the environment.
- (2) Identify, mitigate and continue to monitor and mitigate, fire, explosion and safety hazards posed by vapors and free product.
- (3) Prevent further migration of the regulated substance released from the storage tank into the environment as follows:

- (i) If contaminated soil exists at the site, the interim remedial action may include excavation of the soils for treatment or disposal.
- (ii) If free product is present, free product recovery shall be initiated immediately.
- (4) IDENTIFY AND SAMPLE AFFECTED WATER SUPPLIES AND WATER SUPPLIES WITH THE POTENTIAL TO BE AFFECTED IN A REASONABLE AND SYSTEMATIC MANNER CONSISTENT WITH § 245.309(b)(1) AND (4) AND (c)(4), (6) AND (13). THE RESPONSIBLE PARTY SHALL RESTORE OR REPLACE AN AFFECTED OR DIMINISHED WATER SUPPLY IN ACCORDANCE WITH § 245.307 RELATING TO AFFECTED OR DIMINISHED WATER SUPPLIES. THE RESPONSIBLE PARTY SHALL PROVIDE A COPY OF THE SAMPLE RESULTS TO THE WATER SUPPLY OWNER AND THE DEPARTMENT WITHIN 5 DAYS OF RECEIPT OF THE SAMPLE RESULTS FROM THE LABORATORY.**
- (b) At sites where free product recovery, regulated substance removal or contaminated soil excavation is performed, the responsible party shall:
- (1) Conduct recovery, removal, storage, treatment and disposal activities in a manner that prevents the spread of contamination into previously uncontaminated areas.
 - (2) Handle flammable products in a safe and competent manner to prevent fires or explosions.
 - (3) Obtain required State and local permits or approvals for treatment and disposal activities.
- (4) Minimize the amount of soil and subsurface material affected by a release of a regulated substance by segregating the unaffected soil and subsurface material from the material affected by a release of a regulated substance.**

(c) If free product recovery affects or diminishes the quality or quantity of a water supply, the responsible party shall restore or replace the water supply in accordance with § 245.307 [(relating to affected or diminished water supplies)].

(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.

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

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

- (1) Determine whether additional interim remedial actions are necessary to abate an imminent hazard to human health or the environment.
- (2) Determine whether additional site characterization work is required upon completion of an interim remedial action.
- (3) Determine or confirm the sources of contamination.
- (4) Provide sufficient physical data, through field investigations, to determine the regulated substances involved, and the extent of migration of those regulated substances in surface water, groundwater, soil or sediment.

(5) Determine, from measurements at the site, values for input parameters 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:

(1) Identifying the need for and initiating additional interim remedial actions.
(2) Opening and sampling storage tanks to determine the regulated substances stored in the tanks.

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

(4) **IDENTIFY AND SAMPLE** **[Identifying]** affected water supplies and water supplies with the potential to be affected **NOT PREVIOUSLY IDENTIFIED OR SAMPLED UNDER § 245.306(a)(4) (RELATING TO INTERIM REMEDIAL ACTIONS).** **THE RESPONSIBLE PARTY SHALL RESTORE OR REPLACE AN AFFECTED OR DIMINISHED WATER SUPPLY IN ACCORDANCE WITH § 245.307 (RELATING TO AFFECTED OR DIMINISHED WATER SUPPLIES).** **THE RESPONSIBLE PARTY SHALL PROVIDE A COPY OF THE SAMPLE RESULTS TO THE WATER SUPPLY OWNER AND THE DEPARTMENT WITHIN 5 DAYS OF RECEIPT OF THE SAMPLE RESULTS FROM THE LABORATORY.**

(5) [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) A review and analysis of data from removal from service and interim remedial action activities.

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

(10)] (9) Drilling soil borings, conducting soil gas surveys and collecting soil samples to determine soil characteristics and the horizontal and vertical extent of soil contamination.

(11)] (10) Using piezometers, well points, monitoring wells and public and private wells to:

- (i) Determine the direction of groundwater flow.
- (ii) Determine soil, geologic, hydrogeologic and aquifer characteristics.
- (iii) Measure the horizontal extent and thickness of free product.
- (iv) Sample groundwater to determine the horizontal and vertical extent of groundwater contamination.

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

(12) Sampling surface water and sediments to determine the extent of surface water and sediment contamination.

(13) Assessing potential migration pathways, including sewer lines, utility lines, wells, geologic structures and hydrogeologic conditions.

(14) Performing site surveying and topographic mapping.

(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.**

(16) Handling and disposing of site characterization wastes.

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

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

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

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

(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.]**

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

[(20)] (19) Selection of a remediation standard.

[(21)] (20) 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)] (21) Recommendation of preferred remedial action options.

[(21)] [(23)] (22) Recommendation for further site characterization work.

[(22)] [(24)] (23) Developing a conceptual design of the selected remedial action options and identifying additional investigations or pilot studies needed to design and implement a detailed remedial action plan.

[(23)] [(25)] (24) Additional tasks necessary to characterize the site.

§ 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:

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

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

- (3) A description of natural and manmade features pertinent to the site characterization.
- (4) Details of interim remedial actions conducted at the site in accordance with § 245.306 (relating to interim remedial actions). These details shall include the following, as necessary:
 - (i) A description of the type and volume of the regulated substance removed from the storage tank.
 - (ii) A discussion of fire, explosion and safety hazards which have been identified, mitigated and monitored.
 - (iii) A discussion of necessary relocation of affected residents.
 - (iv) Where free product recovery is performed:
 - (A) The regulated substance released and the thickness of free product in wells, boreholes or excavations.
 - (B) The type of free product recovery system used.
 - (C) Whether a discharge has or will take place during the recovery operation and where this discharge is or will be located.
 - (D) The type of treatment applied to, and the effluent quality expected from, a discharge.
 - (E) The steps that have been or are being taken to obtain necessary permits or approvals for a discharge.
 - (F) The volume and disposition of the recovered free product.
 - (G) The date free product recovery was initiated.
 - (H) The date free product recovery was completed.
 - (v) Where excavation of contaminated soil is performed:
 - (A) The regulated substance released and actual volume of soil excavated.

- (B) The method used to determine the existence and extent of contaminated soil.
- (C) The treatment method or disposition of the excavated soil, including receipts documenting acceptance of the material at a permitted treatment or disposal facility.
- (D) The date excavation was initiated.
- (E) The date excavation was completed.
- (F) [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.
- (5) The steps that have been or are being taken to restore or replace affected or diminished water supplies.
- (6) A description of the type and characteristics of regulated substances involved, including quantities, physical state, concentrations, toxicity, propensity to bioaccumulate, persistence and mobility.
- (7) The results of tightness testing or other release detection method used or conducted to determine the structural integrity of the storage tanks.
- (8) The details of removal from service activities conducted at the site.
- (9) The identification of the sources of contamination, including the actual or estimated date and quantity of release from each source.
- (10) The location and description of affected water supplies and water supplies with the potential to be affected.

(11) [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) A discussion and conclusions that demonstrate the site characterization objectives outlined in § 245.309(b) have been satisfied.

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

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

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

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

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

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

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

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

[(23)] (21) Field and laboratory analytical results and interpretations.

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

[(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) The disposition of site characterization wastes.

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

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

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

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

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

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

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

[(31)] (34) A report of additional tasks performed to characterize the site.

(b) If the responsible party determines, after completion of interim remedial actions, that further site characterization is not required, that SOIL [groundwater] is THE ONLY [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, IN LIEU OF THE REPORT REQUIRED IN SUBSECTION (a), which contains the following:

(1) A concise statement that describes the release, including information such as the amount of regulated substance that was released, the extent of contamination and interim remedial actions taken under § 245.306.

(2) [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 CONDUCTED IN ACCORDANCE WITH § 250.311.

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

(c) Following submission of a complete site characterization report prepared under subsection (a), SELECTING THE SITE-SPECIFIC STANDARD, or SUBSECTION (b), the Department [may] SHALL do one or more of the following:

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

(3) REVIEW AND DISAPPROVE THE SITE CHARACTERIZATION REPORT, CITING DEFICIENCIES.

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

[(4)] (5) Review and disapprove the site characterization report, perform the site characterization in whole or in part and recover, in accordance with § 245.303(b) (relating to general requirements), the Department's costs and expenses involved in performing the site characterization.

[(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).]

(6) [Accept] REVIEW the site characterization report [and take other] WITHOUT FURTHER action [which is necessary based on the circumstances of the release].

[(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.]

(d) THE DEPARTMENT SHALL TAKE ONE OR MORE OF THE ACTIONS LISTED
IN SUBSECTION (c) WITHIN 60 DAYS OF RECEIPT OF A SITE
CHARACTERIZATION REPORT MEETING THE REQUIREMENTS OF
SUBSECTION (b) OR WITHIN 90 DAYS OF RECEIPT OF A SITE
CHARACTERIZATION REPORT SELECTING THE SITE-SPECIFIC STANDARD. IF
THE DEPARTMENT DOES NOT RESPOND, IN WRITING, WITHIN THE ALLOTED
TIME, THE REPORT SHALL BE DEEMED APPROVED, UNLESS THE
RESPONSIBLE PARTY AND THE DEPARTMENT AGREE, IN WRITING, TO AN
ALTERNATIVE TIMEFRAME.

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

- (1) A 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)(27).

(3) A list of required Federal, State and local permits or approvals to conduct the remedial action.

(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) Operation and maintenance details for the remedial action, including:

(i) A schedule including initiation and completion dates for all elements of the remedial action plan.

(ii) The expected concentrations and quantities of regulated substances in any discharge.

(iii) The disposition of the discharge.

(iv) A schedule for monitoring, sampling and site inspections.

[(7)] (8) A site map showing the location of buildings, roads, property boundaries, remedial equipment locations and other information pertinent to the remedial action.

[(8)] (9) A description of the media and parameters to be monitored or sampled during the remedial action.

[(9)] (10) A description of the analytical methods to be utilized and an appropriate reference for each.

[(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 SELECTING THE BACKGROUND OR STATEWIDE HEALTH STANDARD, the Department [may] SHALL do one or more of the following:

(1) Review and approve the SITE CHARACTERIZATION REPORT AND remedial action plan as submitted.

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

(3) REVIEW AND DISAPPROVE THE SITE CHARACTERIZATION REPORT AND REMEDIAL ACTION PLAN, CITING DEFICIENCIES.

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

[4] (5) Review and disapprove the SITE CHARACTERIZATION REPORT AND
remedial action plan, prepare a remedial action plan or perform the remedial action in whole or
in part, and recover, in accordance with § 245.303(b) (relating to general requirements), the
Department's costs and expenses involved in preparing THE REMEDIAL ACTION PLAN or
performing the remedial action [plan].

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

(6) REVIEW THE SITE CHARACTERIZATION REPORT AND REMEDIAL
ACTION PLAN WITHOUT FURTHER ACTION.

(c) FOLLOWING SUBMISSION OF A COMPLETE REMEDIAL ACTION PLAN
SELECTING THE SITE-SPECIFIC STANDARD, THE DEPARTMENT SHALL DO
ONE OR MORE OF THE FOLLOWING:

- (1) REVIEW AND APPROVE THE REMEDIAL ACTION PLAN AS SUBMITTED.
- (2) REVIEW AND APPROVE THE REMEDIAL ACTION PLAN WITH
MODIFICATIONS MADE BY THE DEPARTMENT.
- (3) REVIEW AND DISAPPROVE THE REMEDIAL ACTION PLAN, CITING
DEFICIENCIES.
- (4) REVIEW AND DISAPPROVE THE REMEDIAL ACTION PLAN AND DIRECT,
REQUIRE OR ORDER THE RESPONSIBLE PARTY TO PERFORM OTHER TASKS
OR MAKE MODIFICATIONS AS PRESCRIBED BY THE DEPARTMENT.
- (5) REVIEW AND DISAPPROVE THE REMEDIAL ACTION PLAN, PREPARE A
REMEDIAL ACTION PLAN OR PERFORM THE REMEDIAL ACTION IN WHOLE
OR IN PART, AND RECOVER, IN ACCORDANCE WITH § 245.303(b), THE

**DEPARTMENT'S COSTS AND EXPENSES INVOLVED IN PREPARING OR
PERFORMING THE REMEDIAL ACTION PLAN.**

(6) REVIEW THE REMEDIAL ACTION PLAN WITHOUT FURTHER ACTION.

[e] (d) 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.

(e) THE DEPARTMENT SHALL TAKE ONE OR MORE OF THE ACTIONS LISTED IN SUBSECTION (b) WITHIN 60 DAYS OF RECEIPT OF A REMEDIAL ACTION PLAN TO ATTAIN THE BACKGROUND OR STATEWIDE HEALTH STANDARD, OR THE DEPARTMENT SHALL TAKE ONE OR MORE OF THE ACTIONS LISTED IN SUBSECTION (c) WITHIN 90 DAYS OF RECEIPT OF A REMEDIAL ACTION PLAN TO ATTAIN THE SITE-SPECIFIC STANDARD. IF THE DEPARTMENT DOES NOT RESPOND, IN WRITING, WITHIN THE ALLOTTED TIME, THE REPORT AND PLAN OR PLAN SHALL BE DEEMED APPROVED, UNLESS THE RESPONSIBLE PARTY AND THE DEPARTMENT AGREE, IN WRITING, TO AN ALTERNATIVE TIMEFRAME.

(f) IF THE SITE CHARACTERIZATION REPORT AND REMEDIAL ACTION PLAN ARE SUBMITTED TO THE DEPARTMENT AT THE SAME TIME, THE DEPARTMENT SHALL TAKE ONE OR MORE OF THE ACTIONS LISTED IN SUBSECTION (b) WITHIN 60 DAYS OF RECEIPT OF A REPORT AND PLAN TO ATTAIN THE BACKGROUND OR STATEWIDE HEALTH STANDARD, OR THE DEPARTMENT SHALL TAKE ONE OR MORE OF THE ACTIONS LISTED IN SUBSECTION (c) WITHIN 90 DAYS OF RECEIPT OF A REPORT AND PLAN TO ATTAIN THE SITE-SPECIFIC STANDARD. IF THE DEPARTMENT DOES NOT

**RESPOND, IN WRITING, WITHIN THE ALLOTTED TIME, THE REPORT AND
PLAN SHALL BE DEEMED APPROVED, UNLESS THE RESPONSIBLE PARTY AND
THE DEPARTMENT AGREE, IN WRITING, TO AN ALTERNATIVE TIMEFRAME.**

§ 245.312. Remedial action.

- (a) Upon reasonable notice by the Department to the responsible party, or upon approval of the remedial action plan by the Department, the responsible party shall implement the remedial action plan, or a portion of the remedial action plan, according to the schedule contained therein.
- (b) During implementation of the remedial action plan, remedial action progress reports shall be submitted to the Department quarterly or at an alternative interval as determined by the Department.
- (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:
 - (1) A summary of site operations and remedial progress made during the reporting period.
 - (2) Data collected from monitoring and recovery wells showing depth to groundwater and thickness and horizontal extent of free product.
 - (3) Groundwater contour maps depicting groundwater flow direction.
 - (4) Quantitative analytical results from groundwater, surface water, soil and sediment sampling.
 - (5) Maps for all media and all phases at specified times that indicate the distribution of concentrations of regulated substances.

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

- (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) Treatment and disposal documentation for waste generated during the reporting period.

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

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

(d) The first remedial action progress report shall be received by the Department 3 months following the date of remedial action plan implementation. THE FINAL REMEDIAL ACTION PROGRESS REPORT SHALL BE SUBMITTED TO THE DEPARTMENT AS PART OF THE REMEDIAL ACTION COMPLETION REPORT.

(e) If during implementation of the remedial action plan the responsible party DECIDES TO CHANGE THE REMEDIAL ACTION PLAN [~~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, IF APPLICABLE, in accordance with § 245.311 (relating to remedial action plan).

(f) If during implementation of the remedial action plan the responsible party determines that continued implementation of the remedial action plan will cause additional environmental harm, the responsible party [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 OF SUSPENSION [, and]. Upon Department approval, theThe responsible party shall prepare and submit a new or modified remedial action plan, to include selection of the new remediation standard, IF APPLICABLE, to the Department in accordance with § 245.311.

[g] 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 standard 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]

SHALL do one or more of the following:

- (1) Review and approve the remedial action completion report as submitted.
- (2) Review and approve the remedial action completion report with modifications made by the Department.

(3) REVIEW AND DISAPPROVE THE REMEDIAL ACTION COMPLETION REPORT, CITING DEFICIENCIES.

[**(3)**] (**4**) Review and disapprove the remedial action completion report and direct, require or order the responsible party to perform other tasks or make modifications as prescribed by the Department.

[(4)**] (**5**) Review and disapprove the remedial action completion report, perform the site characterization or remedial action and recover, in accordance with § 245.303(b) (relating to general requirements), the Department's costs and expenses involved in preparing the remedial action completion report.**

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

(6) REVIEW THE REMEDIAL ACTION COMPLETION REPORT WITHOUT FURTHER ACTION.

(d) THE DEPARTMENT SHALL TAKE ONE OR MORE OF THE ACTIONS LISTED IN SUBSECTION (c) WITHIN 60 DAYS OF RECEIPT OF THE REMEDIAL ACTION COMPLETION REPORT DEMONSTRATING ATTAINMENT OF THE

BACKGROUND OR STATEWIDE HEALTH STANDARD, OR WITHIN 90 DAYS OF RECEIPT OF A REMEDIAL ACTION COMPLETION REPORT DEMONSTRATING ATTAINMENT OF THE SITE-SPECIFIC STANDARD. IF THE DEPARTMENT DOES NOT RESPOND, IN WRITING, WITHIN THE ALLOTTED TIME, THE REPORT SHALL BE DEEMED APPROVED, UNLESS THE RESPONSIBLE PARTY AND THE DEPARTMENT AGREE, IN WRITING, TO AN ALTERNATIVE TIMEFRAME.

§ 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] IS IN COMPLIANCE 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.

* * * * *

COMMENT AND RESPONSE DOCUMENT

**ADMINISTRATION OF THE STORAGE TANK AND
SPILL PREVENTION PROGRAM**

INTEGRATION OF ACT 2 PROVISIONS

List of Commentators

Commentator 1

Fred M. Anderson
State Issues Management Advisor-Northeast
ExxonMobil
3225 Gallows Road, Room 8B617
Fairfax, VA 22037

Commentator 2

Monica Gambino
Babst, Calland, Clements and Zomnir
Two Gateway Center
Pittsburgh, PA 15222
(On behalf of BP Exploration & Oil, Inc.)

Commentator 3

Dan Regan
President
Pennsylvania Gas Association
800 North Third Street
Harrisburg, PA 17102

Commentator 4

Independent Regulatory Review Commission

General

- Comment #1: We are pleased to support the proposed amendments. (1)
- Response #1: The Department appreciates the commentator's review and support of the proposal.
- Comment #2: We generally support this effort to harmonize the CAP regulations with regulations promulgated pursuant to Act 2. (2)
- Response #2: The Department appreciates the commentator's review and support of the proposal.
- Comment #3: Even as we raise several issues, we underscore that we intend no criticism of the general thrust of this initiative. (3)
- Response #3: The Department appreciates the commentator's review and support of the proposal.

Definitions – 245.1

- Comment #4: Clarify the meaning of "to the surface of the ground" in the revised definition of *reportable release*. Is a release of greater than 25 gallons of petroleum that is completely contained and under control and that occurs on an impervious surface reportable? (2,4)
- Response #4: A release of petroleum of 25 gallons or more to any aboveground surface, regardless of the circumstances, is reportable. This is no different than under the existing definition. The change is that a release of petroleum of less than 25 gallons to any aboveground surface is nonreportable, provided the criteria in the existing definition are met. Aboveground surface includes a containment area, structure or facility around an aboveground storage tank; a synthetic surface, such as asphalt or concrete; or surface soils. To help clarify the concern, the Department has revised the definition by changing the term "to the surface of the ground" to "to an aboveground surface".
- Comment #5: Exclude a "de minimis" thickness of one-eighth (1/8) inch or less from the definition of *free product*, because this is currently the thickness that can be accurately measured. (2)
- Response #5: The Department has not excluded a "de minimis" thickness of 1/8 inch or less from the definition of *free product*. The definition was revised solely for consistency with terminology used in Chapter 250. Further, the Department is concerned that the suggested change would exclude accumulations of this thickness or less from any requirements for

removing free product to the maximum extent practicable, which based on site-specific considerations, may be more or less than 1/8 inch, for example, on surface water.

Comment #6: Define the word “contamination” or phrase “contaminated soil” in the regulation such that “contamination” means the presence of constituents exceeding the applicable Act 2 Statewide health standard (SHS) levels. (2)

Response #6: Meeting the applicable Act 2 SHS levels means that contaminants have been reduced to within an acceptable risk range. It does not mean that contamination has been eliminated in its entirety. Therefore, soil, for example, which meets SHS levels must be managed in accordance with the Department’s residual waste management regulations.

Comment #7 : Rather than reiterate the definitions in the regulation, this section should reference the definitions of “*aquifer*,” “*background*,” “*cleanup or remediation*,” “*contaminant*” and “*groundwater*” in 35 P.S. §6026.103. (4)

Response #7: The Department considered making this change. However, the full definitions have been included to make it less cumbersome for the user who would otherwise need to consult the other reference cited.

Comment #8: The definition of the word “*survey*” contains the phrase, “sufficient level of detail.” What is a “sufficient level of detail?” (4)

Response #8: A *survey* may be conducted voluntarily by an owner/operator prior to the operation of a storage tank facility as a possible means for overcoming the presumption of liability for contamination within 2,500 feet of the facility established at Subsection 245.303(c) and Section 1311 of the Storage Tank and Spill Prevention Act.

In conducting the survey, the owner or operator should put forth as best an effort as possible to establish background conditions and document any pre-existing contamination at the storage tank facility. If the survey is conducted with an “insufficient level of detail” (meaning an inadequate number of borings and wells to document pre-existing contamination), then pre-existing contamination that may have been present would not be found, and the presumption of liability would simply not be overcome. Therefore, the Department included the phrase “at a sufficient level of detail” in the existing definition of *survey* to emphasize the importance of the study to the owner or operator. However, since Subsection 245.304(d) begins by saying that “To overcome the presumption of liability established in subsection

(245.303) (c), the owner or operator shall affirmatively prove, by clear and convincing evidence,....”, the Department believes that the phrase “at a sufficient level of detail” is not necessary in the definition of *survey*. Therefore, the Department has deleted the phrase.

Reporting releases – 245.305

- Comment #9: What constitutes “confirmation” of a *reportable release*? Is it when the release is discovered by the operator or by someone walking by who reports it? The regulation should clearly define the term “confirmation” so that it is clear when the 24-hour notification period begins. (4)
- Response #9: “Confirmation” of a *reportable release* has been widely understood in the program to mean “verification” by the owner or operator that a release meeting the definition of a reportable release has occurred. The confirmation may be made in a number of ways including through the investigation of a suspected release, by the direct observation of a release by the owner/operator, or conceivably, by verifying a report of a release made by someone walking by. In this latter case, the 24-hour period would begin when the release was confirmed by the owner/operator, not the time it was noticed by the person walking by. The Department does not believe that it is necessary to define “confirmation,” as clarity in this area has not been an issue.
- Comment #10: The new reporting requirement (proposed Subsection 245.305(a)), should govern all discharges, including those subject to the Clean Streams Law under 25 Pa. Code Section 91.33. (3)
- Response #10: As stated in Section 245.302, the scope of Chapter 245, Subchapter D, is restricted to releases of regulated substances from storage tanks regulated under the Storage Tank and Spill Prevention Act. To mandate that all spills, discharges or releases subject to the Clean Streams Law be subject to the notification requirements of Subsection 245.305(a) would expand the regulation beyond its authorized scope.
- Comment #11: There is confusion as to whether a tank owner or operator should follow the timeframe in Subsection 245.305(a) or Section 91.33 to report a release. (3,4)
- Response #11: The timeframe in Subsection 245.305(a) is applicable to releases of regulated substances from storage tanks regulated under the Storage Tank and Spill Prevention Act. For these tank releases, the requirements of Subsection 245.305(a) supercede the requirements of Section 91.33. This has been clearly stated in the preamble to the final rulemaking.

Comment #12: Insert “regulated” before “storage tanks” in Subsection 245.304(a) to better clarify the intent and scope of the provision. (3)

Response #12: The Department does not believe the suggestion is necessary. The scope of all provisions of Chapter 245, Subchapter D is clearly stated in Section 245.302 to be storage tanks regulated by the Storage Tank and Spill Prevention Act.

Site Characterization – 245.309

Comment #13: Proposed paragraph 245.309(b)(5) is not necessary and should be rejected. The mere possibility that someone might use fate and transport analysis is not a sufficient basis for the level of detail being proposed. (3)

Response #13: The Department does not agree. One clear objective of a site characterization in a risk-based corrective action program is to anticipate and collect the field data that may be needed to support conclusions made at the end of an investigation. Further, fate and transport analysis is required in demonstrating attainment of any Act 2 standard, although the method and form of fate and transport analysis selected will vary depending on the complexity of the release. However, the wording of this added element takes into account this site variability by stating “...values for input parameters...necessary for fate and transport analysis” (emphasis added). The Department believes this element to be essential to proper site characterization.

Comment #14: Subsection 245.309(b)(5) requires the responsible party to determine “values for input parameters including hydraulic conductivity, source dimensions, hydraulic gradient, water table fluctuation and fraction organic carbon necessary for fate and transport analysis.” Is this information readily available? How much detail is required to meet this requirement? (3,4)

Response #14: Hydraulic conductivity, source dimensions, hydraulic gradient, water table fluctuation and fraction organic carbon are examples of parameters that are readily available from samples collected and measurements made at the site. In some cases, acceptable data may be available from previous investigations at the site. The primary purpose of the data is to establish reliable and accurate input parameters for mathematical models which may be used or required to support demonstrations of attainment of Act 2 standards. The number of samples collected and measurements made is site-specific and proportional to the hydrogeologic complexity of the site being characterized and the data requirements of the fate and transport

analysis method chosen. Where mathematical models are not used or necessary, the importance of some parameters will be diminished.

Comment #15: Consistent with harmonizing these regulations with Act 2, 25 Pa. Code §245.309(c)(18) should not be amended (as proposed), but should be deleted in its entirety. (3)

Response #15: The proposed language has been deleted as suggested.

Comment #16: Subsections 245.309(b)(6) and (7) require a responsible party to “provide sufficient information.” What is “sufficient information” to meet these two objectives? (4)

Response #16: Subsection (b)(6) states that one of the objectives of a site characterization is to provide the responsible party with sufficient information to select a remediation standard. What is “sufficient” is a determination to be made by the responsible party, not the Department. The responsible party gets to select the remediation standard. Failure to meet this objective could result in the selection of an unattainable or inappropriate standard for the site by the responsible party.

Subsection (b)(7) states that one of the objectives of a site characterization is to collect enough information to define and assess the relative merits of the remedial action options. To be consistent with the deletion of the proposed language at 245.309(c)(18), the Department has deleted this objective. While a responsible party may choose to conduct this exercise, it is not required as the responsible party may choose a remediation standard without an analysis of alternatives.

Site characterization report – 245.310

Comment #17: Given the number of changes being made to the substance of the site characterization reports, these changes should be effective only on a going-forward basis. (3)

Response #17: The changes to site characterization report submissions, as well as all revisions to this regulation, will be effective upon publication in the *Pennsylvania Bulletin* as final. This has been clarified in the preamble to the final rule.

Comment #18: The regulation should define the consequences if a responsible party does not meet the objectives of a site characterization report. Will the Department add provisions addressing a deficient site characterization report? Or will the Department notify the responsible party of any deficiencies and the procedure to correct them? (4)

- Response #18:** Existing Subsection 245.310(c) lists the actions the Department may take following submission of a site characterization report. In general, site characterization reports are evaluated in terms of the validity and completeness of the elements listed in Subsection 245.310(a), based upon the complexity of the release. The Department has added a new Subsection 245.310(c)(3) which allows the Department to disapprove the site characterization report ,citing deficiencies as one of its options.
- Comment #19:** Subsection 245.310(a) requires a site characterization report to be filed within 180 days of reporting a release. Subsection (b) allows a less detailed report if the site has been remediated. However, the regulation is not clear whether a report filed under Subsection (b) eliminates the filing requirement under Subsection (a). (4)
- Response #19:** The Department has added wording to 245.310(b) to clarify this concern. A site characterization is not required to be submitted under both subsections.
- Comment #20:** Subsection 245.310(b)(4) provides that the “results of the evaluation of ecological receptors” should be included in the site characterization report. A cross-reference to Section 250.311 relating to the evaluation of ecological receptors would clarify this requirement. (2,4)
- Response #20:** The cross-reference suggested has been added.
- Comment #21:** Subsection 245.310(b) should be amended to delete the condition that a remediator prove that groundwater is not a media of concern, and insert language which applies this paragraph to sites where soil is the only media of concern. (2)
- Response #21:** The proposed language was not intended to imply that the responsible party prove that groundwater is not a media of concern in every case. However, the language has been changed as suggested to clarify this concern.
- Comment #22:** Additional revisions to Subsection 245.310(b) should be made in order to allow a site characterization report to be submitted as a final report where groundwater can be demonstrated to achieve SHS and increase the period of time required for submission of the site characterization report from 180 days to one year where a remediator chooses to achieve SHS for groundwater. (2)
- Response #22:** Demonstrating attainment of the SHS in groundwater normally requires 8 quarters of monitoring. Less than 8 quarters of monitoring may be allowed with written approval of the Department in accordance

with 250.704(d). Deviation from the attainment requirements of the Land Recycling Program as set out in Chapter 250 is beyond the scope of this amendment.

In cases where a site characterization shows that groundwater meets SHS, a remedial action plan requesting less than eight quarters of monitoring to demonstrate attainment can be submitted with the site characterization report. This combining of reports/plans is currently provided for by 245.303(e). Monitoring data would then be submitted in quarterly (or at an alternative interval) progress reports with the final remedial action progress report being submitted as part of the remedial action completion report.

Comment #23: Delete or amend 25 Pa. Code Subsection 245.310(a) to eliminate interim site characterization reports as a generic requirement. A report might be appropriate once all remedial action is completed (*see generally*, 25 Pa. Code §245.310(b)) or, in those few cases where applicable, in conjunction with remedial action progress reports (*see generally*, 25 Pa. Code § 245.312(c)), but these are special cases and should be handled as such. On a somewhat related note, site characterization reports and remedial action plans can and should be combined into a single report subject to a single Department review.
(3)

Response #23: Subsection 245.303(e) already provides that the Department can accept a combined site characterization report and remedial action plan. However, the Department does not believe that the combined submission of this report/plan should be mandatory. Unlike the Act 2 program, which is largely voluntary, the Corrective Action Process is a mandatory regulatory program which requires responsible parties to conduct cleanup and attain an Act 2 remediation standard. To help assure that the selected standard will be attained through the remedial action, the remedial action plan is reviewed and approved by the Department prior to its implementation. Allowing the submission of one report at the completion of remedial action would preclude the Department's review of the remedial action plan and quarterly progress reports which the Department feels is needed to fulfill its oversight role under the Storage Tank and Spill Prevention Act and assure that a cleanup standard is being attained.

Comment #24: The regulation does not address the amount of time the Department will take to review the site characterization report or remedial action plan. It would be helpful to a responsible party to have a specified period of time for Department review established in the regulation. The regulation should contain a maximum time period (e.g., 90 days) for Department review of these reports. Further, the regulation should

establish that a report is deemed approved as filed if the Department does not act within the time specified. (2,3,4)

Response #24: The Department has amended the proposed regulation to include review timeframes and deemed approved provisions for site characterization reports, remedial action plans and remedial action completion reports. The timeframe and deemed approved provisions will apply only to new reports submitted after the effective date of the regulation. Deemed approved provisions may be superceded if the Department and the responsible party agree in writing to an alternative timeframe. The added review timeframes are as follows:

The Department will review a site characterization report submitted under Subsection 245.310(b) within 60 days of receipt of a site characterization report submitted under Subsection 245.310(a) selecting the site-specific standard within 90 days of receipt.

Site characterization reports submitted under Subsection 245.310(a) for the background or statewide health standard will be reviewed within 60 days of receipt of a remedial action plan designed to attain those standards. The review will include the remedial action plan.

Site characterization reports and remedial action plans for the background or statewide health standard which are submitted together will be reviewed within 60 days of receipt.

A remedial action plan designed to attain the site-specific standard will be reviewed within 90 days of receipt by the Department.

Remedial action completion reports for the background and statewide health standard will be reviewed within 60 days of receipt. A remedial action completion report demonstrating attainment of the site-specific standard will be reviewed within 90 days of receipt.

Remedial Action Plan – 245.311

Comment #25: Subsection 245.311(a)(5) requires the “the results of treatability, bench scale or pilot scale studies or other data collected to support remedial action.” How often and under what circumstances would this information be necessary? Is this information readily available? How much detail is included in this requirement? (4)

Response #25: Treatability studies, bench scale and pilot scale studies are generally used to evaluate experimental or innovative technologies that have little or no history of application at the field scale. The purpose of the studies is to demonstrate the feasibility or effectiveness of a new

technology by testing it at a laboratory or on a small field-scale before applying the technology to the larger field problem. An example of where such a study may be required would be to demonstrate bioremediation of some contaminant by a new strain of bacteria. In some cases, these studies are reported in the scientific literature. In other cases, especially with pilot scale studies, the studies would be completed by the consultant for the responsible party or by a subcontractor marketing the technology. The Department believes it is important not to close the door on innovative technology, but at the same time be able to require some demonstration or documentation that the innovative technologies have merit prior to their application. In most cases, this element of the remedial action plan will not be necessary, since most remediations rely on well-established technologies.

Comment #26: Subsection 245.311(c) states “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.” Is a remedial action plan required when the Statewide Health Standard is selected and no current or future exposure pathways exist? This provision should be clarified in the regulation. (2,4)

Response #26: Yes, a remedial action plan would be required. The Statewide Health Standard is a numeric standard. Attainment of the numeric Statewide Health Standard must be demonstrated regardless of whether pathways exist or not, in accordance with Chapter 250, Subchapter G.

Comment #27: Can a remedial action plan be denied based on the remediation standard selected? The regulations do not specify under what circumstances the Department can deny the remedial action plan. (2,4)

Response #27: Existing Subsection 245.311(c), now Subsection 245.311(b), lists the actions the Department may take upon submission of a remedial action plan. Basically, the Department is going to look to see if the remedy has a reasonable chance of attaining the selected standard. With conventional technologies, this should be pretty straightforward. Since the responsible party has the option of selecting the remediation standard, the Department will not disapprove a remedial action plan based solely on the selected remediation standard.

Comment #28: How can the responsible party show attainment of the selected standard? (4)

Response #28: Attainment requirements for each remediation standard under Act 2 are set out in Chapter 250, Subpart G. Demonstration of attainment

for the remediation standard selected will be reported in the remedial action completion report as described in Subsection 245.313(b).

Comment #29: Because Act 2 leaves the choice of remedial action to the responsible party, not to Department approval, proposed Subsection 245.311(a)(5) should be discarded from further consideration, and current Subsection 245.311(a)(5) should be deleted in its entirety. (3)

Response #29: While it is true that the responsible party chooses the remediation standard, unlike the Act 2 administrative process, the Corrective Action Process requires the remedial action plan to be approved by the Department prior to its implementation. Therefore, the Department believes both elements to be necessary, where appropriate. As indicated in the Response to Comment #25, treatability studies, bench scale and pilot scale studies are generally used to evaluate experimental or innovative technologies that have little or no history of application at the field scale. In most cases, this element of the remedial action plan will not be necessary, since most remediations rely on well-established technologies. Design and construction details are important in reviewing a remedial action plan to determine the effectiveness of the remedy.

Remedial Action – 245.312

Comment #30: A commentator suggests allowing a responsible party to combine the reports required by Section 245.310, relating to site characterization reports, and this section. Subsection 245.303(e) states the Department may waive or combine requirements. Can the reports required by Sections 245.310 and 245.312 be combined? If so, is Department permission required prior to submittal? (4)

Response #30: The Department believes the commentator was requesting that site characterization reports and remedial action plans (Section 245.311) be combined. Subsection 245.303(e) does allow for this report/plan to be a single submission. However, the responsible party should contact the Department and agree upon a timeframe for submission of the combined report/plan, unless the report/plan combination is submitted within the regulatory timeframe governing the site characterization report.

Comment #31: Subsection 245.312(e) requires the responsible party to request termination of the remediation plan if the plan is not achieving the remediation standard. However, there is no time requirement for the Department to respond to the request. Add a fixed review period of 30 or 90 days for the Department to respond to a request. Further, specify

that a request to terminate shall be deemed approved if the Department does not act within the time specified. (3,4)

- Response #31: The Department has revised Subsection 245.312(e). The proposed requirement for the responsible party to write to the Department requesting termination of the remedial action plan has been eliminated. Under the final regulation, if a responsible party wishes to change the remedial approach, they would simply submit a new or modified remedial action plan to the Department for review and approval. A 60- or 90-day timeframe for Department review would apply to the new or modified plan depending on the remediation standard selected. The responsible party is expected to continue to implement the existing remedial action plan until approval of the new or modified plan.
- Comment #32: In Subsection 245.312(e), provide clarification as to what procedure must be followed should the remediator decide to select a more stringent remedy during the implementation of the approved remedy. Must a new remedial action plan be submitted or may the new remedy proceed without waiting for Department approval? (2)
- Response #32: Selection of a more stringent remedy would require submission of a new or modified remedial action plan. The procedure to follow is outlined in the response to Comment #31 above. Selection of a new remediation standard, but not a change of the remedy, would not require submission of a new or modified remedial action plan.
- Comment #33: In order to expedite the correction of remedial action plans, Subsection 245.310(e) should include a time limit for submission of the new or modified remedial action plan. (4)
- Response #33: As with other submissions under this regulation which may be returned to the responsible party for additional information or work, the Department would prefer to request resubmission of a report/plan or submission of a new report/plan within a reasonable timeframe based on the particulars of the case.
- Comment #34: In Section 245.312, the final remediation action progress report should be consolidated into the remedial action completion report. (3)
- Comment #34: Language has been added to Subsection 245.312(d) to provide for this.
- Comment #35: The proposed amendments to Subsections 245.312(e) and (f) should be clarified to allow for the possibility of a change in remediation method without a change in the remediation standard. As proposed, when a responsible party notifies the Department of a mid-course change in a

remediation action plan, the notice would have to include “selection of a new remediation standard.” One might change a remediation method without changing the remediation standard, and the amended regulations should accommodate this possibility. (3)

Response #35: The following language has been added to these two subsections to address this concern: “...to include selection of the new remediation standard, if applicable,...”

Comment #36: Subsection 245.312(g) is being deleted. It requires designated monitoring wells to be sampled quarterly for one year. Since this section relates to remedial action, in place of subsection (g), a cross-reference should be added to Section 250.704, which relates to general attainment requirements for groundwater. (4)

Response #36: The Department believes that the concern is accommodated in Subsection 245.313(b), which establishes the requirements for a remedial action completion report. Subsection 245.313(b) cites the specific subsections in Chapter 250 that are to be addressed in the remedial action completion report for each standard. These subsections include the attainment requirements of Chapter 250, Subchapter G, which includes Section 250.704.

Comment #37: There is nothing in Act 2, nor its implementing regulations that supports the abandonment of 4 quarters as the general standard of groundwater monitoring under the Tank Act. Subsection 245.312(g) should be retained in the final amendments. (2)

Response #37: Chapter 250.704(d) specifically mandates 8 quarters of monitoring as the general requirement for demonstrating attainment of an Act 2 standard in groundwater. Releases from regulated storage tanks are subject to the standards and attainment requirements of Act 2 and Chapter 250. The standards and attainment requirements go hand-in-hand. They are inseparable. Therefore, Subsection 245.312(g) has been deleted. Keep in mind, however, that this monitoring period can be reduced to 4 quarters or less under certain circumstances in accordance with Chapter 250.

Comment #38: Proposed subsection 245.312(f) should be further amended to establish the starting point for the 24-hour reporting deadline. (3)

Response #38: The Department has clarified this subsection to require that the notification be made to the Department within 24 hours of suspension of the remedial action plan.

Notice of Final Rulemaking
Department of Environmental Protection
Environmental Quality Board
25 Pa. Code, Chapter 245
Administration of the Storage Tank and Spill Prevention Act

Order

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 final 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 rulemaking contains changes necessary to update the CAP regulation because of several developments since its adoption in 1993. This rulemaking 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 order was adopted by the Board at its meeting of September 18, 2001.

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 Tanks and Hazardous Sites Corrective Action 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. Persons with a disability may use the AT&T Relay Service by calling 1-800-654-5984 (TDD users) or 1-800-654-5988 (voice users). This proposal is available electronically through the DEP Web site (<http://www.dep.state.pa.us>).

C. Statutory Authority

This final 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 over 8 years ago. Since that time, several developments have occurred which necessitated 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 were 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 final rule amends the CAP regulation to harmonize its provisions with those of Act 2, while 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 at 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 changes reflect the conclusions of that review.

Third, several changes to the CAP regulation were 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 in this rulemaking are simply the result of the experience of carrying out the corrective action program in this Commonwealth over the past 8 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 changes reflect that experience.

Comments received on the proposed rulemaking and draft final regulatory language were reviewed by the Storage Tank Advisory Committee (STAC) at its meetings on March 6, 2001, and June 6, 2001, and reviewed by a subcommittee of STAC at meetings on April 30, 2001, and May 11, 2001. 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, STAC has been given the opportunity to review and comment on these final amendments. Following its June 2001 meeting, STAC prepared a report indicating its support of this final rulemaking. A list of members of the STAC may be obtained from the agency contacts identified in Section B of this preamble.

E. Summary of Regulatory Requirements and Changes to the Proposed Rulemaking

A brief description of the rulemaking is as follows:

Subchapter A. General Provisions

1. Section 245.1. Definitions.

The final rule adds, modifies or deletes several definitions. Definitions for the terms “background,” “cleanup or remediation,” “contaminant,” “property,” “remediation standard” and “risk assessment” have been added as those terms are defined in either Act 2 or Chapter 250. Definitions for the terms “aquifer,” “free product,” “groundwater,” “site” and “survey” have been modified to match the definitions for those terms in Act 2 or Chapter 250. The Board is deleting 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 modified to match the federal definition of the term in 40 CFR Part 280, in accordance with the Department’s Regulatory Basics Initiative (RBI) and Executive Order 1996-1. 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). The final rule 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. Also, for all releases from regulated storage tanks, the requirements of Section 245.305(a) supercede the requirements of Section 91.33 (relating to incidents causing or threatening pollution).

Two new definitions have been added in the final rule at the suggestion of the STAC. “Environmental media” is defined as soil, sediment, surface water, groundwater, bedrock and air. Because of multiple uses of the term in Section 245.305, efficiencies of space are achieved by defining and using this single term rather than listing each environmental medium separately. This term is necessary because of the enhanced reporting requirements that have been added to the final rule. These are discussed in Section 245.305 below. The term “potential to be affected” is used in Sections 245.306 and 245.309 in connection with water supplies that might be impacted by a release. The term has been defined to clarify the intended target population of water supplies, and the factors that should be evaluated in identifying these water supplies for sampling during both the interim remedial action and site characterization phase of the corrective action.

Finally, the term “responsible party” is 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 amended this section by limiting this “delivery liability” to tanks that never held a valid registration in any prior 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 changed by Act 16.

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 amendments clarify subsection (c) to indicate that in addition to “reporting” a reportable release, corrective action must be initiated.

2. *Section 245.305. Reporting releases.*

Subsection (a) currently requires the owner or operator to verbally notify the Department of a reportable release as soon as practicable but in no case more than 2 hours after confirming a release. At 40 CFR § 280.50, the Federal regulation allows 24 hours to notify, but requires reporting of both suspected and confirmed releases. In accordance with the RBI and Executive Order 1996-1, this subsection is modified to conform to the Federal requirement for timely reporting of releases and requires owners and operators to verbally notify the Department of reportable releases as soon as practicable but in no case more than 24 hours after the release is confirmed. For these tank releases, the requirements of Section 245.305(a) supersede the requirements of Section 91.33(a) (relating to incidents causing or threatening pollution). The Department believes that 24 hours is a reasonable time for the initial report of a confirmed release, and does not believe that this change will result in environmental harm since interim remedial actions must be initiated immediately upon release confirmation.

In subsection (c), the phrase “...the contamination of surface water, groundwater, soil or sediment...” has been replaced with the term “affected environmental media.” Environmental media is now defined in Section 245.1 as “soil, sediment, surface water, groundwater, bedrock and air.” Subsection (c) has been revised to require reporting of affected environmental media and also to require reporting of impacts to water supplies, buildings, sewer or other utility lines. Impacts to water supplies and buildings, sewer or other utility lines were not specifically identified in the existing regulation. These important impacts of a release, if identified, must now be reported in the verbal and subsequent written notifications.

Subsection (d) has been modified in the final rule to indicate that the initial written notification that is due within 15 days of the release confirmation must be sent to each municipality in which impacts of the release have been identified, not just the Department and the municipality in which the release itself occurred, as was previously the case.

Subsection (e) has been added to the final rule and requires the responsible party to notify the Department and impacted municipality, in writing, upon discovery of a new impact. The notification is required within 15 days of discovery of the new impact. The Department’s experience is that not all impacts of a release are known or evident within 15 days of the verbal notification when the initial written notification is due. The purpose of this subsection is to assure that the Department and municipal officials in impacted municipalities are updated on a more continuous basis about the impacts of a release that become known during the interim remedial action and site characterization phases of the corrective action. Only the first occurrence of an impact to a specific environmental medium, water supply, building, sewer or other utility line in each municipality needs to be reported. For example, if contamination of groundwater is discovered in a monitoring

well drilled in a municipality, the Department and that municipality must be notified, in writing, of the impact to groundwater. If another well is drilled in that municipality and contaminated groundwater is also discovered, additional notification that groundwater is impacted in that particular municipality is not required. The Department is planning to revise form 2530-FM-LRWM0082 to facilitate compliance with the new reporting requirements. The revised form will be available on the Department's website or can be obtained from the persons listed in Section B of this Order.

Subsection (f) has been modified to indicate that each written notification required by Section 245.305 must include the same information as required by subsection (c).

Subsection (g) is a new section in the final rule and provides for an additional mechanism to assure that details of releases that pose an immediate threat to public health and safety are communicated to the general public. The dissemination of information concerning the release may, at a minimum, take the form of a notice in a newspaper of general circulation serving the area or may involve other means of keeping the public informed on a regular basis depending on the level of severity and general public interest in details of the release. The Department could undertake this public notice, or the Department could work with the responsible party to provide this notice.

Existing subsections (e) and (f) are renumbered in the final rule as (h) and (i), respectively.

3. Section 245.306. Interim remedial actions.

A new subsection (a)(4) has been added to this section of the final rule. This subsection requires that the identification and sampling of affected water supplies and water supplies with the potential to be affected be initiated immediately as an interim remedial action. In the existing regulation, this activity is listed as an element of the site characterization. As such, initiation of this activity was subject to unnecessary delay until well into the site characterization phase of the corrective action. By including initiation of this activity as an interim remedial action, the identification and sampling of affected water supplies and water supplies with the potential to be affected is elevated to a more appropriate level of urgency and importance. This section also requires that a copy of the sample results must be provided to the Department and the water supply owner within five days of receipt by the responsible party, and emphasizes that all water supplies determined to be affected or diminished must be restored or replaced in accordance with Section 245.307. A definition of the term "potential to be affected" has been added to Section 245.1 to help clarify how wells with the potential to be affected are defined and identified.

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 final rule amends Section 245.306 to reflect those statutory amendments.

First, section 501(a)(13) of the Storage Tank Act (35 P.S. § 6021.501(a)(13)) 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 amendments add this requirement in subsection (b)(4).

Second, section 501(a)(15) of the Storage Tank Act (35 P.S. § 6021.501(a)(15)) 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 amendments add a new subsection (d) to reflect this requirement.

4. *Section 245.309. Site characterization.*

The Department has changed this section to bring storage tank site characterizations into line with the requirements of Act 2.

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

Paragraph (6) is added to indicate that the site characterization must provide sufficient information to allow selection of an Act 2 remediation standard.

Paragraph (7) has been deleted in the final rule in response to comments.

Subsection (c) provides a list of potential tasks to satisfy the site characterization objectives. The Board has made the following amendments to subsection (c):

a. Paragraph (4) has been modified in the final rule to mirror the requirements of Section 245.306(a)(4) to emphasize that the identification and sampling of affected water supplies and water supplies with the potential to be affected must continue, as necessary, throughout the site characterization phase of the corrective action as new information is gathered and evaluated regarding the current and projected extent of contaminant migration.

b. Existing 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 amendments replace 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.

c. Added a new paragraph (11) to provide for a demonstration that groundwater is not used or currently planned to be used. This activity is necessary where the remediator intends to use the Act 2 nonuse aquifer standards.

d. Paragraph (15) currently requires the remediator to identify and apply appropriate groundwater modeling methodologies to characterize the site. The amendments rephrase 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.

e. Deleted paragraph (18) in response to comments.

f. Added new activities in paragraph (19), “selection of a remediation standard,” and paragraph (20), “if the site-specific standard is selected, performance of a risk assessment in accordance with §§ 250.601-606.” These additions are necessary to bring the CAP regulation site characterization requirements into line with Act 2.

5. Section 245.310. Site characterization report.

The Board has amended 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 Board has made the following changes to subsection (a):

a. Amended subsection (a)(4)(v)(C) to implement the requirements of Act 16 of 1995. This mirrors the requirement added to Section 245.306(d).

b. Subsection (a)(4)(v)(F) is required to demonstrate attainment; however, the Department has deleted this subsection and addresses this requirement under Section 245.310(b).

c. Moved and rewrote paragraphs (11) and (12). The impacts to ecological receptors and surface water are now reported under new paragraphs (28) and (29), respectively.

d. Revised paragraph (23) to read “A conceptual site model describing the sources of contamination, fate and transport of contaminants and potential receptors.”

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

f. Added a new paragraph (27) to include the Department’s written determination under Section 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.

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

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

i. Revised paragraph (30) to indicate that a site must be remediated as opposed to completely recovering or removing the regulated substance that was released.

j. Added a new paragraph (31) to include a risk assessment report in accordance with Section 250.409 (relating to risk assessment report).

k. Added 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,” where 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 Section 245.310(b) report is intended to be applicable only for use with the statewide health standard. With this rationale in mind, the Board has made the following revisions to subsection (b):

a. Amended subsection (b), in response to comments, to clarify that this report is appropriate where soil is the only media of concern, in lieu of the proposed language “that groundwater is not a media of concern.”

b. Revised subsection (b) to indicate that a site must be remediated as opposed to completely recovering or removing the regulated substance that was released.

c. In response to comments, added language to clarify that if submission of a site characterization report satisfying the requirements of Section 245.310(b) is acceptable, a site characterization report satisfying the requirements of Section 245.310(a) is not required.

d. With respect to the items for inclusion in the report, revised 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).

e. Added paragraph (3) to require explanation of the basis for selecting residential or nonresidential statewide health standards.

f. Added paragraph (4) to require reporting the results of the evaluation of ecological receptors conducted in accordance with Section 250.311 (relating to evaluation of ecological receptors).

Subsection (c) has been changed in a significant way from both the existing and proposed regulation. In response to comments, the Department has incorporated a process for review timeframes and “deemed approvals” into Chapter 245 for site characterization reports, remedial action plans and remedial action completion reports. These timeframes will apply only to original reports received after the effective date of the regulation. The timeframes will also apply to the review of resubmissions received in response to deficiency letters generated by the Department for these reports. As explained below, this process includes review timeframes for site characterization reports submitted under Section 245.310(b), and for site characterization reports where the site-specific standard is selected. All other site characterization reports which elect the background or statewide health standard will be subject to review provisions upon receipt of and in conjunction with review of the remedial action plan designed to attain those standards.

Subsection (c) has therefore been amended to restrict the list of Department actions to site characterization reports submitted under Section 245.310(b) or to site characterization reports where the site-specific standard is selected. The subsection has also been amended to indicate that the Department shall take one or more of the actions listed in subsection (c). One option, paragraph (3), which allows the Department to review and disapprove the report, citing deficiencies, has been added. Existing section (c)(5) has been deleted as no longer necessary since paragraph (1) provides for the same review and approval. Subsection (c)(6) has been modified to indicate that one option available to the Department is to review the site characterization report without further action. This would be the case with a report that became deemed approved.

The amendments delete existing 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.

A new subsection (d) has been added to the final rule which sets out the review timeframes that apply to site characterization reports meeting the requirements of subsection (b) or to site characterization reports where the site-specific standard is selected. Reports submitted in accordance with subsection (b) will be reviewed or deemed approved by the Department within 60 days of receipt and a site characterization report where the site-specific standard is selected will be reviewed or deemed approved within 90 days of receipt.

An important additional provision of subsection (d) is that an automatic “deemed approval” can be overridden if the Department and the responsible party agree, in writing, to an alternate timeframe for review of the report. This provision has been added to accommodate responsible parties who would prefer not to receive a deemed approval, even if some extra time on the part of the Department was necessary for completing the review.

6. Section 245.311. Remedial action plan.

Subsection (a) has been amended to require submission of a remedial action plan within 45 days of submission of the site characterization report only in cases where the background or statewide health standard has been selected in the site characterization report. In these cases, the site characterization report and remedial action plan will be reviewed and acted upon by the Department as one package. In cases where the site-specific standard has been selected, the remedial action plan is not due until 45 days after the responsible party has either received a written approval of the site characterization report or it has been deemed approved. This provision assures that the responsible party is not obligated to submit a remedial action plan for the site-specific standard until action on the site characterization report has occurred.

Subsection (a) also provides a list of potential elements for the remedial action plan. The Board has made the following revisions to subsection (a):

- a. Revised 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 that was released.
- b. Added 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. Revised 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 that was released).
- d. Added a new paragraph (12) to provide for a description of any proposed post-remediation care that may be required.

The final rule 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.

The final rule includes revisions to subsection (c), now subsection (b), which lists the Department’s options upon receiving site characterization reports and remedial action plans that have selected the background or statewide health standard. The Department’s

actions here mirror those in Section 245.310(c), except that the options apply to both the site characterization report and remedial action plan, which will be subject to review as a single package.

A new subsection (c) has been added which, in a fashion similar to (b), specifies the Department's alternatives upon receiving a remedial action plan, which is designed to attain the site-specific standard. This separate subsection is needed here to distinguish between remedial action plans that select the background and statewide health standard and those selecting the site-specific standard. In the latter case, the site characterization report would have already been submitted and approved, so the wording of subsection (b) would not be applicable.

A new subsection (d) has been added to indicate that where the 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.

A new subsection (e) has been added in the final rule, which specifies that the timeframe for the Department's review of a remedial action plan where the background or statewide health standard has been selected is 60 days and 90 days for a remedial action plan where the site-specific standard has been selected. If the Department fails to approve or disapprove the plan, in writing, within the designated time, the report and plan or plan will be deemed approved. As in the case of site characterization reports, these timeframes will apply only to original reports received after the effective date of the regulation. The timeframes will also apply to the review of resubmissions received in response to deficiency letters generated by the Department for these reports. The "deemed approval" can be overridden if the Department and responsible party agree, in writing, to an alternate timeframe for reviewing the report.

A new subsection (f) has been added at final rulemaking to address the Department's review timeframes if site characterization reports and remedial action plans are submitted at the same time. Site characterization reports and remedial action plans selecting the background and statewide health standard will be reviewed in 60 days, and combined reports selecting the site-specific standard will be reviewed in 90 days. If the Department does not respond in writing within the given timeframe, the report and plan shall be deemed approved.

7. Section 245.312. Remedial action.

The amendments revise 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) has been added to require specific information to be provided for fate and transport analyses. An incorrect reference that appeared in the proposed rulemaking has also been corrected.

In response to comments, the final rule revises subsection (d) to clarify that the final remedial action progress report is to be submitted as part of the remedial action completion report.

The final rule changes the process in subsection (e) for terminating a remedial action plan when the responsible party decides to change it for any reason. First, subsection (e)(1) of the existing regulation is 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.

In the proposed rulemaking, subsection (e) required the responsible party to request and receive approval from the Department prior to terminating their remedial action plan, and to submit a new or modified plan selecting a new remediation standard. In response to comments, subsection (e) has been revised in this final rulemaking. Subsection (e) now simply requires that the responsible party submit a new remedial action plan for review if and when a decision is made to change it. The timeframes established in Section 245.311(e) will apply to the review of the new plan. The approved remedial action plan may be terminated upon approval of the new plan. The new remedial action plan need only identify a new remediation standard if a different one is selected. Selection of a new remediation standard alone does not require submission of a new remedial action plan.

Subsection (f) is revised to establish the process for suspending remedial action if continued implementation of the remedial action plan will cause additional environmental harm. Subsection (f)(1), which allowed for submission of a remedial action completion report, has been deleted since it was an option under the defunct Groundwater Quality Protection Strategy.

In response to comments, subsection (f) of the proposed regulation has been modified to clarify that the verbal notification that the remedial action plan has been suspended is due within 24 hours of the suspension. The requirement in the proposed rulemaking that the Department must approve the suspension has been eliminated. The responsible party is now only obligated to submit a new or modified remedial action plan in accordance with Section 245.311, and identify a new remediation standard, if applicable.

As originally adopted in 1993, subsection (g) required that where 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 has been deleted. The attainment requirements are now addressed in Sections 245.310(b) and 245.313(b).

Subsection (h) is related to and follows the requirements of subsection (g). Accordingly, the Board has also deleted subsection (h).

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 it has been 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 amendments delete 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 has been 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 a heavy reliance is placed on fate and transport analyses in demonstrating attainment of certain Act 2 standards, specific requirements with regard to this information have been added.

Subsection (c) lists the actions available to the Department upon submission of a remedial action completion report. The Board has changed “may” to “shall” to indicate that the Department will act on all remedial action completion reports, providing final resolution to remedial actions, or they will be deemed approved. A new paragraph (3) has been added that allows the Department to review and disapprove the remedial action completion report, citing deficiencies. Paragraph (5) has been deleted, since it does not result in a final remedial action determination by the Department. A new paragraph (6) has been added at final that allows the Department to review the remedial action completion report without further action, as would be the case if the report were deemed approved.

New subsection (d) has been added to specify the timeframes for the Department’s review of remedial action completion reports. Remedial action completion reports demonstrating attainment of the background or statewide health standard will be reviewed within 60 days of receipt. Remedial action completion reports demonstrating attainment of the site-specific standard will be reviewed within 90 days of receipt. If the responsible party does not receive a written approval or disapproval of the report within the specified timeframe, the report will be deemed approved. As in the case of site characterization reports and remedial action plans, these timeframes will apply only to original reports submitted after the effective date of the regulation. The timeframes will also apply to the review of resubmissions received in response to deficiency letters generated by the Department for these reports. The “deemed approval” can be superseded if the responsible party and Department agree, in writing, to an alternative timeframe for review.

9. Section 245.314. Professional seals.

This section has been 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 Pennsylvania 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 an inability to thoroughly process SIR data and provide reports within this 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. The amendments change the reporting requirement to 20 days, which should be achievable in the Commonwealth and is in line with those other states' regulations.

F. Summary of Comments and Responses on the Proposed Rulemaking

There were 4 commentators to the proposed rulemaking. In general, the commentators supported the proposed rulemaking and welcomed the integration of Chapters 245 and 250.

The most significant issue raised during the public comment period was the incorporation of mandatory review times and deemed approved provisions for site characterization reports and remedial action plans. In response, the Board has amended the proposed regulation to include mandatory review timeframes and deemed approved provisions for all of the corrective action process reports. The timeframe and deemed approved provisions will apply only to new reports submitted after the effective date of the regulation. Deemed approved provisions may be superseded if the Department and the responsible party agree in writing to an alternative timeframe. The review timeframes are as follows:

The Department will review a site characterization report submitted under Section 245.310(b) within 60 days of receipt or a site characterization report submitted under Section 245.310(a) selecting the site-specific standard within 90 days of receipt.

Site characterization reports submitted under Section 245.310(a) for the background or statewide health standard will be reviewed within 60 days of receipt of a

remedial action plan designed to attain those standards. The review will include the remedial action plan.

Site characterization reports and remedial action plans for the background or statewide health standard which are submitted together will be reviewed within 60 days of receipt.

The Department will review a remedial action plan designed to attain the site-specific standard within 90 days of receipt.

Remedial action completion reports for the background and statewide health standard will be reviewed within 60 days of receipt. A remedial action completion report demonstrating attainment of the site-specific standard will be reviewed within 90 days of receipt.

Definitions – 245.1

In response to concerns that the proposed definition of “reportable release” might include reporting a release of petroleum of less than 25 gallons to a synthetic surface, the Board has changed the term “to the surface of the ground” to “to an aboveground surface.”

The Board has not excluded a “de minimis” thickness of 1/8 inch or less from the definition of “free product” as suggested by one commentator. The definition was revised solely for consistency with terminology used in Chapter 250. Further, the Board is concerned that the suggested change would exclude accumulations of this thickness or less from any requirements for removing free product to the maximum extent practicable, which based on site-specific considerations, may be more or less than 1/8 inch, for example, on surface water.

One commentator requested defining the word “contamination” or “contaminated soil” to mean the presence of constituents exceeding the applicable Act 2 Statewide health standard (SHS) levels. The Board has not made this change. Meeting the applicable Act 2 SHS levels means that contaminants have been reduced to within an acceptable risk range. It does not mean that contamination has been eliminated in its entirety. Therefore, soil, for example, which meets SHS levels, must be managed in accordance with the Department’s residual waste management regulations.

One commentator suggested referencing the definitions of “*aquifer*,” “*background*,” “*cleanup or remediation*,” “*contaminant*” and “*groundwater*” in section 103 of Act 2 (35 P.S. § 6026.103) rather than reiterate the definitions in the regulation. The Board considered making this change. However, the full definitions have been included to make it less cumbersome for the user who would otherwise need to consult the other reference cited.

One commentator requested explanation of the term “sufficient level of detail” as used in the definition of “survey.” The Board included the phrase “at a sufficient level of detail” in the existing definition of survey to emphasize the importance of the study to the owner or operator. However, since Section 245.304(d) begins by saying that “To overcome the presumption of liability established in Section 245.303(c), the owner or operator shall affirmatively prove, by clear and convincing evidence...”, the Board believes that the phrase “at a sufficient level of detail” is not necessary in the definition of “survey.” Therefore, the phrase has been deleted.

Reporting releases – 245.305

One commentator requested a definition of the word “confirmation” as used in the context of “confirming” a reportable release in order to make it clear when the 24-hour reporting period begins. The question was asked: “Is it when the release is discovered by the operator or by someone walking by who reports it?”

“Confirmation” of a *reportable release* has been widely understood in the program to mean “verification” by the owner or operator that a release meeting the definition of a reportable release has occurred. The confirmation may be made in a number of ways including through the investigation of a suspected release, by the direct observation of a release by the owner/operator, or conceivably, by verifying a report of a release made by someone walking by. In this latter case, the 24-hour period would begin when the release was confirmed by the owner/operator, not the time it was noticed by the person walking by. The Board does not believe that it is necessary to define “confirmation,” as clarity in this area has not been an issue.

Two of the commentators wanted to know how the new reporting requirement in Section 245.305(a) related to the Clean Streams Law reporting requirement in 25 Pa. Code § 91.33, and one requested that the Section 245.305(a) requirement apply to all discharges, including those subject to the Clean Streams Law. The timeframe in Section 245.305(a) is applicable to releases of regulated substances from storage tanks regulated under the Storage Tank Act. For these tank releases, the requirements of Section 245.305(a) supersede the requirements of Section 91.33. As stated in Section 245.302, the scope of Chapter 245, Subchapter D, is restricted to releases of regulated substances from storage tanks regulated under the Storage Tank and Spill Prevention Act. To mandate that all spills, discharges or releases subject to the Clean Streams Law be subject to the notification requirements of Section 245.305(a) would expand the regulation beyond its authorized scope.

One commentator requested that the word “regulated” be inserted before “storage tanks” in Section 245.304(a) to better clarify the intent and scope of the provision. The Board does not believe the suggestion is necessary. The scope of all provisions of Chapter 245, Subchapter D, is clearly stated in Section 245.302 to be storage tanks regulated by the Storage Tank Act.

Site characterization – 245.309

Two of the commentators were concerned with proposed Section 245.309(b)(5). This objective lists certain kinds of physical data that might be needed for later use in fate and transport analysis to demonstrate attainment of an Act 2 standard. One commentator felt that the objective erroneously assumed that a fate and transport analysis would be needed in every case, and another questioned the availability of the data and the detail required.

The final rule does not amend this paragraph. One clear objective of a site characterization in a risk-based corrective action program is to anticipate and collect the kind of field data that may be needed to support conclusions made at the end of an investigation. Further, fate and transport analysis is required in demonstrating attainment of any Act 2 standard, although the method and form of fate and transport analysis selected will vary depending on the complexity of the release.

The primary purpose of the data is to establish reliable and accurate input parameters for mathematical models that may be used or required to support demonstrations of attainment of Act 2 standards. The number of samples collected and measurements made is site-specific and proportional to the hydrogeologic complexity of the site being characterized and the data requirements of the fate and transport analysis method chosen. Where mathematical models are not used or necessary, the importance of some parameters will be diminished.

One commentator suggested that to be consistent with harmonizing these regulations with Act 2, Section 245.309(c)(18) should not be amended (as proposed), but should be deleted in its entirety. The proposed language has been deleted as suggested.

One commentator questioned what constituted “sufficient information” for selecting a remediation standard as required by Section 245.309(b)(6) and (7).

Subsection (b)(6) states that one of the objectives of a site characterization is to provide the responsible party with sufficient information to select a remediation standard. What is “sufficient” is a determination to be made by the responsible party, not the Department. The responsible party gets to select the remediation standard. Failure to meet this objective could result in the selection of an unattainable or inappropriate standard for the site by the responsible party.

Subsection (b)(7) states that one of the objectives of a site characterization is to collect enough information to define and assess the relative merits of the remedial action options. To be consistent with the deletion of the proposed language at Section 245.309(c)(18), the Department has deleted this objective. While a responsible party may choose to conduct this exercise, it is not required as the responsible party may choose a remediation standard without an analysis of alternatives.

Site characterization report – 245.310

One commentator requested assurance that changes in the proposed rulemaking would be effective only on a going-forward basis. The changes to site characterization report submissions, as well as all revisions to this regulation, will be effective upon publication in the *Pennsylvania Bulletin* as final rulemaking.

One commentator asked that the regulation define the consequences if a responsible party does not meet the objectives of a site characterization report. The commentator asked whether the Department would add provisions addressing a deficient site characterization report and whether the Department would notify a responsible party of any deficiencies and the procedure to correct them.

Existing Section 245.310(c) lists the actions the Department may take following submission of a site characterization report. In general, site characterization reports are evaluated in terms of the validity and completeness of the elements listed in Section 245.310(a), based upon the complexity of the release, rather than an evaluation of the objectives. If a responsible party fails to consider or satisfy a relevant objective, it will very likely be reflected as a deficiency in one or more of the elements necessary in the site characterization report. The Board has added a new Section 245.310(c)(3), which allows the Department to disapprove the site characterization report, citing deficiencies, as one of its options.

One commentator requested clarification that if a site characterization report meeting the conditions and requirements of Section 245.310(b) was submitted, a report meeting the requirements of Section 245.310(a) was not needed. The Department has added wording to Section 245.310(b) to clarify this concern. A site characterization is not required to be submitted under both subsections.

Two commentators requested that a cross reference be added to Section 245.310(b)(4) to indicate that the evaluation of ecological receptors should be done in accordance with Section 250.311. The cross reference has been added.

One commentator requested that Section 245.310(b) be amended to delete the condition that a remediator prove that groundwater is not a media of concern, and insert language which applies this paragraph to sites where soil is the only media of concern. While the proposed language was not intended to imply that the responsible party must prove that groundwater is not a media of concern in every case, the language has been changed as suggested to clarify this concern.

One commentator requested that additional revisions to Section 245.310(b) be made in order to allow a site characterization report to be submitted as a final report where groundwater can be demonstrated to achieve the SHS and increase the period of time required for submission of the site characterization report from 180 days to one year where a remediator chooses to achieve SHS for groundwater.

Demonstrating attainment of the SHS in groundwater normally requires 8 quarters of monitoring. Less than 8 quarters of monitoring may be allowed with written approval

of the Department in accordance with Section 250.704(d) (relating to general attainment requirements for groundwater). Deviation from the attainment requirements as set out in Chapter 250 is beyond the scope of this amendment.

In cases where a site characterization shows that groundwater meets SHS, a remedial action plan requesting less than 8 quarters of monitoring to demonstrate attainment can be submitted with the site characterization report. Section 245.303(e) currently provides for this combining of reports/plans. Monitoring data would then be submitted in quarterly (or at an alternative interval) progress reports with the final remedial action progress report being submitted as part of the remedial action completion report.

One commentator requested deletion or amendment of Section 245.310(a) to eliminate interim site characterization reports as a generic requirement. The commentator indicated that a report might be appropriate once all remedial action is completed or, in those few cases where applicable, in conjunction with remedial action progress reports, but believed that these are special cases and should be handled as such. On a somewhat related note, the commentator also suggested that site characterization reports and remedial action plans should be combined into a single report subject to a single Department review.

No change has been made. Section 245.303(e) already provides that the Department can accept a combined site characterization report and remedial action plan. However, the Department does not believe that the combined submission of this report/plan should be mandatory. Unlike the Act 2 program, which is largely voluntary, the CAP regulation implements a mandatory regulatory program that requires responsible parties to conduct cleanup and attain an Act 2 remediation standard. To help assure that the selected standard will be attained through the remedial action, the remedial action plan is reviewed and approved by the Department prior to its implementation. Allowing the submission of one report at the completion of remedial action would preclude the Department's review of the remedial action plan and quarterly progress reports which the Department feels is needed to fulfill its oversight role under the Storage Tank Act and assure that a cleanup standard is being attained.

Remedial action plan – 245.311

One commentator questioned the need and burden imposed on responsible parties by Section 245.311(a)(5), which requires the “the results of treatability, bench scale or pilot scale studies or other data collected to support remedial action.”

Treatability studies, bench scale and pilot scale studies are generally used to evaluate experimental or innovative technologies that have little or no history of application at the field scale. The purpose of the studies is to demonstrate the feasibility or effectiveness of a new technology by testing it at a laboratory or on a small field-scale before applying the technology to the larger field problem. In some cases, these studies are reported in the scientific literature. In other cases, especially with pilot scale studies,

the consultant for the responsible party or a subcontractor marketing the new technology would complete the studies. The Department believes it is important not to close the door on innovative technology, but at the same time be able to require some demonstration or documentation that the innovative technologies have merit prior to their application. In most cases, this element of the remedial action plan will not be necessary, since most remediations rely on well-established technologies.

One commentator asked whether a remedial action plan is required when the SHS is selected and no current or future exposure pathways exist. The SHS is a numeric standard. Attainment of the numeric SHS must be demonstrated regardless of whether pathways exist or not, in accordance with Chapter 250, Subchapter G.

Two commentators asked whether a remedial action plan could be denied based on which remediation standard the remediator selected. The regulations do not specify under what circumstances the Department can deny the remedial action plan.

Existing Section 245.311(c), (Section 245.311(b) in the final rule), lists the actions the Department may take upon submission of a remedial action plan. Basically, the Department looks to see if the remedy has a reasonable chance of attaining the selected standard. With conventional technologies, this should be straightforward. Since the responsible party has the option of selecting the remediation standard, the Department will not disapprove a remedial action plan based solely on the selected remediation standard.

One commentator questioned how a responsible party could show attainment of the selected standard. Attainment requirements for each remediation standard under Act 2 are set out in Chapter 250, Subpart G. Demonstration of attainment for the remediation standard selected will be reported in the remedial action completion report as described in subsection 245.313(b).

One commentator stated that because Act 2 leaves the choice of remedial action to the responsible party, not to Department approval, proposed Section 245.311(a)(5) should be discarded from further consideration, and existing Section 245.311(a)(5) should be deleted in its entirety.

While it is true that the responsible party chooses the remediation standard, unlike the Act 2 administrative process, the CAP regulation requires the remedial action plan to be approved by the Department prior to its implementation. Therefore, the Board believes both elements to be necessary, where appropriate. Treatability studies, bench scale and pilot scale studies are generally used to evaluate experimental or innovative technologies that have little or no history of application at the field scale. In most cases, this element of the remedial action plan will not be necessary, since most remediations rely on well-established technologies. Design and construction details are important in reviewing a remedial action plan to determine the effectiveness of the remedy.

Remedial action – 245.312

One commentator suggested allowing a responsible party to combine the reports required by Section 245.310, relating to site characterization reports, and this section. Section 245.303(e) states the Department may waive or combine requirements. The commentator questioned whether the reports required by Sections 245.310 and 245.312 could be combined. If they could be, the commentator wondered whether Department permission would be required prior to submitting them together to the Department.

The Department believes the commentator was requesting that site characterization reports and remedial action plans (Section 245.311) be combined. Section 245.303(e) does allow for this report/plan to be a single submission. However, the responsible party should contact the Department and agree upon a timeframe for submission of the combined report/plan, unless the report/plan combination is submitted within the regulatory timeframe governing the site characterization report.

Several comments addressed Section 245.312(e), which deals with termination of remedial action plans. One commentator stated that while subsection (e) requires the responsible party to request termination of the remediation plan if the plan is not achieving the remediation standard, there is no time requirement for the Department to respond to the request. Another commentator requested clarification regarding subsection (e) – whether a new remedial action plan must be submitted when the remediator decided to select a more stringent remedy with no change in the remediation standard selected; and, if the new remedy could proceed without waiting for Department approval.

The Board has revised subsection (e) extensively. The proposed requirement for the responsible party to write to the Department requesting termination of the remedial action plan has been eliminated. Under the final regulation, when responsible parties wish to change the remedial approach, they simply submit a new or modified remedial action plan to the Department for review and approval. As indicated earlier in this section, a 60- or 90-day timeframe for Department review would apply to the new or modified plan depending on the remediation standard selected. The responsible party is expected to continue to implement the existing remedial action plan until approval of the new or modified plan. Selection of a more (or less) stringent remedy would require submission of a new or modified remedial action plan. Selection of a new remediation standard, but not a change of the remedy, would not require submission of a new or modified remedial action plan.

One commentator suggested that a time limit for submission of the new or modified remedial action plan should be added to Section 245.310(e). The final rule does not add a time limit here. As with other submissions under this regulation that may be returned to the responsible party for additional information or work, the Board would prefer that the Department request resubmission of a report/plan or submission of a new report/plan within a reasonable timeframe based on the particulars of the case.

One commentator requested that the final remediation action progress report should be consolidated into the remedial action completion report. Language has been added to subsection 245.312(d) to provide for this.

One commentator pointed out that Section 245.312(e) and (f) should be structured to allow for the possibility of a change in remediation method without a change in the remediation standard. As proposed, when a responsible party notified the Department of a mid-course change in a remediation action plan, the notice would have had to include "selection of a new remediation standard." These two subsections have been revised to address this concern by indicating that it is only necessary to identify a new remediation standard if one has been selected.

One commentator suggested that because Section 245.312(g), which related to demonstrating groundwater cleanup, was being deleted, a cross-reference should be added to Section 250.704, which relates to general attainment requirements for groundwater.

The Department believes that the concern is accommodated in Section 245.313(b), which establishes the requirements for a remedial action completion report. Section 245.313(b) cites the specific subsections in Chapter 250 that are to be addressed in the remedial action completion report for each standard. These subsections include the attainment requirements of Chapter 250, Subchapter G, which includes section 250.704.

One commentator objected to the deletion of Section 245.312(g), which required only 4 quarters of groundwater monitoring, and replacing it with Act 2's general requirement of 8 quarters of monitoring to demonstrate attainment of groundwater standards.

Section 250.704(d) specifically mandates 8 quarters of monitoring as the general requirement for demonstrating attainment of an Act 2 standard in groundwater. Because releases from regulated storage tanks are subject to the standards and attainment requirements of Act 2 and Chapter 250, Section 245.312(g) is deleted in the final rule.

One commentator suggested further amendment of proposed Section 245.312(f) to establish the starting point for the 24-hour deadline to report suspension of a remedial action because it was causing environmental harm. The Board has clarified this subsection by indicating that the notification is to be made to the Department within 24 hours of suspension of the remedial action plan.

G. Benefits, Costs and Compliance

Executive Order 1996-1 requires a cost/benefit analysis of the final regulation.

Benefits

This 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 Board 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 the Commonwealth should benefit through quicker and more efficient remediations occurring, along with the reuse of contaminated sites under the Act 2 program.

With the incorporation of report review timeframes and deemed approved provisions, responsible parties are guaranteed an action, either approval or disapproval, from the Department regarding all corrective action process reports.

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

An alternative approach would have been 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 Board 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 rulemaking 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, most requirements in this rulemaking 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 that are already in effect (such as Chapter 250). The Board does not anticipate any additional costs to the Commonwealth as a result of this proposal. While the final regulatory language includes a commitment on the part of the Department to review corrective action process reports and plans in a timely manner, it is believed that implementation of these provisions can be handled by existing regional office staff. However, the Department acknowledges that shifting of staff in some regional offices may need to occur for effective implementation.

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 consults 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 final rulemaking does require responsible parties for storage tank releases to prepare and submit to the Department and any municipality affected a release notification report where new impacts to environmental media or water supplies, buildings, or sewers or other utility lines are discovered after the initial notification already required by regulation. This notification process is already familiar to responsible parties, will not be necessary in all cases and will not pose a significant additional burden. 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 under this regulation.

H. 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 new provision in Section 245.306(b)(4) regarding segregation of soils should help to reduce the volume of contaminated soils at storage tank remediation sites.

I. Sunset Review

This regulation will be reviewed in accordance with the sunset review schedule published by the Department to determine whether the regulation effectively fulfills the goals for which it was intended.

J. 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 the notice of proposed rulemaking, published at 30 Pa.B. 3897, July 29, 2000, to the Independent Regulatory Review Commission (IRRC) and the Chairpersons of the House and Senate Environmental Resources and Energy Committees for review and comment.

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

Under section 5.1(d) of the Regulatory Review Act (71 P.S. § 745.5a(d)), on _____, these final-form regulations were deemed approved by the House and Senate Committees. Under section 5.1(e) of the Regulatory Review Act, IRRC met on _____ and approved the final-form regulations.

K. Findings of the Environmental Quality Board

The Board finds that:

- (1) Public notice of proposed rulemaking was given under sections 201 and 202 of the act of July 31, 1968 P.L. 769, No. 240 (45 P.S. §§ 1201 and 1202) and regulations promulgated thereunder at *1 Pennsylvania 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 30 *Pennsylvania Bulletin* 3897 (July 29, 2000).
- (4) These regulations are necessary and appropriate for administration and enforcement of the authorizing acts identified in Section C of this order.

L. Order of the Board

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

- (a) The regulations of the Department of Environmental Protection, 25 *Pennsylvania Code*, Chapter 245, are amended by amending Chapter 245 to read as set forth in Annex A, with ellipses referring to the existing text of the regulations.
- (b) The Chairman 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 Chairman shall submit this order and Annex A to the Independent Regulatory Review Commission and the Senate and House Environmental Resources and Energy Committees as required by the Regulatory Review Act.
- (d) The Chairman 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.

BY:

David E. Hess
Chairman
Environmental Quality Board





Pennsylvania Department of Environmental Protection

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September 21, 2001

The Secretary

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Mr. Robert E. Nyce, Executive Director
Independent Regulatory Review Commission
14th Floor, Harristown #2
333 Market Street
Harrisburg, PA 17120

RE: Final Rulemaking: Storage Tanks – Integration of Act 2 Provisions (#7-355)

Dear Bob:

Pursuant to Section 5.1(a) of the Regulatory Review Act, enclosed is a copy of a final-form regulation for review by the Commission. This final rulemaking was approved by the Environmental Quality Board (EQB) on September 18, 2001.

These amendments integrate the provisions of the Land Recycling and Environmental Remediation Standards Act (Act 2 of 1995) into Chapter 245. The rulemaking changes definitions in Subchapter A for consistency between the two programs, and it makes a minor technical change in Subchapter E. The rule's major emphasis is on Subchapter D and incorporates procedures for selecting and attaining one or more of the Act 2 remediation standards into the corrective action process (CAP) for regulated storage tanks. The CAP regulations were originally adopted in 1993 and have not been amended since that time.

The proposed rulemaking was adopted by the EQB on June 20, 2000, and published July 29, 2000. The EQB received comments from four commentators. The Storage Tank Advisory Committee (STAC) was consulted in developing these amendments, endorsing them by letter of June 15, 2001. Based on public comment and STAC's concerns, the final amendments reflect a number of changes, including enhanced release reporting requirements for responsible parties; broad public notice by DEP in certain severe release cases; increased investigation of water supplies by responsible parties; and DEP review timeframes for CAP reports and plans that are similar to those established under the Act 2 process, including deemed approvals.

Mr. Robert E. Nyce

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September 21, 2001

The Department will provide the Commission with any assistance required to facilitate a thorough review of this final-form regulation. Section 5.1(e) of the Act provides that the Commission shall, within ten days after the expiration of the committee review period, approve or disapprove the final-form regulation.

For additional information, please contact Sharon Trostle, Regulatory Coordinator, at 787-4526.

Sincerely,



David E. Hess
Secretary

Enclosures

**TRANSMITTAL SHEET FOR REGULATIONS SUBJECT TO THE
REGULATORY REVIEW ACT**

I.D. NUMBER: 7-355

SUBJECT: Storage Tank Program - Integration of Act 2 Provisions

AGENCY: DEPARTMENT OF ENVIRONMENTAL PROTECTION

TYPE OF REGULATION

Proposed Regulation

Final Regulation

Final Regulation with Notice of Proposed Rulemaking Omitted

120-day Emergency Certification of the Attorney General

120-day Emergency Certification of the Governor

Delivery of Tolled Regulation

a. With Revisions b. Without Revisions

FILING OF REGULATION

DATE

SIGNATURE

DESIGNATION

9/21/01 Kay S. Drin

HOUSE COMMITTEE ON ENVIRONMENTAL
RESOURCES & ENERGY

9/21/01 Pat Cariathan

SENATE COMMITTEE ON ENVIRONMENTAL
RESOURCES & ENERGY

9/21/01 E. Paquin

INDEPENDENT REGULATORY REVIEW COMMISSION

ATTORNEY GENERAL

LEGISLATIVE REFERENCE BUREAU

