

COMMENT AND RESPONSE DOCUMENT

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

INTEGRATION OF ACT 2 PROVISIONS

List of Commentators

Commentator 1

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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. (2, 3, 4) Further, the

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

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. (3,4) Further,

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

- 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.