# ADDRESSING SPILL AND RELEASES AT OIL & GAS WELL SITES (550-5000-001)

# FINAL TECHNICAL GUIDANCE DOCUMENT COMMENT AND RESPONSE DOCUMENT

#### **INTRODUCTION**

In assembling this document, the Pennsylvania Department of Environmental Protection ("Department" or "DEP") has addressed all pertinent and relevant comments associated with this proposed guidance document. For the purposes of this document, comments of similar subject material have been grouped together and responded to accordingly.

The proposed technical guidance document was published in the *Pennsylvania Bulletin* on April 14, 2012, with a 30-day public comment period (42 Pa.B. 2101). During the public comment period, the Department received approximately 67 comments from twelve individuals, corporations and organizations. The following table lists these commentators. The Commentator ID number is found in parenthesis following the comments in the comment/response document.

#### **Table of Commentators**

| Commentator<br>ID # | Name   | Address   |
|---------------------|--|---|
| 1.                  | James M. Zendek, P.E. Civil Engineer Science Applications International Corp.                            |   |
| 2.                  | Carrie B. Crumpton Manager, Regulatory Assistance & Training CONSOL Energy, Inc.                         | CNX Center<br>1000 CONSOL Energy Drive<br>Canonsburg, PA 15317-6506 |
| 3.                  | Daniel Devlin Director, Bureau of Forestry Pennsylvania Department of Conservation and Natural Resources | P.O. Box 8552<br>Harrisburg, PA 17015-8552                          |
| 4.                  | Pete Miller<br>Water Resources Manager<br>Range Resources – Appalachia, LLC                              | 3000 Town Center Blvd.<br>Canonsburg, PA 15317                      |
| 5.                  | Carla L. Suszkowski, P.E. Director of Regulatory Affairs and Community Relations Inflection Energy , LLC | 1000 Town Center Blvd.<br>Suite 230<br>Canonsburg, PA 15317         |
| 6.                  | Pamela F. Faggert<br>Dominion Resources  | 55 Ashby Ridge Road<br>Parkersburg, WV 26101                        |
| 7.                  | Emily Krafjack   | 1155 Nimble Hill Road<br>Mehoopany, PA 18629                        |

| 8.  | Kathryn Z. Klaber<br>President<br>Marcellus Shale Coalition  | 4000 Town Center Blvd.<br>Suite 310<br>Canonsburg, PA 15317              |
|-----|--|--|
| 9.  | Jennifer Hoffman<br>Manager, Environmental and Regulatory<br>Affairs<br>Chesapeake Appalachia, LLC | 300 North Second Street<br>5 <sup>th</sup> Floor<br>Harrisburg, PA 17101 |
| 10. | Mark Szybist Staff Attorney Citizens for Pennsylvania's Future                                     | 15 Public Square<br>Suite 101<br>Wilkes-Barre, PA 18701                  |
| 11. | Lou D'Amico Executive Director and President Pennsylvania Independent Oil & Gas Association        | Northridge Plaza II<br>115 VIP Drive, Suite 210<br>Wexford, PA 15090     |
| 12. | Samuel Denisco Vice President, Government Affairs Pennsylvania Chamber of Business and Industry    | 417 Walnut Street<br>Harrisburg, PA 17101-1902                           |

#### **GENERAL**

1) <u>Comment:</u> The proposed guidance addresses the magnitude of spills which require Department notification. It specifically mentions brine spills, but does not clearly state whether or not the requirements also apply to oil/petroleum products. (1)

**Response:** Oil and petroleum products are included in the definition of "pollutant" in 25 Pa.Code § 91.1 and therefore releases of oil and petroleum products are required to be reported to the Department in accordance with 25 Pa.Code §§ 78.66 and 91.33.

2) <u>Comment:</u> The Department is to be commended for recognizing the need for a guidance document concerning releases from oil and gas operations. The development of oil and gas resources – especially of unconventional formations like the Marcellus Shale – requires the use, transportation and storage of enormous volumes of toxic chemicals and wastewaters. Spills, leaks and releases are inevitable, and absent proper management and remediation, such releases could have devastating individual and cumulative impacts on the waters of the Commonwealth. (10)

**Response:** The Department acknowledges the comment.

3) <u>Comment:</u> I am writing in support of this proposed guidance. There needs to be consistency among operators in the manner of reporting spills and releases. There needs to be consistency regarding response to spills and releases. DEP needs to be able to act, investigate and approve of any actions taken. This can only happen with good and consistent communications. Within the scope of my observations, this new proposed guidance is well warranted and well received. I therefore, strongly urge that it be adopted at a minimum as written in its entirety. (7)

**Response:** The Department acknowledges the comment.

4) <u>Comment:</u> The Department is commended for its efforts to provide uniformity and consistency in the interpretation of environmental laws and regulations. A policy is one approach to attempt to explain such uniformity and consistency. We share with the Department the further goal of ensuring that the Department and the regulated community come to a clear and common understanding of what is required by the applicable statutes and regulations as well as working together effectively to ensure protection of human health and the environment. (4)

**Response:** The Department acknowledges the comment.

5) <u>Comment:</u> We support the efforts of the DEP to provide uniformity of the notification and remediation requirements in the event of a spill or release that will provide a critically important measure of consistency across the Regions. (5, 8)

**Response:** The Department acknowledges the comment.

6) <u>Comment:</u> The proposed guidance uses the term "Responsible Party" throughout the document. The proposed guidance attempts to define a "Responsible Party" in a manner that is unique to the proposed guidance. The definition of a "Responsible Party" advanced by the Department is unnecessary and does not mesh with the applicable regulatory requirements. For

example, the notification requirements in 25 Pa. Code § 91.33(a) contain specific language describing who must provide notice in the event that an accident, incident or other activity triggers the obligation to notify thereunder. Specifically, the obligation to notify is placed on "the person at the time in charge of the substance or owning or in possession of the premises, facility, vehicle or vessel from or on which the substance is discharged or placed." Id. To avoid potential confusion, the proposed guidance should be modified to be in harmony with the applicable regulatory requirements that govern who is obligated to report a spill or release, assuming that a reporting obligation has been triggered. (12)

Response: The intent of the Spill Policy was not to create new definitions for "Responsible Party" in terms of reporting of spills and releases. As a result, the term has been decapitalized throughout the Spill Policy. The Department notes that the term "responsible person" is defined in sections 103 of the Hazardous Sites Cleanup Act (35 P.S. § 6020.103) and section 103 of the Land Recycling Act (35 P.S. § 6026.103), as well as substantively in 25 Pa.Code § 91.33. Further, the Department considers the permitted well operator to be a "person at the time in charge of the substance or owning or in possession of the premises, facility, vehicle or vessel from or on which the substance is discharged or placed" for the purpose of spills or releases occurring at permitted well sites.

7) <u>Comment:</u> The proposed guidance uses the defined term "Responsible Party" throughout. The term has unintended potential implications as that term is used in other state and federal programs. Such references would be inappropriate and could result in unintended consequences that could work against practical solutions. It also could affect liability determinations. A person or company who is involved in spill prevention, mitigation, control or reporting should not have to be unnecessarily concerned with an admission of liability, for example. As such, we suggest using a descriptive but legally-neutral term or decapitalizing the term "responsible party" accompanied by an appropriately unique definition that makes clear it has no legal consequences. (4, 5, 8)

**Response:** See Response to Comment 6, above.

8) Comment: The definition of "Responsible Party" should make clear that a contractor may be the party responsible for certain measures under certain circumstances. Much of what is performed for the oil and gas industry involves field contractors. Every effort is made to ensure that the exploration and production company's policies are followed, but accidents or other situations can intervene such that the contractor should, at least in the first instance, be responsible for spill response and reporting, and may in fact be responsible for the release and/or any damage that results. Further, the proposed guidance could be read to impose legal responsibility in certain circumstances and does not specify if dual reporting is required for spills and releases by contactors or if operator reporting alone is sufficient. We request clarification on this issue. (4, 5, 8, 11)

**Response:** See Response to Comment 6, above. As noted, the Department considers the permitted well operator to be responsible for all activities occurring on the permitted well site. Dual notification is not required; so long as the Department is properly notified of a spill or release by either the operator or person contracting with the operator, compliance with the reporting requirement of the regulations is achieved. The Spill Policy is intended to reflect existing requirements and the Department's interpretation of those requirements as applied to oil and gas well sites.

9) <u>Comment:</u> The proposed guidance includes a definition of "Pollutional Substance." We believe that there is no need to craft a tailored definition for purposes of the proposed guidance because the existing laws and regulations contain sufficient defined terms which are appropriate for use. If by use of the term the Department intends to include a broader scope of materials than those already identified by the Clean Streams Law and other statutes and regulations, or if the Department intends to limit any of those terms, this should be clearly spelled out. (4, 5, 8)

**Response:** The term is used in 25 Pa.Code § 78.56 (relating to pits and tanks for temporary containment). This section establishes standards for the temporary storage and containment of materials other than wastes that might cause pollution. This regulation has been in place for a significant amount of time and therefore its use in the Spill Policy should not cause any confusion for the oil and gas industry. There is no intent on the part of the Department to establish a new and tailored definition in the Spill Policy. The term is therefore retained in the Spill Policy. However, as the term is not defined in Chapter 78, the Department will interpret the term to have the same meaning as the term "regulated substance," as that term is defined in section 103 of the Land Recycling and Environmental Remediation Standards Act (35 P.S. §§ 6026.103, "Act 2")

**10)** Comment: The proposed guidance states that "[i]n accordance with the control or disposal plan and/or PPC plan, the person responsible (Responsible Party) for a spill or release of a substance that creates a danger of pollution to the waters of the Commonwealth or damage to property ... should take immediate action...." Guidance, p. 1. The Guidance further notes that "[f]or this policy, a "person" is any legal entity which is recognized by law with rights or duties." Id. The Department should better identify how it will determine Responsible Parties under the various statutes that it administers, particularly since that term is regularly used throughout the draft document to identify the person who must take action.

In the context of Oil & Gas Operations, the Department has previously identified, in its Marcellus Shale Industry Trainings and Workshops, "the person or business causing the spill" as the party responsible for the cleanup and costs of cleanup of a spill and "the owner of the property where the pollution occurred" as a potentially responsible party.

Given that there may be circumstances in which the person causing the spill is not the person responsible for corrective action, the Department should provide further clarification concerning the term "Responsible Party." (10)

Response: See Responses to Comments 6 and 8, above. Liability exists under the existing referenced statutes and regulations and it is not the Department's intent to explicitly identify specific responsible parties in the Spill Policy. For example, as referenced in the second paragraph of the Comment, under section 316 of the Clean Streams Law whenever the Department "finds that pollution or a danger of pollution is resulting from a condition which exists on land in the Commonwealth the department may order the landowner or occupier to correct the condition in a manner satisfactory to the department..." 35 P.S. § 691.316. See also, section 701 of the Hazardous Sites Cleanup Act (35 P.S. § 6020.701) (relating to responsible person). Liability for remediation and response is a highly fact-dependent exercise, although the Department does consider the permitted well operator to be responsible for all activities occurring on the permitted well site.

**11)** Comment: The proposed guidance fails to specify the scope of its application by referring to "related operations." To provide clarity, the proposed guidance should specifically identify and define what is meant by "related operations." (4, 5, 8, 10)

**Response:** The Department's intent is to discuss spill and releases issues for operations at well sites, as that term is defined in 25 Pa.Code § 78.1. This clarification has been made to the Spill Policy to avoid confusion.

**12**) <u>Comment:</u> In several sections of the proposed guidance, the Department describes actions which "should" be taken; these actions are aspirational, not mandatory in nature (Commentator lists several specific sections throughout the document as examples). The proposed guidance should be amended to make it clear that these actions are recommendations, not requirements. (9)

**Response:** The Department believes that the proposed Spill Policy clearly expressed which requirements are mandatory and which requirements are recommendations to operators to avoid potential liability. Given this comment, as well as Comments 14, 15, 20, 21 and 40, below, however, the Department has modified the Spill Policy to be even more explicit about those items that are clearly required.

The Spill Policy does reflect some existing uncertainty in the explicit boundaries to the requirements for spill and release reporting under 25 Pa.Code § 91.33. See, e.g., *Milco Industries, Inc., and Municipal Authority of the Town of Bloomsburg v. Commonwealth of Pennsylvania, Department of Environmental Protection* (2002 Pa.Envirn. LEXIS 51), where the Environmental Hearing Board considered the Department's authority to issue a Clean Streams Law order to address a "danger of pollution":

The Department has the authority to issue an order to a person if it finds that that person's activity creates a danger of pollution of the waters of the Commonwealth. 35 P.S. § 691.402(a). The Department has the authority to issue an order requiring a person to cease operations if a condition existing in or on the operation is creating a danger of pollution of the waters of the Commonwealth. 35 P.S. § 691.610.

Neither party has referred us to any case law elaborating upon exactly what constitutes a "danger" of water pollution. Milco argues convincingly that the term should not include every conceivable circumstance in which a creative mind can conjure up a set of circumstances that could theoretically cause pollution. At the other extreme, a "danger" is obviously something less than actual, proven pollution. The appropriate definition doubtless lies somewhere between these two extremes, and whether a "danger" exists sufficient to support an order will undoubtedly require a case-by-case analysis. Beyond these truisms, a more refined analysis will need to await an adjudication by the full Board following the hearing on the merits.

Given this uncertainty, alongside the requirement in 25 Pa.Code § 78.66(b) to report small spills of brine to the Department, the Spill Policy recommends that operators take certain steps to clearly protect themselves from liability for failure to report certain spills and releases.

#### Responding to a Spill or Release Related to Oil & Gas Operations

**13**) <u>Comment:</u> This proposed guidance is clear, concise and reasonable. This will greatly assist in all parties understanding their responsibilities. (7)

**Response:** The Department acknowledges the comment.

**14)** Comment: In the last paragraph under "Responding to a Spill or Release Related to Oil & Gas Operations," the proposed guidance provides that the Responsible Party "should" take immediate action to stop the release, prevent migration of pollutional substances, and prevent pollutional substances from affecting surface water or groundwater. If the proposed guidance is to be accord with 25 Pa. Code § 78.55 and 91.33, the Department must replace "should" with "must." (10)

**Response:** The Department acknowledges the requirements contained in Chapters 78 and 91 and has made the requested change to the Spill Policy.

**15)** <u>Comment:</u> The language of this section alternates between the use of the words "should" and "must," which makes it difficult to discern how the proposed guidance intends to supplement existing requirements. (11)

**Response:** See Response to Comment 12, above.

**16**) <u>Comment:</u> The proposed guidance correctly states that oil and gas well operators must prepare and implement a control and disposal plan in accordance with 25 Pa. Code § 78.55, but cites only the requirements under 25 Pa. Code § 78.55(a). The proposed guidance fails to cite the equally important requirements under 25 Pa. Code § 78.55(b), which states:

The plan must identify the control and disposal methods and practices utilized by the well operator and be consistent with the act, The Clean Streams Law (35 P. S. §§ 691.1 -- 691.1001), the Solid Waste Management Act (35 P. S. §§ 6018.101 -- 6018.1003) and §§ 78.54, 78.56 -- 78.58 and 78.60 -- 78.63. The plan must also include a pressure barrier policy that identifies barriers to be used during identified operations.

The Department should amend the first paragraph in this section to emphasize an operator's additional requirements under 25 Pa. Code § 78.55(b). (10)

**Response:** Although the Department believes that the overall references to 25 Pa.Code § 78.55 in this section are sufficient, language has been added to the first paragraph to address the Commentator's concerns.

17) <u>Comment:</u> Section 91.33(a) provides that a Responsible Party must, "if it is reasonably possible to do so, . . . notify known downstream users of the waters" when a release or spill "would endanger downstream users . . . , would otherwise result in pollution or create a danger of pollution of the waters, or would damage property." Under section 91.33(b), a Responsible Party "shall take or cause to be taken steps necessary to prevent injury to property and downstream users of the waters from pollution or a danger of pollution and, in addition thereto,

within 15 days from the incident, shall remove from the ground and from the affected waters of this Commonwealth to the extent required by this title the residual substances contained thereon or therein." For operations regulated under 25 Pa. Code Chapter 78, the industry is also required to take this corrective action pursuant to 25 Pa. Code § 78.66(a). Failure to emphasize a Responsible Party's obligations to downstream users and property owners in this guidance document would amount to a failure by the Department to protect those persons from harm caused by releases or spills resulting from oil and gas operations. (10)

**Response:** The Department acknowledges the Comment and has added a reference to the downstream notification requirements in 25 Pa.Code § 91.33(b). The Department does not agree that the removal requirement in that subsection overrides the remediation standards established in the Act 2 and so did not make that suggested change to the Spill Policy.

**18**) <u>Comment:</u> In the fourth paragraph of this section, the Department should reference Chapter 4 of the Oil and Gas Operator's Manual (DEP ID 550-0300-001) as an additional reference that operators should use as guidance in preparing the PPC Plans. That chapter more specifically addresses the content of a PPC Plan that oil and gas operators must develop and implement to comply with their requirements under 25 Pa. Code § 78.55. (10)

**Response:** The Department acknowledges the Comment and has added a reference to the Operator's Manual.

#### Reporting a Spill or Release Related to Oil & Gas Operations

What Spills to Report to the Department

**19)** <u>Comment:</u> This section of the proposed guidance is clear, concise and reasonable. With any propensity for spills to affect nearby private water supplies, extra care needs to be taken to not only prevent such occurrences, but also to document the rare case where it does and have consistent guidelines for response. The public also needs assurance and needs to be able to view such information should they desire, regarding sites within close proximity to their homes. Accurate information is very beneficial to all parties, the public, regulators and industry. (7)

**Response:** The Department acknowledges the comment.

**20)** <u>Comment:</u> The proposed guidance uses the terms "should" and "must" throughout. We assume that when the Department uses the term "must" it is referring to a mandatory obligation and "should" when referring to the Department's request for voluntary action or a suggestion. The use of the word "should" is also ambiguous and the distinction could lead to confusion and disputes regarding the implementation of the proposed guidance.

In light of these practical problems, we believe the suggestion or request for voluntary reporting is not appropriate for a policy document. At minimum, the Department should (1) clearly distinguish between actions it believes are mandatory (those required by applicable laws and regulations) and actions that are desirable or recommended but are purely optional, and (2) restructure the proposed guidance so that requirements that are mandatory and those that are optional appear in different sections of the proposed guidance in order to provide greater clarity for all stakeholders. (4, 5, 8, 11)

**Response:** See Response to Comment 12, above. The Department does not believe that the restructuring called for by the Comment is necessary and instead had highlighted those specific areas where action is recommended rather than required.

**21)** <u>Comment:</u> The terms "should" and "must" are mixed implying both voluntary and mandatory actions. DEP should clearly define which requirements are mandatory and which are voluntary to clarify the language and avoid ambiguity. (2, 11)

**Response:** See Response to Comment 12, above.

**22**) <u>Comment:</u> The proposed guidance should state more clearly and precisely the obligations and recommendations for reporting a spill under the various cited regulatory sections. A table outlining such obligations and recommendations would be helpful, along with clear identification of which reports are required and which reports are recommended but not required. (9)

**Response:** See Responses to Comments 12 and 20, above.

**23**) **Comment:** This section of the proposed guidance does not explain or define "who" must report a spill or release. (11)

**Response:** See Responses to Comments 6, 8 and 10, above. In addition, because the Department has limited the scope of the Spill Policy to activities occurring on permitted well sites (see Response to Comment 11, above), the permitted well operator bears the ultimate responsibility for reporting spills or releases covered by the Spill Policy.

**24**) <u>Comment:</u> Spills of de minimis quantities which can be immediately addressed, with no environmental impact, no threat to waters of the Commonwealth or public health should be exempt from reporting requirements. (2)

**Response:** As noted in Response to Comment 12, above, whether or not spill is a "de minimis" spill is a very fact-specific determination. The Department believes that the establishment of thresholds of 5 gallons for spills to the ground and completely contained releases into secondary containment for recommended reporting covers the universe of non-reportable de minimis spills and releases.

25) Comment: The proposed guidance states that because of the difficulty in ascertaining the danger that a spill or release may pose "to the environment," any spill or release of a pollutional substance, regardless of the quantity spilled or released, should be reported to DEP. This interpretation of Pennsylvania law is far broader than what 25 Pa. Code § 91.33(a) actually requires. The central thrust of 25 Pa. Code § 91.33(a) focuses on accidents, incidents or activities that result in the release of a substance that would endanger downstream users of the waters of the Commonwealth or "would otherwise result in pollution or create a danger of pollution of the waters." The obligation to report a spill or release is tethered directly to the concept that the spill or release will reach surface waters or groundwater so as to (1) pose a danger to downstream users of the waters, (2) result in pollution of such waters, or (3) create a danger of pollution of such waters. In contrast to the terms of the proposed guidance, not all spills and releases must be reported to DEP under 25 Pa. Code § 91.33(a). DEP has suggested that its stance in the proposed guidance is justified by the fact that the language used in 25 Pa.

Code § 91.33(a) may be difficult in practice to apply. The Department should not attempt to rewrite the operative regulatory provisions through technical guidance to eliminate the critical spill reporting prerequisites that are present in the regulations by announcing a policy that all spills and releases "should" be reported. The Department should modify the proposed guidance to eliminate the language contained in the second paragraph of this section. (4, 5, 8, 12)

Response: See Response to Comment 12, above. As the Department has noted, the Spill Policy does not require releases that are not subject to 25 Pa.Code §§ 78.66 and 91.33 to be reported. What the Spill Policy suggests is that in order to avoid any question about potential liability, spills of greater than five gallons to the ground or spills that are not completely contained by secondary containment should be reported to the Department. By reporting such spills and releases, the operator can ensure that no liability for failure to report will result from the operator's actions if it is later determined that the release should in fact have been reported at the time it was observed. Finally, the existing regulations in 25 Pa.Code §§ 78.1 (definition of "reportable release") and 78.66(b) already require spills of relatively small amounts of brine to be reported to the Department.

**26**) Comment: There may be situations in which spills or releases from fresh water impoundments that the Department considers "nonjurisdictional" (since they are exempt from regulation under the Dam Safety and Encroachments Act) will trigger reporting and remediation responsibilities under this section. An operator may, for instance, become aware that "dewasted" wastewater stored in a nonjurisdictional impoundment under the Department's WMGR123 permit may become mixed with raw or inadequately processed wastewater. The proposed guidance should clarify that a spill or release is not exempt from the requirements of section 91.33 simply because it is from a nonjurisdictional impoundment. (10)

**Response:** The Department does not believe that such a clarification is necessary because the Spill Policy does not exempt such impoundments from the requirements in 25 Pa.Code §§ 78.66 and 91.33.

27) Comment: The proposed guidance arbitrarily provides that spills or releases to secondary containment systems of materials in quantities exceeding 42 gallons should be reported to the Department. The Department does not cite any regulatory authority for this novel position but presumably intends to rely on 25 Pa. Code § 91.33(a) as primary support. Secondary containment serves the fundamental purpose of catching and containing spills or releases so that the material that is spilled or released does not reach the underlying and surrounding soils. This is the reason that secondary containment is required to be used in a variety of contexts. By definition, if a secondary containment system is functioning as it is designed, a spill or release will not reach groundwater or surface waters. Absent evidence that a spill or release to secondary containment has actually escaped the secondary containment system and the predicates in 25 Pa. Code § 91.33(a) are otherwise met, there is no basis to require that the spill or release to secondary containment, regardless of quantity, be reported to the Department. The proposed guidance should be revised to eliminate provisions that state that spills or releases to secondary containment should be reported to DEP. (4, 5, 6, 8, 9, 12)

**Response:** See Responses to Comments 12 and 25, above. Proper containment of pollutional substances is required by both the 2012 Oil and Gas Act and Chapter 78. The Spill Policy acknowledges the function of secondary containment by suggesting a much higher limit on

recommended release reporting (that is, 42 gallons or one barrel versus 5 gallons for spills and releases to non-secondary containment areas.).

The Department has two primary concerns related to releases of pollutional substances to secondary containment. First, containment systems fail or at times can be operated in a manner that negates the containment function (for example, leaving a sump drain open after draining rain water from a containment structure). In the moments following a spill or release of more than 42 gallons, it may be difficult to adequately determine whether or not the containment structure adequately functioned to fully contain the release. Given the short timeframes for notice to the Department ("immediately" in 25 Pa.Code § 91.33(a)), a prudent operator could avoid potential liability by reporting the spill or release with a follow-up to the Department indicating that the secondary containment functioned as designed and the spill was contained and addressed completely.

A second critical argument for reporting releases of greater than 42 gallons to secondary containment relates to the Department's role as the regulator of oil and gas operations. Routine releases of more than a barrel of potentially polluting substances should not be an everyday occurrence at well sites in the Commonwealth, even if the releases are to secondary containment structures. Receiving information that such releases are occurring at particular well sites may help the Department allocate resources to conduct outreach to operators who may be having operational problems leading to such releases. Reporting such releases may also serve as an "early warning system" for operators to address operational problems at particular well sites while they are still small and can be corrected with a minimum amount of effort or cost.

For these reasons, the Spill Policy retains the *recommendation* that spills of greater than 42 gallons to secondary containment structures be reported to the Department. Such spills are not *required* to be reported unless the spill is otherwise required to be reported under 25 Pa.Code §§ 78.66 and 91.33.

**28**) <u>Comment:</u> Reporting releases to secondary containment and small releases with no impact to the environment is unnecessary and overly burdensome to both the operator and Department. The proposed guidance should be revised to address reporting of only unexpected or unintended releases to secondary containment. (2)

**Response:** See Responses to Comments 12, 25 and 27, above.

**29**) <u>Comment:</u> The phrase "competent well pad liner" is ambiguous. The Department should clarify that the phrase refers to "a liner that was professionally installed, is structurally sufficient for containing the materials that are used or stored at the well site, and with respect to which, the operator had no actual knowledge of any breach of integrity." (9)

**Response:** The Department acknowledges the comment and has made this change.

**30)** Comment: In certain situations, such as severe weather, it may not be feasible to remove all spilled or released materials from secondary containment within 24 hours. The proposed guidance should be amended to provide that the material should be removed "within 24 hours or, if this timing is not feasible, as soon as practicable." (9)

**Response:** The Department has retained the 24-hour timeframe in the final policy. If the operator cannot remove the spilled materials within 24 hours, the spill should be reported to the Department.

**31)** <u>Comment:</u> The proposed guidance states that once removed, the responsible party "should properly store and/or dispose of the material in accordance with applicable law and regulation." The proposed guidance should be amended to make explicit that the recommended timeframe for removal and storage of the material does not apply to the disposal of the material, which may require more time. (9)

**Response:** The Department acknowledges that the 24-hour timeframe only applies to removal of the spilled material from secondary containment and not the ultimate disposal of the spilled materials.

**32)** Comment: Simply having secondary containment in place should not relieve a Responsible Party from having to notify the Department of a spill or release of less than 42 gallons, especially when it is not evident that the secondary containment has the capacity to contain such a spill or release and also that the secondary containment is "in place" to contain that specific spill or release. Furthermore, the proposed guidance indicates that the Department will rely upon the Responsible Party to conclude whether the secondary containment is "sufficient."

The Department is relying on too many assumptions in this policy to conclude that such a spill or release need not be reported. If the Department chooses to implement this policy through this guidance document, then it should specify what a sufficient "secondary containment" and "competent well liner" are, what "in place" means, and where it finds justification for allowing a release or spill of less than 42 gallons of any pollutional substances to go unreported. (10)

**Response:** See Responses to Comments 12, 25, 27 and 29, above. Spills and releases of less than 42 gallons may still be subject to the requirements of 25 Pa.Code §§ 78.66 and 91.33; the Spill Policy does not state that smaller spills are never subject to the regulatory requirements. Rather, the Spill Policy suggests that spills of less than 42 gallons to competent secondary containment that are addressed in a timely manner are unlikely to pollute or present a danger of pollution to the waters of the Commonwealth. As a result, the Department is not recommending reporting of such smaller spills on a routine basis as a means of avoiding potential liability.

**33)** Comment: Differing reporting obligations arise under different scenarios, leading to confusion and uncertainty about the requirements to report small spills or those release captured entirely in secondary containment. The proposed guidance does not provide clarity as written. This section would be better promulgated as a rule that provides definitive reporting requirements, rather than a mixture of mandatory requirements and mere suggestions. (11)

**Response:** See Response to Comment 12, above. To the extent that the Spill Policy should be codified as a binding norm, the Department has included release reporting regulations as a topic for discussion in the "Summary of Proposed Conceptual Changes" document presented to the Oil and Gas Technical Advisory Board (TAB) at its February and August 2012 meetings, and in the draft proposed rulemaking (25 Pa.Code § 78.66) presented to TAB on December 11, 2012.

When to Notify the Department / How to Notify the Department

**34)** <u>Comment:</u> The notification time frame and required phone call are reasonable. Any delay beyond two hours can fail to provide the best information. Direct phone communication is the only way everyone can be adequately informed. (7)

**Response:** The Department acknowledges the comment.

**35)** <u>Comment:</u> The Department "requests" that releases to secondary containment be reported as soon as practicable with no specific time period specified. The Department should avoid terms such as "should" and "requests" to avoid ambiguity. (2)

**Response:** See Response to Comment 12, above. Such releases are not categorically required to be reported and so the Spill Policy must be somewhat ambiguous on that point.

**36)** Comment: The landowner whose property is impacted by a spill or release should be provided notification of the spill or release in timely manner, following notification to the appropriate jurisdictional agencies. Such notice would allow the landowner the opportunity to promptly respond and adaptively manage their lands in the affected area. (3)

**Response:** See Responses to Comments 58-59, below. Landowner involvement in restoration and revegetation activities is required.

**37**) <u>Comment:</u> The proposed guidance provides that a Responsible Party should report spills and releases related to transportation of oil and gas wastes within two hours "if practicable." This is incorrect. Under 25 Pa. Code § 299.217 (relating to emergencies), a transporter is required to *immediately* report a discharge of residual waste during transportation. (10)

**Response:** See Response to Comment 11, above. The Department has clarified the scope of the Spill Policy to only cover activities occurring on the well site.

**38)** Comment: The proposed guidance specifies the time limitations for reporting releases that are generally found in the regulations cited: immediately, for actual or threatened impacts to waters of the Commonwealth; and within two hours, for releases of brine. The proposed guidance goes on to require all other spills to be reported within two hours, "if practicable." The Department only "requests" that releases to secondary containment be reported as soon as practicable with no time period specified. To the greatest extent possible, the Department should only include the timing requirements from otherwise applicable requirements and avoid nuanced terms such as "should" and "requests." (4, 5, 8)

**Response:** See Responses to Comments 12, 20 and 35, above. To the extent that a spill or release turns out to have *required* notification to the Department, an operator can only comply with the regulations if the initial notice is made within the regulatory timeframes. For that reason, the Spill Policy suggests that such recommended notice occur within the regulatory timeframes to the extent possible to avoid liability.

**39**) <u>Comment:</u> The proposed guidance requires "immediate" action in the event of a spill or release to address immediate threats and to prevent further migration. These concepts, although used in the Clean Streams Law, are in many cases complex, based on the circumstances. While we are not

suggesting specific changes to the proposed guidance to address this issue, we are hopeful that it will be implemented by the DEP in a manner that takes into account the real world challenges that are often presented. (5, 8)

**Response:** The Department acknowledges the commentator's concerns and pledges that program staff will continue to work with all interested parties to properly address spills and releases in a timely manner.

#### Remediation of a Spill or Release Related to Oil & Gas Operations

#### Act 2

**40)** Comment: This section of the proposed guidance should refer to current remediation obligations. It alternates between the terms "should" and "must," which makes it difficult to discern how the proposed guidance intends to supplement existing requirements. There are several terms and phrases used in this section that lack definitions (for example, "interim remedial action"). (11)

**Response:** See Response to Comment 12, above. The Department believes that the undefined terms are adequately defined substantively in the document. Where more clarity is required, definitions for ambiguous terms have been added.

**41)** Comment: Because there is no Statewide health standard for chlorides in soil, requiring compliance with Act 2 for brine spills creates excessive burden and expense for operators to develop background or site-specific cleanups, with uncertain environmental benefit. By the time such standards and cleanup plans are developed, chloride impacts may have naturally attenuated to the point that further remediation will do more harm than good. (11)

**Response:** There is no Medium Specific Concentration (MSC) under the Statewide health standard for chlorides in soil. Because chlorides are not classified as a carcinogen and do not have systemic toxicology effects, the methodology within Chapter 250 does not allow calculation of a soil MSC. There is a MSC for chlorides in groundwater based on federally promulgated maximum contaminant levels under the Safe Drinking Water Act.

The remediator can receive relief of liability for soil contamination caused by chlorides under Act 2 by demonstrating attainment of the site-specific standard or the background standard. A cleanup plan and demonstration of attainment for a site-specific remediation can be accomplished in a relatively short time period. In general, the remediator could demonstrate attainment of the site-specific standard for the soil by showing that the chlorides in the soil will not exceed the chlorides MSC in groundwater. In addition, restoration of the chloride-impacted soil might be required (see Response to Comments 58-67).

**42**) <u>Comment:</u> The procedures are adequate and clearly defined. The current Act 2, which pertains to such situations, is referenced and highlighted accordingly. (7)

**Response:** The Department acknowledges the comment.

**43**) <u>Comment:</u> Act 2 identifies the statutes to which its programs apply and the Oil and Gas Act is not among them. (2, 11)

**Response:** Act 2 provides a procedure to remediate and receive relief of environmental liability relating to a release of a regulated substance addressed under various environmental statutes, including the Clean Streams Law, the Solid Waste Management Act, and the Hazardous Sites Cleanup Act. Many substances that are spilled at sites regulated under the Oil and Gas Act are regulated as waste under the Solid Waste Management Act or as pollutants under the Clean Streams Law (see, for example, sections 3273 and 3273.1 of the 2012 Oil and Gas Act, 35 Pa.C.S. §§ 3273, 3273.1). If these wastes and pollutants are regulated substances as defined under Act 2 and have contaminated soils and groundwater, they must be addressed under Act 2.

**44)** Comment: Act 2 is a "voluntary" program and the Department's authority to "order" compliance with the requirements of Act 2 is questionable. (2, 4, 9, 11)

**Response:** Act 2 has both voluntary and involuntary aspects. The Land Recycling Program relies, in large measure, on voluntary, remediator-initiated cleanups that have been and will continue to be encouraged by the Department.

Act 2 establishes "cleanup standards" for persons who remediate contaminated soil and groundwater caused by regulated substances released into the environment as defined under various environmental laws (see Response to Comment 43, above). These standards apply when persons either voluntarily perform or are required to perform remediation of soils and groundwater.

Section 106(a) of Act 2 states that, "The environmental remediation standards established under this act shall be used whenever site remediation is voluntarily conducted or is required under" the referenced environmental laws. Section 106(b) of Act 2 states; "Nothing in this act is intended to nor shall it be construed to amend, modify, repeal or otherwise alter any provision of any act cited in this section relating to civil and criminal penalties or enforcement actions and remedies available to the department or in any way to amend, modify, repeal or alter the authority of the department to take appropriate civil and criminal action under these statutes." 35 P.S. § 6026.106(a).

Thus, Act 2 contemplates that the Department may require (e.g., by issuance of a DEP Order) responsible persons to meet an Act 2 remediation standard. The Department has issued many such Orders since the adoption of Act 2.

**45)** <u>Comment:</u> Whether a person opts to use the Act 2 process in connection with remediation work is a purely voluntary decision. This position is supported by the explicit terms of Act 2 itself. It is also acknowledged in the Land Recycling Program Q&A Database posted on the Department's website, as well as in section I.B. of the Department's Technical Guidance Manual for Act 2 (*see*, DEP Doc. No. 253-0300-100 (June 8, 2002)). Finally, the Environmental Hearing Board expressed doubts about the position expressed in the proposed guidance in *Hercules*, *Incorporated v. Department of Environmental Protection*, 2007 WL 504875 (January 31, 2007). The proposed guidance should be amended to delete any suggestion that a party may be ordered to use the Act 2 process. (9)

**Response:** The comment is based on the erroneous assumption that the Act 2 "process" is distinct from the Act 2 standards. On the contrary, a distinct component of each Act 2 standard is notice and review provisions (see sections 302(1), 303(h), and 304(n)). Similarly, the notion that the use of Act 2 is purely voluntary is contrary to the explicit terms of the statute (see Response to Comment 44, above). While the Department's Technical Guidance Manual discusses its encouragement of and preference for voluntary cleanups, it also indicates that the Department may take enforcement actions to require cleanups when appropriate.

As noted above, all remediation standards in Act 2 include notice and review provisions. Therefore, when the Department requires a person to meet a remediation standard, the person is required to abide by the notice and review provisions and all other components of the Act 2 standard.

**46**) <u>Comment:</u> The proposed guidance suggests that only a single Act 2 standard must be attained for a spill cleanup. The proposed guidance should make clear that use of Act 2 is voluntary and that all of the flexibility of the Act 2 program is appropriately preserved; including use of one or more of a combination of standards, as is permissible under Act 2. (4, 5, 8)

Response: The language in the "In General" section of the guidance includes the following sentence; "The Responsible Person must remediate the affected area by demonstrating attainment of one of the remediation standards available under the Act 2/Land Recycling Program regulations in Chapter 250 of Title 25 of the Pennsylvania Code." In order to clarify and avoid any confusion this sentence will be revised as follows: "The responsible person must remediate the affected area by demonstrating attainment of one or more of the remediation standards available under Act 2 and the regulations in Chapter 250 of Title 25 of the Pennsylvania Code; or under the alternative process, meet all the applicable requirements to demonstrate attainment of one or more of the remediation standards, except the notice and review provisions under Sections 302(e), 303(h), and/or 304(n) of Act 2."

47) Comment: The proposed guidance would require the responsible party to advise the Department within 15 days of the spill or release what steps will be taken to remediate the site, regardless of the process to be followed. This requirement may be unachievable in many circumstances because of the nature of some releases and the impacts that are appropriate to be addressed. In some cases, site characterization information will not be available within 15 days to determine the appropriate remedial alternatives; in other cases, the cleanup occurs immediately. Additionally, the requirement to elect to follow Act 2 procedures within 15 days potentially conflicts with the voluntary nature of Act 2. Accordingly, the Department should remove this 15 day notice "requirement." (4, 5, 8)

**Response:** The language does not require that the site characterization *information* be available within 15 days. Rather, the language states that the notice should include "a schedule for site characterization, to the extent known" which implies that the site characterization may not be completed within 15 days. The 15-day period to inform the Department of the status of the release and the intended approach for remediation is a policy-based timeline. This 15-day period gives the responsible person time to consider the best approach for remediation and it gives the Department time to evaluate the nature of the release and the action or inaction of the responsible person and consider if enforcement action may be appropriate.

**48**) <u>Comment:</u> The proposed guidance should be amended to be clear that a responsible party has the right to opt into the Act 2 process regardless of whether it provides notice to the Department of that intention within the 15-day timeframe outlined in the proposed guidance. (9)

**Response:** The language in the guidance concerning the 15-day timeframe only states that the "responsible person should notify the Department of this decision [to use Act 2] within 15 days." The language does not imply that failure to provide the notice within 15 days precludes using Act 2. The responsible person needs to provide the Department with timely notice of the status of the release and its plans to remediate. Otherwise, the Department may conclude that the responsible person is attempting to avoid remediation obligations. The responsible person has the right to follow Act 2 at any time, but it does not have the right to delay the remediation.

#### Alternative Process

**49**) <u>Comment:</u> Several "requirements" in this section of the proposed guidance are not supported by statute or regulation, including the requirement and timeframes for preparation of and submission of site characterization reports and remedial action plans by the operator to the Department. The proposed guidance should be amended to reflect that these actions are not legally enforceable. (9)

**Response:** The Department's position is that it has the authority to order a responsible person to remediate spills and releases to Act 2 standards (see Response to Comment 44, above). However, in the context of these releases, the Department is willing to exercise enforcement discretion provided the responsible person is willing to meet certain conditions, as outlined in the Spill Policy. The Department acknowledges that several of these conditions may be more burdensome that the requirements under Act 2 but the choice of how to approach these remedial situations lies with the responsible person and not the Department.

In addition, the conditions outlined in the Alternative Process are largely modeled on the Department's storage tank Corrective Action Process regulations in 25 Pa.Code Chapter 245, Subchapter D (relating to corrective action process for owners and operators of storage tanks and storage tank facilities and other responsible parties). Thousands of storage tank cleanups have been completed using this process since the regulations were enacted in 1993.

As a present statement of the Department's intent to apply the laws and regulations it administers in the future, the conditions outlined under the Alternative Process as required for the Department to withhold enforcement are appropriate as a Statement of Policy and are retained in the final Spill Policy.

**50)** Comment: The Alternative Process has limitations and burdens. For example, the party undertaking the cleanup is required to develop a schedule for actions to be taken and meet certain reporting deadlines – initial report within 15 days of the release; site characterization within 180 days of the release; remedial action plan within 45 days of the site characterization plan if the cleanup standards have not been attained and a completion report documenting attainment of the background or statewide health standards. The corollary procedures established under Act 2 contain no such deadlines and we believe that none should be included for the Alternative Process. We recommend additional flexibility in respect of follow-up activities. (4, 5, 8)

**Response:** See Response to Comment 49, above.

**51**) **Comment:** The specified reporting requirements for the alternative process are far more burdensome than for the Act 2 process. (2, 11)

**Response:** See Response to Comment 49, above.

**52**) **Comment:** The alternative process does not allow for consideration of the use of the area to be remediated and instead requires conditions to be returned to a background standard rather than allowable limits based on the property's use. The alternative process should be revisited to allow for conditions that support the intended use of the property and eliminate the mandate to meet background standards. (2)

**Response:** The alternative process does allow some consideration of future use of the property through the remediator's choice of using either the residential or nonresidential Statewide health standards, as appropriate for the future use of the property. The Site-specific standard is not allowed as a condition of use of the alternative process because the notice and review provisions of that standard are designed to allow for discussion and consideration of the specific assumptions forming the basis for the cleanup and future use of the site where it is the selected Act 2 standard. Allowing such cleanups to proceed under the alternative process without that focused discussion and consideration is not acceptable to the Department and so it is not included in the Spill Policy as an available standard unless the Act 2 procedures are followed.

**53)** Comment: The proposed guidance provides that the Act 2 site specific standard is unavailable under the Alternative Process. Thus, for example, the Alternative Process can only be used to address a release of chlorides to soils if the background standard can be attained since no statewide health standard has been established. The proposed guidance further acknowledges that the appropriate standard for addressing a chlorides release is very site specific because of the land use considerations that need to be taken into account. There is no legal basis or policy rationale that would preclude the site specific standard. Accordingly, the Department should allow for the attainment of a site specific standard as an option under the alternative process. (5, 6, 8, 9, 11)

**Response:** See Responses to Comments 49 and 52, above. The alternative process establishes the conditions under which the Department is willing to refrain from ordering a cleanup demonstrating attainment of an Act 2 standard or standards. If the responsible person wishes to use the Site-specific standard to remediate the site, then the Act 2 standards must be followed.

**54)** Comment: The proposed guidance indicates that the Act 2 site-specific standard cannot be used if this process is chosen by the operator. Thus, the alternative process cannot be utilized to address a chloride release to soils unless the background standard can be attained. This would result in an unnecessary and much more onerous cleanup for brine than other regulated substances. (2, 11)

**Response:** See Response to Comment 53, above. The Site-specific standard is available for any cleanup demonstrating attainment of the Act 2 standard or standards, including all notice and review provisions.

**55**) <u>Comment:</u> The Department appears to be engaging in improper rulemaking through the creation of an alternative process for remediation of spills related to oil and gas development activities. The Department should instead propose the alternative process as a new rule to be moved through formal rulemaking procedures and remove the alternative from the proposed guidance. (10, 11)

**Response:** See Response to Comment 49, above. The Department is neither forcing operators to follow the alternative process nor allowing operators to avoid cleanup obligations under the alternative process. That choice lies with the responsible person. If the responsible person meets the conditions of the alternative process, however, the Department is willing to exercise enforcement discretion and not order a cleanup under Act 2 and 25 Pa.Code Chapter 250.

The Department has included cleanup process regulations as a topic for discussion in the "Summary of Proposed Conceptual Changes" document presented to the Oil and Gas Technical Advisory Board at its February and August 2012 meetings.

**56)** Comment: The requirements of the Alternative Process should be amended significantly. The Alternative Process as it is described in the proposed guidance is an unacceptable alternative to a Responsible Party's obligation in remediating a site after a spill or release. First, it fails to include requirements that the Legislature decided in Act 2 were essential in the remediation of a site, particularly a Responsible Party's obligations to the public. Furthermore, the Department fails to require that a Responsible Party meet the many requirements the Department has set forth under its own regulations for its Administration of the Land Recycling Program.

Should the Department decide to retain the Alternative Process in the final guidance, the Department should include a public notification requirement for all steps of the process and clarify that the requirements a Responsible Party must meet by choosing the Alternative Process will be held to the same standard applied in the related provisions of Act 2 and the Department's regulations promulgated thereunder. (10)

**Response:** See Responses to Comments 49 and 55, above. As noted, the alterative process was modeled on the Department's storage tank corrective action process, which has resulted in the successful remediation of thousands of sites over the past 20 years.

**57**) <u>Comment:</u> The Alternative Process does not provide relief from liability even though a prescriptive, standard-driven plan of notification, reporting and cleanup has been followed. If an Alternative Process is to be useful it must have some means of documenting the results of cleanup actions and, if not limiting liability, at least acknowledging the agency's endorsement of the actions and results of the cleanup. (6)

**Response:** The commentator is correct that completing the alternative process will not result in relief from liability under Chapter 5 of Act 2; only the demonstration of attainment of all parts of the selected standard is capable of providing such relief. However, as the Spill Policy notes, the "Department will review the completion report to ensure that the remediation has achieved" Act 2 standards. Such a review and communication of the results of that review to the responsible person should satisfy the commentator's concerns regarding documentation.

#### **Related to Oil & Gas Operations**

**58)** Comment: The proposed guidance is adequate. The consultation with the landowner of any area affected by a spill or release is particularly important. It is of particular benefit for the respective landowner to be consulted regarding any affected spill area. (7)

**Response:** The Department acknowledges the comment.

**59**) <u>Comment:</u> We support the provision which requests the responsible party to consult with the landowner regarding restoration and revegetation. (3)

**Response:** The Department acknowledges the comment.

**60)** Comment: The "requirement" in this section of the proposed guidance that spills on unrestored areas of well pads must be remediated as soon as possible is not supported by statute or regulation. The proposed guidance should be amended to reflect that this action is not legally enforceable. (9)

**Response:** The Department believes that its interpretation of Section 3216 of the 2012 Oil and Gas Act, 58 Pa.C.S. § 3216, outlined in this section, is correct. It appears that the commentator is reading this section of the Spill Policy as establishing an additional time limitation outside of those discussed in the previous section of the Spill Policy. This was not the intent and clarifying language has been added to this section.

**61)** Comment: The Department explains that it will apply the same general rule under 58 Pa.C.S. § 3216 to off-pad areas impacted by spills of materials leaving well pads. This would mean that restoration of off-pad sites impacted by spills or releases need not be completed until nine months after drilling is completed, and, considering the potential of an extension being granted pursuant to 58 Pa.C.S. § 3216(g), may not have to be completed until 2 years and 9 months after drilling is completed.

The Department's interpretation appears to be inconsistent with law and not in keeping with the intent of the Legislature when it enacted 58 Pa.C.S. § 3216. First, the statute contemplates the restoration of a well site disturbed by the regular activities involved in natural gas drilling operations that create disturbed areas. Although not defined under oil and gas regulations, disturbed areas are created by earth disturbance activities, and these activities are not defined to include spills or releases. 25 Pa. Code § 102.1. Second, the statute provides no indication that the Legislature intended to apply the restoration-after-drilling-completion rule to areas disturbed by spills or releases. To interpret the provision as including restoration of land impacted by spills and releases is to go beyond the Legislature's intent. Third, the statute does not contemplate the restoration of off-pad land, wetlands, or waters impacted by spills or releases that may require immediate cleanup and restoration to prevent further impacts to the surrounding environment. The "off-pad area" is not defined in the proposed guidance, and, therefore, can be read to include all land surrounding the well pad. Failure to restore such areas as soon as practicable could result in detrimental environmental consequences. Finally, the interpretation incorrectly assumes that spills or releases impacting off-pad areas will occur prior to the completion of drilling and, therefore, does not account for those spills or releases occurring after the completion of drilling.

The Department should remove this interpretation from the proposed guidance entirely. It appears to create a new rule regarding the industry's responsibility for restoration of land impacted by spills or releases and is inconsistent with law. (10)

**Response:** The Department believes that the "restoration within 9 months of completion of drilling" requirement may actually result in faster cleanup and restoration of "off-pad" areas than might otherwise be required under Act 2 or the other environmental statutes. For example, there are no explicit timeframes for *completion* of cleanup or remediation contained with Act 2 or Chapter 250. Timely completion of remedial activities was one of the reasons that the Department included relatively strict timeframes in the alternative process section of the Spill Policy and referenced the site restoration timeframes in this section.

**62)** Comment: The proposed guidance falls short of guiding the industry in its obligations of restoring and revegetating areas impacted by spills or releases from oil and gas wells and related operations. The Department should amend the second and third paragraphs in this section to provide clear guidance to the industry regarding its obligations not only under [the 2012 Oil and Gas Act] but also under other environmental laws such as Act 2 and the Clean Streams Law. The Department should also clearly identify how the industry's obligations differ based on the area impacted by the spill or release. Currently, different obligations regarding what must be done and when are mixed within the same paragraphs, which creates confusion. (10)

**Response:** The commentator's concerns are misplaced. This section of the Spill Policy strictly addresses the well operator's obligations to restore and revegetate the areas disturbed during oil and gas activities, broadly defined. These requirements are much more explicit than any potential requirements for restoration under the other environmental statutes. The Department also believes that the Spill Policy discussion in this section relating to the different areas impacted by a release is clear.

**63**) Comment: The last paragraph of the proposed guidance serves no apparent purpose, and the suggestion that flowback fluids and production fluids containing chlorides are "not particularly toxic to humans" has no factual basis. The Department should reconsider this paragraph's purpose and either omit it or amend it so that it serves a sound purpose in guiding the industry on restoration and revegetation of areas impacted by spills or releases. (10, 11)

**Response:** It is certainly correct to say that many of the materials discussed in the final paragraph are not particularly toxic to humans and that certain plant species may be more susceptible to damage from exposure to such fluids, such as moderately-high chloride brines. The lack of data demonstrating toxic or carcinogenic effects on humans of chlorides is the primary reason why there are no Act 2 Statewide health standards for chlorides in soils, yet many plant species are intolerant of such brines. The purpose of this paragraph is to remind operators that although there may not be a remedial requirement to protect human health from certain chloride levels, there may still be a revegetation and restoration requirement for those areas that would require greater effort to achieve. This paragraph is also intended to remind operators that the revegetation requirement is for pre-disturbance suitability, which might require different efforts given the pre-existing condition of the disturbed area (for example, farmland for a particular crop or forested areas).

**64)** Comment: With regard to chlorides, the Department should rely, and allow operators to rely, on existing guidelines, such as the American Petroleum Institute's "Strategies for Addressing Salt Impacts of Produced Water Releases to Plants, Soil and Groundwater," Pub. 4785 (September 2006). These guidelines evaluate when chloride concentrations in soils may cause harm and when/how remediation should be conducted. (9)

**Response:** The Department uses standards developed by industry groups or national organizations in many of our programs. Because restoration and revegetation are highly site-dependent situations, use of the API standard may provide guidance to the Department and operators in appropriate situations.

**65)** Comment: The proposed guidance seems to suggest that in addition to the remediation, restoration and re-vegetation of areas affected by a spill or release is required. The obligations to respond to releases and to restore a site following drilling and completions activities are unrelated legal requirements. References to site restoration should be removed from the proposed guidance to avoid this confusion. Further, the nine month site restoration requirement, which has significant exceptions under the new 2012 Oil & Gas Act provisions, are inappropriately referenced as a timeframe for release response. (4, 5, 8, 11)

**Response:** While acknowledging that remediation and restoration/revegetation are separate obligations, the Department does not agree that they are unrelated and the latter should be removed from the document. This is especially true where spilled or released materials leave the well site and cause problems in "off-site" areas. The Department believes that using the restoration requirements to address impacts for spills and releases that leave the site is an appropriate balancing of the duties of the operator and the harms to the off-site property owner. See Response to Comment 61, above.

**66)** <u>Comment:</u> The Department cannot create new terms of agreements voluntarily negotiated between operators and surface owners. If the Department intends to create new obligations for revegetation, those obligations must be promulgated as regulations rather than imposed through technical guidance documents. (11)

**Response:** The requirements in the Spill Policy do not represent new terms of agreements. Rather, they reflect regulatory and statutory requirements establishing binding legal norms for restoration and revegetation. A landowner cannot negotiate away an operator's legal duty to comply with the laws and regulations of the Commonwealth.

**67)** Comment: The proposed guidance should be amended to make it clear that the term "restored" as used in this section refers only to restoration of the *land surface* that, while located away from the well pad is nevertheless within the *well site*. Subsection (a) of section 3216 refers to restoration of the land surface within the disturbed area while subsection (c) refers to restoration of the well site. Reading these two provisions together makes it clear that the restoration obligation does not extend below the surface of the land and the proposed guidance must reflect the statutory requirements. (9)

**Response:** The commentator's point is acknowledged and this section of the guidance primarily focuses on restoration of the land surface. There will certainly be cases, however, where

subsurface restoration may be required in order to achieve the necessary endpoints for surface restoration and revegetation.