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2015 MAY 20 AM 8:31

Via Electronic Submission to RegComments@pa.gov and Hand Delivery

May 19, 2015

Department of Environmental Protection
Office of Policy
16th Floor Rachel Carson Building
400 Market Street
P.O. Box 2063
Harrisburg, PA 17105-2063

Re: Comments on Advance Notice of Final Rulemaking to 25 Pa. Code Chapters 78, Environmental Protection Performance Standards at Oil and Gas Well Sites [45 Pa.B. 1615]

To Whom It May Concern:

The Marcellus Shale Coalition (MSC), a regional trade association with a national membership, appreciates the opportunity to comment on the Advance Notice of Final Rulemaking to "25 Pa. Code Chapters 78 & 78a, Environmental Protection Performance Standards at Oil and Gas Well Sites."

The MSC was formed in 2008 and is currently comprised of more than 250 producing and supply chain members who are fully committed to working with local, county, state and federal government officials and regulators to facilitate the development of the natural gas resources in the Marcellus, Utica and related geological formations. Our members represent many of the largest and most active companies in natural gas production, gathering and transmission in the country, as well as the suppliers, consultants and contractors who serve the industry. MSC member companies have a steadfast commitment to strengthen communities by making our region a better place to live, work and raise our families – for our generation and future generations. More information about our organization can be found at <http://marcelluscoalition.org>.

MSC member companies produce approximately 96% of the unconventional natural gas produced in Pennsylvania. The MSC has separately submitted extensive and detailed comments to the Department regarding proposed revisions to Chapter 78a, related to Unconventional Wells. Additionally, many MSC member companies operate thousands of conventional oil and gas wells within the Commonwealth, and are therefore impacted by the Department's proposed revisions to Chapter 78, related to Conventional Wells. Therefore, the MSC explicitly incorporates and extends its comments submitted to the Department on Chapter 78a for all substantially similar regulatory provisions which are contained in Chapter 78. We request that the Department give the MSC's detailed comments on Chapter 78a the same weight and affect when reviewing and considering comments on substantially similar regulatory provisions contained in Chapter 78. Additionally, the MSC extends its support for the detailed comments submitted by the Pennsylvania Independent Oil & Gas Association with respect to Chapter 78.

The MSC appreciates your consideration in this matter.

Sincerely,

A handwritten signature in dark ink, appearing to read "D. Spigelmyer".

David J. Spigelmyer
President



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IRRC

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To Whom It May Concern,

The Marcellus Shale Coalition (MSC), a regional trade association with a national membership, appreciates the opportunity to comment on the Advance Notice of Final Rulemaking to “25 PA. CODE Chapters 78a, Environmental Protection Performance Standards at Oil and Gas Well Sites.” The MSC is submitting separate correspondence commenting on Chapter 78.

The MSC was formed in 2008 and is currently comprised of more than 250 producing, midstream and supply chain members who are fully committed to working with local, county, state and federal government officials and regulators to facilitate the development of the natural gas resources in the Marcellus, Utica and related geological formations. Our members represent many of the largest and most active companies in natural gas production, gathering and transmission in the country, as well as the suppliers, consultants and contractors who serve the industry. MSC member companies produce approximately 96% of the unconventional natural gas produced in Pennsylvania. MSC member companies have a steadfast commitment to strengthen communities by making our region a better place to live, work and raise our families — for our generation and for future generations. More information about our organization can be found at <http://marcelluscoalition.org>.

Introduction

The MSC and its members have consistently supported rigorous environmental controls that are based on facts, data, and sound science. Our role in helping to shape Act 13 of 2012, which substantially raised the bar by enacting numerous enhanced environmental standards – many of which have been copied by other states and even other nations - is ample evidence of that commitment. Few of the provisions set forth in the Proposed Regulations that were published Dec. 14, 2013 are necessary to implement Act 13, which is largely self-executing. Nonetheless, the MSC suggested improvements to the text in extensive comments and participated in the workshops conducted by the Department and the Technical Advisory Board in a good faith effort to balance legitimate environmental concerns with the ability of the industry to operate efficiently to produce a valuable resource essential to meeting the energy needs of the Commonwealth and nation. Some provisions of the Proposed Regulations were opposed as excessive, unnecessary, unreasonable or contrary to law. Our comments regarding the Proposed Regulations submitted to the Department on March 14, 2013 are hereby repeated and incorporated herein. Unfortunately, the Draft Final Regulations as they appear on the Department’s website and as referenced in the ANFR noticed in the *Pennsylvania Bulletin* on April 4, 2015 exacerbate the problems that appeared in the Proposed Regulations. Therefore, it is necessary for the MSC to submit additional comments.

Governor Wolf has been repeatedly quoted in the media as saying that he wanted the unconventional shale gas industry to succeed in Pennsylvania and he has personally made the same statement to some MSC members. The Draft Final Regulations run counter to the Governor's expressed wishes. Taken as a whole, these regulations appear to be designed to burden the industry to the point of paralysis, rather than enable the responsible development of the resource. The Draft Final Regulations are deficient in that: 1) many of the requirements are so ambiguous and subjective as to make it impossible to determine how to achieve compliance and leave judgment regarding compliance to the whim of individual inspectors or anti-industry activists; 2) several sections impose standards and obligations more onerous than imposed on other industries for similar activities without any basis, ignoring already existing regulatory programs; 3) some provisions impose requirements that interfere with efficient operations without creating any substantive environmental benefit or, in some cases, without any nexus at all to the environment; and 4) several provisions plainly exceed the Department's legal authority as determined by the Legislature and/or the courts, including a wholesale disregard for the Regulatory Review Act (RRA) 71 P.S. Section 745.1 et seq.

Regulatory Review Act

The ANFR: The Department's publication of its proposed regulatory revisions on April 4, 2015 has been advertised as an Advanced Notice of Final Rulemaking (ANFR). The ANFR is not a formal component of the RRA, but has historically been used by agencies to permit the regulated community and general public to review and comment on changes to the originally proposed regulations that were made in response to specific commentary on the original proposed regulatory language. However, the ANFR is not a substitute to fulfilling any of the formal steps of the RRA or the accompanying requirements imposed on the promulgating agency. An ANFR is not and cannot be a substitute for compliance with the RRA for new provisions added or radical changes made to the proposed regulations. Examples in the ANFR include a new definition of "other critical communities"; new standards for centralized storage tanks; site remediation; prohibition on the use of centralized wastewater impoundments and pits; noise mitigation requirements and others discussed in greater detail in the attached comments. In the ANFR, the Department itself notes that many of these provisions are new and/or significant changes on which it solicits comments. However, the call for comments cannot substitute for compliance with the RRA. As the Department is aware, agencies are generally prohibited from introducing new matters into a final rulemaking. Use of the ANFR process to evade these prohibitions, and to allow an abbreviated opportunity for public comment without the benefit of the accompanying data and information the Department is required to generate, is not consistent with the letter or spirit of the RRA or the Commonwealth Documents Law, and also allows these new provisions to evade review and comment by the legislative oversight committees and the Independent Regulatory Review Commission (IRRC).

Cost of Compliance: The MSC's comments regarding the Proposed Regulations noted the gross underestimation of the costs of compliance in the Department's RAF and those comments are hereby restated and incorporated herein. The RRA clearly requires the promulgating agency to include "estimates of the direct and indirect costs...to the private sector". 71 P.S. Section 745(a)(4)]. While we believe that this requirement was inadequately implemented for the proposed regulations, it is entirely missing for the new provisions of the Draft Final Regulations and for the radical changes made to some originally proposed provision that totally rewrite them. This failure impedes the ability of the regulated community, general public, and legislative oversight committees, to offer meaningful and informed comments on the proposed regulatory changes within the context of evaluating its economic costs and benefits and prevents the IRRC from being able to carry out its statutory duty to determine whether the rulemaking satisfies the requirements of the RRA.

In its April 14, 2014 letter to the Department, the IRRC recognized the importance of an accurate assessment of the cost of compliance. The IRRC stated on page 4: "We are concerned that there is such a large disparity between cost estimates prepared by Environmental Quality Board (EQB) and the cost estimates prepared by the industry as a whole. There appears to be a basic misunderstanding of what this proposal will require and

when those requirements will become effective. As this proposal moves forward, we strongly encourage EQB to consult with both conventional and unconventional operators **and their associations** so that all parties can gain an understanding of what will be required, when it will be required, and what it will cost to comply with the rulemaking...". No consultation has taken place, at least not with the industry.

In our comments regarding the proposed regulation, we estimated that the cost of compliance would likely be \$200 million to \$300 million per year. The new and rewritten provisions in the Draft Final Regulation will undoubtedly add more cost. However, by employing the ANFR process and avoiding the requirements of the RRA, DEP has failed to provide any information on increased costs. Moreover, it is difficult for the industry to make an exact cost estimate with so many vague and arbitrary provisions. How does one estimate the cost to "minimize" noise without a standard? How does one guess when DEP will "determine" that some river or stream contains mine influenced water, requiring additional approvals? How will we know which species will be considered "taxa of conservation concern" requiring additional actions? (See comments below). Nonetheless, we believe that the new and rewritten provisions will increase the cost of compliance to nearly \$900,000 per well. Even accounting for reduced drilling under the current economic conditions, these regulations have the potential to impose a \$900 million annual burden on the industry.

It is imperative to note that these proposed regulatory revisions are occurring in the midst of a significantly depressed natural gas market. Nationally, natural gas index prices are currently \$2.50 - \$2.70 per million British thermal units, down nearly 50% from a year ago. In Pennsylvania, this suppressed price is even more pronounced, as a shortage of critical infrastructure has led to natural gas prices which are currently \$0.90-\$1.10 per million British thermal units. These sustained, suppressed prices have already resulted in billions of dollars of reduced capital expenditures into Pennsylvania, as well as the loss of jobs and general contraction of the industry. The General Assembly's directive to agencies to consider the economic impacts of regulations it seeks to promulgate clearly implies that the underlying economics of the regulated industry must be factored into the evaluation of the regulations. To this end, it is worth noting that the Administration which oversees the department is also, in addition to imposing new costs associated with these regulations, seeking legislative approval for an additional severance tax on natural gas production that, under its current design and market conditions, approaches an effective tax rate in excess of 19%.

Conflict with Other Statutes or Existing Regulations: Section 745.5b(b)(3) of the RRA provides that, in determining whether a regulation is in the public interest, the "clarity, feasibility and reasonableness" of the regulation shall be assessed based upon possible conflict with, or duplication of, other laws or existing regulations. As noted in IRRC's April 14, 2014 comments to the previous version of these proposed regulations, nine other chapters of Department regulations were listed as the source of language in the proposed oil and gas regulations or cross-referenced in the proposed regulations. IRRC noted that commentators had expressed concern that the proposed regulations impose requirements upon the oil and gas industry even though those laws may not be applicable to the oil and gas industry. The Draft Final Regulations under the ANFR do not address this concern, but rather exacerbate the problem. Consider the following three examples:

- The ANFR contains a significant number of new regulatory standards for above-ground storage tanks that have been copied directly from regulations promulgated under Pennsylvania's Storage Tank and Spill Prevention Act (Tank Act). However, the Tank Act expressly exempts tanks used to store brines, crude oil, and drilling or frac fluids related to oil and gas development. Therefore, the Department is attempting to override by regulation a decision made by the Legislature and expressed in statute. Clearly it is not authorized to do so.
- The ANFR imposes requirements relating to the cleanup of spills at gas well sites that go beyond the criteria established under Pennsylvania's Land Recycling and Environmental Remediation Standards Act (Act 2), and creates new procedural requirements that do not currently apply to spills at gas well sites. Under Section 904 of Act 2, the only types of cleanups conducted under

state law not governed by Act 2 are those implemented under the Tank Act and the Hazardous Sites Cleanup Act. Again, the Department cannot change a statute by regulation.

- The ANFR establishes comprehensive new standards for tanks and impoundments used to store fluids associated with natural gas development that go well beyond those set forth in the Department's previous proposed rules. The ANFR imposes technical requirements on tanks and impoundments used to store fluids from oil and gas operations that are more restrictive than those imposed under the Solid Waste Management Act (SWMA) for storage of wastes from any other industry. No justification is offered as to why the existing regulations, applicable to all other industries, are not adequate.

Statement of Need: The RRA also requires a statement of need for the regulations 71 P.S. Section 745.5(a)(3). The original RAF was cursory and inadequate in its statement of need and just as the ANFR is lacking in any assessment of the cost of compliance, it is also lacking in any statement of need for the new radical changes and additions proposed. For example: 1) what is the need for a new provision on noise minimization when many municipal ordinances regulate noise; 2) what is the need for extensive new provisions for centralized storage tanks when regulations already exist governing the storage of residual waste in tanks; 3) what is the need for different spill remediation procedures for oil and gas operations, when a robust and nationally copied remediation program already exists; and 4) why is it necessary to require the closure of centralized impoundments that have been or will be built to current Department specification? Closely related to the statement of need is the requirement for a statement that the "least burdensome acceptable alternative has been selected" (71 P.S. Section 745.5(a)(12)). Given the wide-ranging rewrites to numerous provisions in the Draft Final Regulations which added new requirements and a multitude of new provisions, such an evaluation should have been included in the ANFR. Frankly, we doubt the Department could justify any Statement of Need.

Forms: The RRA also requires that on the same date that a proposed rulemaking is sent to the Legislative Reference Bureau for publication in the Pennsylvania Bulletin, a statement of the required reporting procedures "including copies of forms or reports" (71 P.S. Section 745(a)(5) must be sent to the IRRC and the legislative committees as part of the Regulatory Analysis Form. This requirement was ignored with the proposed regulations and continues to be ignored with the Draft Final Regulations. There are numerous provisions which require something to be submitted on a "form provided by the department" or "forms provided through its website," yet no forms are provided. However, the situation has worsened. In this version there are at least 30 different reports required to be submitted electronically without any information being provided on the content of those reports or the manner of submission. Moreover there is significant uncertainty as to whether the Department has a web-based system capable of handling that volume.

Compliance Date: The RRA also requires a statement regarding the compliance date for the regulations (71 P.S. Section 745.5 (a)(7)). However, as currently proposed, it is unclear as to how the new and revised requirements will apply to existing oil and gas well sites and related operations. It would put an undue burden on the oil and gas industry both financially and practically to require that the ANFR's new operational and design criteria apply to existing operations already working within the scope of DEP's current regulations. Moreover, a requirement to retrofit or update existing operations would put Pennsylvania at a competitive disadvantage with respect to other states. As such, DEP should include a clear "grandfathering" provision in the Proposal. DEP's "grandfathering" provision should state that the new standards should not apply to well sites, impoundments, or other related operations that have already been constructed; to oil and gas well sites where wells have already been drilled; or to well sites, impoundments, or other related operations for which permit applications have been submitted to DEP by an operator prior to the effective date of the final rulemaking.

In summary, the Department continues to act contrary to the RRA. At a minimum, it has not provided an adequate statement of need nor considered less burdensome alternatives; has not provided an estimate of cost

to the regulated community; has not provided the required forms and has not met any of the other requirements of the RRA for these new or totally rewritten provisions

Key Provisions

Several key provisions illustrate the over-arching deficiencies noted in the Introduction above and thus warrant separate comment:

1. Public Resources:

In Section 78a.15(f) the Department originally proposed to equate “critical communities” with “special concern species.” The MSC objected to this provision because, among other reasons, it “create[d] tremendous uncertainty about a permit applicant’s obligations with regard to an ever-changing and undefined list.” The Department has now proposed a definition of “other critical communities,” however the same problems remain and have been significantly compounded. The definition now proposed is so vague and general as to potentially encompass every plant and animal species on earth, except those listed as T&E species [“Plant and animal species not listed as threatened or endangered ... including...”]. Moreover the list of examples following the word “including” are equally vague using terms that are undefined in any law or regulation and are apparently open to evolving interpretation by anyone. To the extent the terms are intended to refer to certain species, areas, features, and/or communities on the Pennsylvania Natural Diversity Inventory (PNDI) database, such designations are not done by rulemaking, nor are they clearly defined there either. Accordingly, DEP is improperly seeking to create a binding regulatory requirement in excess of its statutory authority. Since permit applicants would be required to undertake extensive and expensive procedures, pursuant to Section 78a.15(f)(1)(iv), if a well site is “in a location that will impact other critical communities,” it is essential to know exactly what species, areas, features, and communities are covered and to be able to establish the locations of those species, areas, features and communities. The proposed definition fails to provide any meaningful details, guidance, or criteria and should be eliminated.

More fundamentally, the Department’s authority to regulate the potential impact on public resources derives from Section 3215(c) of Act 13. In fact, the term “other critical communities” is used in that subsection and nowhere else in Act 13, nor is it used in any other statute relied upon as authority for these regulations. However, in the Robinson Township decision (*Robinson Twp. et al v. Commonwealth*, 83 A.3d 901 (PA 2013)), the Supreme Court enjoined the application of Section 3215(c). Accordingly, the Department lacks the authority to regulate with regard to “other critical communities” specifically and lacks the legal authority to implement Section 3215(c) in its entirety. Section 78a.15(f) should be stricken.

Section 78a.15(g) replicates, in part, the language of Act 13 Section 3215(e) which recognizes the oil and gas owners’ property rights to develop the oil and gas resources. However, Section 3215(e) also requires the EQB to develop by regulation criteria for the DEP to utilize in the imposition of any permit conditions to protect public resources while respecting those property rights and ensuring optimal development of those resources. DEP has not proposed any such criteria. The rule thus fails to comply with Act 13, which requires that the EQB develop these criteria in this rulemaking. Taken together, Section 78a.15(f) and the definition of “Other Critical Communities” exceed the Department’s legal authority as determined by the Supreme Court and provide a definition that not only far exceeds any rational interpretation of legislative intent but is also so ambiguous and subjective as to be arbitrary and capricious.

2. Threatened or Endangered Species:

Closely related to the improper definition of “Other Critical Communities” is the newly proposed definition of Threatened or Endangered (T&E) Species. It represents another action beyond the Department’s legal authority. The legislature has not granted any authority to DEP to designate T&E species. Rather the three statutes cited in the proposed definition grant that authority to the Department of Conservation and Natural Resources, the Fish and Boat Commission and the Game Commission. None of those Pennsylvania enabling statutes, nor the federal act, provides authority to regulate species that are merely proposed for listing as though they are actually listed. Species may be proposed for years without action and ultimately may not be listed. DEP has no authority to add species to the list before the agencies that actually have the authority to do so act. The last portion of the definition dealing with proposed species should be eliminated.

3. Water Supply Protection:

The MSC agrees with the interpretation expressed by Oil and Gas Technical Advisory Board (TAB) in its letter dated July 18, 2013 that “exceeded,” as the term is used in Section 3218(a) of Act 13 and used by the DEP in its originally proposed Section 78.51(d)(2), refers to an operator’s requirement to restore an affected water supply to its pre-drilling conditions, when that water supply did not meet Safe Drinking Water Act standards (SDWA) prior to drilling. The DEP’s proposed contrary interpretation that operators would be required to improve each and every water supply, including commercial, agricultural and industrial supplies, to a minimum of SDWA standards is unreasonable since it is well documented that many of these water supplies do not, and need not, meet SDWA standards for water quality parameters. MSC members accept their responsibility to address impacts to water supplies that they may have caused, and to restore water supplies for the purpose served, but it is unreasonable for the DEP to require that the oil and gas industry address contamination in water supplies unrelated to oil and gas operations, as no other industry in Pennsylvania has been held to such a standard.

It is also impractical to require operators to restore an affected water supply to pre-drilling conditions for individual parameters that were allegedly better than SDWA standards. In some cases the private water well will have had no pre-drilling samples taken or in other cases the pre-drilling sample may not be sufficient to reflect natural variability in water quality. Accordingly, the industry will be required to meet a degree of water quality that did not truly exist prior to drilling. Such a requirement has not been imposed upon any other industry, and it would be unfair to impose it solely upon the oil and gas industry.

The new language added to Section 78a.51(d)(2) differs from the statutory language in Section 3218(a) of Act 13. The Act does not refer to water quality to be “of a higher quality than required” nor does it state that the replaced water supply “shall meet the pre-pollution quality.” Rather Act 13 requires the water to be “comparable to the quality of the water” if the water supply “exceeded those [SDWA] standards.” DEP has no authority to change the wording of a statute through regulation.

Lastly, Sections 78a.51 (b) and (c) purport to implement Section 3218(b) of Act 13; however the proposed regulation adds “well site construction” to the list of activities enumerated in Act 13 that trigger the reporting and investigation activities set forth in Subsection 3218(b). DEP simply has no authority to amend the statutory language and this addition should be stricken. No one doubts that DEP can investigate complaints regarding water supplies; however, they cannot engraft new language onto the legislative language.

4. “Mine influenced water”:

This definition gives DEP the ability to determine that any surface waters impaired by mine drainage are mine influenced water, without any criteria or standards. Given the breadth of the DEP’s list of waters impaired by mine drainage, this definition would include many surface waters throughout the Commonwealth, including sections of the major rivers such as the Allegheny, Monongahela, Youghiogheny and West Branch of the Susquehanna, and their tributaries, some of which are widely used for public water supplies. Storage and use of such a vaguely defined and potentially broad universe of waters, which are routinely used for numerous other purposes by industries beyond the oil and gas industry, should not be subject to the special approval requirements specified in the Draft Final Regulations. We commented on this definition at the time of the proposed regulation, largely due to the requirement in Section 78a.58b requiring special permission to place “mine influenced water” in a freshwater impoundment. However, its significance has been magnified by the amendment to Section 78a.58(a) which would seem to potentially require special permission to mix water from the above-mentioned rivers with other water before using the mixture to hydraulically fracture a well. The definition is overly broad and fails to establish a cogent regulatory standard that informs the industry which waters are subject to these requirements. Alternatively, it authorizes ad hoc and arbitrary determinations by the Department.

5. “Regulated substances”:

This definition is cross-referenced to the definition in Act 2 that was developed to assist those conducting cleanup operations at brownfield sites throughout the Commonwealth, sites that were used for a wide variety of industrial activities. The definition, which includes substances “covered by” six other named statutes, is stated broadly for the purposes of Act 2 but is overly broad and fails to provide the necessary guidance for reporting obligations that would be imposed under the proposed Section 78a.66(b). The term “regulated substances” is utilized extensively throughout the proposed rule, which does not appear to be warranted and may lead to unintended consequences for both the Department and the regulated community. At a minimum, the definition must be further clarified by reference to some known list of substances, such as those found in 25 Pa. Code Chapter 250. In addition, the term “regulated substances” should be replaced or removed entirely where the intent of the rule is better served by a different term. See Sections 78a.55 (Control and disposal planning), 78a.56 (Temporary storage), 78a.61 (Disposal of drill cuttings), and 78a.64a (Containment systems and practices at unconventional well sites) for specific recommendations below.

6. Noise Mitigation, Section 78a.41:

This brand new section represents a prime example of the defects in this rulemaking noted in the Introduction. First, DEP is proposing an entirely new requirement as a final regulation without complying with the RRA. None of the requirements of the RRA, such as statement of need or estimate of cost have been followed. Nor have the IRRC or standing committees had an opportunity to review and comment on this provision. Secondly, we question DEP’s authority to regulate noise, a matter usually regulated under local zoning ordinances. Neither Act 13 nor any other statute we are aware of authorizes DEP to regulate noise, and it does not regulate noise for any other industry. Thirdly, the language in Section 78a.41 is so vague and arbitrary that it fails as a regulatory standard. What does it mean to have a plan to “minimize” noise? Minimize from what level to what level? Must noise always be minimized even if there are no receptors? If so, why? Lastly, the language gives DEP the ability to require the cessation of operations if it “determines” that the plan is inadequate to “minimize” noise, without providing any standard or criteria for such determination or how inadequacy will be determined. Inserting this provision at this stage of the rulemaking violates the RRA, lacks legal authority and is arbitrary and capricious on its face. It should be eliminated.

7. Centralized Tank Storage, Section 78a.57a:

In brief, there is no need for this section. The Department has steadfastly maintained that the water generated by producing wells as well as flowback water is a residual waste. Regulations already exist for the storage of residual waste in tanks (25 Pa. Code Chap. 299). There is no need to create a whole new regulatory scheme, adding new requirements, just for oil and gas-derived residual waste. Of course, one cannot gauge the need for nor the cost of this new provision. The statement of need and estimate of cost required under the RRA are absent, since DEP is proceeding without regard to the RRA. Once again, neither the IRRC nor the standing committees will have had a chance to review this provision until it is presented as a final rule. There is no need for this section, and it should be eliminated.

Conclusion:

The MSC members recognize the importance of strong environmental protections and accept them as an essential part of operations. However, we believe that the DEP significantly underestimated both the operational and economic burden that the Proposal Regulations would impose on the unconventional gas industry. That burden has been multiplied several times over by the additions and changes in the Draft Final Regulations. The Draft Final Regulations make such fundamental changes from the Proposed Regulations that they should not become final form regulations without full compliance with the RRA. At a minimum, the Department should not proceed to finalize the new Sections 78a.15(1)(f)(vii) and (viii) (new public resources), 78a.41 (Noise), 78a.57a (Centralized Tank Storage); the new definitions of “Other Critical Communities” and “Public Resource Agency”; and the totally rewritten Sections 78a.59c (centralized impoundments), 78a.65 (site restoration) and 78a.69 (water management plans) but should withdraw those provisions and proceed with a separate proposed rulemaking in order to fully and properly comply with the RRA.

Moreover, we urge the Department to undertake an objective assessment of the real need for this extensive, but flawed, regulatory package. Act 13 provided significant enhanced environmental protections, many of which are self-executing and do not need to be repeated in regulation and cannot be changed by regulation. Environmental protection will not suffer since these provisions are and have been applicable and enforceable for three years. Regulatory programs for residual wastes, tanks, stream and wetland protection and others that are applicable to all other commercial and industrial operations already exist and there is no environmental reason to impose different requirements on the oil and gas industry. In short, many of the provisions in the Draft Final Regulations are not needed.

These Draft Final Regulations introduce a level of burden, ambiguity and arbitrariness that will make it extremely difficult for our members to continue to commit capital to operations in Pennsylvania faced with such potential costs and uncertainty.

Although we strongly believe that the Draft Final Regulation should not proceed to final regulation, we offer the following section-by-section comments for your consideration, should you elect to proceed.

Sincerely,



David J. Spigelmyer
President



ADVANCED NOTICE OF FINAL RULEMAKING

(Editor's Note: Chapter 78a is a new Chapter in Title 25 of the Pennsylvania Code and will appear as normal text in formal documents prepared by the Department for Environmental Quality Board, Legislative Reference Bureau and Independent Regulatory Review Commission review and approval. To aid the reader in understanding the changes from the December 13, 2013 proposed rulemaking, however, this document has been prepared showing capitalization, strikeouts, bracketing, bolding and underlining indicating where changes have been made.)

MSC comment on the new electronic application, reporting, and notification requirements:

This Advanced Notice of Final Rulemaking ("ANFR") proposes extensive new electronic application, reporting, and notification requirements. The intent of the electronic reporting and notification requirements should be to streamline regulatory processes, simplify required reporting, and facilitate transparency. The ANFR is not crafted in such a manner as to focus on the overall logistics of the electronic reporting by industry. In many instances in the proposed ANFR, there is a failure to consolidate required submissions by the operator (e.g. PPC Plan and other documents must be made available to other agencies or persons upon request but will also be readily available through the Department's new electronic website) and in other cases multiple electronic notifications are required for items of little to no value (e.g. 3-day notification when filtering water, 3-day notification when blending fresh and reuse water, 3-day notice prior to waste disposal, etc.). For electronic submissions requiring payment (e.g. well permit applications), the website should generate an invoice to allow operators to pay by check or EFT, rather than requiring a credit card payment.

These proposed regulatory changes contain 30 different requirements for electronic applications, electronic notifications, and electronic record submittals, many of which will be immediately effective or due as of the effective date of the rulemaking:

1. Well Permit Applications [ANFR Section 78a.15]
2. Well Permit Extension Requests [ANFR Section 78a.17]
3. Notice of Landowner, water purveyor, or affected person complaint of water pollution or diminution [ANFR Section 78a.51]
4. Operator's election to preserve its defenses under section 3218(d)(2)(i) of the act (relating to protection of water supplies) [ANFR Section 78a.52]
5. Operator's Area of Review Report at least 30 days prior to drilling [ANFR Section 78a.52a]
6. Notice of Operator constructing modular above ground storage structure 3 days prior to construction [ANFR Section 78a.56]
7. Request to use practices other than those in § 78a.56 (Temporary storage) [ANFR Section 78a.56]

8. Notice of wells with underground or partially buried storage tanks at adoption of ANFR [ANFR Section 78a.57]
9. Permit for Centralized Tank Storage Site [ANFR Section 78a.57a]
10. Centralized Tank Storage Site inspection records [ANFR Section 78a.57a]
11. Centralized Tank Storage Site closure plans [ANFR Section 78a.57a]
12. Centralized Tank Storage Site quarterly well service list [ANFR Section 78a.57a]
13. Centralized Tank Storage Site restoration report [ANFR Section 78a.57a]
14. Well Site and Centralized Tank Storage Site Filtering, fresh/reuse mixing, and filtering 3 day notification [ANFR Section 78a.58]
15. Well Site and Centralized Tank Storage Site Filtering, fresh/reuse mixing, and filtering subsequent site 3 day notification [ANFR Section 78a.58]
16. Notice of existing fresh water impoundments at adoption of ANFR [ANFR Section 78a.59b]
17. Freshwater impoundment transfers to other operators [ANFR Section 78a.59b]
18. Closure plans for existing centralized impoundments at adoption of ANFR [ANFR Section 78a.59c]
19. Notice of disposal of drill cuttings 3 days prior to disposal [ANFR Section 78a.61]
20. Alternative waste management permit [ANFR Section 78a.63a]
21. Request to extend pad restoration period [ANFR Section 78a.65]
22. Post drilling restoration report submittal [ANFR Section 78a.65]
23. Post plugging restoration report submittal [ANFR Section 78a.65]
24. Borrow pit registration [ANFR Section 78a.67]
25. Notification of any horizontal or directional drilling beneath a water course [ANFR Section 78a.68a]
26. Oil and Gas Pipeline Directional Drilling Water Complaints [ANFR Section 78a.68a]
27. Quarterly Water Management Plan Reports [ANFR Section 78a.69]
28. Orphaned and abandoned well status change (those being monitored) [ANFR Section 78a.73]
29. Monthly Production Reporting [ANFR Section 78a.121]
30. Completions Report [ANFR Section 78a.122]

PADEP currently has no workable system in place to manage these proposed electronic application, reporting, and notification requirements other than the existing electronic well permit system (which we understand at this time that one operator actively uses) and the GreenPort System. As an example, the Oil and Gas Act of 2012 requires the Department to post inspection reports on its website, which must include electronic access to an operator's written response to the violation and the remedial steps taken by the operator or the Department to address the violation. The Department has not yet implemented this requirement, over three years removed from the enactment of the Oil and Gas Act of 2012. The Department has indicated on several occasions that the reason these reports are not available electronically to the public is due to the inadequacy and limitations of its current electronic system.

The Department will require a substantial increase in IT development and support staff to adequately develop and support such a new and comprehensive system, particularly under the time frames set forth in the ANFR. Forms required for these notifications, applications and submittals do not exist and PADEP does not have the resources or capability to develop these forms quickly. Electronic submissions should not require the use of proprietary software packages; rather, PDF format should be sufficient. Additionally, the Department should provide

alternatives to electronic submittal of applications, reporting, and notifications, as it is likely that there will be unexpected periods of time where the electronic system may be nonfunctional.

For all electronic submissions, PADEP should provide operators with confirmation of receipt of the submission.

CHAPTER 78a. UNCONVENTIONAL [OIL AND GAS] WELLS Subchapter

A. GENERAL PROVISIONS

§ 78a.1. Definitions.

MSC Comment:

There are several new concepts introduced for the first time in the proposed ANFR. Provisions including these new concepts should be required to go through the proposed rulemaking process under the Regulatory Review Act. Several of those new sections use terms that are not defined in 78a.1, for example: **playground, servicing activities, common areas on a school property, wellhead protection area, floodway, and centralized tank storage.** The meaning of these terms is not self-evident. Unless these terms are defined, the proposed provisions do not clearly establish a cogent standard with which industry can comply. Several of these proposed terms are also undefined in other Pennsylvania statutes and regulations and will require a new definition. In other instances, the term has a well understood definition that should be interpreted the same way in this rulemaking, e.g., floodway in 25 Pa. Code Chapter 105. Another example, wellhead protection area, is defined in Chapter 109, but MSC recommends a revised definition for the use of the term in 25 Pa. Code § 78.15. Relying on the Chapter 109 definition of wellhead protection area would likely have broad implications not considered by the drafters of the proposed ANFR; at a minimum, the definition should be limited to Zone I wellhead protection areas as defined in § 109.1.

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

ABANDONED WATER WELL – A WATER WELL THAT IS NO LONGER EQUIPPED IN SUCH A MANNER AS TO BE ABLE TO DRAW GROUNDWATER. THIS TERM INCLUDES A WATER WELL WHERE THE PUMP, PIPING OR ELECTRICAL COMPONENTS HAVE BEEN DISCONNECTED OR REMOVED OR WHEN ITS USE ON A REGULAR OR PRESCRIBED BASIS HAS BEEN DISCONTINUED. THE TERM DOES NOT INCLUDE A WATER WELL THAT IS NOT CURRENTLY USED, BUT IS EQUIPPED OR OTHERWISE PROPERLY MAINTAINED IN SUCH A MANNER AS TO BE ABLE TO DRAW GROUNDWATER AS AN ALTERNATIVE, BACKUP OR SUPPLEMENTAL WATER SOURCE.

MSC Comment:

This definition is broad, and could be subjectively interpreted by PADEP. For example, a time frame should be set for when a water well is determined to be abandoned. In 58 Pa. C.S. § 3215(a), the location of wells for purposes of setback requirements is established as of the date the copy of the well plat is mailed (as required by § 3211(b) for well permits). A similar time frame should be established here.

Additionally, at least one other Pennsylvania regulatory program includes the option for a landowner to choose to abandon a water well so that it does not have to be protected. PADEP provides a form to be signed by the landowner, notarized, recorded against the deed and filed with PADEP. A similar option should be included in PADEP's final rulemaking.

The last sentence should either be deleted or modified to require that water wells be both equipped AND properly maintained to be excluded from the term "abandoned water well."

ABACT — ANTIDEGRADATION BEST AVAILABLE COMBINATION OF TECHNOLOGIES — THE TERM AS DEFINED IN § 102.1 (RELATING TO DEFINITIONS).

ACCREDITED LABORATORY—A LABORATORY ACCREDITED BY THE DEPARTMENT UNDER CHAPTER 252 (RELATING TO LABORATORY ACCREDITATION).

Act—[The Oil and Gas Act (58 P.S. §§ 601.101—601.605)] 58 Pa.C.S. §§ 3201—3274 (relating to development[s]).

Act 2— The Land Recycling and Environmental Remediation Standards Act (35 P.S. §§ 6026.101--6026.908).

~~**[Anti icing—Brine applied directly to a paved road prior to a precipitation event.]**~~

Approximate original conditions—Reclamation of the land affected to preconstruction contours so that it closely resembles the general surface configuration of the land prior to construction activities and blends into and complements the drainage pattern of the surrounding terrain, and can support the land uses that existed prior to THE APPLICABLE oil and gas [activities] OPERATIONS to the extent practicable.

MSC Comment:

The phrase "blends into and complements the drainage pattern of the surrounding terrain" is redundant to the term "preconstruction contours", and could lead into additional permitting requirements pertaining to watercourses.

In addition, the Oil and Gas Act of 2012 does not define or require well sites, centralized tank farms, or impoundments to be restored to approximate original "conditions." In fact, the proposed ANFR expanded the use of this term from the proposed rulemaking in December 2013 ("proposed rulemaking"), despite our prior recommendation to delete the definition of "approximate original conditions" and the use of the phrase from the rulemaking package as beyond the scope and legal authority of the Oil and Gas Act of 2012. MSC reasserts its recommendation herein and notes that the term "approximate original contours" was used one time in the Oil and Gas Act of 2012, as the Legislature limited its use to only extensions of time for well site restoration.

Attainable bottom—The depth, approved by the Department, which can be achieved after a

reasonable effort is expended to clean out to the total depth.

Body of water—The term as defined in § 105.1 (relating to definitions).

Borrow pit—An area of earth disturbance activity where rock, stone, gravel, sand, soil or similar material is excavated for construction of well sites, access roads or facilities that are related to oil and gas development.

MSC Comment:

As proposed, this definition would classify all site development activities as borrow pits since these activities involve earth disturbance. A borrow pit would add additional permitting and bonding obligations under other applicable laws as referenced in the proposed Section 78a.67. Borrow Pits.

In addition, the definition should refer to the defined term “oil and gas operations”, instead of “oil and gas development.”

MSC’s suggested amendatory language:

Borrow pit—An area of earth disturbance activity where rock, stone, gravel, sand, soil or similar material is excavated to be used for the construction of well sites, access roads or facilities that are related to oil and gas operations. This definition does not include earth disturbance at well sites or otherwise permitted by the Department under the Oil and Gas Act.

BUILDING – AN OCCUPIED STRUCTURE WITH WALLS AND ROOF WITHIN WHICH PERSONS LIVE OR CUSTOMARILY WORK.

Casing seat—The depth to which casing is set.

Cement—A mixture of materials for bonding or sealing that attains a 7-day maximum permeability of 0.01 millidarcies and a 24-hour compressive strength of at least 500 psi in accordance with applicable standards and specifications.

Cement job log—A written record that documents the actual procedures and specifications of the cementing operation.

Centralized impoundment—A facility [that is] AUTHORIZED BY A PERMIT FOR A CENTRALIZED IMPOUNDMENT DAM FOR OIL AND GAS OPERATIONS.[:]

MSC Comment:

The MSC supports defining “centralized impoundment” and clarifying that freshwater impoundments are not centralized impoundments. However, the proposed definition does not make clear which type of permit(s) authorize(s) a “centralized impoundment”, i.e., an Oil and Gas Act permit, a Dam Safety and Encroachment Act Permit, or a Solid Waste Management Permit.

The proposed definition's use of the word "dam" creates additional confusion as to which permit is required. PADEP should clarify the agency's intent with this definition, specifically whether it intends to exclude centralized impoundments not requiring a dam permit from the requirements of the ANFR.

~~**(i) A natural topographic depression, manmade excavation or diked area formed primarily of earthen materials.**~~

~~**(ii) Designed to hold fluids or semifluids associated with oil and gas activities, including wastewater, flowback and mine influenced water, the escape of which may result in air, water or land pollution or endanger person or property.**~~

~~**(iii) Constructed solely for the purpose of servicing multiple well sites.**~~

~~[Certified laboratory]A laboratory accredited by the Department under Chapter 252 (relating to laboratory accreditation).]~~

CERTIFIED MAIL –ANY VERIFIABLE MEANS OF PAPER DOCUMENT DELIVERY THAT CONFIRMS THE RECEIPT OF THE DOCUMENT BY THE INTENDED RECIPIENT OR THE ATTEMPT TO DELIVER THE DOCUMENT TO THE PROPER ADDRESS FOR THE INTENDED RECIPIENT.

MSC Comment:

MSC supports this definition of "certified mail". An alternative term PADEP may wish to consider using is "certified delivery."

Coal area—An area that is underlain by a workable coal seam.

Coal protective casing—A string of pipe which is installed in the well for the purpose of coal segregation and protection. In some instances the coal protective casing and the surface casing may be the same.

Condensate—A low-density, high-API gravity liquid hydrocarbon phase that generally occurs in association with natural gas. For the purposes of this definition, high-API gravity is a specific gravity scale developed by the American Petroleum Institute for measuring the relative density of various petroleum liquids, expressed in degrees.

Conductor pipe—A short string of large-diameter casing used to stabilize the top of the wellbore in shallow unconsolidated formations.

Containment system—Synthetic liners, coatings, storage structures or other materials used in conjunction with a primary container that prevent spills to the ground surface or off the well site.

MSC Comment:

At the federal level, these containment systems are also called "secondary containment" since the primary containment is the container itself. Sections of the ANFR refer to "secondary containment" (e.g., §§ 78a.57, 78a.57a, 78a.64, 78.64a, 78.65, 78a.68b), "containment" (e.g., §§

78a.55, 78a.57, 78a.64a), “temporary containment” (e.g., §78a.56) and “emergency containment” (e.g., § 78a.57) instead of “containment system”. Adding to the confusion is that aboveground storage, which is primary containment, is also referred to as “containment structures” (e.g., § 78a.57).

All provisions relating to containment and containment systems should more clearly indicate whether they refer to primary containment or secondary containment systems. MSC recommends that PADEP reconsider and clarify the language related to containment systems in the following provisions:

- § 78a.56
- §78a.57(c)(8) and (9)
- § 78a.57a(c)(12) to (15)
- § 78a.58, 64, and 64a

Please also see MSC’s comment to § 78a.64a, referencing the six materials that must be in containment systems pursuant to § 3218.2(c) of the Oil and Gas Act of 2012.

~~**[Conventional formation A formation that is not an unconventional formation.**~~

Conventional well

~~**(i) A bore hole drilled or being drilled for the purpose of or to be used for construction of a well regulated under 58 Pa.C.S. §§ 3201-3274 (relating to development) that is not an unconventional well, irrespective of technology or design.**~~

~~**(ii) The term includes, but is not limited to:**~~

~~**(A) Wells drilled to produce oil.**~~

~~**(B) Wells drilled to produce natural gas from formations other than shale formations.**~~

~~**(C) Wells drilled to produce natural gas from shale formations located above the base of the Elk Group or its stratigraphic equivalent.**~~

~~**(D) Wells drilled to produce natural gas from shale formations located below the base of the Elk Group where natural gas can be produced at economic flow rates or in economic volumes without the use of vertical or nonvertical well bores stimulated by hydraulic fracture treatments or multilateral well bores or other techniques to expose more of the formation to the well bore.**~~

~~**(E) Irrespective of formation, wells drilled for collateral purposes, such as monitoring, geologic logging, secondary and tertiary recovery or disposal injection.]**~~

~~**[De icing Brine applied to a paved road after a precipitation event.]**~~

~~**Deepest fresh groundwater—The deepest fresh groundwater bearing formation penetrated by the**~~

wellbore as determined from drillers logs from the well or from other wells in the area surrounding the well or from historical records of the normal surface casing seat depths in the area surrounding the well, whichever is deeper.

Drill cuttings—Rock cuttings and related mineral residues generated during the drilling of an oil or gas well.

FLOODPLAIN— THE AREA INUNDATED BY THE 100-YEAR FLOOD AS IDENTIFIED ON MAPS AND FLOOD INSURANCE STUDIES PROVIDED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY, OR IN THE ABSENCE OF SUCH MAPS OR STUDIES OR ANY EVIDENCE TO THE CONTRARY, THE AREA WITHIN 100 FEET MEASURED HORIZONTALLY FROM THE TOP OF THE BANK OF A PERENNIAL STREAM OR 50 FEET FROM THE TOP OF THE BANK OF AN INTERMITTENT STREAM.

MSC comment:

“Floodplain” is defined in § 3215(f)(5). This proposed definition is similar to the definition in the Oil and Gas Act of 2012. however, it should exactly reflect the statutory language.

MSC’s suggested amendatory language:

Floodplain — The area indicated on maps and flood insurance studies provided by the Federal Emergency Management Agency. In an area where no Federal Emergency Management Agency maps or studies have defined the boundary of the 100-year frequency floodplain, absent evidence to the contrary, the floodplain shall extend from:

- (i) any perennial stream up to 100 feet horizontally from the top of the bank of the perennial stream; or
- (ii) from any intermittent stream up to 50 feet horizontally from the top of the bank of the intermittent stream.

Freeboard—The vertical distance between the surface of an impounded or contained fluid and the lowest point or opening on a lined pit edge or open top storage structure.

Fresh groundwater—Water in that portion of the generally recognized hydrologic cycle which occupies the pore spaces and fractures of saturated subsurface materials.

Freshwater impoundment—A facility that is:

- (i) Not regulated under § 105.3 (relating to scope).**
- (ii) A natural topographic depression, manmade excavation or diked area formed primarily of earthen materials although lined with synthetic materials.**
- (iii) Designed to hold fluids, including surface water, groundwater, and other Department-approved sources.**
- (iv) Constructed for the purpose of servicing multiple well sites.**

Gas storage field—A gas storage reservoir and all of the gas storage wells connected to the gas storage reservoir.

Gas storage reservoir—The portion of a subsurface geologic formation or rock strata used for or being tested for storage of natural gas that:

- (i) Has sufficient porosity and permeability to allow gas to be injected or withdrawn, or both.
- (ii) Is bounded by strata of insufficient porosity or permeability, or both, to allow gas movement out of the reservoir.
- (iii) Contains or will contain injected gas geologically or by pressure control.

Gas storage well—A well located and used in a gas storage reservoir for injection or withdrawal purposes, or an observation well.

Gathering pipeline—A pipeline that transports oil, liquid hydrocarbons or natural gas from individual wells to an intrastate or interstate transmission pipeline.

MSC comment:

To avoid confusion and conflict MSC suggests the regulation should use the Federal definition for a gathering pipeline contained in 49 CFR Part 192, which is consistent with how the term is defined in Act 13, Section 3218.5.

MSC's suggested amendatory language:

Gathering Pipeline—A pipeline that transports gas from a current production facility to a transmission line or main.

Gel—A slurry of clay or other equivalent material and water at a ratio of not more than 7 barrels of water to each 100 pounds of clay or other equivalent matter.

INACTIVE WELL – A WELL GRANTED INACTIVE STATUS BY THE DEPARTMENT PURSUANT TO 58 Pa.C.S. § 3214 (RELATING TO INACTIVE STATUS) AND § 78a.101 (RELATING TO GENERAL PROVISIONS).

MSC comment:

MSC has no objection to the proposed definition of inactive well. However, PADEP does not clarify what constitutes an “active well” in this proposed ANFR.

Intermediate casing—A string of casing set after the surface casing and before production casing, not to include coal protection casing, that is used in the wellbore to isolate, stabilize or provide well control.

L.E.L.—Lower explosive limit.

Mine influenced water—Water in a mine pool or a surface discharge of water caused by mining activities that pollutes, or may create a threat of pollution to waters of the Commonwealth. The term may also include surface waters that have been impaired by pollutional mine drainage as determined by the Department.

MSC comment:

This definition gives DEP the ability to determine that any surface waters impaired by mine drainage are mine influenced water, without any criteria or standards. Given the breadth of the DEP's list of waters impaired by mine drainage, this definition would include many surface waters throughout the Commonwealth, including sections of the major rivers such as the Allegheny, Monongahela, Youghiogheny and West Branch of the Susquehanna, and their tributaries, some of which are widely used for public water supplies. Storage and use of such a vaguely defined and potentially broad universe of waters, which are routinely used for numerous other purposes by industries beyond the oil and gas industry, should not be subject to the special approval requirements specified in the Draft Final Regulations. We commented on this definition at the time of the proposed regulation, largely due to the requirement in § 78a.58b requiring special permission to place "mine influenced water" in a freshwater impoundment. However, its significance has been magnified by the amendment to § 78a.58(a) which would seem to potentially require special permission to mix water from the above-mentioned rivers with other water before using the mixture to hydraulically fracture a well. The definition is overly broad and fails to establish a cogent regulatory standard that informs the industry which waters are subject to these requirements. Alternatively, it authorizes ad hoc and arbitrary determinations by the Department.

The second sentence of the proposed definition should be deleted.

MSC's suggested amendatory language:

Mine influenced water—Water contained in a mine pool, or a surface discharge of water caused by mining activities that pollutes, or may create a threat of pollution to, waters of the Commonwealth.

MODULAR ABOVEGROUND STORAGE STRUCTURE – AN ABOVEGROUND STRUCTURE USED TO STORE WASTEWATER THAT REQUIRES FINAL ASSEMBLY AT A WELL SITE TO FUNCTION AND WHICH CAN BE BROKEN DOWN AND MOVED TO ANOTHER WELL SITE AFTER USE.

MSC Comment:

The definition of "Modular Aboveground Storage Structure" is overly broad and otherwise vaguely defined in that it allows for a wide degree of interpretation as to what constitutes a modular aboveground storage structure. For instance, the proposed definition could include mud tanks on a rig.

***Noncementing material*—A mixture of very fine to coarse grained nonbonding materials, including unwashed crushed rock, drill cuttings, earthen mud or other equivalent material**

approved by the Department.

Noncoal area—An area that is not underlain by a workable coal seam.

Nonporous material—Nontoxic earthen mud, drill cuttings, fire clay, gel, cement or equivalent materials approved by the Department that will equally retard the movement of fluids.

Nonvertical unconventional well—

- (i) An unconventional well drilled intentionally to deviate from a vertical axis.
- (ii) The term includes wells drilled diagonally and wells that have horizontal bore holes.

Observation well—A well used to monitor the operational integrity and conditions in a gas storage reservoir, the reservoir protective area or strata above or below the gas storage horizon.

Oil and gas operations—The term includes the following:

(i) ~~[Well location assessment, seismic]~~ SEISMIC operations, well site preparation, construction, drilling, hydraulic fracturing, completion, production, operation, alteration, plugging and site restoration associated with an oil or gas well.

(ii) Water withdrawals, residual waste processing, water and other fluid management and storage INCLUDING CENTRALIZED TANK STORAGE, used exclusively for the development of oil and gas wells.

(iii) Construction, installation, use, maintenance and repair of:

(A) Oil and gas WELL DEVELOPMENT, GATHERING AND TRANSMISSION pipelines.

(B) Natural gas compressor stations.

(C) Natural gas processing plants or facilities performing equivalent functions.

(iv) Construction, installation, use, maintenance and repair of all equipment directly associated with activities in subparagraphs (i) ~~(ii)~~ (iii) to the extent that the equipment is necessarily located at or immediately adjacent to a well site, impoundment area, oil and gas pipeline, natural gas compressor station or natural gas processing plant.

(v) Earth disturbance associated with oil and gas exploration, production, processing, or treatment operations or transmission facilities.

OTHER CRITICAL COMMUNITIES—THE TERM SHALL MEAN:

MSC comment:

The Department has not provided an adequate statement of need or estimate of cost to the regulated community pursuant to the requirements of Pennsylvania's Regulatory Review Act. The ANFR is not a substitute for an agency to fulfill any of the formal steps of the Regulatory Review Act or the accompanying requirements imposed on the promulgating agency. Accordingly the Department should not proceed to finalize the definition of "other critical communities", but should withdraw the definition and proceed with a separate proposed rulemaking in order to fully and properly comply with the RRA.

The definition of "other critical communities" now proposed is so vague and general as to potentially encompass every plant and animal species on earth, except those listed as T&E species ["Plant and animal species not listed as threatened or endangered ... including..."]. Moreover the list of examples following the word "including" are equally vague using terms that are undefined in any law or regulation and are apparently open to evolving interpretation by anyone. To the extent the terms are intended to refer to certain species, areas, features, and/or communities on the Pennsylvania Natural Diversity Inventory (PNDI) database, such designations are not done by rulemaking, nor are they clearly defined there either. Accordingly, the Department is improperly seeking to create a binding regulatory requirement in excess of its statutory authority. Since permit applicants would be required to undertake extensive and expensive procedures, pursuant to Section 78a.15(f)(1)(iv), if a well site is "in a location that will impact other critical communities," it is essential to know exactly what species, areas, features, and communities are covered and to be able to establish the locations of those species, areas, features, and communities. This definition leads to an absurd result and is clearly not what the General Assembly intended. The proposed definition fails to provide any meaningful details, guidance, or criteria and should be eliminated.

More fundamentally, the Department's authority to regulate the potential impact on public resources derives from § 3215(c) of Act 13 of 2012 (which does not define the term "other critical communities"). In fact, the term "other critical communities" is used in that subsection and nowhere else in Act 13, nor is it used in any other statute relied upon as authority for these regulations. However, in the Robinson Township decision (*Robinson Twp. et al v. Commonwealth*, 83 A.3d 901 (PA 2013)), the Supreme Court enjoined the application of § 3215(c). Accordingly, the Department lacks the authority to regulate with regard to "other critical communities" specifically and lacks the legal authority to implement § 3215(c) in its entirety. Section 78a.15(f) should be stricken.

The expansive, and potentially unlimited, definition of "other critical communities" not only far exceeds any rational interpretation of legislative intent, but is also so ambiguous and subjective as to be arbitrary and capricious.

(1) PLANT AND ANIMAL SPECIES THAT ARE NOT LISTED AS THREATENED OR ENDANGERED BY A PUBLIC RESOURCE AGENCY, INCLUDING:

MSC comment:

See MSC's comment on the definition of "public resource agency."

(i) PLANT AND ANIMAL SPECIES THAT ARE CLASSIFIED AS RARE, TENTATIVELY UNDETERMINED OR CANDIDATE,

MSC comment:

The terms “Pennsylvania rare”, “tentatively undetermined” and “candidate” are defined elsewhere in the Pennsylvania Code, but it is unclear whether PADEP intended to incorporate those definitions here.

(ii) TAXA OF CONSERVATION CONCERN,

MSC comment:

This term does not appear to be defined in any Pennsylvania law, and is so broad that it is difficult for the MSC to comment on the impact of its inclusion in this definition.

(iii) SPECIAL CONCERN PLANT POPULATIONS.

MSC comment:

The term “special concern population” is defined in 17 Pa. Code Chapter 45, but it is unclear whether PADEP intended to incorporate that definition here. In addition, it appears that no plant populations have been classified as special concern populations by DCNR.

(2) THE SPECIFIC AREAS WITHIN THE GEOGRAPHICAL AREA OCCUPIED BY A THREATENED OR ENDANGERED SPECIES DESIGNATED IN ACCORDANCE WITH THE ENDANGERED SPECIES ACT OF 1973, 16 U.S.C. §§ 1531 ET SEQ., THAT EXHIBIT THOSE PHYSICAL AND BIOLOGICAL FEATURES ESSENTIAL TO THE CONSERVATION OF THE SPECIES AND WHICH MAY REQUIRE SPECIAL CONSIDERATION OR PROTECTIONS; AND

MSC comment:

By inserting a definition of “critical habitat”, PADEP is reading the Oil and Gas Act of 2012 as creating an obligation for the agency to consider the “habitats” of “critical habitats.” The context and language of 58 Pa. C.S. § 3215(c)(4) do not support a definition of “critical communities” that would include either critical habitats or non-species resources, such as those listed in this subsection and in subsection (3). Providing these non-species resources with the level of protection provided to threatened or endangered species without justification is inappropriate.

(3) SIGNIFICANT NON-SPECIES RESOURCES, INCLUDING UNIQUE GEOLOGICAL FEATURES; SIGNIFICANT NATURAL FEATURES OR SIGNIFICANT NATURAL COMMUNITIES.

MSC comment:

Refer to MSC’s comment above to subsection (2) of this definition. Defining other critical communities to include non-species resources is confusing and does not provide operators with fair notice of their obligations, because changes to the designation of these resources may occur without public notice at any time. This creates uncertainty and a lack of predictability for operators attempting to obtain a well permit pursuant to Chapter 78a.

The proposed definition also goes so far as to equate “significant” features or communities to “critical” communities, when in fact the normal usage of those terms implies a separation, with “critical” being a higher level of importance than “significant.” For example, DEP is proposing to equate undefined “significant natural communities” to “critical communities” with absolutely no explanation or rationale that would support such an expansion.

Owner—A person who owns, manages, leases, controls or possesses a well or coal property. [For purposes of sections 203(a)(4) and (5) and 210 of the act (58 P.S. § § 601.203(a)(4) and (5) and 601.210), the term does not include those owners or possessors of surface real property on which the abandoned well is located who did not participate or incur costs in the drilling or extraction operation of the abandoned well and had no right of control over the drilling or extraction operation of the abandoned well.] The term does not apply to orphan wells, except [where] when the Department determines a prior owner or operator benefited from the well as provided in section [210(a)] 3220(a) of the act (relating to plugging requirements).

PCSM —POST-CONSTRUCTION STORMWATER MANAGEMENT —THE TERM AS DEFINED IN § 102.1 (RELATING TO DEFINITIONS).

PCSM plan—Post-construction stormwater management plan—The term as defined in § 102.1 (relating to definitions).

MSC comment:

The word “playground” should be defined for purposes of this act. The proposed ANFR references playgrounds in several sections, e.g. § 78a.15 (Application requirements) and § 78a.57a (Centralized Tank Storage).

PPC plan—Preparedness, Prevention and Contingency plan—A written preparedness, prevention and contingency plan.

PENNSYLVANIA NATURAL DIVERSITY INDEX PROJECT ENVIRONMENTAL REVIEW RECEIPT (PNDI RECEIPT) — A SEARCH RECEIPT GENERATED BY THE PENNSYLVANIA NATURAL HERITAGE PROGRAM’S PENNSYLVANIA NATURAL DIVERSITY INVENTORY DATABASE.

Perimeter area—An area that begins at the outside coal boundaries of an operating coal mine and extends within 1000 feet beyond those boundaries or an area within 1000 feet beyond the mine permit boundaries of a coal mine already projected and permitted but not yet being operated.

Permanently cemented—Surface casing or coal protective casing that is cemented until cement is circulated to the surface or is cemented with a calculated volume of cement necessary to fill the theoretical annular space plus 20% excess.

Pit—A natural topographic depression, manmade excavation or diked area formed primarily of earthen materials designed to hold fluids, semifluids or solids [associated with oil and gas activities, including, but not limited to, fresh water, wastewater, flowback, mine

~~**influenced water, drilling mud and drill cuttings, that services a single well site].**~~

~~**[Pre wetting Mixing brine with antiskid material prior to roadway application.]**~~

Private water supply—A water supply that is not a public water supply.

Process or processing—The term has the same meaning as “processing” as defined in **section 103 of the Solid Waste Management Act (35 P.S. § 6018.103).**

Production casing—A string of pipe other than surface casing and coal protective casing which is run for the purpose of confining or conducting hydrocarbons and associated fluids from one or more producing horizons to the surface.

PUBLIC RESOURCE AGENCY — AN ENTITY RESPONSIBLE FOR MANAGING A PUBLIC RESOURCE INCLUDING, PENNSYLVANIA DEPARTMENT OF CONSERVATION AND NATURAL RESOURCES, PENNSYLVANIA FISH AND BOAT COMMISSION, PENNSYLVANIA GAME COMMISSION, UNITED STATES FISH AND WILDLIFE SERVICE, WATER PURVEYORS, MUNICIPALITIES, AND SCHOOL DISTRICTS.

MSC comment:

The specific role of a public resource agency is not defined, and the definition places no limit on the entities that could be public resource agencies. The definition should be limited to agencies with actual legal authority to regulate public resources. There are significant concerns with including water purveyors, municipalities, and school districts within the list of public resource agencies that would have authorities and responsibilities within 78a.15 to review and condition oil and gas permits.

Of particular note is the fact that the term “water purveyor” includes not only public utilities or other public entities, but also many private companies or organizations that provide drinking water to a sufficient number of individuals (25 or more individuals for 60 or more days per year) or via 15 service connections. For example, a company/facility with 25 or more employees that supplies its own drinking water would be defined as a “water purveyor” and as such, a “public resource agency” under the proposed definitions. Classifying those types of private entities as “public resource agencies” with the associated roles and responsibilities outlined in 78a.15 is inappropriate, particularly without any associated Regulatory Impact Analysis of the consequences.

Public water supply—**[A water system that is subject to the Pennsylvania Safe Drinking Water Act (35 P.S. §§ 721.1—721.17).] A source of water used by a water purveyor.**

Regional groundwater table—

(i) The fluctuating upper water level surface of an unconfined or confined aquifer where the hydrostatic pressure is equal to the ambient atmospheric pressure.

(ii) The term does not include the perched water table or the seasonal high GROUNDwater table.

MSC comment:

For purposes of clarification, the term “fluctuating upper” should be removed from (i) and the word “shallow” should be added after the word “high” in (ii), so that it reads “seasonal high shallow groundwater table”.

MSC’s suggested amendatory language:

78a.1. Definitions. Regional groundwater table—

(i) The water level surface of an unconfined or confined aquifer where the hydrostatic pressure is equal to the ambient atmospheric pressure.

(ii) The term does not include the perched water table or the seasonal high shallow groundwater table.

Regulated substance—Any substance defined as a regulated substance in section 103 of ACT 2 (35 P.S. § 6026.103).

MSC comment:

This definition is cross-referenced to the definition in Act 2 that was developed to assist those conducting cleanup operations at brownfield sites throughout the Commonwealth, sites that were used for a wide variety of industrial activities. The definition, which includes substances “covered by” six other named statutes, is stated broadly for the purposes of Act 2 but is overly broad and fails to provide the necessary guidance for reporting obligations that would be imposed under the proposed Section 78a.66(b). The term “regulated substances” is utilized extensively throughout the proposed rule, which does not appear to be warranted and may lead to unintended consequences for both the Department and the regulated community. At a minimum, the definition must be further clarified by reference to some known list of substances, such as those found in 25 Pa. Code Chapter 250. In addition, the term should be replaced or removed entirely where the intent of the rule is better served by a different term. See Sections 78a.55 (Control and disposal planning), 78a.56 (Temporary storage), 78a.61 (Disposal of drill cuttings), and 78a.64a (Containment systems and practices at unconventional well sites) for specific recommendations below.

The term “regulated substance” was not designed to be used in the context of affirmative regulatory obligations. MSC recommends that revisions be made to address the PADEP’s particular intent of the regulatory section in which the term has been proposed. See the subsections below for additional comments and suggestions that explain MSC’s recommendations for terms that will serve the purpose of the regulation and provide better guidance to the regulated community.

MSC’s suggested amendatory language:

Regulated substance—Any substance defined as a regulated substance in section 103 of Act 2 (35 P.S. §6020.103) and listed in 25 Pa. Code Chapter 250.

[Reportable release of brine—Spilling, leaking, emitting, discharging, escaping or disposing of one of the following:

(i) More than 5 gallons of brine within a 24-hour period on or into the ground at the well site where the total dissolved solids concentration of the brine is equal or greater than 10,000 mg/l.

(ii) More than 15 gallons of brine within a 24-hour period on or into the ground at the well site where the total dissolved solids concentration of the brine is less than 10,000 mg/l.]

RESIDUAL WASTE - THE TERM AS DEFINED IN § 287.1 (RELATING TO DEFINITIONS).

Retrievable—When used in conjunction with surface casing, coal protective casing or production casing, the casing that can be removed after exerting a prudent effort to pull the casing while applying a pulling force at least equal to the casing weight plus 5000 pounds or 120% of the casing weight, whichever is greater.

Seasonal high groundwater table—The saturated condition in the soil profile during certain periods of the year. The condition can be caused by a slowly permeable layer within the soil profile and is commonly indicated by the presence of soil mottling.

Sheen—An iridescent appearance on the surface of the water.

Soil mottling—Irregular marked spots in the soil profile that vary in color, size and number.

Stormwater—Runoff from precipitation, snowmelt, surface runoff and drainage.

Surface casing—A string or strings of casing used to isolate the wellbore from fresh groundwater and to prevent the escape or migration of gas, oil or other fluids from the wellbore into fresh groundwater. The surface casing is also commonly referred to as the water string or water casing.

[Temporary] WELL DEVELOPMENT pipelines—Pipelines used for oil and gas operations that:

(i) Transport materials used for the drilling or hydraulic fracture stimulation, or both, of a well and the residual waste generated as a result of the activities.

(ii) Lose functionality after the well site it serviced has been restored under § 78a.65 (related to site restoration).

MSC comment:

Inclusion of the phrase “pipelines used for oil and gas operations” in this definition is confusing, as “oil and gas pipelines, well development, gathering and transmission” is proposed to be included in the definition of “oil and gas operations”. The definition of “oil and gas operations” also includes “water and other fluid management and storage...used exclusively for the development of oil and gas wells.” MSC recommends that the introductory clause be clarified to

read as follows: “Pipelines that are part of oil and gas operations and that meet the following:
...”

Also, those portions of well development pipelines that are located within the boundaries of unconventional well sites subject to the containment system requirements of § 78a.64a should be excluded from this definition.

MSC’s suggested amendatory language:

Well Development pipelines—Pipeline that is part of oil and gas operations and that:

- (1) transport materials used for the drilling or hydraulic fracture stimulation, or both, of a well and the residual waste generated as a result of those activities; and
- (2) lose its functionality after the well site it serviced has been restored under § 78a.65 (related to restoration).

The term does not include those portions of pipelines that are located within the boundaries of unconventional well sites subject to the containment system requirements of § 78a.64a.

THREATENED OR ENDANGERED SPECIES—THOSE ANIMAL AND PLANT SPECIES IDENTIFIED AS A THREATENED OR ENDANGERED SPECIES AS DETERMINED UNDER THE ENDANGERED SPECIES ACT OF 1973, 16 U.S.C.A. § 1531 ET SEQ.; WILD RESOURCE CONSERVATION ACT, 32 P.S. § 5301; FISH AND BOAT CODE, 30 Pa.C.S. § 101 ET SEQ.; AND GAME AND WILDLIFE CODE, 34 Pa.C.S. § 101 ET SEQ. THE TERM INCLUDES ANIMAL AND PLANT SPECIES PROPOSED FOR LISTING AS ENDANGERED AND THREATENED, PURSUANT TO THE ENDANGERED SPECIES ACT OF 1973.

MSC comment:

Closely related to the improper definition of “Other Critical Communities” is the newly proposed definition of Threatened or Endangered (T&E) Species. It represents another action beyond the Department’s legal authority. The legislature has not granted any authority to DEP to designate T&E species. Rather the three statutes cited in the proposed definition grant that authority to the Department of Conservation and Natural Resources, the Fish and Boat Commission and the Game Commission. None of those Pennsylvania enabling statutes, nor the federal act, provides authority to regulate species that are merely proposed for listing as though they are actually listed. Species may be proposed for years without action and ultimately may not be listed. DEP has no authority to add species to the list before the agencies that actually have the authority to do so act. The last portion of the definition dealing with proposed species should be eliminated.

MSC’s suggested amendatory language:

Threatened or Endangered Species – Those animal and plant species identified as a threatened or endangered species as determined under the endangered species act of 1973, 16 U.S.C.A. § 1531 et seq.; Wild Resources Conservation Act, 32 P.S. § 5301; Fish and Boat Code, 30 Pa.C.S. § 101 et seq.; and Game and Wildlife Code, 34 Pa.C.S. § 101 et seq.

Tophole water—Water that is brought to the surface while drilling through the strata containing fresh groundwater and water that is fresh groundwater or water that is from a body of surface water. Tophole water may contain drill cuttings typical of the formation being penetrated but

may not be polluted or contaminated by additives, brine, oil or man induced conditions.

Total depth—The depth to which the well was originally drilled, subsequently drilled or the depth to which it was plugged back in a manner approved by the Department.

Tour—A workshift in drilling of a well.

Unconventional formation—A geological shale formation existing below the base of the Elk Sandstone or its geologic equivalent stratigraphic interval where natural gas generally cannot be produced at economic flow rates or in economic volumes except by vertical or horizontal well bores stimulated by hydraulic fracture treatments or by using multilateral well bores or other techniques to expose more of the formation to the well bore.

Unconventional well—A bore hole drilled or being drilled for the purpose of or to be used for the production of natural gas from an unconventional formation.

Vertical unconventional well—An unconventional well with a single vertical well bore.

WMP—Water Management Plan—A plan associated with drilling or completing a well in an unconventional formation that demonstrates that the withdrawal and use of water sources protects those sources, as required under law, and protects public health, safety and welfare.

MSC comment:

The definition should be clarified that the plan applies to water sources “within this Commonwealth”, as drafted by the Legislature in 58 P.S. § 3211(m)(1).

MSC’s suggested amendatory language:

WMP—Water Management Plan—A plan associated with drilling or completing a well in an unconventional formation that demonstrates that the withdrawal and use of water sources within this Commonwealth protects those sources, as required under law, and protects public health, safety and welfare.

Water protection depth—The depth to a point 50 feet below the surface casing seat.

Water purveyor—**[The owner or operator of a public water supply.]Any of the following:**

(i) The owner or operator of a public water system as defined in section 3 of the Pennsylvania Safe Drinking Water Act (35 P.S. § 721.3).

(ii) Any person subject to the act of June 24, 1939 (P.L. 842, No. 365), known as the Water Rights Law.

Water source--

(i) Any of the following:

(A) Waters of the Commonwealth.

(B) A source of water supply used by a water purveyor.

(C) Mine pools and discharges.

(D) Any other waters that are used for drilling or completing a well in an unconventional formation.

(ii) The term does not include flowback or production waters or other fluids:

(A) Which are used for drilling or completing a well in an unconventional formation.

(B) Which do not discharge into waters of the Commonwealth.

Water supply—A supply of water for human consumption or use, or for agricultural, commercial, industrial or other legitimate beneficial uses.

WATERCOURSE—THE TERM AS DEFINED IN § 105.1.

MSC comment:

The proposed definition of watercourse is too broadly defined and does not make sense in the context that it is used by the Department in the proposed ANFR. Channels and diversion ditches around a farmer's field or farm road would be considered to be a watercourse per this proposed definition. The proposed definition should be deleted.

Well operator or operator—**Any of the following:**

(i) The person designated as the [well operator or] operator **or well operator** on the permit application or well registration.

(ii) If a permit or registration was not issued, [the term means] a person who locates, drills, operates, alters or plugs a well or reconditions a well with the purpose of production [therefrom] **from the well.**

[In cases where] **(iii) If** a well is used in connection with the underground storage of gas, [the term also means] a storage operator.

Well site—The area occupied by the equipment or facilities necessary for or incidental to the drilling, production or plugging of a well.

MSC's suggested amendatory language:

Well site—The area occupied by the equipment or facilities necessary for or incidental to the drilling, production or plugging of a well or multiple wells.

Wetland—The term as defined in § 105.1.

Workable coal seam—One of the following:

- (i) A coal seam in fact being mined in the area in question under the act and this chapter by underground methods.
- (ii) A coal seam which, in the judgment of the Department, reasonably can be expected to be mined by underground methods.

* * *

Subchapter B. PERMITS, TRANSFERS AND OBJECTIONS

PERMITS AND TRANSFERS

§ 78a.11. Permit requirements.

- (a) No person may drill or alter a well unless that person has first obtained a permit from the Department.
- (b) No person may operate a well unless one of the following conditions has been met:
 - (1) The person has obtained a permit under the act.
 - (2) The person has registered the well under the act.
 - (3) The well was in operation on April 18, 1985, under a permit that was obtained under the Gas Operations Well-Drilling Petroleum and Coal Mining Act (52 P. S. §§ 2104, 2208, 2601 and 2602) (Repealed).

MSC comment:

MSC is concerned about the Department's new position, following the adoption of Act 13, which interprets some provisions of the Act to require well permits to be posted prior to construction of well sites or access roads. MSC does not believe that this interpretation is required or necessary under the language of Act 13. The timing of permit applications and issuance is further complicated and delayed by the Department's proposed revisions to Section 78a.15, discussed in more detail below. Revisions to Section 78a.11 should clarify an operator's permit and approval obligations to construct a well site.

MSC's suggested amendatory language:

- (c) Well permits, once obtained, must be posted at the drilling site during site preparation, drilling, operating or altering the well. Well sites, including access roads, may be constructed

prior to issuance of a well permit, in accordance with any necessary permits or approvals required and obtained under the Clean Streams Law.

* * *

§ 78a.15. Application requirements.

MSC comment:

The DEP failed to properly balance the cost of permit conditions to protect public resources against the benefits of these provisions. In an attempt to demonstrate how the benefits of the new consultation and mitigation provisions outweigh the costs, the DEP simply compared the cost of consulting a database and a field site visit to the “permanent loss of a public resource.” (RAF 18) Such a comparison is very misleading. That analysis assumes every impact results in a total loss of a public resource or endangered species, which is a facially unreasonable assumption, and assumes there are no costs beyond the search of a database and field visit. Yet when estimating the costs of the public resource provisions, the DEP fails to include even these costs and assumes that consultation costs are zero. (RAF 19) Experience with current consultation requirement indicates that there will be considerable expense in industry personnel time, expert consultants needed for surveys, and project delays in receiving resource agency responses - all well beyond a simple field visit. In its April 14, 2014 comments, the Independent Regulatory Review Commission “strongly encourage[d] EQB to consult with both conventional and unconventional operators and their associations so that all parties can gain an understanding of what will be required, when it will be required, and what it will cost to comply with the rulemaking.” Neither EQB nor PADEP consulted with MSC to discuss the costs associated with the proposed rulemaking or this ANFR.

The MSC believes the costs associated with the proposed amendments to ANFR Section 78a.15 will be orders of magnitude higher than the PADEP estimate for the proposed rulemaking provided to IRRC, even without considering mitigation. DEP plainly acknowledges that it has included no estimate of mitigation costs, which precludes full analysis of the provision by PADEP, the Independent Regulatory Review Commission, and interested stakeholders. Even under the existing, less expansive, requirements individual operators have experienced mitigation costs in the hundreds of thousands of dollars. The Department’s amendments to Section 78a.15 in its proposed rulemaking would result in a significant increase in mitigation costs for operators, and the changes proposed in the ANFR to Section 78a.15 will result in even more mitigation costs.

(a) An application for a well permit shall be submitted [on forms furnished by the] electronically to the Department ON FORMS PROVIDED through its web site and contain the information required by the Department to evaluate the application.

MSC comment:

Section 78a.15 has been specific to “well permits” in the current regulations and in the previously proposed version, but there are several sections in the ANFR § 78a.15, including (b.1), (d), (f), and (h), which now introduce aspects of erosion and sediment control permitting. This results in some confusion as to which permit certain paragraphs apply to or refer to. MSC recommends that well permit application requirements be kept separate from E&S/ESCGP-2 permit “application” (NOI) requirements.

(b) The permit application will not be considered complete until the applicant submits a complete and accurate plat, an approvable bond or other means of complying with section [215 of the act (58 P.S. § 601.215)] ~~[3225 of the act (relating to bonding)]~~ **1606-E OF THE FISCAL CODE (72 P.S. § 1606E)**, the fee in compliance with § 78a.19 (relating to permit application fee schedule), proof of the notifications required under section 3211(b.1) of the act (relating to well permits), necessary requests for variance or waivers or other documents required to be furnished by law or the Department, and the information in subsections (b.1)–(e) and (h). The person named in the permit shall be the same person named in the bond or other security.

MSC comment:

MSC recommends that the requirements for a “complete” permit applications be further clarified, so that the applicant’s obligation to provide information pursuant to § 78a.15(d) is clear.

In addition, Section 1606-E of the Fiscal Code applies only to conventional wells and should not be referenced in Chapter 78a.

(b.1) IF THE PROPOSED LIMIT OF DISTURBANCE OF THE WELL SITE IS WITHIN 100 FEET MEASURED HORIZONTALLY FROM ANY WATERCOURSE OR BODY OF WATER EXCEPT WETLANDS SMALLER THAN ONE ACRE THAT ARE NOT EXCEPTIONAL VALUE, THE APPLICANT SHALL DEMONSTRATE THAT THE WELL SITE LOCATION WILL PROTECT THOSE WATERCOURSES OR BODIES OF WATER. THE APPLICANT MAY RELY UPON OTHER PLANS DEVELOPED UNDER THIS CHAPTER OR PERMITS OBTAINED FROM THE DEPARTMENT TO MAKE THIS DEMONSTRATION, INCLUDING:

MSC comment:

MSC recommends that the word “and” between subsections (b.1)(4) and (b.1)(5) be replaced with the word “or.” MSC’s understanding of the phrase “may rely upon” is that the demonstration would not necessarily require reliance on all of the listed documents, although it may require reliance on one or more documents.

It is not clear whether PADEP intended the term “exceptional value” wetlands to incorporate the existing definition of “exceptional value wetlands” in § 105.17.

(1) AN EROSION AND SEDIMENT CONTROL PLAN OR PERMIT CONSISTENT WITH CHAPTER 102 (RELATING TO EROSION AND SEDIMENT CONTROL).

(2) A WATER OBSTRUCTION AND ENCROACHMENT PERMIT ISSUED PURSUANT TO CHAPTER 105 (RELATING TO DAM SAFETY AND WATERWAY

MANAGEMENT).

(3) APPLICABLE PORTIONS OF THE PPC PLAN PREPARED IN ACCORDANCE WITH § 78a.55(a)-(b).

(4) APPLICABLE PORTIONS OF THE EMERGENCY RESPONSE PLAN PREPARED IN ACCORDANCE WITH § 78a.55(i), AND

(5) APPLICABLE PORTIONS OF SITE CONTAINMENT PLAN PREPARED IN ACCORDANCE WITH 58 Pa.C.S. § 3218.2 (RELATING TO CONTAINMENT FOR UNCONVENTIONAL WELLS).

(b.2) FOR PURPOSES OF COMPLIANCE WITH 58 Pa.C.S. § 3215(a) AN ABANDONED WATER WELL DOES NOT CONSTITUTE A WATER WELL.

(c) The applicant shall submit information identifying parent and subsidiary business [entities] CORPORATIONS operating in this Commonwealth with the first application submitted after _____, (Editor's Note: The blank refers to the effective date of adoption of this proposed rulemaking.) and provide any changes to [its business relationships] THIS INFORMATION with each subsequent application.

(d) ~~The applicant shall provide proof of consultation with the Pennsylvania Natural Heritage Program (PNHP) regarding the presence of a State or Federal threatened or endangered species where the proposed well site or access road is located. If the Department determines, based on PNHP data or other sources, that the proposed well site or access road may adversely impact the species or critical habitat, the applicant shall consult with the Department to avoid or prevent the impact. If the impact cannot be avoided or prevented, the applicant shall demonstrate how the impacts will be minimized in accordance with State and Federal laws pertaining to the protection of threatened or endangered flora and fauna and their habitat.~~ THE APPLICANT SHALL DEMONSTRATE THAT THE PROPOSED WELL, WELL SITE OR ACCESS ROAD WILL NOT IMPACT THREATENED OR ENDANGERED SPECIES BY SUBMITTING A PNDI RECEIPT TO THE DEPARTMENT. IF ANY POTENTIAL IMPACT IS IDENTIFIED IN THE PNDI RECEIPT TO THREATENED OR ENDANGERED SPECIES, THE APPLICANT SHALL DEMONSTRATE HOW THE IMPACT WILL BE AVOIDED OR MINIMIZED AND MITIGATED IN ACCORDANCE WITH STATE AND FEDERAL LAWS PERTAINING TO THE PROTECTION OF THREATENED OR ENDANGERED SPECIES TO THE SATISFACTION OF THE APPLICABLE PUBLIC RESOURCE AGENCY. THE APPLICANT SHALL PROVIDE WRITTEN DOCUMENTATION TO THE DEPARTMENT SUPPORTING THIS DEMONSTRATION, INCLUDING ANY AVOIDANCE/MITIGATION PLAN, CLEARANCE LETTER, DETERMINATION OR OTHER CORRESPONDENCE RESOLVING THE POTENTIAL SPECIES IMPACT WITH THE APPLICABLE PUBLIC RESOURCE AGENCY.

MSC comment:

The first two sentences of this subsection are internally inconsistent. As drafted, the first sentence requires that the proposed activities “will not impact” threatened or endangered species. However, the second sentence recognizes that potential impacts may be identified.

The phrase “to the satisfaction of the applicable public resource agency” is open-ended, vague and should be deleted. It is not possible for an operator to know when it is in compliance with this standard.

(e) If an applicant seeks to locate a well on a well site where the applicant has obtained a permit under § 102.5 (relating to permit requirements) and complied with § 102.6(a)(2) (relating to permit applications and fees), the applicant is deemed to comply with [subsection] SUBSECTIONS (b.1) AND (d) IF THE PERMIT WAS OBTAINED WITHIN TWO YEARS FROM THE RECEIPT OF THE APPLICATION SUBMITTED UNDER THIS SECTION.

(f) An applicant proposing to CONSTRUCT A WELL SITE [drill a well] at a location THAT MAY IMPACT A PUBLIC RESOURCE AS PROVIDED [listed] in paragraph (1) shall notify the applicable PUBLIC resource agency, if any, in accordance with paragraph (2). THE APPLICANT SHALL ALSO and provide the information in paragraph (3) to the Department in the well permit application.

MSC comment:

Fundamentally, the Department’s authority to regulate the potential impact on public resources derives from Section 3215(c) of Act 13 of 2012. In fact, the term “other critical communities” is used in that subsection and nowhere else in Act 13, nor is it used in any other statute relied upon as authority for these regulations. However, in the Robinson Township decision (*Robinson Twp. et al v. Commonwealth*, 83 A.3d 901 (PA 2013)) the Supreme Court enjoined the application of section 3215(c). Accordingly, the Department lacks the authority to regulate with regard to “other critical communities” specifically and lacks the legal authority to implement Section 3215(c) in its entirety. Section 78a.15(f) should be stricken.

Taken together, §78a.15(f) and the definition of “Other Critical Communities” exceed the Department’s legal authority as determined by the Supreme Court and provide a definition that not only far exceeds any rational interpretation of legislative intent but is also so ambiguous and subjective as to be arbitrary and capricious.

MSC’s comments to § 78a.1 regarding the definitions of “other critical communities”, “public resource agency”, and “threatened and endangered species” are also incorporated by reference here.

(1) This subsection applies if the proposed [surface location] LIMIT OF DISTURBANCE of the well SITE is located:

(i) In or within 200 feet of a publicly owned park, forest, game land or wildlife area.

(ii) In or within the corridor of a State or National scenic river.

MSC comment:

MSC recommends the Department provide a definition or additional clarifying language to the phrase “corridor of a state or national scenic river”.

(iii) Within 200 feet of a National natural landmark.

(iv) In a location that will impact other critical communities. [For the purposes of this section, other critical communities means special concern species.]

MSC comment:

In this subsection, the Department originally proposed to equate “critical communities” with “special concern species.” The MSC objected to this provision because, among other reasons, it “create[d] tremendous uncertainty about a permit applicant’s obligations with regard to an ever-changing and undefined list.” The Department has now proposed a definition of “other critical communities”; however, the same problems remain and have been significantly compounded. We incorporate by reference MSC’s comments to the definition of “other critical communities” in § 78a.1 and MSC’s cover letter to these comments, which describe MSC’s concerns and propose that the definition fails to provide any meaningful details, guidance or criteria and should be eliminated.

Pursuant to IRRC’s April 14, 2014 letter, EQB must provide a “more detailed explanation of the rationale for this subparagraph, why it is needed, how it will be implemented, why it is legal, and why it is consistent with the intent of the General Assembly and Act 13.” Neither EQB nor PADEP has provided this information.

(v) Within 200 feet of a historical or archeological site listed on the Federal or State list of historic places.

(vi) [In the case of an unconventional well, w] Within 1,000 feet of a water well, surface water intake, reservoir or other water supply extraction point used by a water purveyor.

(vii) WITHIN 200 FEET OF COMMON AREAS ON A SCHOOL’S PROPERTY OR A PLAYGROUND.

MSC comment:

MSC recommends that this provision be withdrawn, and that PADEP proceeds with a separate proposed rulemaking in order to fully and properly comply with the Regulatory Review Act.

“Common areas on a school’s property” or “playground” are not defined, and include areas that are not publicly accessible. Also, it is not clear whether a playground must be associated with a school based on the current wording. Unlike the majority of the resources listed in subsections (i) through (v), which have established boundaries, “common areas on a school’s property” do not have defined boundaries. Schools may own property with ancillary functions, such as a maintenance yards or drainage areas. Moreover, “schools” could include academic schools from pre-kindergarten through post-secondary education (e.g., trade schools, colleges or universities) and even educational facilities for non-traditional/non-academic subjects. The same issue arises for “playgrounds”, which could include private restaurants with play facilities. The potential for

an overly broad interpretation of the Department's definition is high, and could include literally thousands of types of "common areas" and "playgrounds". PADEP will be overwhelmed by the multiplicity of "common areas," as well as the variety of comments by schools for the mitigation of potential impacts.

(viii) WITHIN AN AREA DESIGNATED AS A WELLHEAD PROTECTION AREA AS PART OF AN APPROVED WELLHEAD PROTECTION PLAN.

MSC comment:

MSC recommends that this provision be withdrawn, and that PADEP proceeds with a separate proposed rulemaking in order to fully and properly comply with the Regulatory Review Act. The term "wellhead protection area" is not defined, as discussed in MSC's general comment to § 78a.1. Given that the term is undefined, the potential impact of this provision cannot be adequately assessed. Additionally, information regarding wellhead protection areas and wellhead protection plans is not readily available to the public.

In 58 Pa. C.S. § 3215(a) the Legislature considered and addressed unconventional well location restrictions pertaining to setbacks from water wells and water supply exaction points by a water purveyor, for the purpose of protecting water supplies. Section 2315(a) provides for a waiver of the setback requirement by the owner of the water supply. The scope of (vii) is clearly beyond the Legislature's intended level of protection for water supplies and should be deleted.

Wellhead protection area is defined in Chapter 109, but MSC recommends a revised definition for the use of the term in 25 Pa. Code § 78.15. Relying on the Chapter 109 definition of wellhead protection area would likely have broad implications not considered by the drafters of the proposed ANFR: at a minimum, the definition should be limited to Zone I wellhead protection areas as defined in § 109.1.

(2) The applicant shall notify the public resource agency responsible for managing the public resource identified in paragraph (1) [~~if any~~]. The applicant shall forward by certified mail a copy of the plat identifying the proposed [location of the well, well site and access road] LIMIT OF DISTURBANCE OF THE WELL SITE and information in paragraph (3) to the public resource agency at least [~~15~~] 30 days prior to submitting its well permit application to the Department. The applicant shall submit proof of notification with the well permit application. From the date of notification, the public resource agency has [~~15~~] 30 days to provide written comments to the Department and the applicant on the functions and uses of the public resource and the measures, if any, that the public resource agency recommends the Department consider to avoid or minimize probable harmful impacts to the public resource where the well, well site and access road is located. The applicant may provide a response to the Department to the comments.

MSC comment:

MSC recommends that the previous deadline for providing necessary information to the public resource agency (i.e., 15 days prior to submitting a permit application) be retained.

The “if any” wording should also be retained here, consistent with the wording in the introductory paragraph to (f). With respect to the phrase “probable harmful impacts”, please see MSC’s comment on subsection (g), below.

MSC also recommends that the Department revise this paragraph to reflect the situation where a public resource agency is also the surface landowner. Additionally, the Department should clarify that the time periods in (f)(2) are measured in calendar days.

(3) The applicant shall include the following information in the well permit application on forms provided by the Department:

(i) An identification of the public resource.

(ii) A description of the functions and uses of the public resource.

MSC’s suggested amendatory language:

(i) an identification of the public resource, which may include a description of the functions and uses of the public resource.

(ii) a description of the measures proposed to be taken to avoid or mitigate impacts, if any.

(iii) A description of the measures proposed to be taken to avoid or mitigate impacts, if any.

(4) The information required in paragraph (3) shall be limited to the discrete area of the public resource that may be affected by the well, well site and access road.

MSC comment:

MSC recommends the Department add clarifying language regarding the term “discrete area”.

MSC’s suggested amendatory language:

(4) The information required in paragraph (3) shall be limited to the discrete, physically separate and distinct area of the public resource that may be affected by the well, well site and access road.

(g) If the proposed well, well site or access road poses a probable harmful impact to a public resource, the Department may include conditions in the well permit to avoid or mitigate those impacts to the public resource’s current functions and uses. The Department will consider the impact of any potential permit condition on the applicant’s ability to exercise its property rights with regard to the development of oil and gas resources and the degree to which any potential condition may impact or impede the optimal development of the oil and gas resources. The issuance of a permit containing conditions imposed by the Department under this subsection is an action that is appealable to the Environmental Hearing Board. The Department has the burden of proving that the conditions were necessary to protect against a probable harmful impact of the public resource.

MSC comment:

Section 78a.15(g) replicates, in part, the language of Act 13 Section 3215(e) which recognizes the oil and gas owners' property rights to develop the oil and gas resources. However, Section 3215(e)¹ also requires the EQB to develop by regulation criteria for the DEP to utilize in the imposition of any permit conditions to protect public resources while respecting those property rights and ensuring optimal development of those resources. DEP has not proposed any such criteria. The rule thus fails to comply with Act 13, which requires that the EQB develop these criteria in this rulemaking.

IRRC suggested in its April 14, 2014 letter that the final-form regulation include criteria "that will allow the regulated community to know how the Department will determine if an application poses a probable harmful impact." Additionally, IRRC noted in the same letter the phrase "probable harmful impact" used in subsections (f)(2) and (g) is vague. The quality of the evidence required for the Department to determine that harm to a public resource is probable and impose a condition in the permit should be clear and convincing evidence.

(h) AN APPLICANT PROPOSING TO DRILL A WELL THAT INVOLVES 1 TO 5 ACRES OF EARTH DISTURBANCE OVER THE LIFE OF THE PROJECT AND IS LOCATED IN A WATERSHED THAT HAS A DESIGNATED OR EXISTING USE OF HIGH QUALITY OR EXCEPTIONAL VALUE PURSUANT TO CHAPTER 93 (RELATING TO WATER QUALITY STANDARDS) SHALL SUBMIT AN EROSION AND SEDIMENT CONTROL PLAN CONSISTENT WITH CHAPTER 102 WITH THE WELL PERMIT APPLICATION FOR REVIEW AND APPROVAL.

MSC comment:

The "approval" requirement in the final sentence should be deleted. Pursuant to 25 Pa. Code Chapter 102 a well project involving 1 to 5 acres of earth disturbance is subject only to rules requiring the preparation of an erosion and sedimentation control plan. In this situation, operators are not required to obtain approval from PADEP.

MSC's suggested amendatory language:

(h) An applicant proposing to drill a well that involves 1 to 5 acres of earth disturbance over the life of the project and is located in a watershed that has a designated or existing use of high quality or exceptional value pursuant to Chapter 93 (relating to water quality standards) shall submit an erosion and sediment control plan consistent with Chapter 102 with the well permit application for review.

* * *

¹ In the Robinson Township decision (Robinson Twp. et al v. Commonwealth, 83 A.3d 901 (PA 2013)), the Supreme Court enjoined the application of section 3215(e).

§ 78a.17. Permit EXPIRATION AND renewal.

(a) A WELL PERMIT EXPIRES ONE YEAR AFTER ISSUANCE IF DRILLING HAS NOT COMMENCED. IF DRILLING IS COMMENCED WITHIN A YEAR AFTER ISSUANCE, THE WELL PERMIT EXPIRES UNLESS DRILLING IS PURSUED WITH DUE DILIGENCE. DUE DILIGENCE FOR THE PURPOSES OF THIS SUBSECTION MEANS COMPLETION OF DRILLING THE WELL TO TOTAL DEPTH WITHIN 16 MONTHS OF ISSUANCE. A PERMITEE MAY REQUEST AN EXTENSION OF THE 16-MONTH EXPIRATION FROM THE DEPARTMENT. THIS REQUEST SHALL BE SUBMITTED ELECTRONICALLY TO THE DEPARTMENT THROUGH ITS WEB SITE FOR GOOD CAUSE, OR RENEWAL OF THE PERMIT IN ACCORDANCE WITH SUBSECTION (b).

MSC Comment:

There is no basis in the Oil and Gas Act of 2012 for PADEP to set a hard date for the drilling of a well that is “pursued with due diligence”, per 58 P.S. § 3211((i)). MSC suggests that if an operator can otherwise demonstrate that drilling was pursued with “due diligence”, the well permit should not expire. Additionally, with such a demonstration there is no risk of environmental harm. There are multiple factors that could impact an operator’s ability to drill a well to total depth within 16 months that are often beyond an operator’s control – for instance, delays in issuance of permits by other state or federal agencies (such as the U.S. Army Corps of Engineers). MSC therefore recommends that the 16 month well permit expiration time frame be deleted to reflect the Legislature’s intent in 58 P.S. § 3211((i)).

In the alternative, the time frame for due diligence should be extended to 24 months, at a minimum, pursuant to the Oil and Gas Advisory Board members’ suggestion at the March 20, 2015 meeting. The criteria PADEP will use to evaluate extension requests and the duration of extensions should also be clarified.

(b) An operator may request a ~~[1-year]~~ 2-YEAR renewal of [a] AN UNEXPIRED well permit. The request shall be accompanied by a permit fee, the surcharge required [in section 601 of the act (58 P.S. § 601.601),] under section 3271 of the act (relating to well plugging funds) and an affidavit affirming that the information on the original application is still accurate and complete, that the well location restrictions are still met and that the [surface owners, coal owners and operators, gas storage operators, where the permit renewal is for a proposed well location within an underground gas storage reservoir or the reservoir protective area, and water supply owners within 1,000 feet,] entities required to be notified under section 3211(b)(2) of the act (relating to well permits) have been notified of this request for renewal. IF NEW WATER WELLS OR BUILDINGS ARE CONSTRUCTED THAT ARE NOT INDICATED ON THE PLAT AS ORIGINALLY SUBMITTED, THE ATTESTATION MUST BE UPDATED AS PART OF THE RENEWAL REQUEST. ANY NEW WATER WELL OR BUILDING OWNERS SHALL BE NOTIFIED OF THE RENEWAL REQUEST; HOWEVER, THE SETBACKS OUTLINED IN SECTION 3215 OF THE ACT (RELATING TO WELL LOCATION RESTRICTIONS) DO NOT APPLY PROVIDED THAT THE ORIGINAL PERMIT WAS ISSUED PRIOR TO THE CONSTRUCTION OF THE BUILDING OR WATER WELL. The request shall be received

by the Department at least 15 calendar days prior to the expiration of the original permit.

MSC Comment:

The word "attestation" is a new term and its meaning is unclear.

In addition, with an extension request, the proposed language does not clearly state whether the original plat must be revised to show any wells or buildings constructed since the time of the original well plat submission. It is not clear how operators should designate these new buildings and wells in the plat to show that they are not subject to setback requirements.

MSC Suggested Amendatory Language:

Replace "the attestation" with "that new information".

~~§ 78a.18. Disposal and enhanced recovery well permits.~~

MSC comment:

We recommend that a cross-reference be included here to alert unconventional operators to the existence of § 78.18.

MSC's suggested amendatory language:

§ 78a.18 Disposal and enhanced recovery well permits.

Disposal or enhanced recovery well permits shall meet the requirements of § 78.18 (relating to disposal and enhanced recovery wells).

~~(a) A person may not drill a disposal or enhanced recovery well or alter an existing well to be a disposal or enhanced recovery well unless the person:~~

~~(1) Obtains a well permit under § 78a.11 (relating to permit requirements);~~

~~(2) Submits with the well permit application a copy of the well permit, approved permit application and required related documentation submitted for the disposal or enhanced recovery well to the EPA under 40 CFR Part 146 (relating to underground injection control program);~~

~~(3) Submits a copy of a control and disposal plan for the disposal or enhanced recovery well and related facilities that meets the requirements of § 91.34 (relating to activities utilizing pollutants);~~

~~(4) Submits a copy of an erosion and sedimentation plan for the disposal or enhanced recovery well site that meets the requirements of Chapter 102 and § 78a.53 (relating to erosion and sediment control; and erosion and sedimentation control);~~

~~(b) By December 18, 1995, an operator of disposal or enhanced recovery wells which were operating before December 18, 1995, shall submit to the Department a list of the~~

~~operator's disposal or enhanced recovery wells including:~~

~~(1) The Department's permit or registration number for each well on this list.~~

~~(2) The corresponding permit number issued to each well on this list by the EPA.~~

~~(c) A person who operates multiple well projects may submit one copy of the documents required under subsection (a) if the documents are applicable to the entire project.~~

~~(d) All containment practices and onsite processing associated with disposal and enhanced recovery wells shall comply with this chapter.~~

* * *

Subchapter C. ENVIRONMENTAL PROTECTION

PERFORMANCE STANDARDS

§ 78a.41. NOISE MITIGATION.

MSC comment:

This brand new section represents a prime example of the defects in this rulemaking noted in MSC's cover letter. First, the Department is proposing an entirely new requirement as a final regulation without complying with the Regulatory Review Act. None of the requirements of the RRA, such as statement of need or estimate of cost have been followed. Nor have the IRRC or standing committees had an opportunity to review and comment on this provision. Secondly, we question the Department's authority to regulate noise, a matter usually regulated under local zoning ordinances. Neither Act 13 of 2012 nor any other statute we are aware of authorizes the Department to regulate noise, and it does not regulate noise for any other industry. Thirdly, the language in § 78a.41 is so vague and arbitrary that it fails as a regulatory standard. What does it mean to have a plan to "minimize" noise? Minimize from what level to what level? Must noise always be minimized even if there are no receptors? If so, why? Lastly, the language gives the Department the ability to require the cessation of operations if it "determines" that the plan is inadequate to "minimize" noise, without providing any standard or criteria for such determination or how inadequacy will be determined. Inserting this provision at this stage of the rulemaking violates the RRA, lacks legal authority and is arbitrary and capricious on its face. It should be eliminated.

If PADEP intends to promulgate oil and gas regulations related to noise, MSC strongly recommends that this section be removed from the ANFR and a separate proposed rulemaking be initiated in accordance with the procedures in the RRA. The proposed regulation in § 78a.41 does not establish a clear or coherent standard for operators. The lack of specificity prevents MSC from providing meaningful comments. Starting the rulemaking process from the beginning and preparing an RAF would allow for full consideration of the overall structure of the regulation, the specific proposed language, and the cost of compliance with the proposed

regulation could easily be in the hundreds of thousands of dollars per well site. The Department is likely to develop additional forms, guidance, and/or policy related to noise mitigation. These proposed forms and other documents have not been provided as required by Section 5(a)(5) of the Regulatory Review Act, so MSC is unable to review and comment on the details what the documents will require.

As stated above, it is not clear that PADEP has the authority to regulate noise, nor is it clear that the agency has the internal expertise to properly administer the proposed noise program at this time. No other industry is subject to an industry-specific noise regulation in Pennsylvania. PADEP has not demonstrated a need for state-level noise regulations for oil and gas operations. It is unclear how the proposed regulation is intended to interact with existing local noise ordinances. Noise is typically regulated at the local level, as contemplated by Act 13 of 2012, and local governments may not impose conditions or requirements on noise relating to permanent oil and gas operations that are more stringent than the conditions or requirements imposed on other industrial uses in a zoning district. 58 Pa. C.S. § 3304(b)(3). The proposed § 78a.41 is contrary to the intent of Act 13 of 2012, because it imposes state-level noise regulations solely on the oil and gas industry, more stringent than generally applicable rules, for both permanent and non-permanent operations.

If the Department chooses to retain § 78a.41 in the ANFR, MSC has several recommendations with respect to the proposed language. For example, use of the term “minimize” should be avoided. The language does not specify any objective standard, criteria or method for determining when noise would be sufficiently minimized so as to avoid a violation and subsequent enforcement by PADEP. It is impossible for an operator (or PADEP) to ascertain compliance with such a vague standard. Only the Department, in its sole and unfettered discretion, would have the ability to determine when a violation has occurred. The point of evaluation for the noise standard (e.g., the receptor, the location generating the noise, the property line, etc.) is also unclear. The term “servicing activities” is vague and undefined. See MSC’s general comments on § 78a.1. Additional comments related to the proposed regulation are provided beneath each subsection below.

Lastly, MSC notes that the Department will receive a variety of comments from MSC’s membership regarding this proposed noise mitigation section. These membership comments will provide varying opinions on appropriate standards or practices for noise mitigation, which further supports the MSC’s position that the proposed regulation in § 78a.41 is unclear and therefore prevents the regulated community from providing meaningful comments on the proposed section.

MSC’s suggested amendatory language:

Remove § 78a.41 from the ANFR.

(a) PRIOR TO PREPARATION AND CONSTRUCTION OF THE WELL SITE OR ACCESS ROAD, THE OPERATOR SHALL PREPARE AND IMPLEMENT A SITE SPECIFIC NOISE MITIGATION PLAN TO MINIMIZE NOISE DURING DRILLING, STIMULATION AND SERVICING ACTIVITIES.

MSC comment:

As noted above, the term “minimize” does not provide industry with a workable standard to evaluate compliance with this regulation. Requiring “minimization” also suggests a stricter standard than is necessary or appropriate; requiring the reduction of noise to the lowest possible level in all situations is unwarranted. The terms “servicing activities” and “preparation” similarly fail to provide operators with fair notice about their obligations. “Preparation” of a well site is an entirely new term that is not used elsewhere in the ANFR.

In addition, if the site specific noise mitigation plan is intended to be implemented during drilling, stimulation and servicing activities, as indicated by the ANFR language, the proposed deadline for plan completion is unnecessarily early. A more reasonable deadline for plan preparation may be commencement of drilling (or a specified period of time prior to commencement of drilling).

(b) THE PLAN SHALL INCLUDE THE FOLLOWING:

(1) AN ASSESSMENT OF BACKGROUND NOISE IN THE AREA OF THE WELL SITE.

MSC comment:

Without additional information about the proposed methods, parameters and objectives for the proposed background noise assessment, PADEP’s enforcement of this requirement will be entirely subjective. Operators cannot estimate the costs and other burdens associated with a background noise assessment based on the proposed language. Furthermore, PADEP has not analyzed the costs associated with the preparation of a background noise assessment.

MSC acknowledges that background noise may be an important consideration with respect to noise mitigation, but a background noise assessment should not be mandatory for all well sites. Rather, a background noise assessment should be an optional step, to be conducted when appropriate or necessary based on site-specific conditions. For example, in a remote location known to be quiet, a background assessment would add unnecessary time and expense without commensurate benefit.

(2) AN ASSESSMENT OF KNOWN AND POTENTIAL NOISE FROM DRILLING, STIMULATION AND SERVICING ACTIVITIES, TAKING INTO CONSIDERATION THE INTERESTS OF NEARBY RESIDENTS, INCLUDING THE AFFECTS ON INDOOR NOISE LEVELS FOR RESIDENTS NEAR THE WELL SITE.

MSC comment:

The requirement to take “into consideration the interests of nearby residents” is highly subjective and provides no cogent standard for operator compliance. Again, “servicing activities” is undefined. The “affects” (sic) on indoor noise levels may depend in significant part on existing sources of indoor noise, which vary considerably.

(3) A DESCRIPTION OF THE OPERATOR'S PLANS TO MITIGATE NOISE. OPERATORS MUST ADOPT AND INCORPORATE A BEST PRACTICES APPROACH TO NOISE MANAGEMENT INTO THEIR DRILLING, STIMULATION AND SERVICING ACTIVITIES PROCEDURES.

MSC comment:

MSC objects to incorporating unknown and unspecified "best practices" into the regulation. Without additional information about these practices, MSC is unable to evaluate the potential cost and impact of this requirement. In addition, once adequate noise reduction is achieved, there is no legal justification for requiring best practices to further reduce noise levels. PADEP's objective standard for noise reduction must be more clearly established to provide regulatory certainty to operators.

(c) IF THE DEPARTMENT DETERMINES DURING DRILLING, STIMULATION AND SERVICING ACTIVITIES THAT THE PLAN IS INADEQUATE TO MINIMIZE NOISE, THE DEPARTMENT MAY ORDER THE OPERATOR TO SUSPEND OPERATIONS AND TO MODIFY THE PLAN AND OBTAIN DEPARTMENT APPROVAL.

MSC comment:

Consistent with MSC's recommendation to remove § 78a.41 from the ANFR, MSC recommends that this paragraph be deleted. As drafted, PADEP would have the unilateral authority to suspend operations state-wide based on an inadequate minimization of noise at one well site.

If this subsection is retained, the proposed language must be revised and clarified. Again, "minimization" does not provide operators with a clear standard for compliance, and reducing noise below the level determined to be an acceptable threshold is not efficient or necessary. PADEP should not be granted the authority to shut down operations based on a completely subjective requirement to "minimize" noise. If the standard is not clarified, any PADEP order to suspend operations (or a decision not to suspend operations) is likely to be administratively challenged. Such challenges would require significant expenditures of time and resources by PADEP to defend its decision.

At a minimum, the provision should be clarified to provide that only operations *at the well site generating the objectionable noise* may be suspended.

(d) THE OPERATOR SHALL PERFORM REGULAR, FREQUENT AND COMPREHENSIVE SITE INSPECTIONS TO EVALUATE THE EFFECTIVENESS OF ANY NOISE MITIGATION MEASURES.

MSC comment:

The term “comprehensive” is vague and unnecessary, and as used could lead to differing interpretations. MSC recommends that “comprehensive” be deleted from this subsection. Moreover, this proposed requirement as a whole is lacking in specificity, such that any determination by the Department regarding compliance with this provision would be entirely subjective.

(e) AN OPERATOR SHALL PROMPTLY ADDRESS AND CORRECT PROBLEMS AND DEFICIENCIES DISCOVERED IN THE COURSE OF INSPECTIONS PERFORMED UNDER PARAGRAPH (d).

MSC comment:

The terms “problems” and “deficiencies” are vague, undefined, and likely duplicative. At a minimum, MSC recommends that the term “problem” be deleted from this provision.

(e) THE NOISE MITIGATION PLAN SHALL BE MAINTAINED BY THE OPERATOR AT THE WELL SITE WHILE DRILLING, STIMULATION AND SERVICING ACTIVITIES ARE BEING CONDUCTED AND SHALL BE MADE AVAILABLE TO THE DEPARTMENT UPON REQUEST.

MSC comment:

Maintaining a noise mitigation plan at the well site may be difficult or impossible, particularly after drilling and completion activities are done. MSC recommends that the provision be modified to require only that the mitigation plan be maintained by the operator, and made available to PADEP upon request.

§ 78a.51. Protection of water supplies.

MSC comment:

With regard to the RAF, it fails to address the cost and impact of the DEP’s proposed interpretation with regard to Subsection 78a.51(d)(2) that operators would be required to restore a water supply to a minimum of SDWA standards. RAF (19). The estimated costs for the oil and gas industry to treat private water supplies to comply with such a stringent restoration requirement could be enormous since many private water supplies, including commercial, agricultural and industrial supplies, do not meet SDWA standards for reasons unrelated to oil and gas industry operations.

(a) A well operator who affects a public or private water supply by pollution or diminution shall restore or replace the affected supply with an alternate source of water adequate in quantity and quality for the purposes served by the supply as determined by the Department.

(b) A landowner, water purveyor or affected person suffering pollution or diminution of a water supply as a result of well site construction, well drilling, altering or operating [an oil or gas well] activities may so notify the Department and request that an investigation be conducted. Notices shall be made to the appropriate Department regional office or by

calling the Department's Statewide toll free number at (800) 541-2050. The notice and request must include the following:

- (1) The name, address and telephone number of the person requesting the investigation.
- (2) The type, location and use of the water supply.
- (3) Available background quality and quantity data regarding the water supply, if known.
- (4) Well depth, pump setting and water level, if known.
- (5) A description of the pollution or diminution.

(c) Within 10 calendar days of the receipt of the investigation request, the Department will investigate the claim and will, within 45 calendar days of receipt of the request, make a determination. If the Department finds that pollution or diminution was caused by the well site construction, drilling, alteration or operation activities or if it presumes the well operator responsible for polluting the water supply of the landowner or water purveyor under section [208(c) of the act (58 P.S. § 601.208(c))] 3218(c) of the act (relating to protection of water supplies), the Department will issue orders to the well operator necessary to assure compliance with this section. The presumption established by section 3218(c) of the act is not applicable to pollution resulting from well site construction.

MSC comment:

Sections 78a.51 (b) and (c) implement Subsection 3218(b) of Act 13; however, the proposed regulation adds "well site construction" to the list of activities enumerated in Act 13 that trigger the reporting and investigation activities set forth in Subsection 3218(b). The Department has no authority to amend the statutory language and this addition should be stricken. No one doubts that the Department can investigate complaints regarding water supplies but this rulemaking should not engraft new language onto the legislative language.

Additionally, as this section of the draft regulations is currently written, it appears that the Department is taking a "guilty until proven innocent" approach. The section should be revised as indicated in MSC's suggested amendatory language below.

MSC's suggested amendatory language:

(b) A landowner, water purveyor or affected person claiming pollution or diminution of a water supply as a result of drilling, altering or operating an oil or gas well may so notify the Department and request that an investigation be conducted. Such notices shall be made to the appropriate Department regional office or by calling the Department's Statewide toll free number (800) 541-2050. The notice and request must include the following:

- (1) The name, address and telephone number of the person requesting the investigation.
- (2) The type, location and use of the water supply.

- (3) Available background quality and quantity data regarding the water supply, if known.
- (4) Well depth, pump setting and water level, if known.
- (5) A description of the pollution or diminution.

(c) Within 10 calendar days of the receipt of the investigation request, the Department will investigate the claim and will, within 45 calendar days of receipt of the request, make a determination. If the Department's investigation finds that pollution or diminution was caused by the drilling, alteration or operation activities or if it presumes the well operator(s) responsible under section 3218(c) of the act, the Department will issue orders to the well operator necessary to assure compliance with this section. The presumption established by section 3218(c) of the act is not applicable to pollution resulting from well site construction.

(d) A restored or replaced water supply includes any well, spring, public water system or other water supply approved by the Department, which meets the criteria for adequacy as follows:

(1) *Reliability, cost, maintenance and control.* A restored or replaced water supply, at a minimum, must:

- (i) Be as reliable as the previous water supply.
- (ii) Be as permanent as the previous water supply.
- (iii) Not require excessive maintenance.
- (iv) Provide the water user with as much control and accessibility as exercised over the previous water supply.
- (v) Not result in increased costs to operate and maintain. If the operating and maintenance costs of the restored or replaced water supply are increased, the operator shall provide for permanent payment of the increased operating and maintenance costs of the restored or replaced water supply.

(2) *Quality.* The quality of a restored or replaced water supply will be deemed adequate if it meets the standards established under the Pennsylvania Safe Drinking Water Act (35 P.S. §§ 721.1 – 721.17). **IF, PRIOR TO POLLUTION, A WATER SUPPLY WAS OF A HIGHER QUALITY THAN REQUIRED UNDER PENNSYLVANIA SAFE DRINKING WATER ACT STANDARDS, THE RESTORED OR REPLACED WATER SUPPLY SHALL MEET THE PRE-POLLUTION QUALITY OF THE WATER [, or is comparable to the quality of the water supply before it was affected by the operator if that water supply [did not meet these] [exceeded those standards].**

MSC comment:

The MSC agrees with the interpretation expressed by Oil and Gas Technical Advisory Board in its letter dated July 18, 2013 that “exceeded,” as the term is used in Section 3218(a) of Act 13 and used by the DEP in its originally proposed Section 78.51(d)(2), refers to an operator’s requirement to restore an affected water supply to its pre-drilling conditions, when that water supply did not meet Safe Drinking Water Act Standards (SDWA) prior to drilling. The Department’s proposed contrary interpretation that operators would be required to improve each

and every water supply, including commercial, agricultural and industrial supplies, to a minimum of SDWA standards is unreasonable since it is well documented that many of these water supplies do not, and need not, meet SDWA standards for water quality parameters. MSC members accept their responsibility to address impacts to water supplies that they may have caused, and to restore water supplies for the purpose served, but it is unreasonable for the Department to require that the oil and gas industry address contamination in water supplies unrelated to oil and gas operations, as no other industry in Pennsylvania has been held to such a standard.

It is also impractical to require operators to restore an affected water supply to pre-drilling conditions for individual parameters that were allegedly better than SDWA standards. In some cases the private water well will have had no pre-drilling samples taken or in other cases the pre-drilling sample may not be sufficient to reflect natural variability in water quality. Accordingly, the industry will be required to meet a degree of water quality that did not truly exist prior to drilling. Such a requirement has not been imposed upon any other industry, and it would be unfair to impose it solely upon the oil and gas industry.

The new language added to Section 78a.51(d)(2) differs from the statutory language in § 3218(a) of Act 13 of 2012. The Act does not refer to water quality to be “of a higher quality than required” nor does it state that the replaced water supply “shall meet the pre-pollution quality.” Rather Act 13 requires the water to be “comparable to the quality of the water” if the water supply “exceeded those [SDWA] standards.” The Department has no authority to change the wording of a statute through regulation.

There are additional practical reasons why this proposed standard is problematic. First, it is well documented that many private groundwater supplies in PA do not meet SDWA requirements due either to the natural condition of groundwater or poor water well siting or construction standards. Finding a replacement supply meeting SDWA standards from similar sources on the property may be impossible without aggressive and very expensive treatment technology. Second, if the pre-drill water quality is better than SDWA standards, it may not be possible to replace to that standard, even using public water supply. Replacing a contaminated spring water supply with a water well will rarely achieve TDS levels as low as spring water due to simple principles of hydrology and geochemistry. Third, the proposed regulation may lead to an interpretation of “higher quality” to be made on an individual constituent basis. In other words, a replacement supply would need to meet the pre-drill level for each and every constituent. Similarly, since the Department has no standard for determining impact from drilling operations, this interpretation could lead to using a line by line comparison on pre-drill and post-drill water supply samples to determine when the supply is restored. There is no possible way, given seasonal and day-to-day variation in natural groundwater quality, that analyses of two separate samples will yield the identical results, even when no contamination has occurred. Moreover, the cost to implement treatment technologies to achieve such uncertain pre-drilling conditions for individual parameters, even if possible, may be prohibitively expensive.

MSC’s suggested amendatory language:

(2) Quality. The quality of a restored or replaced water supply will be deemed adequate if it meets the standards established under the Pennsylvania Safe Drinking Water Act (35 P.S. Sections 721.1-721.17), or is comparable to the quality of the water supply before it was affected by the operator if that water supply did not meet those standards.

(3) *Adequate quantity.* A restored or replaced water supply will be deemed adequate in quantity if it meets one of the following as determined by the Department:

(i) It delivers the amount of water necessary to satisfy the water user's needs and the demands of any reasonably foreseeable uses.

(ii) It is established through a connection to a public water supply system that is capable of delivering the amount of water necessary to satisfy the water user's needs and the demands of any reasonably foreseeable uses.

(iii) For purposes of this paragraph and with respect to agricultural water supplies, the term reasonably foreseeable uses includes the reasonable expansion of use where the water supply available prior to drilling exceeded the actual use.

(4) *Water source serviceability.* Replacement of a water supply includes providing plumbing, conveyance, pumping or auxiliary equipment and facilities necessary for the water user to utilize the water supply.

(e) If the water supply is for uses other than human consumption, the operator shall demonstrate to the Department's satisfaction that the restored or replaced water supply is adequate for the purposes served by the supply.

(f) Tank trucks or bottled water are acceptable only as temporary water replacement for a period approved by the Department and do not relieve the operator of the obligation to provide a restored or replaced water supply.

(g) If the well operator and the water user are unable to reach agreement on the means for restoring or replacing the water supply, the Department or either party may request a conference under section [501 of the act (58 P.S. § 601.501)] 3251 of the act (relating to conferences).

(h) A well operator who receives notice from a landowner, water purveyor or affected person that a water supply has been affected by pollution or diminution, shall report receipt of notice from an affected person to the Department within 24 hours of receiving the notice. **Notice shall be provided electronically TO THE DEPARTMENT through [the Department's] ITS web site.**

MSC comment:

MSC recommends that this provision be modified to allow for alternative methods of reporting, given the possibility of temporary web site malfunctions, particularly as new electronic notification systems are rolled out.

MSC's suggested amendatory language:

(h) A well operator who receives notice from a landowner, water purveyor or affected person that a water supply has been affected by pollution or diminution, shall report receipt of notice from an affected person to the Department within 24 hours of receiving the notice. Notice shall be provided electronically to the Department through its web site, or using another method of notification approved by the Department.

§ 78a.52. Predrilling or prealteration survey.

(a) A well operator who wishes to preserve its defense under section **[208(d)(1) of the act (58 P.S. § 601.208 (d)(1))]** ~~**3218(d)(1)(i) and (2)(i) of the act (relating to protection of water supplies)**~~ that the pollution of a water supply existed prior to the drilling or alteration of the well shall conduct a predrilling or prealteration survey in accordance with this section. **FOR THE PURPOSES OF THIS SECTION, "SURVEY" SHALL MEAN ALL OF THE PRE-DRILL WATER SUPPLY SAMPLES ASSOCIATED WITH A SINGLE WELL.**

(b) A person who wishes to document the quality of a water supply to support a future claim that the drilling or alteration of the well affected the water supply by pollution may conduct a predrilling or prealteration survey in accordance with this section.

(c) The survey shall be conducted by an independent **[certified] Pennsylvania-accredited** laboratory. A person independent of the well owner or well operator, other than an employee of the **[certified] accredited** laboratory, may collect the sample and document the condition of the water supply, if the **[certified] accredited** laboratory affirms that the sampling and documentation is performed in accordance with the laboratory's approved sample collection, preservation and handling procedure and chain of custody.

MSC comment:

Subsection 78a.52(c) should be revised to clarify that the laboratory does not need to conduct the survey itself, but simply analyze the samples collected. This section could be misinterpreted as stating that only laboratory employees can perform the survey.

MSC's suggested amendatory language:

(c) The analyses of a pre-drill sample of the water supply shall be completed by an independent Pennsylvania accredited laboratory. A person independent of the well owner or well operator, other than an employee of the accredited laboratory, may collect the sample and document the condition of the water supply, if the accredited laboratory affirms that the sampling and documentation is performed in accordance with the laboratory's approved sample collection, preservation and handling procedure and chain of custody.

(d) An operator electing to preserve its defenses under section **[208(d)(1) of the act]** ~~**3218(d)(1)(i) and (2)(i) of the act (relating to protection of water supplies)**~~ shall provide a copy of all the **sample** results **taken as part** of the survey **ELECTRONICALLY** to the Department **[and] [by electronic means in a format determined by the Department]** **ON FORMS PROVIDED THROUGH ITS WEB SITE within 10 business days of [receipt of all the sample results taken as part of the survey] ASSIGNMENT OF AN API NUMBER BY THE DEPARTMENT FOR THE GAS WELL THAT IS THE SUBJECT OF THE SURVEY. The operator shall provide a copy of any sample results to** the landowner or water purveyor within 10-business days of receipt of the **sample** results. **[Test] Survey** results not received by the Department within 10 business days may not be used to preserve the operator's defenses under section **[208(d)(1) of the act]** ~~**3218(d)(1)(i) and (2)(i) of the act.**~~

MSC comment:

Paragraph (d) has been revised to require the submission of the pre-drill survey results within 10 business days of “assignment of the API number by the department for the gas well.” The purpose of a pre-drill survey is to determine baseline water quality in advance of drilling, preferably as close to the commencement of drilling as practical. The API number is assigned by DEP during the permit application process, prior to permit issuance. According to one regional office, API number assignment typically occurs within 10 days of application submittal, and more than 30 days prior to permit issuance. PADEP does not notify operators when the API number is assigned. Therefore, the operator does not have notice as to when the deadline is triggered. For the initial well on an unconventional well pad, the pre-drill sampling will often occur long after an API number is assigned as part of the permit application process, in which case, it would be impossible to comply with the proposed submission of results within 10 days of the API number being assigned. During the March 26, 2015 Conventional Oil and Gas Advisory Committee meeting, similar comments were raised related to concerns about API assignment setting the timeframe for pre-drill survey submissions. It is unclear why PADEP would not consider pre-drill survey sampling that occurs after API number assignment but before drilling. The title of this section references “pre-drilling and pre-alteration”, which conflicts with the timeline set in the proposed ANFR.

The language in b, c, d, and f seems to indicate that the survey is for a singular water supply. Although we understand that DEP intends to allow batch reporting (submission of all sampling of water supplies done per well pad at one time) it is not clear in the regulation that submitting a single survey with the complete batch of sample results preserves the presumption.

MSC’s suggested amendatory language:

(d) An operator electing to preserve its defenses under sections 3218(d)(1)(i) and 3218(d)(2)(i) of the act shall provide a copy of all the sample results taken as part of the survey to the Department, and may submit those results in one batch submission per well pad by electronic means in a commonly utilized format determined by the Department within 10 business days of receipt of all the sample results taken as part of the survey for a particular well pad. The operator shall provide a copy of any sample results to the landowner or water purveyor within 10- business days of receipt of the sample results. Surveys received by the Department within 10 business days, including surveys submitted as described above with regard to batch submissions, may be used to preserve the operator’s defenses under sections [208(d)(1)] 3218(d)(1)(i) and 3218(d)(2)(i) of the act.

(e) The report describing the results of the survey must contain the following information:

(1) The location of the water supply and the name of the surface landowner or water purveyor.

(2) The date of the survey, and the name of the [certified] independent Pennsylvania-accredited laboratory and the person who conducted the survey.

(3) A description of where and how the [sample was] samples were collected.

(4) A description of the type and age, if known, of the water supply, and treatment, if any.

(5) The name of the well operator, name and number of well to be drilled and permit number if known.

(6) The results of the laboratory analysis.

(f) A well operator who wishes to preserve the defense under section **[208(d)(2) of the act] 3218(d)[(1)(ii) and] (2)(ii) of the act** that the landowner or water purveyor refused the operator access to conduct a survey shall confirm the desire to conduct this survey and that access was refused by issuing notice to the person by certified mail, or otherwise document that access was refused. The notice must include the following:

- (1) The operator's intention to drill or alter a well.
- (2) The desire to conduct a predrilling or prealteration survey.
- (3) The name of the person who requested and was refused access to conduct the survey and the date of the request and refusal.
- (4) The name and address of the well operator and the address of the Department, to which the water purveyor or landowner may respond.

MSC comment:

The rule should provide for a time frame for response and action by the landowner once notice has been provided, so that operators may proceed with operations knowing that access was refused.

MSC's suggested amendatory language:

NEW (g) Refusal shall be presumed if the operator does not receive a response within 30 business days of confirmed receipt.

(g) The operator of an unconventional well shall provide written notice to the landowner or water purveyor indicating that the presumption established under section 3218(c) of the act may be void if the landowner or water purveyor refused to allow the operator access to conduct a predrilling or prealteration survey. Proof of written notice to the landowner or water purveyor shall be provided to the Department for the operator to retain the protections under section 3218(d)(2)(ii) of the act. Proof of written notice will be presumed if provided in accordance with section 3212(a) of the act.

§ 78a.52a. ~~[Abandoned and orphaned well identification]~~ AREA OF REVIEW.

MSC general comment:

A vertical isolation distance of 1,500 feet above the zone to be perforated or isolated for hydraulic fracturing in an unconventional well and 500 feet above the zone to be perforated or isolated for hydraulic fracturing in any other well is a reasonable isolation distance that exceeds the normally expected vertical growth of induced fractures. MSC previously provided this comment to the Department in its March 2014 comments to the proposed Chapter 78 rulemaking. The Department modified its language in ANFR Section 78a.73(c) to reflect MSC's suggested vertical isolation distance of 1,500 feet, but has not modified its language to reflect that same

language in Section 78a.52a. MSC asserts that a modification of the vertical isolation distance in Section 78a.52a that is consistent with the Department's proposed changes to Section 78a.73(c) is appropriate and should be made by the Department.

It also seems appropriate that any wells which appear in the Department's electronic well database should be identified, provided their total depth extends below the interval that could reasonably be influenced by hydraulic fracturing. The proposed requirement to conduct "a review of historical sources of information, such as applicable farm line maps, where accessible" in order to identify wells lacks the clarity required for a regulation. There are many sources of information on old wells in Pennsylvania, including many reports by state agencies, as well as privately owned maps and records maintained by various operators. If the Department's database could be sufficiently enhanced, a review of the database should be an adequate obligation for well identification. A partnership effort between industry and state government seems an appropriate method of compiling available data on historical oil and gas wells.

Because of the generally higher rate, volume and pressure used in hydraulic fracturing of the Marcellus and other deep shales, constructing a more comprehensive database of historical deep wells (those that penetrate to a depth at least 1,500 feet above the Marcellus shale) should be a priority. It is hoped that with good cooperation this step could be accomplished soon, as the Commonwealth's current database for this set of deeper wells is believed to be nearly complete.

Enhancement of the shallow well database will require significantly more work, time and expense, and it likely a multi-year project.

The proposed language in subsection 78a.52a(b)(3) would require submission of a questionnaire to landowners requesting information on orphaned or abandoned wells on forms provided by the Department. It is unclear how responses to such questionnaires would be directed and what obligations might fall on operators to verify information received. This is far too much uncertainty related to this provision to support it as a regulatory requirement. The requirement to use a questionnaire should be eliminated.

Additionally, the oil and gas industry's identification of abandoned and orphaned wells will benefit from further development of the Department's database, and should be postponed until the database and map viewer is improved. Accordingly, the Department should consider a phased implementation of this new section.

(a) ~~[Prior to hydraulically fracturing the well, the]~~ THE operator ~~[of a gas well or horizontal oil well]~~ shall identify the SURFACE AND BOTTOM HOLE LOCATIONS ~~[location]~~ of ACTIVE, INACTIVE, orphaned ~~[or]~~ AND abandoned wells HAVING WELL BORE PATHS within 1,000 feet measured horizontally from the vertical well bore and 1,000 feet measured from the surface above the entire length of a horizontal well bore in accordance with subsection (b). ~~[Prior to hydraulically fracturing the well, the operator of a vertical oil well shall identify the location of orphaned or abandoned wells within 500 feet of the well bore in accordance with subsection (b). For the purposes of this section, a gas well is a well which is producing or capable of producing marketable quantities of gas or of gas and oil with a gas oil ratio of more than 100 MCF per bbl of oil.]~~

MSC comment:

The area of review of 1,000 feet laterally from any portion of an unconventional wellbore is reasonable. Well identification should be limited only to wells that are reasonably expected to penetrate to within 1,500 feet vertically of the shale zone being hydraulically fractured. There has been significant research, both stress modeling and compilation of thousands of microseismic records, showing that vertical growth of induced hydraulic fractures from gas shales beyond 1,500 feet is extremely rare. Moreover, MSC understands that there has been no case where hydraulic fracturing fluids have migrated vertically from an induced fracture in the Marcellus shale into wells with total depth more than 1,500 feet above the shale. As noted above, the 1,500 foot vertical isolation distance is already reflected in § 78a.73(c) of the ANFR.

As proposed, Section 78a.52a does not clearly state how wells that are identified are to be characterized by an operator. There is no mention of identifying wells that are already plugged, regardless of whether such plugging is part of the Department's records or whether historical records indicate plugging.

(b) Identification shall be accomplished by ~~conducting~~ the following:

(1) CONDUCTING [A] A review OF the Department's ~~orphaned and abandoned well database~~ WELL DATABASES AND OTHER AVAILABLE WELL DATABASES.

MSC comment:

The investigation should be limited to simply checking PADEP's online well database, which is believed to be a very complete record of deep drilling in Pennsylvania. The phrase "other available well databases" is vague, and it is not clear what other well databases PADEP is referring to in this proposed subsection. This phrase should be deleted, or otherwise modified/qualified to include databases that are both known and readily accessible to an operator. In other words, if the operator doesn't know about the database or have easy access to it, then the operator should not be required to review it.

(2) CONDUCTING [A] A review of HISTORICAL SOURCES OF INFORMATION, SUCH AS applicable farm line maps, where accessible.

MSC comment:

Please refer to MSC's general comment above regarding this subsection. Operators should not be required to review historical records if the Department's online well database is accurate.

(3) Submitting a questionnaire on forms provided by the Department to landowners whose property is within the area identified in subsection (a) regarding the precise location of orphaned and abandoned wells on their property.

MSC comment:

Submitting questionnaires to landowners through the well permitting process is an ineffective way to identify abandoned wells and would require a significant amount of public education effort. This subsection should be deleted. There is simply too much uncertainty with regard to this questionnaire and/or any responses that it might generate. Additionally, PADEP has not

provided a copy of the proposed questionnaire form at the same time that they proposed the regulation, as required by Section 5(a)(5) of the Regulatory Review Act, so MSC is not able to provide comments on the proposed questionnaire or the impact that will result from it.

(c) [~~Prior to hydraulically fracturing a well, the~~] THE operator shall submit a REPORT SUMMARIZING THE REVIEW, INCLUDING:

MSC comment:

The phrase “Prior to hydraulically fracturing a well” should be retained. See MSC’s comment on proposed § 78a.52a(d) below.

There is no justification for requiring the paperwork burden of a formal summary report, as long as the pertinent information is provided. The results of the proposed investigation (with a plat) could be submitted to the Department, rather than a report.

(1) A plat [~~to the Department~~] showing the location and GPS coordinates of ALL [~~orphaned and abandoned~~] wells identified under subsection (b).

(2) [~~and proof~~] PROOF [~~of notification~~] that the operator[s] submitted questionnaires under subsection (b)(3).

MSC comment:

Pursuant to MSC’s comments to subsection 78a.52a(b)(3), the questionnaire requirement should be deleted. In the alternative, if the questionnaire requirement is retained, MSC suggests that a return receipt or other adequate proof of receipt is sufficient proof for an operator to demonstrate compliance with this subsection.

(3) A MONITORING PLAN FOR WELLS REQUIRED TO BE MONITORED UNDER SECTION 78a.73(c) (RELATING TO GENERAL PROVISION FOR WELL CONSTRUCTION AND OPERATION), INCLUDING THE METHODS THE OPERATOR WILL EMPLOY TO MONITOR THESE WELLS.

MSC comment:

There is no justification for requiring the paperwork burden of a formal monitoring plan. The monitoring requirements in proposed subsection 78a.73(c) alone will be sufficient, and the methodology (visual monitoring) required in that subsection is straightforward and does not require the development and submission of a monitoring plan to implement.

(4) TO THE EXTENT THAT INFORMATION IS AVAILABLE, THE TRUE VERTICAL DEPTH OF IDENTIFIED WELLS.

MSC comment:

The vertical depth of wells identified in the investigation the Department’s online well database could be included with the plat in subsection 78a.52a(c)(1).

(5) THE SOURCES OF THE INFORMATION PROVIDED FOR IDENTIFIED WELLS.

MSC comment:

Consistent with MSC's comments above, the source of information should be the Department's online well database (which would eliminate this requirement in subsection (c)(5)).

(6) TO THE EXTENT THAT INFORMATION IS AVAILABLE, SURFACE EVIDENCE OF FAILED WELL INTEGRITY FOR ANY IDENTIFIED WELL.

MSC comment:

This requirement is subjective and unnecessary given the 78a.73(c) monitoring requirements. Any reporting of condition of a deep abandoned well, and any change in status during hydraulic fracturing operations, would be reported per Section 78a.73.

(d) THE OPERATOR SHALL SUBMIT THE REPORT REQUIRED BY SUBSECTION (c) TO THE DEPARTMENT AT LEAST 30 DAYS PRIOR TO COMMENCEMENT OF DRILLING THE WELL OR AT THE TIME THE PERMIT APPLICATION IS SUBMITTED IF THE OPERATOR PLANS TO COMMENCE DRILLING THE WELL LESS THAN 30 DAYS FROM THE DATE OF PERMIT ISSUANCE. THE REPORT SHALL BE PROVIDED TO THE DEPARTMENT ELECTRONICALLY THROUGH THE DEPARTMENT'S WEB SITE.

MSC comments:

The information collected pursuant to this section is related to hydraulic fracturing, not drilling, so there is no legitimate need for the information to be submitted prior to drilling. There may be long time frames between drilling and hydraulic fracturing, so the costs and burden of performing this review should not be arbitrarily required before hydraulic fracturing.

Per our comment to subsection (c), it is not necessary for an operator to submit the report to the Department. Rather, the MSC suggests that operators submit the results of the review to the Department, which would provide sufficient information to the Department. Additionally, the proposed language is not clear as to whether the Department will review the results during the proposed 30 day timeframe.

Operators do not control the issuance of a well permit, and therefore the timing of well permit issuance is not a set date known by an operator. PADEP's second proposed submission requirement is triggered by the timeframe "less than 30 days from the date of permit issuance" therefore is speculative and not a specific date known by the operator at the time of submission of a permit application. Furthermore, the trigger for submission of the results should be commencement of hydraulic fracturing of the unconventional well, not the drilling of the unconventional well, because there are circumstances when a well may be drilled but not hydraulically fractured.

§ 78a.53. Erosion and sediment control AND STORMWATER MANAGEMENT.

[During and after earthmoving or soil disturbing activities, including the activities related to siting, drilling, completing, producing, servicing and plugging the well, constructing, utilizing and restoring the access road and restoring the site, the operator shall design, implement and maintain best management practices in accordance with] Any person proposing or conducting earth disturbance activities associated with oil and gas OPERATIONS [activities] shall comply with Chapter 102 (relating to erosion and sediment control) [and an erosion and sediment control plan prepared under that chapter]. Best management practices for erosion and sediment control AND STORMWATER MANAGEMENT for oil and gas [activities] OPERATIONS are listed in the [Oil And Gas Operators Manual, Commonwealth of Pennsylvania, Department of Environmental Protection, Guidance No. 550-0300-001 (April 1997), as amended and updated] Erosion and Sediment Pollution Control Program Manual, Commonwealth of Pennsylvania, Department of Environmental Protection, No. 363-2134-008, as amended and updated, THE PENNSYLVANIA STORMWATER BEST MANAGEMENT PRACTICES MANUAL, COMMONWEALTH OF PENNSYLVANIA, DEPARTMENT OF ENVIRONMENTAL PROTECTION, NO. 363-0300-002, AS AMENDED AND UPDATED, the Oil and Gas Operators Manual, Commonwealth of Pennsylvania, Department of Environmental Protection, Guidance No. 550-0300-001, as amended and updated, AND RIPARIAN FOREST BUFFER GUIDANCE, (BUFFER GUIDANCE), COMMONWEALTH OF PENNSYLVANIA, DEPARTMENT OF ENVIRONMENTAL PROTECTION, NO. 395-5600-001 (2009), AS AMENDED AND UPDATED.

MSC comment:

There is an important need to update the referenced manuals as sources of best management practices for oil and gas well activities. Recent efforts to develop model plans for erosion and sediment control, post construction stormwater management and site restoration should be finalized. As stated in MSC's comments to the proposed rulemaking, MSC continues to be willing to assist the Department with development and training for new and enhanced best management practices.

However, PADEP should clarify that the BMPs referenced in the documents identified in the proposed ANFR are not an exclusive list of options available to industry. Chapter 102 makes reference to the E&S Manual (Guidance No. 363-2134-008), the PCSM Manual (Guidance No. 363-0300-002), and the Buffer Guidance (No. 395-5600-001); thus, inclusion of those references in this section is redundant and unnecessary. Additionally, the Oil and Gas Operators Manual (Guidance No. 550-0300-001) is outdated and includes many laws, regulations, and forms that are no longer accurate or in existence. It was written in 2001, and predates unconventional operations in Pennsylvania.

MSC's suggested amendatory language:

Any person proposing or conducting earth disturbance activities associated with oil and gas operations shall comply with the requirements of 25 Pa. Code Chapter 102 (relating to erosion and sediment control).

* * *

§ 78a.55. Control and disposal planning; emergency response for unconventional wells.

(a) Preparation and implementation of plan for oil and gas operations. [Prior to generation of waste, the well operator shall prepare and implement a plan under § 91.34 (relating to activities utilizing pollutants) for the control and disposal of fluids, residual waste and drill cuttings, including tophole water, brines, drilling fluids, additives, drilling muds, stimulation fluids, well servicing fluids, oil, production fluids and drill cuttings from the drilling, alteration, production, plugging or other activity associated with oil and gas wells.] Persons conducting oil and gas operations shall prepare and implement site specific PPC plans according to §§ 91.34 and 102.5(l) (relating to activities utilizing pollutants; and permit requirements).

MSC comment:

This provision should clarify that PPC planning is required to the extent 25 Pa. Code §§ 91.34 and 102.5(l) apply to the subject activity. It also appears that Section 78a.55(a) overlaps and duplicates requirements that are set forth in Section 78a.55(b). While Section 78a.55(b) requires well operators to prepare PPC plans for activities at well sites, Section 78a.55(a) covers “oil and gas operations” and applies to any “person” conducting such operations thereby introducing significant uncertainty and confusion as to how these provisions are to operate in tandem. The MSC recommends that Section 78a.55(a) be clarified to apply only to oil and gas operations that do not take place at well sites (well sites are covered under Section 78a.55(b)) and that at such locations, the person or entity in charge of the operations be responsible for preparing and implementing a PPC plan, as appropriate, to eliminate the potential for preparation of multiple, competing PPC plans.

MSC’s suggested amendatory language:

(a) Preparation and implementation of plan for oil and gas operations at a location other than a well site. Persons conducting oil and gas operations at a location other than a well site shall prepare and implement site specific PPC plans according to §§ 91.34 and 102.5(l), as applicable.

(b) Preparation and implementation of plan for well sites. In addition to the requirements in subsection (a), the well operator shall prepare and develop a site specific PPC plan prior to storing, using, generating or transporting regulated substances to, on or from a well site from the drilling, alteration, production, plugging or other activity associated with oil and gas wells.

MSC comment:

The use of the term “regulated substance” in this subsection is unclear and is difficult to apply to the oil and gas industry. The potential for an overly broad interpretation is high with the Department’s proposed definition, which includes literally thousands of substances, many of

which are naturally occurring and many of which are environmentally benign. In addition, the proposed paragraph appears to include some grammatical confusion, which should be clarified.

MSC's suggested amendatory language:

(b) *Preparation and implementation of plan for well sites.* The well operator shall prepare a site specific PPC plan, in accordance with §§ 91.34 and 102.5(l), as applicable, prior to storing, using, generating or transporting substances subject to those provisions to, on or from a well site.

(c) Containment practices. The [unconventional] well operator's PPC plan must describe the containment practices to be utilized and the area of the well site where containment systems will be employed as required under § 78a.64a (relating to containment systems and practices at unconventional well sites). The PPC plan must include a description of the equipment to be kept onsite during drilling and hydraulic fracturing operations that can be utilized to prevent a spill from leaving the well site.

MSC comment:

The proposed provision does not clarify the nature of equipment that should be described in the PPC plan. The second sentence of this subsection should be deleted.

MSC's suggested amendatory language:

(c) *Containment practices.* The well operator's PPC plan must describe the containment practices to be utilized and the area of the well site where containment systems will be employed as required under section 78a.64a.

[(b)] (d) Requirements. The **well operator's PPC** plan must **also** 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 §§ 78a.54, 78a.56—78a.58 and 78a.60—~~78a.63~~ **78a.61**. The **PPC** plan must also include a pressure barrier policy **developed by the operator** that identifies barriers to be used during identified operations.

[(c)] (e) Revisions. The **well** operator shall revise the **PPC** plan prior to implementing a change to the practices identified in the **PPC** plan.

[(d)] (f) Copies. A copy of the **well operator's PPC** plan shall be provided to the Department, **the Fish and Boat Commission or the landowner** upon request and shall be available at the **[well]** site during drilling and completion activities for review.

MSC comment:

Since the parties listed in (f) have no jurisdiction over operations at the well site, MSC objects to a requirement that the well operator provide a copy of the PPC plan to the Pennsylvania Fish and Boat Commission or the landowner.

MSC's suggested amendatory language:

(f) *Copies.* A copy of the well operator's PPC plan shall be provided to the Department upon request and shall be available at the well site during drilling and completion activities for review.

(g) Guidelines. With the exception of the pressure barrier policy required under subsection (d), a PPC plan developed in conformance with the Guidelines for the Development and Implementation of Environmental Emergency Response Plans, Commonwealth of Pennsylvania, Department of Environmental Protection, No. 400-2200-001, as amended and updated, will be deemed to meet the requirements of this section.

[(e)] **(h) Emergency contacts.** A list of emergency contact phone numbers for the area in which the well site is located must be included in the plan and be prominently displayed at the well site during drilling, completion or alteration activities.

[(f)] **(i) Emergency response for unconventional well sites.**

(1) *Applicability.* This subsection applies to unconventional wells.

(2) *Definitions.* For the purposes of this subsection, the following definitions apply:

Access road—A road connecting a well site to the nearest public road, private named road, administrative road with a name and address range, or private unnamed road with an address range.

Address—A location, by reference to a road or a landmark, made by a county or municipality responsible for assigning addresses within its jurisdiction.

Administrative road—A road owned and maintained by the Commonwealth open to the public at the discretion of the Commonwealth that may or may not have a name and address range.

Emergency responder—Police, firefighters, emergency medical technicians, paramedics, emergency management personnel, public health personnel, State certified hazardous materials response teams, Department emergency personnel and other personnel authorized in the course of their occupations or duties, or as an authorized volunteer, to respond to an emergency.

Entrance—The point where the access road to a well site connects to the nearest public road, private named road, administrative road with a name and address range, or a private unnamed road with an address range.

GPS coordinates—The coordinates in latitude and longitude as expressed in degrees decimal to at least six digits after the decimal point based upon the World Geodetic System 1984 Datum or any other datum approved by the Department.

PEMA—The Pennsylvania Emergency Management Agency.

Private named road—A private road with a name and address range.

Private road—A road that is not a public road.

Private unnamed road—A private road that is not a private named road.

Public road—A road owned and maintained by the Commonwealth, a county within this Commonwealth, a municipality within the Commonwealth or any combination thereof that is open to the public.

Public safety answering point—An entity operating in cooperation with local municipalities and counties to receive 9-1-1 calls for a defined geographic area and process calls according to a specific operational policy.

Well site name—The name used to designate the well site by the operator on the well permit application submitted to the Department.

(3) *Registration of addresses.*

(i) Prior to construction of an access road to a well site, the operator of an unconventional well shall request a street address for the well site from the county or municipality responsible for assigning street addresses.

(ii) The operator shall determine the GPS coordinates for both the well site and the entrance to the well site. The GPS coordinates must have a horizontal accuracy of plus or minus 6.67 feet or better. If there is more than one well on a well site, one set of GPS coordinates must be used for the well site.

(iii) The operator shall register the following with PEMA, the Department, the Public Safety Answering Point and the county emergency management organization within the county where the well site is located:

(A) The well site name.

(B) The well site address.

(C) The GPS coordinates for the entrance and the well site.

(iv) When there is a change of well site address, the operator shall register the new address as provided in subparagraph (iii).

(v) When there is a change of the entrance due to a change in the well site address or otherwise, the operator shall register the GPS coordinates for the entrance as provided in subparagraph (iii).

(vi) The following shall be retained at the well site for reference when contacting emergency responders:

(A) The well site name.

(B) The well site address.

(C) The GPS coordinates for the entrance and the well

site.

(4) Signage.

(i) Prior to construction of the access road, the operator of an unconventional well shall display a reflective sign at the entrance.

(ii) The sign must meet the following requirements:

(A) The sign must be fabricated with approved retroreflective sheeting material meeting ASTM 4956 Type III.

(B) The sign must have a white background with a 2-inch red border and black numbers and letters. Signs for entrances on administrative roads may use other colors provided that the signs use contrasting colors between the background, border, numbers and letters.

(C) The sign must be of sufficient size to accommodate the required information described in this section. The minimum size of a sign must be 36 inches in height and 48 inches in width.

(D) The sign must follow the format of Figure 1 and contain:

(I) The address number for the well site displayed horizontally on the first line of the sign in text no smaller than 4 inches in height.

(II) The full address of the entrance, including the county and municipality in which the entrance is located.

(III) The well operator's company name.

(IV) The 24-hour contact telephone information for the operator of the well site.

(V) The GPS coordinates for the entrance.

(VI) The well site name.

(VII) The wording "In Case of Emergency Call 9-1-1."

(iii) The sign must be mounted independently from other signage.

(iv) The bottom of the sign must be positioned a minimum of 3 feet above ground level.

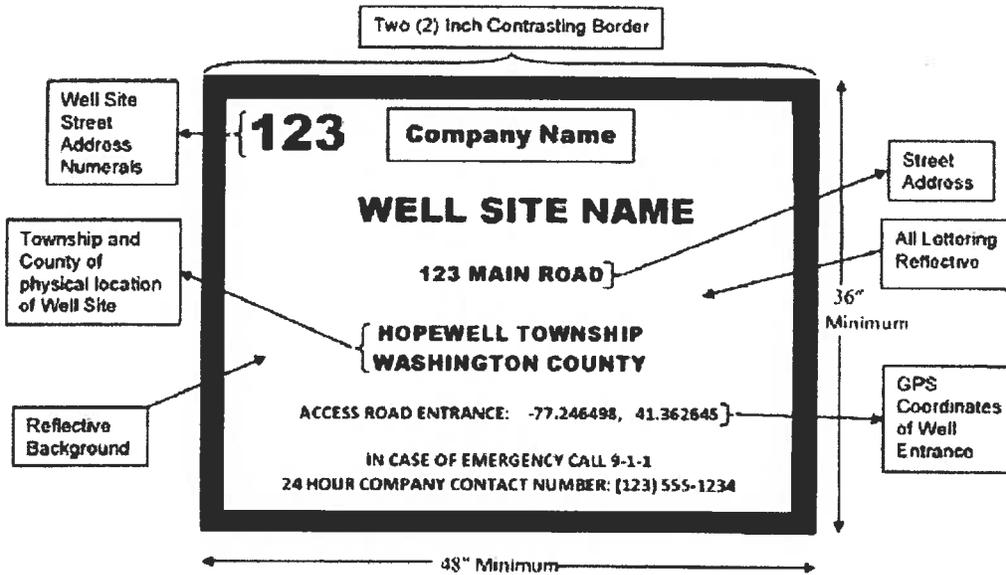
(v) The sign may not contain other markings.

(vi) A sign, as viewed from the applicable road, may not be obstructed from view by vegetation, equipment, vehicles or other obstruction.

(vii) During drilling operations, the American Petroleum Institute (API) permit numbers of the wells at the site may be posted on a non-reflective sign below the principal sign. The API

sign may be removed after the well is completed, provided that it is not otherwise required to be posted.

Figure 1. Sample Site Entrance Signage



(Not to scale)

(Not to scale)

(5) *Emergency response planning.*

(i) The operator of an unconventional well shall develop and implement an emergency response plan that provides for equipment, procedures, training and documentation to properly respond to emergencies that threaten human health and safety for each well site. The plan shall incorporate National Incident Management System planning standards, including the use of the Incident Command System, Incident Action Planning and Common Communications Plans. The plan must include:

(A) The emergency contact information, including phone numbers, for the well operator's local representative for the well site and the well operator's 24-hour emergency phone number.

(B) The emergency notification procedures that the operator shall utilize to contact emergency responders during an emergency.

(C) A description of the well site personnel's response to the following well site emergencies:

(I) Fire.

- (II) Medical emergency.
 - (II) Explosion or similar event.
 - (III) Spill.
 - (IV) Security breach or other security event.
 - (V) Any other incident that necessitates the presence of emergency responders.
- (D) A description of the procedure to be used to provide the most current information to emergency responders in the event of an emergency, including the following:
- (I) The current Material Safety Data Sheet (MSDS) required under law to be present at the well site.
 - (II) The location of the MSDSs at the well site.
 - (III) The name of the position in the operator’s organization responsible for providing the information in sub clauses (I) and (II).
- (E) A list containing the location of any fire suppression and spill control equipment maintained by the well operator at the well site.
- (F) A description of any emergency equipment available to the operator that is located off of the well site.
- (G) A summary of the risks and hazards to the public within 1/2 mile of the well site and the associated planning assumptions.
- (H) An outline of the emergency response training plan that the operator has established.

(I) THE LOCATION OF AND MONITORING PLAN FOR ANY EMERGENCY SHUTOFF VALVES LOCATED ALONG TEMPORARY PIPELINES IN ACCORDANCE WITH § 78a.68b (RELATING TO TEMPORARY PIPELINES FOR OIL AND GAS OPERATIONS).

MSC comment:

Act 9 of 2012 (“Requiring Operator of Each Permitted Unconventional Well in Pennsylvania to Post Certain 911 Response Information at Entrance to Each Unconventional Well Site”) was promulgated into PADEP’s regulations as the current 25 Pa. Code § 78.55(f). The Legislature intended for the requirements set by Act 9, including the requirement to develop and submit an emergency response plan, to apply to unconventional wells only. Act 9 defines “unconventional wells” as “[a] borehole drilled or being drilled for the purpose of or to be used for the production of natural gas from an unconventional formation.” This definition and, for that matter, the intent of Act 9 does not contemplate the application of emergency response plans to well development pipelines, as proposed to be defined in ANFR § 78a.1. The proposed subsection (I) is therefore beyond the scope of the Legislature’s intent for Act 9.

MSC also respectfully questions the need for adding this new subsection pertaining to, we presume, well development pipelines to the well site emergency response plans, given the proposed specific requirements in ANFR § 78a.68b(e) that will limit that maximum discharges and ANFR § 78a.68b(i) will require daily inspections. There is no need to require modification of operators' multiple current emergency response plans for this one new detail involving temporary pipelines when 78a.68b will already have sufficient protective measures in place. Additionally, the location of the shutoff valve locations for well development pipelines are typically not known by an operator until several days before completion of the unconventional well.

MSC's suggested amendatory language:

Delete the proposed subsection (1).

(ii) The emergency response plan in subparagraph (i) may consist of two parts:

(A) A base plan common to all of the operator's well sites containing some of the elements described in subparagraph (i).

(B) A site-specific plan containing the remaining elements described in subparagraph (i).

(iii) The operator shall submit a copy of the current emergency response plan for that well site unless the permit provides otherwise. For plans using the approach in subparagraph (ii), the operator may submit one base plan provided that the site-specific plans are submitted for each well site.

(iv) The operator shall review the plan and submit an update annually on or before March 1 each year. In the event that updates are not made to the plan for that review period, the operator shall submit a statement indicating the review was completed and updates to the plan were not necessary.

(v) The plan and subsequent updates shall be submitted to:

(A) PEMA.

(B) The Department.

(C) The county emergency management agency.

(D) The Public Safety Answering Point with jurisdiction over the well site.

(vi) A copy of the plan shall be available at the well site during all phases of operation.

(vii) The emergency response plan must address response actions for the following stages of operation at the well site:

(A) Preparation of the access road and well site.

(B) Drilling of the well.

(C) Hydraulic fracturing and stimulation of the well.

(D) Production.

(E) Well site restoration.

(F) Plugging of the well.

(viii) The requirements in subparagraphs (i)—(vii) may be met by implementing guidance issued by the Department in coordination with PEMA.

(6) *Transition.*

(i) This subsection is effective January 26, 2013, except as provided in subparagraph (ii).

(ii) For a well site containing a well that is being drilled or has been drilled as of January 26, 2013, or a well site for which a well permit has been issued but wells have not started drilling as of January 26, 2013, or a well site for which an administratively complete application is pending as of January 26, 2013, as provided in subparagraph (i), the following applies:

(A) Paragraph (3) is effective on February 25, 2013.

(B) Paragraph (4) is effective on July 25, 2013.

(C) Paragraph (5) is effective on April 26, 2013. ■

§ 78a.56. **[Pits and tanks for temporary containment] Temporary storage.**

(a) Except as provided in §§ 78a.60(b) and 78a.61(b) (relating to discharge requirements; and disposal of drill cuttings), the operator shall contain **[pollutional] regulated** substances and wastes from the drilling, altering, completing, recompleting, servicing and plugging **WELL(S) AT the well SITE WHERE THE SUBSTANCES OR WASTES ARE GENERATED OR WILL BE BENEFICIALLY REUSED**, including brines, drill cuttings, drilling muds, oils, stimulation fluids, well treatment and servicing fluids, plugging and drilling fluids other than gases in a **[pit,]** tank or series of **[pits-and]** tanks **or other approved storage structures**. The operator shall install or construct and maintain the **[pit,]** tank or series of **[pits-and]** tanks **or other approved storage structures** in accordance with the following requirements:

MSC comment:

This section should be clearly entitled to reflect the scope of the provisions, which are limited to the use of pits and tanks for temporary storage.

In addition, the use of the term regulated substances is overly broad and creates uncertainty under this subsection, which should be better focused on the substances at well sites that would be contained in pits, tanks or other approved storage structures.

MSC's suggested amendatory language:

§ 78a.56. Temporary storage in pits, tanks and other approved storage structures

(a) Except as provided in §§ 78a.60(b) and 78a.61(b) (relating to discharge requirements; and disposal of drill cuttings), the operator shall contain substances generated from and used for the drilling, altering, completing, recompleting, servicing and plugging well(s) at the well site or other authorized location where the substances or wastes are generated or will be beneficially reused, including brines, drill cuttings, drilling muds, oils, stimulation fluids, well treatment and servicing fluids, plugging and drilling fluids other than gases in a tank or series of tanks or other approved storage structures. The operator shall install or construct and maintain the pit, tank or series of pits and tanks or other approved storage structures in accordance with the following requirements:

(1) The [pit,] tank [or], series of [pits and] tanks, or other approved storage structure shall be constructed and maintained with sufficient capacity to contain all [pollutional] regulated substances which are used or produced during drilling, altering, completing, recompleting, servicing and plugging the well.

MSC comment:

As noted above, the use of the term regulated substances is overly broad and creates uncertainty under this subsection. In addition, the proposed language does not account for loading and unloading of the referenced structures during operations at a well pad. For example, the same tank might be used repeatedly during drilling, completion, servicing and plugging activities, and would not be of “sufficient capacity to contain all regulated substances which are used” in total during those activities.

(2) Modular aboveground storage structures that ~~[are assembled onsite]~~ EXCEED 20,000 GALLONS CAPACITY may not be utilized to store regulated substances without PRIOR Department approval. The Department will maintain a list of approved modular storage structures on its web site.

MSC comment:

As noted above, the use of the term regulated substances is overly broad and creates uncertainty under this subsection. Also, the proposed pre-approved list will need to be vendor specific. It is not clear whether PADEP has qualified personnel to complete the evaluation and approval process for these types of above ground structures. Additionally, the threshold for modular aboveground storage structures should be at least 25,000 gallons capacity and not 20,000 gallons.

(3) THE OPERATOR MUST OBTAIN SITING APPROVAL FROM THE DEPARTMENT FOR SITE SPECIFIC INSTALLATION OF ALL MODULAR ABOVEGROUND STORAGE STRUCTURES FOR EACH INDIVIDUAL WELL SITE WHERE USE OF THE MODULAR ABOVEGROUND STORAGE STRUCTURE IS PROPOSED.

MSC comment:

The proposed provision is vague and unnecessarily broad. Specifically, the term “siting approval” is not defined or discussed elsewhere. If an operator drills multiple wells on a single well site, it is unclear whether approval is required for each individual structure used on the well site each time it is used or only once, for the entire well site.

MSC recommends that this provision be revised to allow for the deemed approval of a siting request by an operator if PADEP does not act upon a timely request within a specified time period, e.g., 10 calendar days.

(4) AFTER OBTAINING APPROVAL TO UTILIZE A MODULAR ABOVEGROUND STORAGE STRUCTURE AT A SPECIFIC WELL SITE, [The] THE owner or operator shall notify the Department at least 3 business days before the beginning of construction of these storage structures. The notice shall be submitted electronically to the Department through its web site and include the date the storage structure installation will begin. If the date of installation is extended, the operator shall re-notify the Department with the date that the installation will begin, which does not need to be 3 business days in advance.

MSC comment:

MSC recommends that the notification requirement be removed. It is unnecessary to require notification when the modular aboveground storage structure has already been approved for use by PADEP and the location of the structure is shown on approved erosion and sediment control documents.

[(2)] [(3)] (5) [A pit shall be designed, constructed and maintained so that at least 2 feet of freeboard remain at all times.] If open tanks or open storage structures are used, the tanks and storage structures shall be maintained so that at least 2 feet of freeboard remain at all times unless the tank or storage structure is provided with an overflow system to a standby tank [or pit] with sufficient volume to contain all excess fluid or [waste] regulated substances. If an open standby tank or open storage structure is used, it shall be maintained with 2 feet of freeboard. If this subsection is violated, the operator immediately shall take the necessary measures to ensure the structural stability of the [pit, or] tank or other storage structure, prevent spills and restore the 2 feet of freeboard.

MSC comment:

It appears the word "standby" was inadvertently omitted from the next to last sentence in subsection (5) in association with the "storage structure."

In addition, the term "regulated substance" should be replaced in accordance with the comment above to provide clarity with respect to the obligations under this section.

[(3)] [(4)] (6) [Pits] [and], [tanks] TANKS and other approved storage structures shall be designed, constructed and maintained to be structurally sound and reasonably protected from unauthorized acts of third parties.

[(5) For unconventional well sites, unless an individual is continuously present at the well site, a fence must completely surround all pits to prevent unauthorized acts of third parties and damage caused by wildlife.]

(7) Unless an individual is continuously present at the well site, operators shall equip all tank valves and access lids to regulated substances with reasonable measures to prevent unauthorized access by third parties such as locks, open end plugs, removable handles,

retractable ladders or other measures that prevent access by third parties. Tanks storing ONLY freshwater, fire prevention materials and spill response kits are excluded from the requirements of this paragraph.

MSC comment:

Since no lock, plug, handle, etc. can absolutely ensure “prevention” of unauthorized acts by third parties or damage by wildlife, MSC recommends replacing “prevent” with “discourage”.

MSC’s suggested amendatory language:

(7) Unless an individual is continuously present at the well site, operators shall equip all tank valves and access lids to substances under this section with reasonable measures to discourage unauthorized access by third parties such as locks, open end plugs, removable handles, retractable ladders or other measures that discourage access by third parties. Tanks storing only freshwater, fire prevention materials and spill response kits are excluded from the requirements of this paragraph.

(8) The operator [~~of an unconventional well site~~] shall display a sign on [~~or near~~] the tank or other approved storage structure identifying the contents and an appropriate warning of the contents such as flammable, corrosive or a similar warning.

MSC comment:

MSC recommends the removal of unnecessarily prescriptive language by striking “such as flammable, corrosive, or a similar warning.” The “or near” option for the signs should be reinserted, as in the original proposal. DEP has provide no justification for removing that option, and as long as the sign is clearly associated with the tank or other structure that it applies to, there is no reason a sign near the tank would not suffice. Requiring that the sign be physically “on” the tank or storage structure may unnecessarily limit the options for the sign construction materials, require less durable signs, or increase the likelihood of loss of the sign depending on the method of attachment. Lastly, the requirements in this provision may be covered by the OSHA Hazcom standard.

MSC’s suggested amendatory language:

(8) The operator shall display a sign on or near the tank or other approved storage structure identifying the contents, and as applicable, containing an appropriate warning of the contents.

[(4)] (9) A [~~pit~~] [~~or~~], ~~tank~~-TANK or other approved storage structure that contains drill cuttings from below the casing seat, [~~pollutional~~] regulated substances[, wastes] or fluids other than tophole water, fresh water and uncontaminated drill cuttings shall be impermeable [~~and comply with the following~~].

MSC comment:

It is unnecessary to require that tanks and approved storage structures “be impermeable”.

Presumably, all such structures are impermeable.

{(i) The pits} (10) [Pits shall be constructed with a synthetic flexible liner [with] that covers the bottom and sides of the pit. Liners used in a pit or other approved storage structures must comply with the following:

(i) A liner must have a coefficient of permeability of no greater than $1 \times [10^{-7}] 10^{-10}$ cm/sec [and with sufficient strength and thickness to maintain the integrity of the liner].

(ii) A liner must be at least 30 mils thick unless otherwise approved by the Department. Approval may be granted if the manufacturer demonstrates that the alternative thickness is at least as protective as a 30 mil liner. A list of approved alternative liners shall be maintained on the Department's web site.

(iii) The liner shall be designed, constructed and maintained so that the physical and chemical characteristics of the liner are not adversely affected by the [waste] regulated substance stored therein and the liner is resistant to physical, chemical and other failure during transportation, handling, installation and use. Liner compatibility must satisfy ASTM Method D5747, Compatibility Test for Wastes and Membrane Liners, or other compatibility test approved by the Department for the duration the pit or other temporary storage structure is used.

(iv) Adjoining sections of liners shall be sealed together to prevent leakage in accordance with the manufacturer's directions. [If the operator seeks to use a liner material other than a synthetic flexible liner, the operator shall submit a plan identifying the type and thickness of the material and the installation procedures to be used, and shall obtain approval of the plan by the Department before proceeding.] The integrity of all seams of the adjoining sections of liner shall be tested prior to use. Results of the tests shall be available upon request.

{(ii)} (10) The pit shall be constructed so that the liner subbase is smooth, uniform and free from debris, rock and other material that may puncture, tear, cut or otherwise cause the liner to fail. The pit must be structurally sound and the interior slopes of the pit must have a slope no steeper than 2 horizontal to 1 vertical. The liner subbase and subgrade shall be capable of bearing the weight of the material above the liner without settling that may affect the integrity of the liner. If the pit bottom or sides consist of rock, shale or other materials that may cause the liner to fail, a subbase of at least 6 inches of soil, sand or smooth gravel, or sufficient amount of an equivalent material, shall be installed over the area as the subbase for the liner.

{(iii)} (11) The bottom of the pit shall be at least 20 inches above the seasonal high groundwater table, unless the operator obtains approval under subsection (b) for a pit that exists only during dry times of the year and is located above groundwater. The operator of an unconventional well shall determine that the pit bottom is at least 20 inches above the seasonal high groundwater table prior to using the pit. A soil scientist or other similarly trained person using accepted and documented scientific methods shall make the determination. The individual's determination must contain a statement certifying that the pit bottom is at least 20 inches above the seasonal high groundwater table according to observed field conditions. The name, qualifications and statement of the individual making the determination and the basis of the determination shall be provided to the Department upon request.

(12) Stormwater must be diverted away from the pit.

~~(13) Prior to placing material in the pit, the liner shall be inspected for lack of uniformity, damage and other imperfections that may cause the liner to leak. The well operator shall correct damages or imperfections before placing the material in the pit and maintain the pit until closure of the pit.~~

~~{(iv)} (14) If a liner becomes torn or otherwise loses its integrity, the pit or approved storage structure shall be managed to prevent the [pit] contents from leaking [from the pit]. If repair of the liner or construction of another temporary pit or approved storage structure is not practical or possible, the [pit] contents shall be removed and disposed at an approved waste disposal facility or disposed on the well site in accordance with § 78a.61, § 78a.62 or § 78a.63 (relating to disposal of residual wastepits; and disposal of residual wasteland application).~~

~~{(v)} (15) The liner shall be secured around the perimeter of the pit in a manner that does not compromise the integrity of the liner. If the liner drops below the 2 feet of freeboard, the pit shall be managed to prevent the pit contents from leaking from the pit and the 2 feet of lined freeboard shall be restored.~~

~~(16) The unconventional well operator shall notify the Department at least 3 business days before the installation of the pit liner. The notice shall be submitted electronically to the Department through its web site and include the date the liner will be installed. If the date of installation is extended, the operator shall renotify the Department with the date of installation, which does not need to be 3 business days in advance. Notice is not required if the licensed professional engineer or geologist that designed the well site submits a statement on forms provided by the Department certifying that the pit and the pit liner, as built, are compliant with this section. This certification shall be submitted within 10 business days of installation of the pit liner.~~

~~{(17)} Condensate, whether separated or mixed with other fluids, may not be stored in any open top structure or pit. ABOVEGROUND TANKS [Tanks] used for storing or separating condensate during well completion shall be monitored and have controls to prevent vapors from exceeding the lower explosive limits of the condensate outside the tank. Tanks used for storing or separating condensate shall be grounded.~~

(b) The operator may request to use practices other than those specified in subsection (a) which provide equivalent or superior protection by submitting a request to the Department for approval. The request shall be made **ELECTRONICALLY TO THE DEPARTMENT THROUGH ITS WEBSITE** on forms provided by the Department.

(c) Disposal of uncontaminated drill cuttings in a pit or by land application shall comply with § 78a.61. **~~[A pit used for the disposal of residual waste, including contaminated drill cuttings, shall comply with § 78a.62. Disposal of residual waste, including contaminated drill cuttings, by land application shall comply with § 78a.63.]~~**

MSC comment:

This paragraph (c) dealing with disposal of drill cuttings should be removed from § 78a.56 (Temporary Storage) because it has nothing to do with temporary storage, and is duplicative of the requirements in § 78a.61.

(d) [Unless a permit under The Clean Streams Law (35 P.S. §§ 691.1—691.1001) or approval under § 78a.57 or § 78a.58 (relating to control, storage and disposal of production fluids; and existing pits used for the control, storage and disposal of production fluids) has been obtained for the pit, the] ~~[The] [owner or operator shall remove or fill the pit within 9 months after completion of drilling, or in accordance with the extension granted by the Department under section] [206(g) of the act (58 P.S. § 601.206(g))] [3216(g) of the act (relating to well site restoration) and § 78.65(d) (relating to site restoration).] [Pits used during servicing, plugging and recompleting the well shall be removed or filled within 90] [calendar] [days of construction.]~~

PITS MAY NOT BE USED FOR TEMPORARY CONTAINMENT. AN OPERATOR USING A PIT FOR TEMPORARY STORAGE AT THE EFFECTIVE DATE OF THESE REGULATIONS SHALL PROPERLY CLOSE THE PIT IN ACCORDANCE WITH APPROPRIATE RESTORATION STANDARDS NO LATER THAN (EDITOR'S NOTE: THE BLANK REFERS TO A DATE SIX MONTHS FROM THE EFFECTIVE DATE OF THIS REGULATION). ANY SPILLS OR LEAKS DETECTED SHALL BE REPORTED AND REMEDIATED IN ACCORDANCE WITH § 78a.66 (RELATING TO REPORTING AND REMEDIATING SPILLS AND RELEASES) PRIOR TO PIT CLOSURE.

MSC comment:

This provision, in addition to the proposed closure of centralized impoundments and additional restrictions on tanks, aboveground storage structures, and well development pipelines, will put considerable constraints on the oil and gas industry's ability to store, transport and reuse/recycle fluids. MSC objects to the closure of existing pits used for temporary storage within six months from the effective date of the proposed regulation. The Department has not provided any justification (or Legislative intent) for this proposed requirement, particularly why it should apply retroactively to temporary storage pits that were built pursuant to current law. It is also not clear how the Department arrived at its proposed six month requirement to close and restore these existing pits. The Department should not require the universal closure of these pits prior to the conclusion of their permitted use, and should allow these pits to be restored according to the operator's restoration plan.

NEW § 78a.56a. Alternate temporary storage

MSC comment:

The regulations should encourage and facilitate the processing, recycling and beneficial reuse of fluids and other waste materials at well sites. The Department has maintained on several occasions that it is a goal for the Commonwealth, where appropriate, to promote the responsible recycling and reuse of oil and gas wastes to reduce the demand on fresh water resources for oil and gas well development and operations. The establishment of regulatory provisions to govern the recycling and reuse of oil and gas wastes will protect public health, safety and the environment, as well as be a benefit to the oil and gas industry. MSC's suggested amendatory language below clarifies that operators may conduct processing, recycling and beneficial reuse activities at well sites under the jurisdiction of the Department's Office of Oil and Gas Management.

MSC's suggested amendatory language:

NEW § 78a.56a. Alternate temporary storage

(a) The Department supports the processing, recycling, and beneficial reuse of fluids and other materials generated by the development, drilling, stimulation, alteration, operation or plugging of oil or gas wells, where the processing of the fluids or other materials for recycling or beneficial reuse will not result in pollution of land or waters of the Commonwealth. In addition to the activities described in Section 78a.56, an operator may process fluids generated by the development, drilling, stimulation, alteration, operation or plugging of oil or gas wells at the well site where the fluids were generated or at the well site where all of the fluid is intended to be beneficially used to develop, drill or stimulate a well. Such processing may not result in pollution of land or waters of the Commonwealth.

(b) An operator may temporarily store and/or process fluids generated by the development, drilling, stimulation, alteration, operation or plugging of an oil or gas well at a well site other than the well sites where the fluids were generated or are to be ultimately reused, so long as the following conditions are met:

- (1) The well site where the storage or processing is to occur is permitted and bonded;
- (2) The well site maintains a current PPC plan that is consistent with the Department's regulations;
- (3) The operator maintains accurate transportation records of the fluids entering and leaving the well site, consistent with 58 P.S. § 3218.3;
- (4) Temporary storage occurs in approved storage structures in accordance with applicable requirements of Sections 78a.56 and 78a.57;
- (5) Processing of fluids is conducted in accordance with this section;
- (6) Temporary storage and/or processing will not exceed a single consecutive six month period; all onsite activity incidental to temporary storage and/or processing must occur within this timeframe;
- (7) The operator must notify the Department of locations where temporary storage and/or processing will occur a minimum of three (3) days prior to the commencement of activity. This notice shall be submitted electronically to the Department through its website and include the intended date(s) of activity commencement;
- (8) An operator that stores, processes or beneficially reuses fluids pursuant to this section in accordance with this paragraph shall be deemed to have a residual waste permit by rule under Article IX of Title 25;
- (9) An operator subject to a permit by rule under this section is not required to apply for a permit under Article IX of Title 25 or comply with the operating requirements of Article IX of Title 25 so long as the authorized storage, processing and beneficial reuse activities are conducted in accordance with this Chapter.

§ 78a.57. Control, storage and disposal of production fluids.

(a) Unless a permit has been obtained under § 78a.60(a) (relating to discharge requirements), the operator shall collect the brine and other fluids produced during operation[, service and plugging] of the well in a tank[, pit] or a series of [pits or] tanks, or other device approved by the Department for subsequent disposal or reuse. **Open top structures may not be used to store brine and other fluids produced during operation of the well. AN OPERATOR USING A PIT FOR STORAGE OF PRODUCTION FLUIDS AT THE TIME OF THE EFFECTIVE DATE OF THESE REGULATIONS SHALL REPORT THE USE OF THE PIT TO THE DEPARTMENT NO LATER THAN** (Editor's Note: The blank refers to a date six months from the effective date of this regulation) **AND SHALL PROPERLY CLOSE THE PIT IN ACCORDANCE WITH APPROPRIATE RESTORATION STANDARDS NO LATER THAN** (Editor's Note: The blank refers to a date one year from the effective date of this regulation). **ANY SPILLS OR LEAKS DETECTED SHALL BE REPORTED AND REMEDIATED IN ACCORDANCE WITH § 78a.66 (RELATING TO REPORTING AND REMEDIATING SPILLS AND RELEASES) PRIOR TO PIT CLOSURE.** Except as allowed in this subchapter or otherwise approved by the Department, the operator may not discharge the brine and other fluids on or into the ground or into the waters of this Commonwealth.

MSC comment:

The elimination of "open top structures" seems to be in conflict with the proposed provisions in § 78a.56, which govern modular aboveground storage structures. The definition of modular aboveground storage structure does not limit such structures to those with closed tops. The two provisions should be reconciled by PADEP, as they will likely cause confusion for regulated entities. MSC recommends that the second sentence be deleted in its entirety.

(b) [Except as provided in § 78a.56 (relating to pits and tanks for temporary [containment] storage), the] AN operator may not use a pit for the control, handling or storage of brine and other fluids produced during operation[, service or plugging] of a well [unless the pit is authorized by a permit under The Clean Streams Law (35 P.S. §§ 691.1—691.1001) or approval to operate the pit as an impoundment under The Clean Streams Law is obtained from the Department under subsection (c)].

[(c) The operator may apply for approval from the Department to operate a pit as an impoundment under The Clean Streams Law, as indicated by the Department's issuance of a pit approval number in accordance with this section. No pit will be eligible for approval under this subsection unless the capacity of any one pit or of any two or more interconnected pits is less than 250,000 gallons, or the total capacity contained in pits on one tract or related tracts of land is less than 500,000 gallons. Compliance with this subsection does not relieve the operator from the obligation to comply with section 308 of The Clean Streams Law (35 P.S. § 691.308) and the requirements for obtaining a permit for the erection, construction and operation of treatment works promulgated under that section.

(1) A request for approval under this subsection shall be made on forms furnished by the Department and, at a minimum, shall include the following:

(i) A description of the operator's plan that demonstrates compliance with this subsection for the construction or reconstruction of the pit.

- (ii) A description of the operator's program for operation and maintenance of the pit.**
 - (iii) A description of the method for subsequent disposal or reuse of the brine or other fluids produced during operation of the well.**
 - (iv) A description of the operator's program for the closure of the pit and restoration of the site.**
- (2) The operator shall design, construct, operate and maintain the pit in accordance with the approval and the following:**
- (i) The pit approval number is posted at the pit in a legible and visible manner.**
 - (ii) The pit is not located within 100 feet of a stream, wetland or body of water unless a waiver is granted by the Department.**
 - (iii) The bottom of the pit is a minimum of 20 inches above the seasonal high groundwater table.**
 - (iv) At least 2 feet of freeboard remain at all times.**
 - (v) The pit is structurally sound and the inside slopes of the pit are not steeper than a ratio of 2 horizontal to 1 vertical.**
 - (vi) The pit is impermeable and is lined with a synthetic flexible liner or alternate material that has a coefficient of permeability of no greater than 1×10^{-7} cm/sec. The liner shall be of sufficient strength and thickness to maintain the integrity of the liner. The thickness of a synthetic liner shall be at least 30 mils. Adjoining sections of liners shall be sealed together in accordance with the manufacturer's directions to prevent leakage.**
 - (vii) The physical and chemical characteristics of the liner shall be compatible with the waste and the liner is resistant to physical, chemical and other failure during transportation, handling, installation and use. Liner compatibility shall satisfy EPA Method 9090, *Compatibility Test for Wastes and Membrane Liners*, or other documented data approved by the Department.**
 - (viii) The pit shall be constructed so that the liner subbase is smooth, uniform and free of debris, rock and other material that may puncture, tear, cut, rip or otherwise cause the liner to fail. The liner subbase and subgrade shall be capable of bearing the weight of the material above the liner without settling in an amount that will affect the integrity of the liner. If the pit bottom or sides consist of rock, shale or other material that may cause the liner to leak, a subbase of at least 6 inches of soil, sand or smooth gravel, or a sufficient amount of an equivalent material shall be installed over the area as the subbase for the liner.**
 - (ix) Prior to placing brine or other fluids in the pit, the operator shall inspect the liner and correct all damage or imperfections that may cause the liner to leak.**

(x) Surface water which may drain into the pit shall be diverted away from the pit.

(xi) The pit is reasonably protected from unauthorized acts of third parties.

(3) Upon abandonment of the well or revocation of the approval by the Department, the operator shall restore the pit in accordance with the following:

(i) The free liquid fraction of the pit contents shall be removed and disposed under § 78a.60(a) and the remaining pit contents and liner shall be removed and disposed under §§ 78a.62 and 78a.63 (relating to disposal of residual waste—pits; and disposal of residual waste—land application), or the Solid Waste Management Act.

(ii) The pit shall be backfilled to the ground surface and graded to promote runoff with no depression that would accumulate or pond water on the surface. The stability of the backfilled pit shall be compatible with the adjacent land.

(iii) The surface of the backfilled pit area shall be revegetated to stabilize the soil surface and comply with § 78a.53 (relating to erosion and sediment control). The revegetation shall establish a diverse, effective, permanent, vegetative cover which is capable of self-regeneration and plant succession. Where vegetation would interfere with the intended use of the surface by the landowner, the surface shall be stabilized against accelerated erosion.]

(c) Secondary containment capable of preventing tank contents from entering waters of the Commonwealth is required for all new, refurbished or replaced ABOVEGROUND tanks or other aboveground containment structures approved by the Department, including their associated manifolds, that contain brine and other fluids produced during operation of the well. If one tank in a series of tanks is added, refurbished or replaced, secondary containment is required for the entire series of tanks. The secondary containment area provided by dikes or other methods of secondary containment open to the atmosphere must have containment capacity sufficient to hold the volume of the largest single ABOVEGROUND tank, plus an additional 10% of volume for precipitation. Compliance with § 78a.64 (relating to containment around oil and condensate tanks) or using double walled tanks capable of detecting a leak in the primary container fulfill the requirements in this subsection.

MSC comment:

The reference to “associated manifolds” is vague and overly broad, and could lead to varying interpretations across inspectors regarding spec-break points.

Also see MSC’s comment to §78a.1 regarding the definition of “containment system.”

(d) Tanks, series of tanks or other above ground storage structures approved by the Department used to store brine or other fluids produced during operation of the well shall be designed, constructed and maintained to be structurally sound in accordance with sound engineering practices adhering to Nationally recognized industry standards and the manufacturer’s specifications. Tanks that are manifolded together shall be designed in a manner to prevent the uncontrolled discharge of multiple manifolded tanks.

MSC comment:

MSC recommends that changes be made to accommodate meeting the requirement through administrative controls. Commonly, operators are trained not to leave tanks equalized across the bottom manifold (e.g. open valves) and typically check valves. Spring return “deadman” valves are not designed into the manifold for operational considerations.

(e) Underground or partially buried storage tanks [may not be] used to store brine or other fluids produced during operation of the well SHALL BE DESIGNED, CONSTRUCTED AND MAINTAINED TO BE STRUCTURALLY SOUND IN ACCORDANCE WITH SOUND ENGINEERING PRACTICES ADHERING TO NATIONALLY RECOGNIZED INDUSTRY STANDARDS AND THE MANUFACTURER’S SPECIFICATIONS [unless approved by the Department. Existing underground or partially buried storage tanks shall be removed by _____ (Editor’s Note: The blank refers to 3 years after the effective date of adoption of this proposed rulemaking.)]. A well operator utilizing underground or partially buried storage tanks as of _____, (Editor’s Note: The blank refers to the effective date of adoption of this proposed rulemaking.) shall ELECTRONICALLY provide the Department with a list of the well sites THROUGH ITS WEBSITE where the underground or partially buried storage tanks are located [and schedule for removal of the tanks] by _____ (Editor’s Note: The blank refers to 6 months after the effective date of adoption of this proposed rulemaking.)

(f) All new, refurbished or replaced ABOVEGROUND tanks that store brine or other fluid produced during operation of the well must comply with the applicable corrosion control requirements in §§ 245.531 – 245.534 (relating to corrosion and deterioration prevention), WITH THE EXCEPTION OF USE OF DEPARTMENT-CERTIFIED INSPECTORS TO INSPECT INTERIOR LININGS OR COATINGS.

MSC comments:

MSC recommends that this provision be deleted. There are no “applicable corrosion control requirements” for aboveground storage tanks used to store brine or other produced fluid and regulated under the Oil and Gas Act of 2012. Such tanks are exempt from regulation under the Storage Tank Act and 25 Pa. Code Chapter 245, because of their relatively benign character. Additionally, these aboveground storage tanks are temporary and not permanent, and such temporary tanks were not included by the Legislature in 58 P.S. § 3218.4(b) (“*Permanent* aboveground and underground tanks must comply with the applicable corrosion control requirements in the department’s storage tank regulations.”). In regards to the Department’s proposed exception pertaining to the use of Department-certified inspectors, it is confusing and otherwise not clearly worded as to what the exception entails.

(g) ALL NEW, REFURBISHED OR REPLACED UNDERGROUND STORAGE TANKS THAT STORE BRINE OR OTHER FLUID PRODUCED DURING OPERATION OF THE WELL MUST COMPLY WITH THE APPLICABLE CORROSION CONTROL REQUIREMENTS IN § 245.432 (RELATING TO OPERATION AND MAINTENANCE INCLUDING CORROSION PROTECTION) WITH THE EXCEPTION OF USE OF DEPARTMENT-CERTIFIED INSPECTORS TO INSPECT INTERIOR LININGS.
[(g)](h) All new, refurbished or replaced tanks storing brine or other fluids produced during operation of the well must be reasonably protected from unauthorized acts of third

parties. Unless the tank is surrounded by a fence, tank valves and access lids must utilize locks, open end plugs or removable handles and ladders on tanks must be retractable or other measures that prevent access by third parties.

MSC comment:

Alternative methods of protection other than those specified in the proposed provision, such as a 24-hour/7-day attendant, should be available to operators under this provision. As noted previously, the language should reflect that such measures can be required to discourage access by third parties, but cannot always “prevent” such access.

(i) TANKS STORING BRINE OR OTHER FLUIDS PRODUCED DURING OPERATION OF THE WELL MUST BE INSPECTED BY THE OPERATOR AT LEAST ONCE PER CALENDAR MONTH AND DOCUMENTED ON FORMS PROVIDED BY THE DEPARTMENT. ANY DEFICIENCIES IDENTIFIED DURING THE INSPECTION MUST BE REPORTED TO THE DEPARTMENT WITHIN 3 DAYS OF THE INSPECTION AND REMEDIED PRIOR TO CONTINUED USE OF THE TANK. INSPECTION RECORDS SHALL BE MAINTAINED FOR 1 YEAR AND MADE AVAILABLE TO THE DEPARTMENT UPON REQUEST.

MSC comment:

MSC recommends that the requirement to use “forms provided by the Department” be deleted because PADEP has not provided a copy of this form at the same time that the regulation was proposed \, as required by Section 5(a)(5) of the Regulatory Review Act. As a result, MSC is unable to review any inspection requirements that may be contained in this form and therefore unable to comment appropriately. In addition, there is no need to report every possible deficiency noted during an inspection to PADEP. It should be sufficient to ensure that the deficiency is documented and remedied, and that PADEP has access to inspection records upon request.

The proposed requirement to remedy every deficiency “prior to continued use of the tank” is unworkable. These monthly tank inspections will typically occur while the tank is in use and brine or other fluids are being actively stored in it. In those situations, any requirement to repair a deficiency prior to continued use would require that the tank be immediately emptied, which is often operationally and logistically impossible, and generally unnecessary to repair the deficiency.

MSC’s suggested amendatory language:

(i) Tanks storing brine or other fluids produced during operation of the well must be inspected by the operator at least once per calendar month and documented. Any deficiencies identified during the inspection must be remedied in a timely manner. Inspection records shall be maintained for 1 year and made available to the Department upon request.

§ 78a.57a. CENTRALIZED TANK STORAGE.

MSC general comment:

In brief, there is no need for this section. The Department has steadfastly maintained that the water generated by producing wells as well as flowback water is a residual waste. Regulations

already exist for the storage of residual waste in tanks (25 Pa. Code Chap. 299). There is no need to create a whole new regulatory scheme, adding new requirements, just for oil and gas-derived residual waste. Of course, one cannot gauge the need for nor the cost of this new provision. The statement of need and estimate of cost required under the Regulatory Review Act are absent, since DEP is proceeding without regard to the Regulatory Review Act. Once again, neither the IRRC nor the standing committees will have had a chance to review this provision until it is presented as a final rule. There is no need for this section, and it should be eliminated.

The Department will not encourage the reuse and recycling of extraction wastewater for future industrial use through this proposal. The ANFR provision is significantly more onerous than the requirements currently affecting centralized tank facilities associated with unconventional extraction wastewater and will therefore likely act as a disincentive to further reuse and recycling. Because of their relatively benign character, tanks that are used to store brines, crude oil, drilling or hydraulic fracturing fluids and similar substances directly related to the exploration, development or production of oil or gas are exempted from the Storage Tank Act. See 35 P.S. § 6021.102. Additionally, a facility employed for the disposal, storage or processing of residual waste which is generated by drilling or production of an oil or gas well, and is located on the well site, is exempted from the residual waste regulations in Chapter 287. If the Legislature and EQB exempted tanks that hold oil and gas extraction waste from more stringent statutory and regulatory requirements in the past because extraction waste is not as harmful as some other types of industrial wastes and to incentivize maximum reuse and recycling efforts, it is unclear why the Department now proposes regulations that are in some instances just as stringent or even more stringent than the regulations found in Chapters 245 and 287. As proposed, the ANFR § 78a.57a provision are counterproductive to current recycling and reuse operations and lead to increased disposal rather than reuse.

The ANFR contains proposed regulations that are seemingly just as stringent, or more stringent, than the regulations applied to permanent industrial waste facilities. If the idea behind having separate regulations for temporary and permanent waste facilities is to enhance the flexibility of short-term operations, then it is difficult to see how the ANFR achieves this end. At a certain point, operators will be incentivized to simply apply for a permanent facility permit, which could contain less stringent closure requirements. PADEP has not cited any pattern or individual occurrences of environmental harm caused by centralized tank storage facilities that would justify the comprehensive regulatory framework proposed in § 78a.57a. We respectfully request that PADEP reconsider the necessity of § 78a.57a.

The electronic submission requirements in § 78a.57a(a) (permit application), (h)(i)(17) (deficiencies found during inspections), (n)(1) (closure plan), (n)(1)(iv)(g)(2) (quarterly waste reports), and (g)(5) (restoration report) contain no contingency provisions in case PADEP's website fails or cannot accept operator records. For electronic reporting, the regulations should allow for paper delivery in the instance of website failure.

The regulations for centralized tank facilities should be written to give operators the greatest possible flexibility in the development, use, and closure of the facilities. The facilities are temporary by nature and will only exist as long as there are hydraulic fracturing operations in the vicinity. Operators should be incentivized to use these facilities to encourage reuse and recycling of fluids in lieu of using fresh water.

MSC strongly recommends that a separate proposed rulemaking be initiated in accordance with the procedures in the Regulatory Review Act. Starting the rulemaking process from the beginning and preparing an RAF would allow for full consideration of the overall structure of the regulation, the specific proposed language, and the cost of compliance with the proposed regulation. MSC's preliminary cost estimates for compliance with just the construction costs for this entirely new provision are approximately \$1 per gallon of storage (a 1 million gallon facility would cost \$1 million dollars).

(a) A WELL OPERATOR PROPOSING TO BUILD A CENTRALIZED TANK STORAGE SITE SHALL OBTAIN A PERMIT FROM THE DEPARTMENT PRIOR TO CONSTRUCTION OF THE CENTRALIZED TANK STORAGE SITE AND COMPLY WITH THIS SECTION. THE DEPARTMENT SHALL PROVIDE PUBLIC NOTICE OF RECEIPT OF PERMIT APPLICATIONS AND ISSUANCE OF PERMITS UNDER THIS SECTION IN THE PENNSYLVANIA BULLETIN. THE PERMIT SHALL BE SUBMITTED ELECTRONICALLY TO THE DEPARTMENT ON FORMS PROVIDED THROUGH ITS WEB SITE.

MSC comment:

There should be a definition in 78a.1 for "centralized tank storage" given the extensive requirements that follow in § 78a.57a. Also, the last sentence is missing the word "application" between "permit" and "shall."

The proposed application forms have not been provided as required by Section 5(a)(5) of the Regulatory Review Act, so MSC is unable to review and comment on the details of the application requirements.

(b) THE DEPARTMENT MAY DENY THE ISSUANCE OF A PERMIT IF IT FINDS THAT THE APPLICANT HAS FAILED OR CONTINUES TO FAIL TO COMPLY WITH ANY PROVISION OF THE SOLID WASTE MANAGEMENT ACT (35 P.S. §§ 6018.101–6018.1003), THE CLEAN STREAMS LAW (35 P.S. §§ 691.1–691.1001), THE AIR POLLUTION CONTROL ACT (35 P.S. § 4001–4015), DAM SAFETY AND ENCROACHMENTS ACT (32 P.S. §§ 693.1–693.27), OR ANY OTHER STATE OR FEDERAL STATUTE RELATING TO ENVIRONMENTAL PROTECTION OR TO THE PROTECTION OF THE PUBLIC HEALTH, SAFETY AND WELFARE; OR ANY RULE OR REGULATION OF THE DEPARTMENT; OR ANY ORDER OF THE DEPARTMENT; OR ANY CONDITION OF ANY PERMIT OR LICENSE ISSUED BY THE DEPARTMENT; OR IF THE DEPARTMENT FINDS THAT THE APPLICANT HAS SHOWN A LACK OF ABILITY OR INTENTION TO COMPLY WITH ANY PROVISION OF ANY OF THE ACTS REFERRED TO IN THIS SUBSECTION OR ANY RULE OR REGULATION OF THE DEPARTMENT OR ORDER OF THE DEPARTMENT, OR ANY CONDITION OF ANY PERMIT OR LICENSE ISSUED BY THE DEPARTMENT AS INDICATED BY PAST OR CONTINUING VIOLATIONS. IN THE CASE OF A CORPORATE APPLICANT, PERMITTEE OR LICENSEE, THE DEPARTMENT MAY DENY THE ISSUANCE OF A PERMIT IF IT FINDS THAT A PRINCIPAL OF THE CORPORATION WAS A PRINCIPAL OF ANOTHER CORPORATION WHICH COMMITTED PAST VIOLATIONS OF THE SOLID WASTE MANGEMENT ACT.

(c) THE APPLICANT SHALL PROVIDE A COPY OF THE APPLICATION TO THE HOST MUNICIPALITY AND THE APPROPRIATE COUNTY, COUNTY PLANNING AGENCY AND COUNTY HEALTH DEPARTMENT, IF ONE EXISTS. THE APPLICANT SHALL PROVIDE PROOF OF NOTIFICATION WITH THE PERMIT APPLICATION.

(d) PRIOR TO OPERATING, THE WELL OPERATOR SHALL SUBMIT TO THE DEPARTMENT A BOND ON FORMS PREPARED BY THE DEPARTMENT. THE BOND SHALL BE PAYABLE TO THE DEPARTMENT, AND THE BOND SHALL PROVIDE CONTINUOUS LIABILITY FROM THE INITIATION OF OPERATIONS AT THE PERMITTED SITE. THE AMOUNT OF THE BOND SHALL BE DETERMINED BY THE DEPARTMENT IN ACCORDANCE WITH SECTION 6018.505 OF THE SOLID WASTE MANAGEMENT ACT (RELATING TO BONDS).

(e) PRIOR TO OPERATING, THE WELL OPERATOR SHALL SUBMIT TO THE DEPARTMENT PROOF OF AN EFFECTIVE COMMERCIAL POLICY OF LIABILITY INSURANCE IN AN AMOUNT THE DEPARTMENT DEEMS SUFFICIENT TO COVER THIRD-PARTY CLAIMS FOR PROPERTY DAMAGE AND BODILY INJURY. THIS POLICY SHALL BE IN FORCE FROM THE INITIAL OPERATION OF THE FACILITY THROUGH FINAL CLOSURE OF THE PERMITTED SITE.

MSC Comment:

Proposed sections 78a.57a(d)-(e) contain bonding and insurance requirements that are similar to the financial responsibility requirements found in the underground storage tank regulations. There are no bonding or insurance requirements for aboveground storage tanks in Chapter 245. See 25 Pa. Code Chapter 245, Subchapter H. Centralized tanks storage areas consist of tanks located on the ground surface and are not analogous to underground storage tanks. Therefore, the more stringent requirements applicable to underground storage tanks should not be applied here.

(f) NO PORTION OF A CENTRALIZED TANK STORAGE SITE MAY BE CONSTRUCTED IN THE FOLLOWING AREAS:

MSC comment:

The setback requirements in subsection (f) are unclear, because the point from which the measurement is taken is undefined throughout.

The setback requirements in § 78a.57(f) are similar to those for municipal waste landfills (25 Pa. Code § 273.202), residual waste landfills (25 Pa. Code §§ 288.422, 288.522, 288.622), and waste tire facilities (25 Pa. Code § 299.158) and are significantly more stringent than the setback regulations for aboveground and underground storage tank facilities in Chapter 245. Additionally, several of the setback requirements for municipal waste landfills, residual waste landfills, and waste tire facilities contain written waiver provisions, but no such written waiver allowances for setback requirements are provided in proposed § 78a.57(f).

(1) IN A FLOODPLAIN.

(2) IN OR WITHIN 300 FEET MEASURED HORIZONTALLY OF AN EXCEPTIONAL VALUE WETLAND OR WITHIN 100 FEET MEASURED HORIZONTALLY OF ANY OTHER WETLAND GREATER THAN 1 ACRE IN SIZE.

(3) IN AREAS UNDERLAIN BY LIMESTONE OR CARBONATE FORMATIONS WHERE THE FORMATIONS ARE GREATER THAN 5 FEET THICK AND PRESENT AT THE UPPERMOST GEOLOGIC UNIT. THESE AREAS INCLUDE AREAS MAPPED BY THE PENNSYLVANIA GEOLOGICAL SURVEY AS UNDERLAIN BY THE FORMATIONS, UNLESS COMPETENT GEOLOGIC STUDIES DEMONSTRATE THE ABSENCE OF LIMESTONE AND CARBONATE FORMATIONS.

(4) WITHIN 500 FEET MEASURED HORIZONTALLY FROM A BUILDING, WITHOUT THE WRITTEN CONSENT OF THE OWNER OF THE BUILDING.

(5) WITHIN 100 FEET MEASURED HORIZONTALLY FROM ANY WATERCOURSE.

(6) WITHIN 500 FEET MEASURED HORIZONTALLY OF A PRIVATE WATER SUPPLY WITHOUT THE WRITTEN CONSENT OF THE OWNER OF THE WATER SUPPLY.

(7) WITHIN 1,000 FEET MEASURED HORIZONTALLY OF AN EXISTING WATER WELL, SURFACE WATER INTAKE, RESERVOIR OR OTHER WATER SUPPLY EXTRACTION POINT USED BY A WATER PURVEYOR.

(8) WITHIN 300 YARDS OF A BUILDING WHICH IS OWNED BY A SCHOOL DISTRICT OR SCHOOL AND USED FOR INSTRUCTIONAL PURPOSES, A PARK, OR A PLAYGROUND.

MSC comment:

See MSC's proposed definition in § 78a.1 for "playground." To be consistent with the language used in 58 Pa. C.S. § 3215(c)(1) and § 78a.15(f)(1)(i), the reference to parks should be limited to "publically owned parks."

(g) UNDERGROUND STORAGE TANKS MAY NOT BE USED AT CENTRALIZED TANK STORAGE SITES.

(h) TANKS SHALL MEET THE DESIGN AND PERFORMANCE STANDARDS ESTABLISHED BY THIS SECTION. THE TANKS SHALL BE CLEARLY LABELED AS "RESIDUAL WASTE" AND THE TYPE OF RESIDUAL WASTE SHALL BE IDENTIFIED.

(i) TANKS UTILIZED AT CENTRALIZED TANK STORAGE SITES SHALL BE DESIGNED AND OPERATED AS FOLLOWS, UNLESS AN ALTERNATIVE DESIGN IS DEMONSTRATED TO PERFORM AT A LEVEL EQUIVALENT TO THE REQUIREMENTS OF THIS SECTION AND IS OTHERWISE APPROVED BY THE

DEPARTMENT UNDER SECTION 78a.63a (RELATING TO ALTERNATIVE WASTE MANAGEMENT):

(1) TANKS SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH AN APPROPRIATE CURRENT CODE OF PRACTICE DEVELOPED BY NATIONALLY RECOGNIZED ASSOCIATIONS SUCH AS UNDERWRITERS LABORATORY, AMERICAN CONCRETE INSTITUTE, AMERICAN PETROLEUM INSTITUTE, AMERICAN SOCIETY OF MECHANICAL ENGINEERS, AMERICAN SOCIETY FOR TESTING AND MATERIALS OR THE NATIONAL ASSOCIATION OF CORROSION ENGINEERS.

(2) TANKS SHALL HAVE A STABLE FOUNDATION, CAPABLE OF SUPPORTING THE TOTAL WEIGHT OF THE TANK WHEN FULL OF WASTE WITHOUT MOVEMENT, ROLLING OR UNACCEPTABLE SETTLING. THE FOUNDATION SHALL MINIMIZE CORROSION OF THE TANK BOTTOM AND MEET OR EXCEED THE SPECIFICATIONS OF THE TANK MANUFACTURER. THE FOUNDATION DESIGN AND CONSTRUCTION SHALL BE BASED ON SOUND ENGINEERING PRACTICES.

(3) NEWLY INSTALLED OR REPAIRED TANKS SHALL BE TESTED FOR TIGHTNESS IN ACCORDANCE WITH CURRENT CODES OF PRACTICE DEVELOPED BY NATIONALLY RECOGNIZED ASSOCIATIONS AND MANUFACTURER'S SPECIFICATIONS. IF A PNEUMATIC TEST IS USED FOR MANUFACTURED (SHOP BUILT) TANKS, THE FITTINGS, WELDS, JOINTS AND CONNECTIONS SHALL BE COATED WITH A SOAP SOLUTION AND CHECKED FOR LEAKS. DEFICIENCIES SHALL BE REMEDIATED PRIOR TO TANKS BEING PLACED INTO SERVICE. HYDROSTATIC TEST FLUIDS SHALL BE DISCHARGED OR DISPOSED OF IN ACCORDANCE WITH STATE AND FEDERAL REQUIREMENTS.

MSC comment:

PADEP should not recommend or list specific methodologies for tightness or leak testing such as pneumatic testing. MSC recommends that methodologies be in accordance with current codes of practice developed by nationally recognized associations and manufacturers' specifications.

(4) TANK CONNECTIONS THROUGH WHICH WASTE CAN FLOW SHALL BE EQUIPPED WITH AN OPERATING VALVE ADJACENT TO THE TANK TO CONTROL FLOW OF WASTE. APPROPRIATE VALVES SHALL BE INSTALLED TO MEET OR EXCEED CURRENT CODES OF PRACTICE AND JURISDICTIONAL REQUIREMENTS. VALVES SHALL BE DESIGNED, INSTALLED AND MAINTAINED ACCORDING TO CURRENT CODES OF PRACTICE.

MSC comment:

PADEP should not specify the location or type of valve required to be used by operators.

(5) THE EXTERIOR SURFACES OF TANKS AND PIPING SHALL BE PROTECTED BY A SUITABLE COATING, WHICH PREVENTS CORROSION AND

DETERIORATION. THE COATING SYSTEM SHALL BE MAINTAINED THROUGHOUT THE ENTIRE OPERATIONAL LIFE OF THE TANK.

(6) THE PERMITEE SHALL ENSURE THAT RELEASES FROM OVERFILLS DO NOT OCCUR. TRANSFER OF STORED WASTE MAY NOT EXCEED THE VOLUME AVAILABLE IN RECEIVING TANK AND THE TRANSFER SHALL BE ADEQUATELY MONITORED. IMMEDIATE ACTION SHALL BE TAKEN TO STOP THE FLOW OF WASTE PRIOR TO EXCEEDING TANK CAPACITY OR IN THE EVENT THAT AN EQUIPMENT FAILURE OCCURS.

(7) TANKS SHALL BE INSTALLED WITH THE FOLLOWING:

(i) A GAUGE OR MONITORING DEVICE WHICH ACCURATELY INDICATES THE LEVEL OR VOLUME IN THE TANK AND IS VISIBLE TO THE INDIVIDUAL RESPONSIBLE FOR THE TRANSFER OF WASTE. THE MONITORING DEVICE SHALL BE INSTALLED, CALIBRATED AND MAINTAINED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.

(ii) A HIGH-LEVEL ALARM AND AN AUTOMATIC HIGH-LEVEL CUT-OFF DEVICE OR A HIGH-LEVEL ALARM AND A MANNED OPERATOR SHUTDOWN PROCEDURE IN OPERATION.

(8) CONTAINMENT STRUCTURES SHALL BE COMPATIBLE WITH THE WASTES STORED, MINIMIZE DETERIORATION TO THE TANK AND COMPLY WITH § 78a.64a (RELATING TO CONTAINMENT SYSTEMS AND PRACTICES AT WELL SITES).

MSC comment:

See MSC's comment to §78a.1 regarding the definition of "containment system."

(9) CONTAINMENT AREAS SHALL BE DESIGNED, MAINTAINED AND CONSTRUCTED IN ACCORDANCE WITH SOUND ENGINEERING PRACTICES ADHERING TO NATIONALLY RECOGNIZED CODES OF PRACTICE, SUCH AS NFPS, NACE, ACI OR API AND IN COMPLIANCE WITH STATE AND FEDERAL REQUIREMENTS.

MSC comment:

See MSC's comment to §78a.1 regarding the definition of "containment system."

(10) SECONDARY CONTAINMENT UNDER THE TANK BOTTOM AND AROUND UNDERGROUND PIPING SHALL BE DESIGNED TO DIRECT ANY RELEASE TO A MONITORING POINT.

(11) PERMEABILITY OF THE SECONDARY CONTAINMENT SHALL BE LESS THAN 1×10^{-10} CM/SEC AT ANTICIPATED HYDROSTATIC HEAD.

MSC comment:

The permeability standard in § 78a.57a(i)(11) is orders of magnitude more stringent than the permeability standard for aboveground storage tanks in Chapter 245. There is no indication/explanation as to how PADEP calculated the ANFR permeability requirement.

A qualitative permeability standard would be better, such as “sufficiently impermeable to prevent release from containment.” Alternatively, the quantitative standard in the Storage Tank Act is 1×10^{-7} cm/sec.

(12) TANKS SHALL HAVE EMERGENCY CONTAINMENT STRUCTURES, SUCH AS DIKE FIELDS, CURBING AND CONTAINMENT COLLECTION SYSTEMS, WHICH CONTAIN RELEASES FROM OVERFILLS, LEAKS AND SPILLS.

MSC comment:

The introduction of the term “emergency containment” here introduces significant confusion and uncertainty in the meaning of the terms “containment,” “secondary containment,” and “emergency containment” through proposed § 78a.57a. The difference between those terms is unclear, because the only related defined term in §78a.1 is “containment system”. In addition, the use of the term “emergency containment” creates potential inconsistency with §78a.64a, which is incorporated by referenced in subparagraph (i)(8). This type of confusion demonstrates why it is critical that regulations for centralized tank storage be developed through a separate rulemaking pursuant to the Regulatory Review Act.

Also see MSC’s comment to §78a.1 regarding the definition of “containment system.”

(13) PERMEABILITY OF EMERGENCY CONTAINMENT STRUCTURES SHALL BE LESS THAN 1×10^{-6} CM/SEC AT ANTICIPATED HYDROSTATIC HEAD AND BE OF SUFFICIENT THICKNESS TO PREVENT THE RELEASED WASTE FROM PENETRATING THE CONTAINMENT STRUCTURE FOR A MINIMUM OF 72 HOURS AND UNTIL THE RELEASE CAN BE DETECTED AND RECOVERED.

MSC comment:

See MSC’s comment to subsection (i)(12) regarding the use of the term “emergency containment,” as well as MSC’s comment to §78a.1 regarding the definition of “containment system.”

(14) EMERGENCY CONTAINMENT AREAS, SUCH AS DIKE FIELDS, SHALL BE ABLE TO CONTAIN 110% OF THE CAPACITY OF THE LARGEST TANK IN THE CONTAINMENT AREA.

MSC comment:

See MSC’s comment to subsection (i)(12) regarding the use of the term “emergency containment,” as well as MSC’s comment to §78a.1 regarding the definition of “containment system.”

(15) STORMWATER SHALL BE REMOVED FROM THE EMERGENCY CONTAINMENT AREA AS SOON AS POSSIBLE OR WHEN THE WATER IS IN

CONTACT WITH THE TANK OR PIPING AND PRIOR TO THE CAPACITY OF CONTAINMENT BEING REDUCED BY 10% OR MORE. MANUALLY OPERATED PUMPS OR SIPHONS AND MANUALLY OPERATED GRAVITY DRAINS MAY BE USED TO EMPTY THE CONTAINMENT. IF DRAIN VALVES ARE USED, THEY SHALL BE SECURED IN THE CLOSED POSITION WHEN NOT IN USE. DISCHARGE OR DISPOSAL OF WASTES FROM THE CONTAINMENT STRUCTURE SHALL COMPLY WITH APPLICABLE STATE AND FEDERAL REQUIREMENTS.

MSC comment:

The requirement to remove stormwater from containment areas "as soon as possible" is not practicable and is more stringent than is necessary. The current language could be read to result in immediate non-compliance in the case of a significant precipitation event. The wording "as soon as possible" should be deleted, which would still require the stormwater to be removed "when the water is in contact with the tank or piping and prior to the capacity of containment being reduced by 10% or more."

See also MSC's comment to subsection (i)(12) regarding the use of the term "emergency containment," as well as MSC's comment to §78a.1 regarding the definition of "containment system."

(16) TANKS SHALL PROVIDE A METHOD OF LEAK DETECTION CAPABLE OF DETECTING A RELEASE. THE LEAK DETECTION METHOD SHALL BE MONITORED AT LEAST MONTHLY AND SHALL BE INSTALLED, CALIBRATED, OPERATED AND MAINTAINED IN ACCORDANCE WITH INDUSTRY PRACTICES AND MANUFACTURER'S SPECIFICATIONS. THE FOLLOWING APPLIES:

(i) THE AREA BENEATH THE TANK BOTTOM SHALL BE MONITORED FOR LEAKAGE BY VISUAL, MECHANICAL OR ELECTRONIC LEAK DETECTION METHODS.

(ii) OBSERVATION WELLS OUTSIDE OF THE SECONDARY CONTAINMENT STRUCTURE DO NOT SATISFY THE LEAK DETECTION REQUIREMENTS OF THIS PARAGRAPH.

(17) TANKS MUST BE INSPECTED BY THE PERMITEE AT LEAST EVERY FIVE YEARS AND ANY DEFICIENCIES IDENTIFIED DURING THE INSPECTION MUST BE REPORTED ELECTRONICALLY TO THE DEPARTMENT THROUGH ITS WEB SITE WITHIN 30 DAYS OF THE INSPECTION. ALL DEFICIENCIES MUST BE REMEDIATED PRIOR TO CONTINUED USE OF THE TANK. DOCUMENTATION OF THE REMEDY MUST BE MAINTAINED FOR ONE YEAR AFTER THE REPAIR AND MADE AVAILABLE TO THE DEPARTMENT UPON REQUEST.

MSC comment:

There is no need to report every possible deficiency noted during an inspection to PADEP. It is sufficient to ensure that the deficiency is documented and remedied, and that PADEP has access to those inspection records upon request, as required by 25 Pa. Code § 299.112(c). Alternative, if

reporting is required, it should be limited to deficiencies that meet some threshold of significance, such as deficiencies that “compromise the integrity of the tank”. See, e.g., 25 Pa. Code § 78.88(d) and associated PADEP guidance for corrosion on wells.

The proposed requirement to remedy every deficiency “prior to continued use of the tank” is unworkable. These tank inspections may occur while the tank is in use and fluids are being actively stored in it. In those situations, any requirement to repair a deficiency prior to continued use would require that the tank be immediately emptied, which is often operationally and logistically impossible, and generally unnecessary.

MSC’s suggested amendatory language:

(17) Tanks must be inspected by the permittee at least every five years and any deficiencies identified during the inspection must be remedied in a timely manner. Documentation of the remedy must be maintained for one year after the repair and made available to the Department upon request.

(i) UNLESS AN INDIVIDUAL IS CONTINUOUSLY PRESENT AT A CENTRALIZED TANK STORAGE SITE, A FENCE MUST COMPLETELY SURROUND THE SITE TO PREVENT UNAUTHORIZED ACTS OF THIRD PARTIES AND DAMAGE CAUSED BY WILDLIFE.

MSC comment:

First, this provision should be limited to centralized tank storage sites that are currently in use. Also, no fence can absolutely ensure “prevention” of unauthorized acts of third parties or damage caused by wildlife.

MSC’s suggested amendatory language:

(j) Unless an individual is continuously present at a centralized tank storage site presently in use, a fence must completely surround the site to discourage unauthorized acts of third parties and damage caused by wildlife.

(k) THE DESIGN ENGINEER SHALL PROVIDE OVERSIGHT FOR ALL ASPECTS OF TANK AND STORAGE SITE CONSTRUCTION TO ENSURE THAT CONSTRUCTION IS COMPLETED IN ACCORDANCE WITH THE DESIGN AND QUALITY ASSURANCE AND QUALITY CONTROL PLAN.

(l) PLANS, SPECIFICATIONS AND REPORTS FOR CENTRALIZED TANK STORAGE REQUIRED UNDER THIS SECTION MUST REASONABLY ENSURE MECHANICAL INTEGRITY OF THE STRUCTURE AND FUNCTION, BE PREPARED BY A REGISTERED PROFESSIONAL ENGINEER AND BE AFFIXED WITH THE ENGINEER’S SEAL AND A CERTIFICATION WHICH READS AS FOLLOWS:

I (NAME) DO HEREBY STATE TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF THAT THE INFORMATION CONTAINED IN THE PLANS SPECIFICATIONS AND REPORTS HAVE BEEN

PREPARED IN ACCORDANCE WITH ACCEPTED ENVIRONMENTAL PRACTICES AND THE DESIGN AND CONSTRUCTION STANDARDS FOR CENTRALIZED TANK STORAGE AND CHAPTER 78a OF THE RULES AND REGULATIONS OF THE DEPARTMENT OF ENVIRONMENTAL PROTECTION AND IS TRUE AND CORRECT.

(i) UPON COMPLETION OF CONSTRUCTION OF THE CENTRALIZED TANK STORAGE SITE AND ALL TANKS, A FACILITY COMPLETION AND FINAL CERTIFICATION REPORT SHALL BE SUBMITTED TO THE DEPARTMENT. THE REPORT MUST BE COMPLETED AND SEALED BY THE LICENSED PENNSYLVANIA PROFESSIONAL ENGINEER WHO PROVIDED OVERSIGHT FOR CONSTRUCTION AND MUST CONTAIN THE FOLLOWING ITEMS AT A MINIMUM:

MSC Comment:

With respect to § 78a.57a(l), no current provisions in 25 Pa. Code appear to require an engineer to certify that the plans, specifications, and reports have been prepared “in accordance with accepted environmental practices.” Additionally, there may be circumstances when the engineer who certifies that the plans, specifications, and reports have been prepared “in accordance with accepted environmental practices” is different from the engineer who certifies that the plans, specifications, and reports have been prepared in accordance with design and construction standards of § 78a.57a.

Also, the phrase “licensed Pennsylvania Professional Engineer” is inconsistent with the introductory paragraph in (l) above.

(1) A STATEMENT THAT THE ENGINEER PROVIDED OVERSIGHT FOR ALL ASPECTS OF CONSTRUCTION.

MSC comment:

There may be situations when “the” same professional engineer who provided oversight for construction is no longer available for the final certification, for example if the engineer has died or left the company. There needs to be some allowance for an alternate in those situations.

(2) AS-BUILT DRAWINGS NOTING ANY DEVIATION FROM THE ORIGINAL PLANS APPROVED BY THE DEPARTMENT.

(3) QUALITY ASSURANCE AND QUALITY CONTROL TEST RESULTS, INCLUDING HYDROSTATIC TIGHTNESS TESTS.

(m) THE CENTRALIZED TANK STORAGE SITE MAY NOT BE USED UNTIL THE FACILITY COMPLETION AND FINAL CERTIFICATION REPORT IS RECEIVED AND APPROVED BY THE DEPARTMENT. THE DEPARTMENT WILL MAKE A DETERMINATION ON THE FACILITY COMPLETION AND FINAL NOTIFICATION REPORT WITHIN 30 BUSINESS DAYS.

(n) CENTRALIZED TANK STORAGE SITES SHALL BE RESTORED

ACCORDING TO THE FOLLOWING REQUIREMENTS:

(1) A CLOSURE PLAN, SUBMITTED ELECTRONICALLY TO THE DEPARTMENT THROUGH ITS WEBSITE FOR APPROVAL, WHICH SHALL INCLUDE:

(i) A PLAN FOR THE REMOVAL OF EQUIPMENT, STRUCTURES AND RELATED MATERIAL FROM THE FACILITY.

(ii) AN ESTIMATE OF WHEN FINAL CLOSURE WILL OCCUR, INCLUDING AN EXPLANATION OF THE BASIS FOR THE ESTIMATE.

(iii) A DESCRIPTION OF THE STEPS NECESSARY FOR CLOSURE OF THE FACILITY.

(iv) A NARRATIVE DESCRIPTION, INCLUDING A SCHEDULE OF MEASURES THAT ARE PROPOSED TO BE CARRIED OUT IN PREPARATION FOR CLOSURE AND AFTER CLOSURE AT THE FACILITY, INCLUDING MEASURES RELATING TO THE FOLLOWING:

MSC Comment:

The closure requirements in § 78a.57a(n)(iv) mimic those for residual waste landfills, municipal waste landfills, and construction/demolition waste landfills. The ANFR's use of landfill closure requirements as a basis for centralized storage tank facility closure requirements seems to presume that the area is contaminated and requires monitoring and reporting. Some of the ANFR regulations are similar to those storage tank requirements in Chapter 245 for reportable releases.

(A) WATER QUALITY MONITORING INCLUDING BUT NOT LIMITED TO ANALYSES OF SAMPLES FROM ANY MONITORING WELLS THAT WERE INSTALLED AT THE TIME OF THE CONSTRUCTION OF THE CENTRALIZED TANK STORAGE SITE.

(B) A SOIL SAMPLING PLAN THAT EXPLAINS HOW THE PERMITTEE WILL ANALYZE THE SOIL BENEATH THE STORAGE SITE. THE PLAN SHALL BE BASED ON A GRID PATTERN OR OTHER METHOD APPROVED BY THE DEPARTMENT.

MSC comment:

The proposed soil sampling plan, which may include both pre- and post-construction sampling, presumes that a spill or release will occur (or did occur) at the centralized tank storage site. Presumably, under the extensive requirements of this provision, a spill or release would not occur. The provision should be revised to clarify that if there is no reported spill or release, soil sampling is not required.

(C) EROSION AND SEDIMENT CONTROLS.

(D) REVEGETATION AND REGRADING, INCLUDING MAINTENANCE OF THE FINAL COVER.

MSC comment:

Regrading would occur prior to revegetation. MSC recommends that the term “restoration” replace these two words. The requirement related to maintenance of final cover may require site access that is not available to operators following restoration of the site.

(E) PROPER CLOSURE OF ALL TANKS.

(F) ACCESS CONTROL, INCLUDING MAINTENANCE OF ACCESS CONTROL.

(G) THE NAME, ADDRESS AND TELEPHONE NUMBER AT WHICH THE PERMITTEE MAY BE REACHED.

(2) WITHIN 9 MONTHS OF COMPLETION OF DRILLING THE LAST WELL SERVICED BY THE CENTRALIZED TANK STORAGE SITE OR THE EXPIRATION OF THE LAST WELL PERMIT THAT THE SITE WAS INTENDED TO SERVICE, THE TANK STORAGE SITE SHALL BE RESTORED BY REMOVING ANY IMPERMEABLE MATERIALS SO THAT WATER MOVEMENT TO SUBSOILS IS ACHIEVED. THE PERMITEE SHALL ENSURE THAT ALL TANKS ARE PROPERLY REMOVED FROM SERVICE. AN EXTENSION OF THE RESTORATION REQUIREMENT MAY BE APPROVED UNDER § 78a.65(d) (RELATING TO SITE RESTORATION). THE PERMITEE OF THE CENTRALIZED TANK STORAGE SITE SHALL REPORT QUARTERLY ELECTRONICALLY TO THE DEPARTMENT THROUGH ITS WEB SITE ALL WELLS SERVICED BY THE CENTRALIZED TANK STORAGE SITE DURING THE PREVIOUS QUARTER AS WELL AS THE AMOUNTS OF FLUIDS SENT TO OR FROM THOSE WELL SITES.

MSC Comment:

Under the ANFR, there is no method to associate wells with a tank farm or to amend the list of wells sending fluids to the tank farm. Under subsection 78a.57a(n)(2), “within 9 months of completion of drilling the last well serviced by the centralized tank storage site or the expiration of the last well permit that the site was intended to service, the tank storage site shall be restored...” Oil and gas operators’ development plans are often fluid and apt to change, so PADEP should provide operators with considerable flexibility to modify the list of wells that the centralized tank storage site intended to service.

Section 78a.57a(n) should include a restoration waiver provision that allows the landowner to waive the requirement that the operator return the area to approximate original conditions. If landowners can waive restoration conditions requirements in other subsections of Chapter 78a, a similar provision should be provided for centralized tank storage facilities.

The quarterly reporting requirement in the last sentence of subparagraph (n)(2) should be moved to a different subparagraph. Subparagraph (n) deals primarily with restoration, not quarterly reporting during the life of the facility.

(3) THE SITE SHALL BE RESTORED TO APPROXIMATE ORIGINAL CONDITIONS INCLUDING PRECONSTRUCTION CONTOURS.

MSC comment:

See MSC's comment on the definition of approximate original conditions in proposed § 78a.1.

(4) THE SITE SHALL SUPPORT THE LAND USES THAT EXISTED PRIOR TO OIL AND GAS OPERATIONS TO THE EXTENT PRACTICABLE.

(5) WITHIN 60 CALENDAR DAYS AFTER THE COMPLETION OF CLOSURE AND RESTORATION OF THE CENTRALIZED TANK STORAGE FACILITY, THE PERMITEE SHALL SUBMIT A RESTORATION REPORT ELECTRONICALLY TO THE DEPARTMENT THROUGH ITS WEB SITE.

(6) THE OWNER OR OPERATOR MAY REQUEST APPROVAL FROM THE DEPARTMENT TO DEVIATE FROM THE REQUIREMENTS IN THIS SECTION IN THE PERMIT APPLICATION. THE REQUEST MUST DEMONSTRATE THAT THE ALTERNATE PRACTICE PROVIDES EQUIVALENT OR SUPERIOR PROTECTION TO THE REQUIREMENTS OF THIS SECTION.

**§ 78a.58. [Existing pits used for the control, storage and disposal of production fluids.]
Onsite processing.**

MSC comment:

See MSC's proposed new § 78a.56a above.

[For pits in existence on July 29, 1989, the operator may request approval for an alternate method of satisfying the requirements of § 78a.57(c)(2)(iii) (relating to control, storage and disposal of production fluids), the angle of slope requirements of § 78a.57(c)(2)(v) and the liner requirement of § 78a.57(c)(2)(vi)—(viii) by affirmatively demonstrating to the Department's satisfaction, by the use of monitoring wells or other methods approved by the Department, that the pit is impermeable and that the method will provide protection equivalent or superior to that provided by § 78a.57. The operator shall request approval under § 78a.57(c)(1).]

(a) The operator may request approval by the Department to process fluids generated by the development, drilling, stimulation, alteration, operation or plugging of oil or gas wells OR MINE INFLUENCED WATER at the well site where the fluids were generated or at the well site where all of the fluid is intended to be beneficially used to develop, drill or stimulate a well. The request shall be submitted on forms provided by the Department and demonstrate that the processing operation will not result in pollution of land or waters of the Commonwealth.

MSC comment:

See MSC's comment on the definition of mine-influenced water.

The proposed provision is unclear with respect to whether a separate approval is required for the use of fluid at each well on a multi-well well site. In addition, this provision should include any operator obligations associated with requesting the approval, and time frame for PADEP's

review and approval.

(b) Approval from the Department is not required for the following activities conducted at a well site[,] OR CENTRALIZED TANK STORAGE SITE PERMITTED UNDER § 78a.57a (RELATING TO CENTRALIZED TANK STORAGE) [or centralized impoundment permitted under § 78a.59c (relating to centralized impoundments)]:

MSC comment:

MSC supports the Department's proposed Subsection 78a.58(b), and suggests that the physical removal of free phase hydrocarbons and the addition of biocides to reuse fluids be included as activities that would not require approval from the Department. Additionally, MSC is in favor of allowing the Department to post other activities on its website, as appropriate, that would not require approval from the Department if conducted at a well site or centralized impoundment permitted pursuant to Section 78a.59c.

MSC recommends that all centralized tank storage site requirements be located within § 78a.57a, unless otherwise cross-referenced in that section.

MSC's suggested amendatory language:

(b) Approval from the Department is not required for the following activities conducted at a well site or centralized impoundment permitted under § 78a.59c:

- (1) mixing fluids with freshwater;
- (2) aerating fluids;
- (3) filtering solids from fluids;
- (4) removal of free phase hydrocarbons;
- (5) the addition of biocides to reuse fluids;
- (6) the addition of scale inhibitors, polymers/friction reducers, gels, and/or corrosion inhibitors to reuse fluids;
- (7) blending fresh or reuse water with sand; or
- (8) any other activity approved by the Department and posted on its website.

(1) Mixing fluids with freshwater.

(2) Aerating fluids.

(3) Filtering solids from fluids.

(c) ACTIVITIES DESCRIBED IN SUBSECTION (b) MUST BE CONDUCTED WITHIN A CONTAINMENT SYSTEM.

MSC comment:

See MSC's comment to § 78a.64a. This proposed subsection is overly broad, as it conflicts with 58 Pa. C.S. § 3218.2, which provides a specified list of materials that require storage and containment systems.

Also see MSC's comment to § 78a.1 regarding the definition of "containment system."

(d) OPERATORS CONDUCTING ACTIVITIES DESCRIBED IN SUBSECTIONS (b)(1- 3) AT A WELL SITE, OR CENTRALIZED TANK STORAGE SITE PERMITTED UNDER § 78a.57a (RELATING CENTRALIZED TANK STORAGE), MUST NOTIFY THE DEPARTMENT THAT THE ACTIVITY WILL BE CONDUCTED AT A PARTICULAR LOCATION AT LEAST THREE BUSINESS DAYS PRIOR TO CONDUCTING THE ACTIVITY. THE NOTICE SHALL BE SUBMITTED ELECTRONICALLY TO THE DEPARTMENT THROUGH ITS WEB SITE. IF THE DATE OF INSTALLATION IS EXTENDED, THE OPERATOR SHALL RENOTIFY THE DEPARTMENT WITH THE DATE THAT THE INSTALLATION WILL BEGIN, WHICH DOES NOT NEED TO BE 3 BUSINESS DAYS IN ADVANCE.

MSC comment:

MSC recommends that all centralized tank storage site requirements be located within § 78a.57a, unless otherwise cross-referenced in that section.

This provision is broadly written and could be construed to require multiple, if not daily, notification to PADEP. The activities listed in subsection (b) may be ongoing, intermittent, or could occur infrequently over an extended period of time at an active well site. The requirement to notify PADEP each time the activity begins places an undue burden on the operator and provides little benefit to PADEP. Additionally, PADEP offers no alternative to electronic notice in this new provision, which could be problematic if PADEP's website is not functioning correctly.

~~(e)~~ (e) The operator may request to process drill cuttings only at the well site where those drill[ing] cuttings were generated by submitting a request to the Department for approval. The request shall be submitted on forms provided by the Department and demonstrate that the processing operation will not result in pollution of land or waters of the Commonwealth.

~~(d)~~ (f) Processing residual waste generated by the development, drilling, stimulation, alteration, operation or plugging of oil or gas wells other than as provided for in subsections (a) and (b) shall comply with the Solid Waste Management Act (35 P.S. §§ 6018.101--6018.1003).

MSC comment:

The Legislature addressed the handling of residual waste at the well site in the Oil and Gas Act of 1984 (the previous 58 P.S. § 601.603a) and the Legislature preserved that provision in the current Oil and Gas Act of 2012. 58 P.S. § 3273.1 of the Oil and Gas Act of 2012 provides that the obligation to obtain a permit and post a bond under the Solid Waste Management Act for "any pit, impoundment, method or facility employed for the disposal, processing or storage of residual wastes generated [by drilling or production] which is located on the well site" is satisfied if the well is permitted, bonded, and otherwise operated in compliance with the Oil and Gas Act of 2012. Additionally, 25 Pa. Code § 287.2(g) provides a general exemption from Solid Waste Management Act regulation for facilities storing or processing residual waste generated by oil or gas activity, when the residual waste is located on the well site. In light of these long recognized exemptions, this

subsection (f) should be deleted.

On a related note and for similar reasons pertaining to the aforementioned exemption, the processing of drill cuttings at a well site under Subsection 78a.58(e) is an activity that does not require compliance with the requirements of the Solid Waste Management Act.

MSC's suggested amendatory language:

Delete subsection (f).

~~{(e)}~~ (g) Processing of fluids in a manner approved under subsection (a) will be deemed to be approved at subsequent well sites provided the operator notifies the Department of location of the well site where the processing will occur AT LEAST THREE BUSINESS DAYS prior to the beginning of processing operations. The notice shall be submitted electronically to the Department through its web site and include the date activities will begin.

~~{(f)}~~ (h) Sludges, filter cake or other solid waste remaining after the processing or handling of fluids under subsection (a) or (b), including solid waste mixed with drill cuttings, shall be characterized under § 287.78a. (relating to chemical analysis of waste) before the solid waste leaves the well site.

MSC comment:

As stated, it is unclear whether the chemical analysis must be completed before the materials in subsection (f) can be moved off-site. It is unreasonable to require material-by-material characterization which could result in long-term storage of materials at a well site. Sludges, filter cake or other materials need to be characterized only one time, as long as the processes generating them remain the same, i.e., using generator knowledge. The analysis should be allowed to be used for materials generated at a well site using the same process.

MSC's suggested amendatory language:

(h) Sludges, filter cake or other materials remaining after the processing or handling of fluids pursuant to this Section, including materials mixed with drill cuttings, shall be characterized pursuant to 25 Pa. Code § 287.54.

§ 78a.59. [Reserved].

§ 78a.59a. Impoundment embankments.

MSC comment:

The Department is proposing new regulations for activities that have been implemented through forms, approvals, and policies for several years. As a regulation, flexibility must be added to address changes that may become necessary to address unforeseen issues that may arise in the future or to address other practical issues that may be very onerous if implemented as absolute regulatory requirements. MSC commends the Department for the proposed new subsection (b), which would allow operators to deviate from the requirements of this section upon the

demonstration that an alternative practice provides equivalent or superior protection. If the rulemaking under these sections proceeds to a final rule, please consider the following comments.

(a) Embankments constructed for freshwater ~~[and centralized]~~ impoundments for oil and gas [activities] OPERATIONS must meet the following requirements:

MSC comment:

Under these proposed oil and gas regulations, the Department will be regulating freshwater impoundments which are not regulated under Chapter 105 or any other portion of Title 25 of the Pennsylvania Code. Regulating only oil & gas freshwater impoundments and no other person, group, or industry's freshwater impoundments is arbitrary and capricious. Consequently, freshwater impoundments must either be removed from the proposed oil and gas regulations, or Title 25 needs to be revised to regulate all persons, groups, or industries equally. Lastly freshwater impoundments are defined in this Chapter and do not need to be qualified in this section as being used "for oil and gas operations."

MSC's suggested amendatory language:

Unless otherwise approved by the Department pursuant to subsection (b), embankments constructed for freshwater impoundments must meet the following requirements:

(1) The foundation for each embankment must be stripped and grubbed to a minimum depth of 2 feet below existing contour prior to any placement and compaction of fill.

MSC comment:

This section, as many others, is overly detailed and prescriptive. If not altered to allow performance based standards, flexibility must be provided in the rule. In many cases this requirement would cause an overly conservative excavation through suitable subgrade material. In some cases this requirement may allow unsuitable subgrade material to remain.

MSC's suggested amendatory language:

(1) The foundation for each embankment must be stripped and grubbed to a minimum depth of 2 feet below existing contour prior to any placement and compaction of fill, or as otherwise approved by the Department.

(2) Any springs encountered in the embankment foundation area shall be drained to the downstream toe of the embankment with a drain section 2 foot by 2 foot in dimension consisting of PennDOT Type A sand, compacted by hand tamper. Geotextiles may not be used around sand. The last 3 feet of this drain at the downstream slope must be constructed of AASHTO #8 material.

MSC comment:

This section, as many others, is overly detailed and prescriptive. If not altered to allow performance based standards, flexibility must be provided in the rule. The use of PennDOT

Type A sand in this application poses the following design issues: (1) Due to the small grain size of the sand particles, those particles can migrate into the pipe perforation of piping typically used in the drain. Sand migration/erosion could cause void space to develop in the pipe bedding. Or, sand could block the pipe perforations or block flow in the pipe; (2) The sand's permeability is low as compared to other more available aggregates. The sand is a slower draining material that could cause adjacent soils to become saturated. It is suggested that "coarse aggregate" and minimum permeability of 1×10^{-3} cm/sec be specified.

The use of a geotextile wrap around the aggregate should be allowed. Geosynthetic design calculations for geotextiles used as a separator, such as this application, are available.

MSC's suggested amendatory language:

(2) Any springs encountered in the embankment foundation area shall be drained to the downstream toe of the embankment with a drain section 2 foot by 2 foot in dimension consisting of PennDOT Type A sand, compacted by hand tamper; coarse aggregate with a minimum permeability of 1×10^{-3} cm/sec; or an alternate material approved by the Department. Geotextiles shall not be used around sand, unless approved by the Department. The last 3 feet of this drain at the downstream slope shall be constructed of AASHTO #8 material.

(3) The minimum top width of the embankment must be 12 feet.

(4) The inside and outside slope must have a slope no steeper than 3 horizontal to 1 vertical.

(5) Soils to be used for embankment construction must be classified in accordance with ASTM D-2487 (Unified Soils Classification). Soil samples must be classified at a minimum rate of 1 sample per 10,000[1,000] cubic yards of placed fill WITH AT LEAST ONE TEST PER SOURCE WITH AN ADDITIONAL TEST CONDUCTED EACH TIME THE MATERIAL CHANGES. AT LEAST ONE SAMPLE MUST BE CLASSIFIED IN ACCORDANCE WITH ASTM D-2487. SOILS UTILIZED DURING EMBANKMENT CONSTRUCTION SHALL BE DESCRIBED AND IDENTIFIED IN ACCORDANCE WITH ASTM D-2488-09A (STANDARD PRACTICE FOR DESCRIPTION AND IDENTIFICATION OF SOILS (VISUAL-MANUAL PROCEDURE)). SOIL IDENTIFICATION AND DESCRIPTION IN ACCORDANCE WITH THIS PROCEDURE SHALL BE PERFORMED AT A MINIMUM RATE OF 1 SAMPLE PER 1,000 CUBIC YARDS OF PLACED FILL. Results of testing of materials shall be provided to the Department upon request.

MSC comment:

The testing frequency specified is excessive and in most cases would generate redundant results. At the proposed frequency, preconstruction sampling would not be economically feasible. Consequently, sampling and testing at 1 per 10,000 cubic yards would need to be performed during the course of the earthwork and could cause expensive construction delays while waiting for test results. For a typical impoundment, approximately 70,000 cubic yards of earthwork would be required. Pursuant to the proposed subsection, 7 samples would be required for testing. It is suggested that the specification be changed to state "Soil samples shall be classified at a frequency of 1 sample per soil type."

MSC's suggested amendatory language:

(5) Soils to be used for embankment construction shall be classified in accordance with ASTM D-2487 (Unified Soils Classification). Soil samples shall be classified at a frequency of 1 sample per soil type. Results of testing of materials shall be provided to the Department upon request.

(6) The embankment must be constructed out of soils designated as GC, GM, SC, SM, CL or ML, only. Soils with split designations when one of the designations is not GC, GM, SC, SM, CL or ML may not be used. Soils must contain a minimum of 20% of No. 200 sieve materials or larger. Results of testing of materials shall be provided to the Department upon request.

MSC comment:

Acceptable slope stability factors of safety can be achieved using soils with less than 20% of the particles retained on the No. 200 sieve, and an acceptable factor of safety can be achieved with soils that do not meet the textural classifications specified. Therefore, it is recommended that the subsection be modified to allow site-specific soils to be evaluated within the proposed design by an appropriately qualified professional utilizing laboratory analysis (if needed) and supporting calculations.

MSC's suggested amendatory language:

(6) The embankment shall be constructed out of soils designated as GC, GM, SC, SM, CL or ML, only. Soils with split designations where one of the designations is not GC, GM, SC, SM, CL or ML shall not be used. The soils' gradation shall have a minimum of 20 percent retained on the No. 200 sieve, unless site-specific soils with less than 20 percent retained on the No. 200 sieve are part of an alternate design provided by an appropriately trained professional. Results of testing of materials shall be provided to the Department upon request.

(7) Particles greater than 6 inches in any dimension may not be used for embankment construction.

(8) Soil used in embankment construction must be compacted. Soil compaction shall be conducted in accordance with the following:

(i) Compaction shall be conducted with a sheepsfoot or pad roller.

(ii) The maximum loose lift thickness must be 9 inches.

(iii) Soil shall be compacted until visible nonmovement of the embankment material.

(IV) SOIL SHALL BE COMPACTED TO A MINIMUM OF 95% OF THE STANDARD PROCTOR IN ACCORDANCE WITH ASTM D698 (STANDARD TEST METHODS FOR LABORATORY COMPACTION CHARACTERISTICS OF SOIL USING STANDARD EFFORT). SATISFACTORY COMPACTION SHALL BE VERIFIED BY FIELD DENSITY TESTING IN ACCORDANCE WITH ASTM D1556 (STANDARD

TEST METHOD FOR DENSITY AND UNIT WEIGHT OF SOIL IN PLACE BY THE SAND CONE METHOD) OR ASTM D6938 (STANDARD TEST METHOD FOR IN-PLACE DENSITY AND WATER CONTENT OF SOIL AND SOIL-AGGREGATE BY NUCLEAR METHODS (SHALLOW DEPTH)) WITH A MINIMUM OF ONE TEST PER 2,000 SQUARE YARDS OF LIFT SURFACE AND AT LEAST ONE TEST PER LIFT.

MSC comment:

MSC suggests the following clarifications to the Department's newly proposed compaction requirements.

MSC suggested amendatory language:

(IV) Soil shall be compacted to a minimum of 95% of the maximum dry density as determined by the ASTM D698 standard proctor test. Compaction shall be verified by field density testing in accordance with ASTM D1556 (standard test method for density and unit weight of soil in place by the sand cone method) or ASTM D6938 (Standard test method for in-place density and water content of soil and soil-aggregate by nuclear methods (shallow depth)) with a minimum of one test per 2,000 square yards of lift surface and at least one test per lift.

(9) Exposed embankment slopes shall be permanently stabilized using one or a combination of the following methods:

(i) Exposed embankments shall be limed, fertilized, seeded and mulched and permanent vegetative ground covering in compliance with § 102.22 (relating to site stabilization) shall be established upon completion of construction of the impoundment.

(ii) Compacted rockfill or riprap placed on the downstream face of the embankment as a cover having a minimum depth of 2 feet. The rockfill must be durable, evenly distributed and underlain by a Class 2, Type A geotextile.

MSC comment:

In most cases the rock layer placed on the out-slope of the embankment will consist of a well-graded soil consisting of oversized rock with fines from the site excavation, which will not be susceptible to stormwater infiltration and erosion of the embankment-to-rock-fill interface. Due to the time consuming effort necessary to install a geotextile separation layer and the added cost, MSC recommends that the subsection be changed to the following: "... and underlain by a Class 2, Type A geotextile when a course aggregate with very few fines is used as fill."

MSC's suggested amendatory language:

(ii) Compacted rockfill or riprap placed on the downstream face of the embankment as a cover having a minimum depth of two feet. The rockfill shall be durable, evenly distributed, and underlain by a Class 2, Type A geotextile when a course aggregate with very few fines is used as fill.

(b) THE OWNER OR OPERATOR MAY REQUEST APPROVAL FROM THE DEPARTMENT TO DEVIATE FROM THE REQUIREMENTS IN THIS SECTION.

THE REQUEST MUST DEMONSTRATE THAT THE ALTERNATE PRACTICE PROVIDES EQUIVALENT OR SUPERIOR PROTECTION TO THE REQUIREMENTS OF THIS SECTION.

§ 78a.59b. Freshwater impoundments.

MSC general comment:

The proposed regulations have extensive new requirements for impoundments storing freshwater, beyond those any other industry must follow for storing fresh water. However, the DEP cost estimate considers only the cost of fencing around existing impoundments, ignoring all the other requirements associated with both existing impoundments and the construction of new impoundments, to reach an estimated cost of \$0.7 million to \$5 million. The MSC believes the cost of all the new requirements applicable to fresh water impoundments is more likely in excess of \$250,000 to \$500,000 per impoundment, producing a total cost of \$25 million at the low end of the estimate, or five times DEP's figure.

See also MSC's comment to 78a.59a above. Regulating freshwater impoundments for only the oil and gas industry is arbitrary and capricious. Unless Title 25 is revised to regulate all freshwater impoundments, they should be removed from these subsections.

(a) In addition to meeting the requirements of § 78a.59a (relating to impoundment embankments), ANY NEW freshwater impoundments must be in compliance with this section.

(b) A well operator that constructed a freshwater impoundment PRIOR TO _____ (Editor's Note: The blank refers to the effective date of adoption of this rulemaking.) shall register the location of the freshwater impoundment by _____, (Editor's Note: The blank refers to the 60 days after the effective date of adoption of this proposed rulemaking.) by providing the Department, [in writing,] THROUGH THE DEPARTMENT'S WEBSITE, with ELECTRONIC NOTIFICATION OF the GPS coordinates, township and county where the freshwater impoundment is located AS WELL AS CERTIFICATION OF THE PROPER CONSTRUCTION OF THE IMPOUNDMENT IN ACCORDANCE WITH SUBSECTIONS (d, e, and h).

MSC comment:

Subsection § 78a.59b(b) conflicts with subsection § 78a.59b(a) in that the latter states that compliance with this section is required for any new freshwater impoundment, while the former states that compliance is required for existing freshwater impoundments. The requirement to certify that impoundments constructed prior to the effective date of the rule were constructed according to these new standards which were not required at the time of the construction is inappropriate and should be deleted. For freshwater impoundment structures that are not required to be permitted under Chapter 105, the above requirements are excessive.

MSC's suggested amendatory language:

(b) A well operator that constructed a freshwater impoundment prior to _____ (Editor's Note: The blank refers to the effective date of adoption of this rulemaking.) shall register the location of the freshwater impoundment by _____ (Editor's note: the blank refers to the 60

days after the effective date of adoption of this proposed rulemaking.) by providing the Department, through the Department's website, with electronic notification of the GPS coordinates, township and county where the freshwater impoundment is located.

(c) A well operator shall register the location of a new freshwater impoundment prior to construction. Registration of the freshwater impoundment may be transferred to another operator. Registration transfers shall utilize forms provided by the Department AND BE SUBMITTED ELECTRONICALLY TO THE DEPARTMENT THROUGH ITS WEB SITE.

~~(e)~~ (d) Freshwater impoundments shall be constructed with a synthetic impervious liner.

MSC comment:

This subsection should not be included. Synthetic liners should not be required because onsite soils may provide sufficient permeability for use as a liner.

MSC's suggested amendatory language:

(d) Freshwater impoundments shall be designed to hold water without significant leaks that could affect the integrity of the embankment.

~~(d)~~ (e) Unless an individual is continuously present at a freshwater impoundment, a fence must completely surround the freshwater impoundment to prevent unauthorized acts of third parties and damage caused by wildlife.

MSC comment:

Since no fence can absolutely ensure "prevention" of unauthorized acts by third parties or damage by wildlife, MSC recommends replacing "prevent" with "discourage."

MSC's suggested amendatory language:

(d) For unconventional well sites, unless an individual is continuously present at the well site, a fence or fences shall completely surround all pits to discourage unauthorized acts of third parties and damage caused by wildlife.

~~(e)~~ (f) The bottom of the impoundment shall be at least 20 inches above the seasonal high groundwater table. The applicant may maintain the required separation distance of 20 inches by PASSIVE artificial means such as an under-drain system throughout the lifetime of the impoundment. In no case shall the regional groundwater table be affected. The operator shall document the depth of the seasonal high groundwater table, the manner in which the depth of the seasonal high groundwater table was ascertained, the distance between the bottom of the impoundment and the seasonal high groundwater table, and the depth of the regional groundwater table if the separation between the impoundment bottom and seasonal high groundwater table is maintained by artificial means. A SOIL SCIENTIST OR OTHER SIMILARLY TRAINED PERSON USING ACCEPTED AND DOCUMENTED SCIENTIFIC METHODS SHALL MAKE THE DETERMINATION. THE DETERMINATION MUST CONTAIN A STATEMENT CERTIFYING THAT THE

PIT BOTTOM IS AT LEAST 20 INCHES ABOVE THE SEASONAL HIGH GROUNDWATER TABLE ACCORDING TO OBSERVED FIELD CONDITIONS. THE NAME, QUALIFICATIONS AND STATEMENT OF THE PERSON MAKING THE DETERMINATION AND THE BASIS OF THE DETERMINATION SHALL BE PROVIDED TO THE DEPARTMENT UPON REQUEST. ~~[The operator shall submit records demonstrating compliance with this subsection to the Department upon request.]~~

MSC comment:

This subsection requires the same groundwater table determination practices for freshwater impoundments as for produced water pits. This proposed subsection is excessive and unreasonable for freshwater. The cost in time, resources, and capital funding will be excessive to perform the studies required by this subsection. It is unreasonable to require the 20 inch separation from the seasonal high groundwater table for freshwater. MSC recommends that this subsection be removed.

MSC's suggested amendatory language:

Remove Subsection 78a.59b(f).

(g) Freshwater impoundments shall be restored by the operator ~~[so]~~ that the impoundment is registered to WITHIN 9 MONTHS OF COMPLETION OF DRILLING THE LAST WELL SERVICED BY THE IMPOUNDMENT. AN IMPOUNDMENT IS RESTORED UNDER THIS SUBSECTION by THE OPERATOR removing excess water and the synthetic liner, ~~[and]~~ returning the site to approximate original conditions, including preconstruction contours and ~~[lean support]~~ SUPPORTING the land uses that existed prior to oil and gas ~~[activities]~~ OPERATIONS to the extent practicable ~~[within 9 months of completion of drilling the last well serviced by the impoundment]. [A 2 year restoration extension may be requested under section 3216(g) of the act (relating to well site restoration).] AN EXTENSION OF THE RESTORATION REQUIREMENT MAY BE APPROVED UNDER § 78a.65(d) (RELATING TO SITE RESTORATION). If ~~[written]~~ REQUESTED BY ~~[is obtained from]~~ the landowner IN WRITING, ON FORMS PROVIDED BY THE DEPARTMENT, the requirement to return the site to approximate original contours may be waived by the Department if the liner is removed from the impoundment.~~

MSC comment:

Freshwater impoundments, when not needed for operations and not wanted by the surface owner, should be restored in accordance with applicable site restoration plans. There is no obligation to return such sites to approximate original contours. In addition, the use of impoundments for operations at multiple well sites requires additional flexibility in the rule. For example, the phrase "completion of drilling the last well" should be changed to "completion of the last well." 58 P.S. § 3216(g) does not directly address freshwater impoundments, so extensions would not be limited to two years as proposed.

The "last well serviced by the impoundment" is often unknown at the time of construction of a freshwater impoundment for various reasons (economics, future leasing and acquisitions, permitting delays, etc.). Freshwater impoundments are designed to serve a geographic area of

operations. As such, the Department should allow an operator the flexibility to extend the life of the borrow pit by adding more well sites to be serviced as they are determined. Lastly, the Department's proposed cross reference to Section 78a.65(d) is incorrect.

MSC's suggested amendatory language:

(g) Freshwater impoundments shall be restored by the operator to whom the impoundment is registered by removing excess water and the synthetic liner and restoring the site in accordance with a site restoration plan within nine months of completion of the last well serviced by the impoundment. A restoration extension may be requested consistent with the extension requirements described under section 3216(g) of the act (58 Pa.C.S. § 3216(g)) that apply to well site restoration obligations.

[(g)] (h) Prior to storing mine influenced water in a freshwater impoundment, the operator shall develop a mine influenced water storage plan and submit it to the Department for approval.

(1) The mine influenced water storage plan shall be submitted on forms provided by the Department and include the following:

(i) A demonstration that the escape of the mine influenced water stored in the freshwater impoundment will not result in air, water or land pollution, or endanger persons or property.

MSC comment:

The reference to air is unnecessary and should be removed. Chapter 78 is not the place to insert obligations related to air emissions, which are addressed at length in other State and Federal regulations.

MSC's suggested amendatory language:

(i) a demonstration that the escape of the mine influenced water stored in the freshwater impoundment will not result in water or land pollution or endanger persons or property and include;

(ii) A procedure and schedule to test the mine influenced water. This testing shall be conducted at the source prior to storage in the impoundment.

(iii) A records retention schedule for the mine influenced water test results.

MSC comment:

The reference to procedures and schedules to "test" the mine water requires clarification by the Department, the proposed provisions are vague. The specific tests and parameters for approval should be specified by the Department.

(2) An operator with an approved mine influenced water storage plan shall maintain records of all mine influenced water testing prior to storage. These records shall be made

available to the Department upon request.

[(h)] (i) The Department may require the operator to test water sources proposed to be stored in a freshwater impoundment prior to storage.

§ 78a.59c. Centralized impoundments.

* * *

(a) AN OPERATOR USING A CENTRALIZED IMPOUNDMENT AT THE TIME OF THE EFFECTIVE DATE OF THESE REGULATIONS SHALL SUBMIT ELECTRONICALLY TO THE DEPARTMENT THROUGH ITS WEB SITE A CLOSURE PLAN FOR THE CENTRALIZED IMPOUNDMENT FOR REVIEW AND APPROVAL NO LATER THAN _____ (Editor's Note: The blank refers to a date six months from the effective date of this regulation). THE OPERATOR SHALL PROPERLY CLOSE THE CENTRALIZED IMPOUNDMENT IN ACCORDANCE WITH THE APPROVED PLAN OR OBTAIN A PERMIT IN ACCORDANCE WITH CHAPTER 289 (RELATING TO RESIDUAL WASTE DISPOSAL IMPOUNDMENTS) NO LATER THAN _____ (Editor's Note: The blank refers to a date three years from the effective date of this regulation).

MSC Comment:

The Department has not provided an adequate statement of need or estimate of cost to the regulated community pursuant to the requirements of Pennsylvania's Regulatory Review Act. The ANFR is not a substitute for an agency to fulfill any of the formal steps of the Regulatory Review Act or the accompanying requirements imposed on the promulgating agency. Accordingly the Department should not proceed to finalize this totally rewritten provision regarding centralized impoundments, but should withdraw Section 78a.59c and proceed with a separate proposed rulemaking in order to fully and properly comply with the RRA.

The majority of this section was removed from the ANFR thereby disallowing centralized impoundments through the Office of Oil and Gas Management and Bureau of Waterways Engineering and Wetlands, Division of Dam Safety. MSC respectfully disagrees with the Department's new proposed requirement to close centralized impoundments that have been or will be built to current Department specification. The elimination of these centralized impoundments severely impacts operators' abilities to reuse water, minimize disposal, minimize dependence on freshwater withdrawals, and to minimize water truck traffic. Substantial increased costs will be incurred by operators for alternative fluid storage systems and the locations necessary for citing these systems. Additionally, original capital and subsequent capital improvements by operators to these existing centralized impoundment facilities, as well as centralized facilities in the process of being improved, are now wasted capital.

The alternative to a centralized impoundment proposed in this section of the ANFR, a “residual waste disposal impoundment”, is defined in Chapter 287 defined as a “a facility for disposing of residual waste by impoundment.” Operators that presently use authorized centralized impoundments are clearly not *disposing* of fluids by placing it into impoundments, rather such impoundments are used to hold or store fluids until the fluids can be reused and recycled at subsequent well sites and related oil and gas operations for development. The Department’s previous definition of centralized impoundment acknowledged this fact (“A facility that is...[c]onstructed solely for the purpose of servicing multiple well sites.”).

The new ANFR provision would require current “centralized impoundments” to obtain a permit in accordance with the Residual Waste requirements for disposal impoundments under 25 Pa. Code Chapter 289 (“Residual Waste Disposal Impoundments”). Blanket application of Chapter 289 disposal impoundment requirements to Centralized Impoundments results in many instances of inappropriate information, design, and operational requirements that are severely lacking in clarity and intent – and are not suitable – when applied to a temporary storage impoundment for fluids intended for the purpose of servicing oil and gas operations.

It is not clear whether the Department has considered or established the necessary steps or timeframes required to convert existing centralized impoundments. As proposed, three years is insufficient time to permit new disposal impoundments under Chapter 289. A groundwater study and one year of groundwater data (per 25 Pa. Code § 289.122(a)(9)) is required before submission of a Phase I application. This requirement alone would require a subsurface investigation, well installation, one year of monitoring, evaluation, and reporting within the Phase I application, which would likely take at least 16 months. Considering the requirement for both completeness and technical submissions/reviews and application revisions for both the Phase I and Phase II applications, a five year period at minimum is a more realistic transition time for replacement permits under Chapter 289. This is not to mention that in certain circumstances the setback and buffer zones set forth by the residual waste regulations for disposal impoundments will require an altering of the current location of the existing centralized impoundment.

These and other factors will lead to uncertainty within the regulated community and with PADEP technical staff as to the completeness and adequacy of permit applications for temporary oil and gas fluid storage impoundments. Other than stating that obtaining a permit in compliance with Chapter 289 is required, PADEP has not clarified the applicable portions of the residual waste regulations suitable for temporary oil and gas fluid storage impoundments. MSC has identified the following critical deficiencies in the current proposed approach, which is not an exclusive list:

- Inside dike slopes of 25% (4:1) and a protective cover under 25 Pa. Code § 289.272, which may be appropriate for a permanent disposal impoundment, are not appropriate for a temporary fluid storage impoundment and not required for permitted dams in Pennsylvania. It is not clear if the agency will accept an exposed geomembrane as meeting the protective layer requirement for slopes, which is appropriate for a storage impoundment, but historically not acceptable by PADEP for residual waste disposal impoundments.
- There does not appear to be a mechanism for grandfathering existing ponds that do not meet the new setback or buffer zone requirements under 25 Pa. Code § 289.422. This will

result in a requirement that centralized impoundments, without evidence of releases, be closed and reconstructed at a new location. This is not an environmentally sound approach to land management when liner systems and dikes can be upgraded, when necessary, at locations of existing centralized impoundments to meet Chapter 289 design requirements. Current Chapter 289 requirements appear to have grandfathered impoundments existing at the time of the effective date of these regulations. Existing centralized impoundments that are permitted with a defined location at the time of the effective date of this rulemaking should be grandfathered as well.

- As proposed in the ANFR, it is not clear if centralized impoundments will need to meet all requirements for residual disposal impoundments that are referenced within Chapter 289, such as Chapter 287 environmental assessment requirements, or whether compliance with Chapter 289 requirements would be sufficient.
- Pursuant to 25 Pa. Code § 289.242, clean closure is not an option for closure of temporary oil and gas fluid storage impoundments. A final cover and cap are required to be placed at closure, which would be inappropriate for temporary oil and gas fluid storage impoundments.
- A leachate collection zone is required under §289.431, which is not feasible temporary oil and gas fluid storage impoundments.
- Waste disposal impoundments may not have waste placed within 25 feet of the edge of a liner system per 25 Pa. Code § 289.432. This is inappropriate and does not add to the protectiveness of a temporary oil and gas fluid storage impoundment.
- It is unclear how the Department will define captive versus non-captive facilities when the storage is limited to reclaimed wastewater designated for reuse/recycling. Shipments received recycling could all be considered non-captive wastes subjecting facilities to unnecessary and inappropriate setback and buffer zones, weighing requirements, and recordkeeping.
- A waste solidification plan required under 25 Pa. Code § 289.114 for fluids that are temporarily stored, not disposed, in the impoundment is inappropriate.
- An evaluation of soils to be used for an intermediate and final disposal cover under §289.124 for an impoundment that will be used to temporarily store fluids is inappropriate.
- As gas monitoring and control plan under 25 Pa. Code § 289.162 is inappropriate for an oil and gas fluid storage impoundment.
- Weighing of wastewaters under 25 Pa. Code § 289.224 unless an alternate method of measurement is approved is inappropriate for an oil and gas fluid storage impoundment. Tracking volumes of fluids for such impoundments may be sufficient.
- Fugitive air contaminant control measures under 25 Pa. Code § 289.227 are inappropriate for oil and gas fluid storage impoundments.

- Daily volume limitations under 25 Pa. Code § 289.229 which appear to prohibit receiving waste volumes “in excess of the maximum or average daily volume in the permit” are inappropriate for a oil and gas fluid storage impoundment.
- Operational records are required under 25 Pa. Code § 289.301 are inappropriate and unnecessary for a oil and gas fluid storage impoundment, including gross weight of delivery vehicles, registration, and county of generator.

For the above reasons, regulating oil and gas fluid storage impoundments under permanent disposal impoundment Chapter 289 regulations creates many problems and ambiguities for both the regulated community and for PADEP technical staff that will make permitting, operating, and timely regulatory transition of the oil and gas fluid storage impoundments unmanageable. Since the proposed revisions of this section were introduced in this ANFR and were not December 2013 proposed rulemaking, the Department has not provided the regulated industry, or the public for that matter, with its reasoning and other support for permitting temporary oil and gas fluid storage impoundments as permanent residual waste impoundments.

MSC’s Estimated Summary of Costs

The additional cost to permit a new centralized impoundment under Chapter 289 may add a range of \$120,000 to \$230,000 in costs, based on site conditions. If an existing permitted centralized impoundment facility is forced to close due to the proposed changes in this ANFR, an owner may realize a loss of \$1,500,000 to \$2,500,000 of investment plus the immediate additional costs to restore the site. If a centralized impoundment permit has been submitted to PADEP under the current regulations and is pending review, an applicant would realize a loss of \$150,000 to \$250,000 plus costs associated with the time to prepare the application as a result of this proposed revision.

~~[(n)] (b) [Centralized impoundments shall be restored according]~~ THE CLOSURE PLAN SHALL PROVIDE FOR THE FOLLOWING ~~[to the following requirements]:~~

(1) REMOVAL OF ANY IMPERMEABLE MEMBRANE, CONCRETE AND EARTHEN LINER SO THAT WATER MOVEMENT TO SUBSOILS IS ACHIEVED.

(2) RESTORATION OF THE SITE TO APPROXIMATE ORIGINAL CONDITIONS INCLUDING PRECONSTRUCTION CONTOURS, AND BACKFILLING THE IMPOUNDMENT TO ABOVE FINISHED GRADE TO ALLOW FOR SETTLEMENT OF FILL AND SO THE IMPOUNDMENT WILL NO LONGER IMPOUND WATER.

(3) A PLAN FOR THE REMOVAL OF EQUIPMENT, STRUCTURES, WASTES AND RELATED MATERIAL FROM THE FACILITY.

(4) AN ESTIMATE OF WHEN FINAL CLOSURE WILL OCCUR, INCLUDING AN EXPLANATION OF THE BASIS FOR THE ESTIMATE.

(5) A DESCRIPTION OF THE STEPS NECESSARY FOR CLOSURE OF THE FACILITY.

(6) A NARRATIVE DESCRIPTION, INCLUDING A SCHEDULE OF MEASURES THAT ARE PROPOSED TO BE CARRIED OUT IN PREPARATION FOR CLOSURE AND AFTER CLOSURE AT THE FACILITY, INCLUDING MEASURES RELATING TO THE FOLLOWING:

MSC comment;

It appears the paragraphs numbered (a)(7) – (11) are intended to be subparagraphs under (a)(6), so they should be renumbered (i) – (v) instead of (7) – (11).

(7) WATER QUALITY MONITORING INCLUDING BUT NOT LIMITED TO ANALYSES OF SAMPLES FROM THE MONITORING WELLS THAT WERE INSTALLED AT THE TIME OF THE CONSTRUCTION OF THE CENTRALIZED IMPOUNDMENT.

(8) A SOIL SAMPLING PLAN THAT EXPLAINS HOW THE OPERATOR WILL ANALYZE THE SOIL BENEATH THE IMPOUNDMENT'S LINERS. ANALYSIS SHALL BE BASED ON A GRID PATTERN OR OTHER METHOD APPROVED BY THE DEPARTMENT. ANY SPILLS OR LEAKS DETECTED SHALL BE REPORTED AND REMEDIATED IN ACCORDANCE WITH § 78a.66 (RELATING TO REPORTING AND REMEDIATING SPILLS AND RELEASES) PRIOR TO IMPOUNDMENT CLOSURE.

(9) COMPLIANCE WITH CHAPTER 102 INCLUDING EROSION AND SEDIMENT CONTROL AND POST CONSTRUCTION STORMWATER MANAGEMENT.

(10) ACCESS CONTROL, INCLUDING MAINTENANCE OF ACCESS CONTROL.

(11) THE NAME, ADDRESS AND TELEPHONE NUMBER AT WHICH THE OPERATOR MAY BE REACHED.

~~**(1) Within 9 months of completion of drilling the last well serviced by the impoundment or the expiration of the last well permit that the impoundment was intended to service. The impoundment shall be restored by removing any impermeable membrane, concrete and earthen liner so that water movement to subsoils is achieved. A 2 year restoration extension may be requested under section 3216(g) of the act (relating to well site restoration).**~~

~~**(2) (e) The site shall be restored to approximate original conditions including preconstruction contours.**~~

~~**(3) (d) The site shall support the land uses that existed prior to oil and gas activities to the extent practicable.**~~

~~**(4) (e) Excavated impoundments shall be backfilled above finished grade to allow for settlement and so the impoundment will no longer impound water.**~~

~~**(e) The owner or operator may request approval from the Department to deviate from the requirements in this section in the permit application. The request must demonstrate that**~~

~~**the alternate practice provides equivalent or superior protection to the requirements of this section.]**~~

* * *

§ 78a.61. Disposal of drill cuttings.

(a) *Drill cuttings from above the **SURFACE** casing seat—pits.* The owner or operator may dispose of drill cuttings from above the **SURFACE** casing seat determined in accordance with [§ 78a.83(b)] **§ 78a.83(c)** (relating to surface and coal protective casing and cementing procedures) in a pit at the well site if the owner or operator satisfies the following requirements:

- (1) The drill cuttings are generated from the well at the well site.
- (2) The drill cuttings are not contaminated with **[pollutional material] a regulated substance**, including brines, drilling muds, stimulation fluids, well servicing fluids, oil, production fluids or drilling fluids other than tophole water, fresh water or gases.

MSC comment:

The use of the term “regulated substance” in this subsection provides unclear direction to the oil and gas industry and is unnecessarily broad in this context. Regulated substances, as defined in Act 2, could include the drill cuttings themselves and the use of the term here would entirely prohibit the disposal of drill cuttings at the well site, which is contrary to the intent of the section. The provision should be revised to reflect the intent that drill cuttings not be contaminated with the substances listed in this section, all of which are reasonably related to operations of the oil and gas industry.

MSC’s suggested amendatory language:

- (2) The drill cuttings are not contaminated with brines, drilling muds, stimulation fluids, well servicing fluids, oil, production fluids or drilling fluids other than tophole water, fresh water or gases.
- (3) The disposal area is not within 100 feet of a **[stream, or a wetland] watercourse or** body of water **OR WITHIN THE FLOODPLAIN [unless approved as part of a waiver granted by the Department under section] [205(b) of the act (58 P.S. § 601.205(b))] [3215(b) of the act (relating to well location restrictions)].**

MSC comment:

Please refer to MSC’s comment regarding the broad definition of “watercourse.” The MSC objects to the use of watercourse in lieu of “stream, or a wetland” in this proposed subsection. Additionally, 58 P.S. § 3215(f) of the Oil and Gas Act of 2012 sets forth the circumstances when a well site may be located within a floodplain. The proposed subsection does not comply with

Section 3215(f) and, therefore, the Legislature's intent. Subsection (3) should be revised to acknowledge the provisions of Section 3215(f), including the ability to obtain a waiver from the Department pursuant to that subsection.

- (4) The disposal area is not within 200 feet of a water supply.
- (5) The pit is designed, constructed and maintained to be structurally sound.
- (6) The free liquid fraction of the waste shall be removed and disposed under § 78a.60 (relating to discharge requirements).
- (7) The pit shall be backfilled to the ground surface and graded to promote runoff with no depression that would accumulate or pond water on the surface. The stability of the backfilled pit shall be compatible with the adjacent land.
- (8) The surface of the backfilled pit area shall be revegetated to stabilize the soil surface and comply with § 78a.53 (relating to erosion and **[sedimentation] sediment** control). The revegetation shall establish a diverse, effective, permanent, vegetative cover which is capable of self-regeneration and plant succession. Where vegetation would interfere with the intended use of the surface of the landowner, the surface shall be stabilized against erosion.

(b) *Drill cuttings from above the **SURFACE** casing seat—land application.* The owner or operator may dispose of drill cuttings from above the **SURFACE** casing seat determined in accordance with **[§ 78a.83(b)] ~~§ 78a.83(e)~~ 78a.83(c)** by land application at the well site if the owner or operator satisfies the following requirements:

- (1) The drill cuttings are generated from the well at the well site.
- (2) The drill cuttings are not contaminated with **[pollutional material] a regulated substance**, including brines, drilling muds, stimulation fluids, well servicing fluids, oil, production fluids or drilling fluids other than top hole water, fresh water or gases.

MSC comment:

The use of the term "regulated substance" in this subsection provides unclear direction to the oil and gas industry and is unnecessarily broad in this context. Regulated substances, as defined in Act 2, could include the drill cuttings themselves and the use of the term here would entirely prohibit the disposal of drill cuttings at the well site, which is contrary to the intent of the section. The provision should be revised to reflect the intent that drill cuttings not be contaminated with the substances listed in this section, all of which are reasonably related to operations of the oil and gas industry.

MSC's suggested amendatory language:

- (2) The drill cuttings are not contaminated with brines, drilling muds, stimulation fluids, well servicing fluids, oil, production fluids or drilling fluids other than top hole water, fresh water or gases.
- (3) The disposal area is not within 100 feet of a **[stream, or a wetland] watercourse or** body

of water **OR WITHIN THE FLOODPLAIN [unless approved as part of a waiver granted by the Department under section] [205(b) of the act (58 P.S. § 601.205(b))] [3215(b) of the act (relating to well location restrictions)].**

- (4) The disposal area is not within 200 feet of a water supply.
- (5) The soils have a minimum depth from surface to bedrock of 20 inches.
- (6) The drill cuttings are not spread when saturated, snow covered or frozen ground interferes with incorporation of the drill cuttings into the soil.
- (7) The drill cuttings are not applied in quantities which will result in runoff or in surface water or groundwater pollution.
- (8) The free liquid fraction is disposed in accordance with § 78a.60.
- (9) The drill cuttings are spread and incorporated into the soil. **The loading and application rate of drill cuttings may not exceed a maximum of drill cuttings to soil ratio of 1:1.**
- (10) The land application area shall be revegetated to stabilize the soil surface and comply with § 78a.53. The revegetation shall establish a diverse, effective permanent vegetative cover which is capable of self-regeneration and plant succession. Where vegetation would interfere with the intended use of the surface by the landowner, the surface shall be stabilized against erosion.

(c) *Drill cuttings from below the **SURFACE** casing seat.* After removal of the free liquid fraction and disposal in accordance with § 78a.60, drill cuttings from below the **SURFACE** casing seat determined in accordance with [~~§ 78a.83(b)~~] [~~§ 78a.83(e)~~] 78a.83(c) may **NOT** be disposed of **ON THE WELL SITE UNLESS AUTHORIZED BY A PERMIT OR OTHER APPROVAL IS OBTAINED FROM THE DEPARTMENT IN ACCORDANCE WITH §78a.62(a) OR 78A.63(a).** [as follows:

~~(1) In a pit that meets the requirements of § 78a.62(a)(5) (18) and (b) (relating to disposal of residual wastepits).~~

~~(2) By land application in accordance with § 78a.63(a)(5) (20) and (b) (relating to disposal of residual wasteland application).]~~

(d) The owner or operator may request to use solidifiers, dusting, unlined pits, attenuation or other alternative practices for the disposal of uncontaminated drill cuttings by submitting a request to the Department for approval. The request shall be made on forms provided by the Department and shall demonstrate that the practice provides equivalent or superior protection to the requirements of this section. **The Department will maintain a list of approved solidifiers on its web site. The operator does not need to request approval from the Department for use of approved solidifiers.**

~~(e) [A pit used for the disposal of residual waste, including contaminated drill cuttings, shall comply with § 78a.62. Land application of residual waste, including contaminated drill cuttings, shall comply with § 78a.63.]~~

{{f}} The owner or operator shall notify the Department at least 3 business days before disposing of drill cuttings under this section. This notice shall be submitted electronically to the Department through its web site and include the date the cuttings will be disposed. If the date of disposal is extended, the operator shall re-notify the Department of the date of disposal, which does not need to be 3 business days in advance. THE OWNER OR OPERATOR SHALL ALSO PROVIDE NOTICE OF DISPOSAL TO THE SURFACE LANDOWNER, INCLUDING THE LOCATION OF THE DISPOSED DRILL CUTTINGS, WITHIN TEN BUSINESS DAYS OF COMPLETION OF DISPOSAL.

* * *

§ 78a.63a. ALTERNATIVE WASTE MANAGEMENT

AN OPERATOR SEEKING TO MANAGE WASTE ON A WELL SITE IN ANY MANNER OTHER THAN PROVIDED IN §§ 78a.56 – 78a.63 SHALL SUBMIT A REQUEST ELECTRONICALLY TO THE DEPARTMENT THROUGH ITS WEB SITE DESCRIBING THE ALTERNATE MANAGEMENT PRACTICE AND SHALL DEMONSTRATE THAT THE PRACTICE PROVIDES EQUIVALENT OR SUPERIOR PROTECTION TO THE REQUIREMENTS IN THESE SECTIONS.

MSC comment:

MSC supports the Department's proposed Subsection 78a.63a, and suggests that the provision does not go far enough. MSC recommends that this alternate practice option should be extended to other sections of Chapter 78a, including but not limited to § 78a.64a ("Containment systems and practices at well sites"), to allow operators to demonstrate that an alternate practice provides equivalent or superior protection.

§ 78a.64. Containment around oil **and condensate** tanks.

(a) If an owner or operator uses [~~a tank with a capacity of at least 660 gallons or~~] tanks with a combined capacity of at least 1,320 gallons to contain oil **or condensate** produced from a well, the owner or operator shall construct and maintain a dike or other method of secondary containment which satisfies the requirements under 40 CFR 112 (relating to oil pollution prevention) around the tank or tanks which will prevent the tank contents from entering waters of this Commonwealth.

MSC Comment:

See MSC's comment to §78a.1 regarding the definition of "containment system."

(b) **The** containment area provided by the dikes or other method of secondary containment shall have containment capacity sufficient to hold the volume of the largest single tank, plus a reasonable allowance for precipitation based on local weather conditions and facility operation.

MSC Comment:

See MSC's comment to §78a.1 regarding the definition of "containment system."

(c) Prior to drainage of accumulated precipitation from containment structures, the containment area shall be inspected and accumulations of oil picked up and returned to the tank or disposed of in accordance with approved methods.

MSC Comment:

See MSC's comment to §78a.1 regarding the definition of "containment system."

(d) After complying with subsection (c), drainage of containment facilities is acceptable if:

(1) The accumulation in the containment facility consists of only precipitation directly to the containment facility and drainage will not cause a harmful discharge or result in a sheen.

(2) The containment drain valve is opened and resealed, or other drainage procedure, as applicable, is conducted under responsible supervision.

MSC Comment:

See MSC's comment to §78a.1 regarding the definition of "containment system."

(E) EXISTING CONDENSATE TANKS. AN OWNER OR OPERATOR WHO INSTALLED TANKS WITH A COMBINED CAPACITY OF AT LEAST 1,320 GALLONS PRIOR TO _____ (Editor's Note: The blank refers to the effective date of adoption of this proposed rulemaking.) TO CONTAIN CONDENSATE PRODUCED FROM A WELL SHALL MEET THE REQUIREMENTS OF THIS SECTION WHEN THE TANK IS REPLACED, REFURBISHED OR REPAIRED OR BY _____ (Editor's Note: The blank refers to a date two years from the effective date of adoption of this proposed rulemaking.), WHICHEVER IS SOONER.

§ 78a.64a. Containment systems and practices at [unconventional] well sites.

(a) ~~This section applies to unconventional well sites.~~

~~(b)~~ Well sites shall be designed and constructed using containment systems and practices that prevent spills of regulated substances to the ground surface and to prevent spills from leaving the well site.

~~(e)~~ (b) All regulated substances, including solid wastes and other regulated substances in equipment or vehicles, shall be managed within a containment system. This subsection does not apply to fuel stored in equipment or vehicle fuel tanks unless the equipment or vehicle is being refueled at the well site.

MSC comment:

With respect to “regulated substances”, this requirement conflicts with 58 P.S. § 3218.2(a). This subsection of the Oil and Gas Act of 2012 specifies a list of six materials that must be in containment systems when stored on unconventional well sites. See 58 P.S. § 3218.2(c).

MSC’s suggested amendatory language is subject to MSC’s comment to §78a.1 regarding the definition of “containment system.”

MSC’s suggested amendatory language:

(a) Well sites shall be designed and constructed using containment systems and practices that prevent spills to the ground surface and to prevent spills from leaving the well site during drilling and hydraulic fracturing operations.

(b) Containment systems shall be used when drilling mud, hydraulic oil, diesel fuel, drilling mud additives, hydraulic fracturing additives, or hydraulic fracturing flowback are stored on an unconventional well site. This subsection does not apply to fuel stored in equipment or vehicle fuel tanks unless the equipment or vehicle is being refueled at the well site.

~~(d)~~ (c) Pits [and centralized impoundments] that comply with this chapter are deemed to meet the requirements of this section.

~~(e)~~ (d) Containment systems must meet all of the following:

MSC comment:

The requirements of subsection 78a.64a(d) are too prescriptive, and would not allow the Department to approve alternate methods where appropriate.

MSC’s suggested amendatory language is subject to MSC’s comment to §78a.1 regarding the definition of “containment system.”

MSC’s suggested amendatory language

(d) Unless otherwise approved by the Department, containment systems must meet all of the following:

(1) A containment system must be used on the well site when any equipment that will be used for any phase of drilling, casing, cementing, hydraulic fracturing or flowback operations is brought onto a well site and when regulated substances including drilling mud, drilling mud additives, hydraulic oil, diesel fuel, hydraulic fracturing additives or flowback are brought onto or generated at the well site.

MSC comment:

This proposed subsection is overly broad (e.g., it would apply to cement in cement trucks) and conflicts with 52 P.S. § 3218.2, which provides a specified list of materials that require storage in containment systems. The subsection is unnecessary because it is redundant with revised subsection (b) and (c) above.

MSC’s suggested amendatory language:

Delete subsection (d)(1).

(2) A containment system must have a coefficient of permeability no greater than 1×10^{-10} cm/sec.

MSC comment:

PADEP has not demonstrated the need, nor provided justification, for requiring a 1×10^{-10} cm/sec permeability standard, which is far more stringent than is required to prevent spill materials from leaving the well site. A "sufficiently impervious" standard similar to and consistent with the containment standard for oil and condensate tanks in § 78a.64(a) is likely more appropriate.

(3) The physical and chemical characteristics of all liners, coatings or other materials used as part of the containment system, that could potentially come into direct contact with regulated substances being stored, must be compatible with the regulated substance and be resistant to physical, chemical and other failure during handling, installation and use. Liner compatibility shall satisfy ASTM Method D5747, Compatibility Test for Wastes and Membrane Liners, or other standards as approved by the Department.

MSC comment:

ASTM D5747 is a test for landfill liners and pits where the liner is submerged in diluted chemicals for extended periods of time. It is extremely expensive (approximately \$5,000) to run on each chemical type found at a site. We propose ASTM D543 as alternate test for surface liners. It contains a wet patch method that simulates a concentrated surface spill, which ASTM D5747 does not. We recommend testing for 72 hours at 140°F to account for response time and summer surface temperatures.

MSC's suggested amendatory language is subject to MSC's comment to §78a.1 regarding the definition of "containment system."

MSC's suggested amendatory language:

(3) The physical and chemical characteristics of all liners, coatings or other materials used as part of the containment system, that could potentially come into direct contact with the listed materials being stored, must be compatible with the materials and be resistant to physical, chemical and other failure during handling, installation and use. Liner compatibility shall satisfy ASTM Method D5747 Compatibility Test for Wastes and Membrane Liners. ASTM D543 wet patch at 140°F for 72 hours, or other standards as approved by the Department.

~~(f)~~ (e) An operator shall utilize secondary containment when storing additives, chemicals, oils or fuels. The secondary containment must have sufficient containment capacity to hold the volume of the largest container within the secondary containment area plus 10% to allow for precipitation, unless the container is equipped with individual secondary containment such as a double walled tank. Tanks that are manifolded together shall be designed in a manner to prevent the uncontrolled discharge of multiple manifolded tanks. A well site liner that is not used in conjunction with other containment systems does not

constitute secondary containment for the purpose of this subsection.

MSC comment:

Per 58 P.S. § 3218.2(d), there is no mandatory secondary containment requirement when storing additives, chemicals, oils or fuels. We recommend striking the first sentence because it is unnecessary and redundant with revised subsection (c) above.

The final sentence of this subsection is vague and potentially contrary to the Oil and Gas Act of 2012 which has no such prohibition. MSC understands that the Department's concern that an impervious berm should be used with the liner to provide sump capacity. MSC suggests stating this directly.

MSC's suggested amendatory language:

(e) Areas where additives, chemicals, oils or fuels are to be stored must have sufficient containment capacity to hold the volume of the largest container stored in the area plus 10% to allow for precipitation, unless the container is equipped with individual secondary containment such as a double walled tank. Tanks that are manifolded together shall be designed in a manner to prevent the uncontrolled discharge of multiple manifolded tanks. A well site liner that is not used in conjunction with an impervious berm does not constitute secondary containment for the purpose of this subsection.

~~(g)~~ (f) Subsurface [secondary] containment systems may be employed at the well site. SUBSURFACE SECONDARY CONTAINMENT DOES NOT CONSTITUTE SECONDARY CONTAINMENT FOR THE PURPOSES OF THIS SUBSECTION. Subsurface secondary containment must meet the following requirements:

MSC comment:

This language is too prescriptive and does not provide flexibility in the field or to the Department to approve alternate methods. PADEP has provided no justification or rationale for distinguishing subsurface secondary containment from secondary containment. As long as subsurface secondary containment meets the criteria that follow, it is more than adequate to prevent spills from leaving the well site or contacting the ground surface. This sentence should be deleted.

MSC's suggested amendatory language

(f) Subsurface secondary containment systems may be employed at the well site. Unless otherwise approved by the Department, subsurface secondary containment shall meet the following requirements:

(1) Subsurface [secondary] containment systems must have a coefficient of permeability of no greater than 1×10^{-10} cm/sec with sufficient strength and thickness to maintain the integrity of the containment system. The thickness of a subsurface containment system must be at least 30 mils. Adjoining sections of the subsurface containment system must be sealed together, in accordance with the manufacturer's directions, to prevent leakage. All seams of the adjoining sections shall have their integrity tested prior to being covered.

(2) Subsurface [secondary] containment systems must be designed to allow for the management or removal of stormwater.

(3) Subsurface [secondary] containment systems must be designed and installed in a manner that prevents damage to the system by the sub-base or the movement of equipment or other activities on the surface.

(4) Subsurface [secondary] containment systems may not be used to store regulated substances.

MSC comment:

The use of the term “regulated substance” and the reference to “storage” make this subsection unclear and unnecessary. Subsurface secondary containment is not used to “store” anything.

MSC’s suggested amendatory language:

Delete subsection (f)(4).

(5) A written standard of operational procedure for the inspection, maintenance and repair of the subsurface [secondary] containment system shall be included in the preparedness, prevention and contingency plan.

~~(h)~~ (g) All surface containment systems shall be inspected weekly to ensure integrity. If the containment system is damaged or compromised, the well operator shall repair the containment system as soon as practicable. The well operator shall maintain records of any repairs until the well site is restored. Stormwater shall be removed as soon as possible and prior to the capacity of secondary containment being reduced by 10% or more.

MSC comment:

To avoid unnecessary compliance stringency, the requirement for removing stormwater should be changed from “as soon as possible” to “as soon as practicable,” which in combination with the additional requirement to ensure it is removed prior to the secondary containment capacity being reduced by 10% will meet the intended goal.

Also see MSC’s comment to §78a.1 regarding the definition of “containment system.”

MSC’s suggested amendatory language for the last sentence of (h):

(g) Stormwater shall be removed as soon as practicable and prior to the capacity of secondary containment being reduced by 10% or more.

~~(i)~~ (h) Regulated substances that escape from primary containment or are otherwise spilled onto a containment system shall be removed as soon as possible. After removal of the regulated substances the operator shall inspect the containment system. A Department-approved leak detection system capable of rapidly detecting a leak shall satisfy the requirement to inspect the integrity of a subsurface containment system. Groundwater monitoring wells do not constitute a leak detection system for the purpose of this

subsection. If the containment system did not completely contain the material, the operator shall notify the Department and remediate the affected area in accordance with § 78a.66 (relating to reporting and remediating releases).

MSC comment:

The reference to “regulated substance” is unnecessary and unclear in this subsection. Operators will clean up spills to containment. If spills escape containment, the provisions of Sections 91.33 and 78a.66 will apply.

MSC’s suggested amendatory language:

(h) Substances that escape from primary containment or are otherwise spilled onto a containment system shall be removed as soon as possible. After removal of the substances, the operator shall inspect the containment system. A Department approved leak detection system capable of rapidly detecting a leak shall satisfy the requirement to inspect the integrity of a subsurface containment system. Groundwater monitoring wells shall not constitute a leak detection system for the purpose of this subsection. If more than five gallons of a substance escapes the containment system, the operator shall notify the Department in accordance with § 78a.66 as applicable.

~~(f)~~ (i) Stormwater that comes into contact with regulated substances stored within the secondary containment area shall be managed as residual waste.

MSC comment:

Stormwater that has not been discharged or discarded is not residual waste. This subsection is unnecessary. See additional MSC comments to proposed ANFR Section 78a.60 pertaining to discharge of stormwater collected.

MSC’s suggested amendatory language:

Delete the subsection (i).

~~(k)~~ (j) Inspection reports and maintenance records shall be available at the well site for review by the Department.

MSC comment:

For many operators, it is not practical to store hard copies of inspection reports and maintenance records at the well site. Often these records are maintained and made available electronically by operators to various parties working on the well site.

MSC’s suggested amendatory language:

(j) Inspection reports and maintenance records shall be available for review upon request by the Department.

~~(4)~~ (k) Documentation of chemical compatibility of containment systems with

material stored within the system shall be provided to the Department upon request.

MSC Comment:

See MSC's comment to §78a.1 regarding the definition of "containment system."

§ 78a.65. Site restoration.

MSC comment:

Section 78a.65 has been almost entirely rewritten in the ANFR. Accordingly, the Department should not proceed to finalize this section, but should withdraw it and proceed with a separate proposed rulemaking in order to fully and properly comply with the Regulatory Review Act.

PADEP failed to include any estimate for the costs associated with the new pad restoration requirements in the RAF. Rather, PADEP claims the industry will realize a cost savings because an operator may be able to obtain a 2 year extension to postpone the restoration. However, a mere postponement of a cost is not an avoidance of the cost. PADEP's estimated savings of \$21.7 million (estimated by DEP as \$50,000 per site times 434 sites per year) is actually a cost that will ultimately be incurred, not a savings. Moreover, the MSC estimates that the cost of pad restoration, as proposed in the regulations will be in the area of \$200,000 to \$300,000 per pad: not \$50,000 as DEP estimates. Therefore rather than a \$21.7 million savings, the restoration requirements as proposed would add a cost of \$130 million.

The Legislature has addressed the issue of site restoration. Section 3216(a) of the Oil and Gas Act of 2012 requires restoration of the land surface within the area disturbed in siting, drilling, completing and producing the well. Section 3216(c) imposes interim restoration requirements within nine months after completion of drilling a well and Section 3216(d) requires removal of all facilities, supplies and equipment and restoration of the well site within nine months after plugging a well.

The Department continues to insist on restoration within 9 months after completion of drilling. Unconventional well development, which consists of multiple wells on a well pad, is a lengthier process than conventional well development, which was the basis for the 9 month time frame. The section should be revised to either increase the amount of time allotted for restoration for the unconventional industry due to the unique requirements for unconventional well development, or to start the clock after completion of the well, with completion referring to development of a well to a state capable of production.

25 Pa. Code § 102.8(n) states that an oil and gas restoration plan that identifies PCSM BMPs to manage stormwater from oil and gas activities meets the requirements of Section 102.8 if the restoration plan meets 102.8(b), (c), (e), (f), (h), (i), (l) and (m), if applicable. Unconventional operators with a restoration plan that identifies PCSM BMPs in such a manner are not required to conduct a PCSM plan stormwater analysis under § 102.8(g). Therefore, any reference to § 102.8(g) should be deleted from the ANFR.

In addition, there is no requirement in Act 13 Sections 3215(c) or 3315(d), or in Chapter 102, that imposes an obligation to restore well sites to approximate original contours or conditions. Act 13 mentions approximate original contours (not conditions) in Section 3215(g) related to extension

of restoration requests. It would defeat legislative intent to impose this obligation generally when the General Assembly clearly chose not to alter the obligations under Sections 3215(c) or (d). Such an obligation would also create unreasonable requirements in many locations across the Commonwealth where there is significant topographical variation. When a restoration plan proposes restoration to approximate original contours, it would be a part of expected restoration obligations. The restoration plan is the governing document that addresses restoration obligations. In addition, the Department has no authority or technical expertise to dictate operational or safety requirements to the unconventional oil and gas industry, making subsection (a)(1)(iv) unnecessary and inappropriate.

Requests for extension that include the information described in the Oil and Gas Act of 2012 should be approved, denied, or deemed to be approved within 90 days of submission to the Department. The regulation should be structured to allow for renewable two year extensions of the restoration deadline provided the site restoration plan and appropriate PCSM measures are fully implemented. This extension process is critical to avoid unnecessary earth moving activities for reconstruction of a well pad should an operator plan to drill and produce additional wells on the same pad location at some later time in the future. The risk of accelerated erosion and resulting sedimentation is much greater during earth moving activities that would take place if a pad would be made smaller or expanded, possibly multiple times in the future.

[In addition to complying with section 206 of the act (58 P.S. § 601.206), an owner or operator shall meet the following requirements:]

~~(a) The owner or operator shall restore the land surface within the area disturbed under section 3216 of the act (relating to well site restoration) and Chapter 102 (relating to erosion and sediment control).~~

~~(1) (b) A drill hole or bore hole used to facilitate the drilling of a well shall be filled with cement, soil, uncontaminated drill cuttings or other earthen material before moving the drilling equipment from the well site.~~

~~(2) (c) If a well site is constructed and the well is not drilled, the well site shall be restored within 30 calendar days after the expiration of the well permit unless the Department approves an extension for reasons of adverse weather or lack of essential fuel, equipment or labor.~~

~~(d) Within 9 months after completion of drilling a well, the owner or operator shall restore the well site, remove or fill all pits used to contain produced fluids or residual wastes and remove all drilling supplies, equipment and containment systems not needed for production. When multiple wells are drilled on a single well site, post drilling restoration is required within 9 months after completion of drilling all permitted wells on the well site or 30 calendar days after the expiration of all existing well permits on the well site, whichever occurs later. Drilling supplies and equipment not needed for production may only be stored on the well site if express written consent of the surface landowner is obtained and, for unconventional well sites, the supplies or equipment are maintained in accordance with § 78a.64a (relating to containment systems and practices at unconventional well sites).~~

~~(1) An area is restored under this subsection if the following are met:~~

~~(i) All permanent post construction stormwater control features as identified in the PCSM plan or site restoration plan are in place consistent with § 102.8 (relating to PCSM~~

requirements.;

(ii) Remaining impervious areas are minimized. Impervious areas include areas where the soil has been compacted, areas where the soil has been treated with amendments to firm or harden the soil and areas where soil is underlain with an impermeable liner.

(iii) All areas of the site not needed to safely operate the well are restored to approximate original conditions, including preconstruction contours, and can support the land uses that existed prior to oil and gas activities to the extent practicable. The areas needed to safely operate the well include to the following:

(A) Areas used for service vehicle and rig access.

(B) Areas used for storage tanks and secondary containment facilities.

(C) Areas used for wellheads and appurtenant processing facilities.

(D) Area used for any necessary safety buffer limited to the area surrounding equipment that is physically cordoned off to protect the facilities.

(E) Area used to store any supplies or equipment consented to by the surface landowner.

(F) Area used for operation and maintenance of long term PCSM best management practices.

(iv) Earth disturbance associated with oil and gas activities that are not included in an approved site restoration plan, and other remaining impervious surfaces, must comply with all post construction stormwater management requirements in Chapter 102.

(v) The site is permanently stabilized according to § 102.22(a) (relating to site stabilization).

(2) The restoration period in this subsection may be extended by the Department for an additional period of time, not to exceed 2 years, upon demonstration by the well owner or operator of either of the following:

(i) The extension will result in less earth disturbance, increased water reuse or more efficient development of the resources.

(ii) Site restoration cannot be achieved due to adverse weather conditions or a lack of essential fuel, equipment or labor.

(3) The demonstration under paragraph (2) shall be submitted on forms provided by the Department months after the completion of drilling for approval by the Department. The demonstration must include a site restoration plan that must provide for:

(i) The timely removal or fill of all pits used to contain produced fluids or residual wastes.;

(ii) The removal of all drilling supplies and equipment not needed for production, including containment systems.;

~~(iii) The stabilization of the well site that includes interim post construction storm water management best management practices in compliance with § 102.8, including § 102.8(a)(m);~~

~~(iv) Other measures to be employed to minimize accelerated erosion and sedimentation in accordance with The Clean Streams Law (35 P.S. §§ 691.1-691.1001);~~

~~(v) A minimum uniform 70% perennial vegetative cover over the disturbed area, with a density capable of resisting accelerated erosion and sedimentation, or a best management practice which permanently minimizes accelerated erosion and sedimentation;~~

~~(vi) The return of the portions of the site not occupied by production facilities or equipment to approximate original conditions, including preconstruction contours, and can support the land uses that existed prior to oil and gas activities to the extent practicable;~~

~~(4) Written consent of the landowner on forms provided by the Department satisfies the restoration requirements of this section provided the operator develops and implements a site restoration plan that complies with paragraph (3)(i)-(vi) and all PCSM requirements in Chapter 102;~~

~~(c) Within 9 months after plugging a well the owner or operator shall remove all production or storage facilities, supplies and equipment and restore the well site to approximate original conditions, including preconstruction contours, and can support the land uses that existed prior to oil and gas activities to the extent practicable.~~

~~{(3)} (f) Within 60 calendar days after the restoration of the well site, the operator shall submit a well site restoration report to the Department. The report shall be made on forms provided by the Department and shall identify the following:~~

~~{(i)} (1) The date of land application of the tophole water, the results of pH and specific conductance tests and an estimated volume of discharge.~~

~~{(ii)} (2) A description of the method used for disposal or reuse of the free liquid fraction of the waste, and the name of the hauler and disposal facility, if any.~~

~~{(iii)} (3) The location, including GPS coordinates, of the pit in relation to the well, the depth of the pit, the type and thickness of the material used for the pit subbase, the type and thickness of the pit liner, the type and nature of the waste, the type of any approved solidifier, a description of the pit closure procedures used and the pit dimensions.~~

~~{(iv)} (4) The location of the area used for land application of the waste, and the results of a chemical analysis of the waste-soil mixture if requested by the Department.~~

~~{(v)} (5) The types and volumes of waste produced and the name and address of the waste disposal facility and waste hauler used to dispose of the waste.~~

~~(6) The name, qualifications and basis for determination that the bottom of a pit used for encapsulation is at least 20 inches above the seasonal high groundwater table.~~

~~**(7) The test results required under §§ 78a.62 and 78a.63 (relating to disposal of residual waste pits; and disposal of residual waste land application) for all unconventional wells or any conventional wells with a horizontal well bore.**~~

~~**(g) The well operator shall forward a copy of the well site restoration report to the surface landowner if the well operator disposes of drill cuttings or residual waste at the well site.]**~~

(a) RESTORATION. THE OWNER OR OPERATOR SHALL RESTORE LAND SURFACE AREAS DISTURBED TO CONSTRUCT THE WELL SITE AS FOLLOWS:

(1) POST-DRILLING – WITHIN 9 MONTHS AFTER COMPLETION OF DRILLING A WELL, THE OWNER OR OPERATOR SHALL UNDERTAKE POST-DRILLING RESTORATION OF THE WELL SITE IN ACCORDANCE WITH A RESTORATION PLAN DEVELOPED IN ACCORDANCE WITH SUBSECTION (b) AND REMOVE ALL DRILLING SUPPLIES, EQUIPMENT AND CONTAINMENT SYSTEMS NOT NECESSARY FOR PRODUCTION OR NEEDED TO SAFELY OPERATE THE WELL.

(i) WHEN MULTIPLE WELLS ARE DRILLED ON A SINGLE WELL SITE, POST-DRILLING RESTORATION IS REQUIRED WITHIN 9 MONTHS AFTER COMPLETION OF DRILLING ALL PERMITTED WELLS ON THE WELL SITE OR 30 CALENDAR DAYS AFTER THE EXPIRATION OF ALL EXISTING WELL PERMITS ON THE WELL SITE, WHICHEVER OCCURS LATER.

MSC comment:

The Department continues to insist on restoration within 9 months after completion of drilling. Unconventional well development, which consists of multiple wells on a well pad, is a lengthier process than conventional well development, which was the basis for the 9 month time frame. These subsections (1) and (1)(i) should be revised to either increase the amount of time allotted for restoration for the unconventional industry due to the unique requirements for unconventional well development, or to start the clock after completion of the well, with completion referring to development of a well to a state capable of production.

(ii) A DRILL HOLE OR BORE HOLE USED TO FACILITATE THE DRILLING OF A WELL SHALL BE FILLED WITH CEMENT, SOIL, UNCONTAMINATED DRILL CUTTINGS OR OTHER EARTHEN MATERIAL BEFORE MOVING THE DRILLING EQUIPMENT FROM THE WELL SITE.

(iii) DRILLING SUPPLIES AND EQUIPMENT NOT NEEDED FOR PRODUCTION MAY ONLY BE STORED ON THE WELL SITE IF EXPRESS WRITTEN CONSENT OF THE SURFACE LANDOWNER IS OBTAINED AND THE SUPPLIES OR EQUIPMENT ARE MAINTAINED IN ACCORDANCE WITH § 78a.64a (RELATING TO CONTAINMENT SYSTEMS AND PRACTICES AT UNCONVENTIONAL WELL SITES).

MSC comment:

Subsection (a)(iii) would require express written consent from the surface landowner prior to storing drilling supplies and equipment on the well site. In many circumstances, the agreement

between unconventional operators and surface landowners will be an executed lease. If that lease includes provisions allowing for equipment storage, the Department should accept the lease as express written consent of the surface landowner. Any restrictions set by the Department on what constitutes express written consent would have no measurable environmental benefit.

(iv) THE AREAS NECESSARY TO SAFELY OPERATE THE WELL INCLUDE THE FOLLOWING:

MSC comment:

The Department has no authority or technical expertise to dictate operational or safety requirements to the unconventional oil and gas industry, making subsection (a)(1)(iv) unnecessary and inappropriate.

(A) AREAS USED FOR SERVICE VEHICLE AND RIG ACCESS.

(B) AREAS USED FOR STORAGE TANKS AND SECONDARY CONTAINMENT FACILITIES.

(C) AREAS USED FOR WELLHEADS AND APPURTENANT OIL AND GAS PROCESSING FACILITIES.

(D) AREAS USED FOR ANY NECESSARY SAFETY BUFFER LIMITED TO THE AREA SURROUNDING EQUIPMENT THAT IS PHYSICALLY CORDONED OFF TO PROTECT THE FACILITIES.

MSC comment:

The “necessary safety buffer” should not be limited to an area that is physically cordoned off. Such a limit is not safe and does not account for isolation of ignition sources or for safe movement of vehicles.

(E) AREAS USED TO STORE ANY SUPPLIES OR EQUIPMENT CONSENTED TO BY THE SURFACE LANDOWNER.

(F) AREAS USED FOR OPERATION AND MAINTENANCE OF LONG-TERM PCSM BEST MANAGEMENT PRACTICES.

(2) POST PLUGGING – WITHIN 9 MONTHS AFTER PLUGGING THE FINAL WELL ON THE WELL SITE, THE OWNER OR OPERATOR SHALL REMOVE ALL PRODUCTION OR STORAGE FACILITIES, SUPPLIES AND EQUIPMENT AND RESTORE THE WELL SITE TO APPROXIMATE ORIGINAL CONDITIONS AND RESTORE STORMWATER RUNOFF RATE, VOLUME AND QUALITY TO PRECONSTRUCTION CONDITION IN ACCORDANCE WITH § 102.8(g).

(3) FAILURE TO DRILL – IF A WELL SITE IS CONSTRUCTED AND THE WELL IS NOT DRILLED, THE WELL SITE SHALL BE RESTORED WITHIN 30 CALENDAR DAYS AFTER THE EXPIRATION OF THE WELL PERMIT UNLESS THE DEPARTMENT APPROVES AN EXTENSION FOR REASONS OF ADVERSE

WEATHER OR LACK OF ESSENTIAL FUEL, EQUIPMENT OR LABOR.

MSC comment:

MSC recommends that the restoration timeframe be lengthened. If an operator determines that a location will not be developed and the permit should be allowed to expire, 30 calendar days is not sufficient time to perform the restoration requirements for an unconventional well site. A contractor must be selected, and the contractor must perform earthwork, seed, and mulch the disturbed area of the well site, which is often greater than 5 acres. Additional time is required to attain the necessary vegetation growth, particular during winter months, and remove erosion and sedimentation controls.

(b) RESTORATION PLAN. A RESTORATION PLAN MUST CONTAIN DRAWINGS AND NARRATIVE THAT DESCRIBE:

(1) THE RESTORATION OF AREAS NOT NEEDED TO SAFELY OPERATE THE WELL TO APPROXIMATE ORIGINAL CONDITIONS.

(2) THE PROPOSED SITE CONFIGURATION AFTER POST-DRILLING RESTORATION INCLUDING THE AREAS OF THE WELL SITE BEING RESTORED.

(3) THE MINIMIZATION OF IMPERVIOUS AREAS. IMPERVIOUS AREAS INCLUDE BUT ARE NOT LIMITED TO AREAS WHERE SOIL HAS BEEN COMPACTED, AREAS WHERE SOIL HAS BEEN TREATED WITH AMENDMENTS TO FIRM OR HARDEN THE SOIL AND AREAS UNDERLAIN WITH AN IMPERMEABLE LINER.

(4) THE REMOVAL OF ALL DRILLING SUPPLIES AND EQUIPMENT NOT NEEDED FOR PRODUCTION, INCLUDING CONTAINMENT SYSTEMS.

(5) THE MANNER IN WHICH THE RESTORATION OF THE DISTURBED AREAS WILL ACHIEVE MEADOW IN GOOD CONDITION OR BETTER OR OTHERWISE INCORPORATE ABACT OR NONDISCHARGE ALTERNATIVE PCSM BMPS.

MSC comment:

Requiring that restoration of disturbed areas to achieve "meadow in good condition or better" is unrealistic, potentially unobtainable, and may require operators to restore the site to better than original conditions. It appears the Department intended to offer an alternative with the mention of ABACT or non-discharge alternative PCSM BMPs, but such an offer seems to be inconsistent with the rest of the provision. This section is extremely broad, and will likely leave a lot open to interpretation when ESCGP Notices of Termination are filed, at which time Department representatives are focusing on 70% or more uniform vegetative cover.

(6) PCSM BMPS REMAINING IN PLACE AND PROOF OF COMPLIANCE WITH § 102.8(l) AND (m), OR A LICENSED PROFESSIONAL CERTIFICATION OF COMPLETE SITE RESTORATION TO APPROXIMATE ORIGINAL CONTOURS AND RETURN TO PRECONSTRUCTION STORMWATER RUNOFF RATE, VOLUME AND QUALITY IN ACCORDANCE WITH § 102.8(g). THE OWNER OR

OPERATOR SHALL REMAIN RESPONSIBLE FOR COMPLIANCE WITH THE TERMS OF THE RESTORATION PLAN INCLUDING LONG-TERM OPERATION AND MAINTENANCE OF ALL PCSM BMPS ON THE PROJECT SITE AND IS RESPONSIBLE FOR ANY VIOLATIONS OCCURRING ON THE PROJECT SITE, PRIOR TO WRITTEN APPROVAL OF THE FINAL RESTORATION REPORT.

(7) THE PERMANENT STABILIZATION OF THE RESTORED AREAS AS FOLLOWS:

(i) IN ACCORDANCE WITH § 102.22, OR

(ii) THROUGH IMPLEMENTATION OF PCSM BMPS AS REQUIRED BY § 102.8, INCLUDING § 102.8(a) – (m);

(c) EXTENSION OF DRILLING OR PRODUCTION PERIOD. THE RESTORATION PERIOD IN THIS SUBSECTION MAY BE EXTENDED THROUGH APPROVAL BY THE DEPARTMENT FOR AN ADDITIONAL PERIOD OF TIME, NOT TO EXCEED 2 YEARS.

MSC comment:

Requests for extension that include the information described in the Oil and Gas Act of 2012 should be approved, denied, or deemed to be approved within 90 days of submission to the Department. The regulation should be structured to allow for renewable two year extensions of the restoration deadline provided the site restoration plan and appropriate PCSM measures are fully implemented. This extension process is critical to avoid unnecessary earth moving activities for reconstruction of a well pad should an operator plan to drill and produce additional wells on the same pad location at some later time in the future. The risk of accelerated erosion and resulting sedimentation is much greater during earth moving activities that would take place if a pad would be made smaller or expanded, possibly multiple times in the future.

(1) A REQUEST TO EXTEND THE RESTORATION PERIOD MUST BE SUBMITTED ELECTRONICALLY ON FORMS PROVIDED BY THE DEPARTMENT THROUGH THE DEPARTMENT'S WEB SITE NOT MORE THAN 6 MONTHS AFTER THE COMPLETION OF DRILLING.

(2) THE REQUEST SHALL SPECIFY THE REASONS FOR THE REQUEST TO EXTEND THE RESTORATION PERIOD NOT TO EXCEED 24 MONTHS. THE REQUEST SHALL INCLUDE A JUSTIFICATION FOR THE LENGTH OF EXTENSION AND DEMONSTRATE THAT:

(i) THE EXTENSION WILL RESULT IN LESS EARTH DISTURBANCE, INCREASED WATER REUSE OR MORE EFFICIENT DEVELOPMENT OF THE RESOURCES; OR

(ii) RESTORATION CANNOT BE ACHIEVED DUE TO ADVERSE WEATHER CONDITIONS OR A LACK OF ESSENTIAL FUEL, EQUIPMENT OR LABOR.

(3) A DEMONSTRATION THAT THE EXTENSION WILL RESULT IN LESS EARTH

DISTURBANCE, INCREASED WATER REUSE OR MORE EFFICIENT DEVELOPMENT OF THE RESOURCES SHALL INCLUDE THE FOLLOWING:

(i) A DEMONSTRATION THAT THE SITE IS STABILIZED AND THE BMPS UTILIZED ON THE WELL SITE WILL ADDRESS POST CONSTRUCTION STORMWATER MANAGEMENT.

MSC comment:

The statement requiring that the BMPs utilized on the well site will address post construction stormwater management is problematic. The conversion of BMPs such as traps or basins from the erosion and sediment control phase to the PCSM phase is commonly the last step of the process. Requiring the conversion of BMPs to their final configuration prior to restoration earthmoving provides no measurable environmental benefit.

(ii) A DEMONSTRATION THAT THE PORTIONS OF THE WELL SITE NOT OCCUPIED BY PRODUCTION FACILITIES OR EQUIPMENT WILL BE RETURNED TO APPROXIMATE ORIGINAL CONDITIONS.

(d) AREAS NOT RESTORED. DISTURBED AREAS ASSOCIATED WITH WELL SITES THAT ARE NOT INCLUDED IN A RESTORATION PLAN, AND OTHER REMAINING IMPERVIOUS SURFACES, MUST COMPLY WITH ALL REQUIREMENTS IN CHAPTER 102. THE PCSM PLAN PROVISIONS IN § 102.8(n) APPLY ONLY TO THE PORTIONS OF THE RESTORATION PLAN THAT PROVIDE FOR RESTORATION OF DISTURBED AREAS TO MEADOW IN GOOD CONDITION OR BETTER OR OTHERWISE INCORPORATE ABACT OR NONDISCHARGE PCSM BMPS.

(e) POST DRILLING RESTORATION REPORTS. WITHIN 60 CALENDAR DAYS AFTER POST-DRILLING RESTORATION UNDER PARAGRAPH (a)(1), THE OPERATOR SHALL SUBMIT A RESTORATION REPORT TO THE DEPARTMENT. THE WELL OPERATOR SHALL FORWARD A COPY OF ALL RESTORATION REPORTS TO THE SURFACE LANDOWNER. THE REPORT SHALL BE MADE ELECTRONICALLY ON FORMS PROVIDED BY THE DEPARTMENT THROUGH THE DEPARTMENT'S WEBSITE AND SHALL IDENTIFY THE FOLLOWING:

(1) THE DATE OF LAND APPLICATION OF THE TOPHOLE WATER.

(2) THE RESULTS OF pH AND SPECIFIC CONDUCTANCE TESTS AND AN ESTIMATED VOLUME OF DISCHARGE.

(3) THE METHOD USED FOR DISPOSAL OR REUSE OF THE FREE LIQUID FRACTION OF THE WASTE, AND THE NAME OF THE HAULER AND DISPOSAL FACILITY, IF ANY.

(4) THE LOCATION, INCLUDING GPS COORDINATES, OF THE PIT IN RELATION TO THE WELL, THE DEPTH OF THE PIT, THE TYPE AND THICKNESS OF THE MATERIAL USED FOR THE PIT SUBBASE, THE TYPE AND THICKNESS OF THE PIT LINER, THE TYPE AND NATURE OF THE WASTE, THE TYPE OF ANY APPROVED SOLIDIFIER, A DESCRIPTION OF THE PIT CLOSURE PROCEDURES

USED AND THE PIT DIMENSIONS.

(5) THE LOCATION OF THE AREA USED FOR LAND APPLICATION OF THE WASTE, AND THE RESULTS OF A CHEMICAL ANALYSIS OF THE WASTE SOIL MIXTURE IF REQUESTED BY THE DEPARTMENT.

(6) THE TYPES AND VOLUMES OF WASTE PRODUCED AND THE NAME AND ADDRESS OF THE WASTE DISPOSAL FACILITY AND WASTE HAULER USED TO DISPOSE OF THE WASTE.

MSC comment:

As used in (6), the meaning of “waste” is unclear, and is likely to cause confusion among operators.

(7) THE NAME, QUALIFICATIONS AND BASIS FOR DETERMINATION THAT THE BOTTOM OF A PIT USED FOR ENCAPSULATION IS AT LEAST 20 INCHES ABOVE THE SEASONAL HIGH GROUNDWATER TABLE.

(f) POST PLUGGING RESTORATION REPORTS. WITHIN 60 CALENDAR DAYS AFTER POST-PLUGGING RESTORATION UNDER PARAGRAPH (a)(2), THE OPERATOR SHALL SUBMIT A RESTORATION REPORT TO THE DEPARTMENT. THE WELL OPERATOR SHALL FORWARD A COPY OF ALL RESTORATION REPORTS TO THE SURFACE LANDOWNER. THE REPORT SHALL BE MADE ELECTRONICALLY ON FORMS PROVIDED BY THE DEPARTMENT THROUGH THE DEPARTMENT’S WEBSITE AND SHALL INCLUDE THE FOLLOWING:

(1) A DESCRIPTION OF THE TYPES AND VOLUMES OF WASTE PRODUCED AND THE NAME AND ADDRESS OF THE WASTE DISPOSAL FACILITY AND WASTE HAULER USED TO DISPOSE OF THE WASTE.

(2) CONFIRMATION THAT EARTH DISTURBANCE ACTIVITIES, SITE RESTORATION INCLUDING AN INSTALLATION OF ANY PCSM BMPS AND PERMANENT STABILIZATION IN ACCORDANCE WITH §102.22 HAVE BEEN COMPLETED.

(g) WRITTEN CONSENT OF THE LANDOWNER ON FORMS PROVIDED BY THE DEPARTMENT SATISFIES THE RESTORATION REQUIREMENTS OF THIS SECTION PROVIDED THE OPERATOR DEVELOPS AND IMPLEMENTS A SITE RESTORATION PLAN THAT COMPLIES WITH PARAGRAPHS (a) and (b)(2)-(7) AND ALL PCSM REQUIREMENTS IN CHAPTER 102.

MSC’s suggested amendatory language:

a. Site Restoration Plan

Site restoration plan – meets the requirements of 25 Pa. Code Chapter 102 sections 102.8(b), (c), (e), (f), (h), (i), (l) and (m), if applicable, and Section 3216 of Act 13. The plan addresses

interim site restoration required after completion of drilling and final restoration of the well site after all wells have been plugged.

Each restoration phase of the plan shall provide for:

- i. The timely removal or fill of all pits used to contain produced fluids or residual wastes;
- ii. The removal of all drilling supplies and equipment not needed for production, including containment systems; and
- iii. Site appropriate BMPs including a BMP which minimizes accelerated erosion and sedimentation, and other measures to be employed to minimize accelerated erosion and sedimentation in accordance with The Clean Streams Law.

b. General

- (1) The owner or operator shall restore the land surface within the area disturbed during siting, drilling, completing and producing a well.
- (2) A drill hole or bore hole used to facilitate the drilling of a well shall be filled with cement, soil, uncontaminated drill cuttings or other earthen material before moving the drilling equipment from the well site.
- (3) If a well site is constructed and a well is not drilled, the well site shall be restored within 30 calendar days after the expiration of the well permit unless the Department approves an extension in accordance with Section 3216(g) of the Act.

c. Site Restoration Implementation

- (1) An area is restored under this subsection if the following are met:
 - i. All PCSM BMPs identified in the site restoration plan are installed and properly maintained.
 - ii. Remaining impervious areas are minimized, including areas where soil amendments have been added to harden the soil or are underlain with an impermeable liner.
 - iii. Earth disturbance associated with oil and gas activities that are not included in an approved site restoration plan, and other remaining impervious surfaces, shall comply with applicable post construction stormwater management requirements in 25 Pa. Code Chapter 102.
 - iv. The site is permanently stabilized according to 25 Pa. Code § 102.22(a).

d. Interim restoration after drilling

(1) Within nine (9) months after completion of a well, the owner or operator shall restore the well site according to the approved restoration plan. When multiple wells are drilled on a single well site, post-drilling restoration is required within nine months after completion of drilling all permitted wells on the well site or 30 days after the expiration of all existing well permits on the well site, whichever occurs later in time. Drilling supplies and equipment not needed for production may be stored on the well site when express written consent of the surface landowner is obtained and the supplies or equipment are maintained in accordance with § 78a.64a, where applicable.

e. Extension of site restoration period after drilling

(1) The restoration period may be extended by the Department for additional periods of time, not to exceed two years each, upon demonstration by the well owner or operator that:

- i. The extension will result in less earth disturbance, increased water reuse or more efficient development of the resources; or
- ii. Site restoration cannot be achieved due to adverse weather conditions or a lack of essential fuel, equipment or labor.

(2) The demonstration under 78a.65(e)(1) shall:

- i. Be submitted within six (6) months after the completion of drilling for approval by the Department.
- ii. Include a site restoration plan that provides for:
 - (A) the timely removal or fill of all pits used to contain produced fluids or industrial wastes;
 - (B) the removal of all drilling supplies and equipment not needed for production;
 - (C) the stabilization of the well site that shall include interim postconstruction storm water management best management practices; or
 - (D) other measures to be employed to minimize accelerated erosion and sedimentation in accordance with The Clean Streams Law.
- iii. Provide for returning the portions of the site not occupied by production facilities or equipment to approximate original contours and making them capable of supporting the uses that existed prior to drilling the well upon restoration.

(3) Requests for extension that include the information described in (e)(2) above will be approved, denied, or deemed to be approved within 90 days of submission to the Department.

f. Restoration after plugging all wells on well site

1. Within nine (9) months after plugging a well, the owner or operator shall remove all production or storage facilities, supplies and equipment and restore the well site according to the approved site restoration plan.
2. Within sixty (60) days after restoration of the well site, the operator shall submit a well site restoration report to the Department. The report shall be made on forms provided by the Department and shall identify the following:
 - i. The date of land application of any topsoil water, the results of pH and specific conductance tests and an estimated volume of discharge.
 - ii. A description of the method used for disposal or reuse of the free liquid fraction of the waste, and the name of the hauler and disposal facility, if any.
 - iii. The location, including GPS coordinates, of the pit in relation to the well, the depth of the pit, the type and thickness of the material used for the pit subbase, the type and thickness of the pit liner, the type and nature of the waste, the type of an approved solidifier, a description of the pit closure procedures used and the pit dimensions.
 - iv. The location of the area used for land application of the waste, and the results of a chemical analysis of the waste soil mixture if requested by the Department.
 - v. The types and volumes of waste produced and the name and address of the waste disposal facility and waste hauler used to dispose of the waste.
 - vi. The name, qualifications and basis for determination that the bottom of a pit used for encapsulation is at least 20 inches above the seasonal high groundwater table.
3. The well operator shall forward a copy of the well site restoration report to the surface landowner if the well operator disposes of drill cuttings or residual waste at the well site.

§ 78a.66. Reporting and remediating SPILLS AND releases.

MSC comment:

This entire section is unnecessary. The oil and gas industry is already subject to the requirements for reporting releases pursuant to 25 Pa. Code § 91.33 that apply to all other regulated entities in Pennsylvania. The reporting framework that exists under Pennsylvania law for every other industry has worked well. There is nothing sufficiently unique in this regard about the oil and gas industry that warrants a separate and significantly more onerous approach to reporting for the oil and gas industry in comparison with all other elements of the regulated community.

MSC asserts that there is no need for radically different spill remediation procedures for oil and gas operations, when a robust and nationally copied remediation program already exists. The ANFR imposes requirements relating to the cleanup of spills at gas well sites that go beyond the

criteria established under Pennsylvania's Land Recycling and Environmental Remediation Standards Act (Act 2), and creates new procedural requirements that do not currently apply to spills at gas well sites. Under Section 904 of Act 2, the only types of cleanups conducted under state law not governed by Act 2 are those implemented under the Tank Act and the Hazardous Sites Cleanup Act. The Department cannot change a statute by regulation, as it has proposed to do in Section 78a.66.

MSC's general comments on the proposed § 78a.66 are as follows:

- The revision of the scope of entities subject to release reporting requirements to cover any "other responsible party" is excessively vague and reflects a significant departure from the remainder of Chapter 78a. Neither the Oil and Gas Act of 2012 nor the ANFR define the term responsible party. It is not appropriate to extend the obligations of this provision to parties other than owners or operators.
- It is unnecessary and inappropriate to apply reporting requirements under other environmental laws and regulations, such as 25 Pa. Code § 91.33 – a regulation promulgated pursuant to the Clean Streams Law – to oil and gas spill reporting under Chapter 78a. The Department should focus its efforts on defining the circumstances in which owners and operators must report spills from oil and gas operations rather than adding open-ended references to other existing spill reporting obligations.
- Per MSC's previous comments, the definition of "regulated substances" is overly broad and does not provide the necessary guidance for reporting obligations that would be imposed under the proposed Section 78a.66(b). Replacement of the previous "reportable release of brine" definition with a broad "regulated substance" trigger for reporting complicates spill reporting obligations at well sites for minor releases of brine previously exempt from reporting under the existing oil and gas regulations.
- It is often infeasible to "demonstrate attainment" with Act 2 standards within the oil and gas context because there are no relevant Act 2 criteria for chlorides and other substances commonly found in produced fluids associated with oil and gas-related operations. For substances for which there are no medium-specific concentrations (MSCs) in soil, such as chlorides, operators will be required to pursue either background or site specific standard cleanups at each well site.
- The scope of information to be reported under the ANFR revisions is broader than under the proposed rulemaking, requiring reporting on any degree of "threatened pollution" to surface water, groundwater or soil, "potential impacts to public health and safety or the environment", and the weight or volume of each regulated substance released. As a result, operators will be required to assess a spill of produced water, in addition to brine, with enough specificity to be able to quantify and characterize the spill. As a result, operators are likely to incur significant expenses in collecting additional analytical data for produced water in order to prepare chemical-specific spill reports.
- The requirement to identify and sample water supplies for which there is a "potential for pollution" is vague and inappropriate for inclusion in this section.
- By eliminating the "alternative remediation option" from the Section 78a.66(c), the

ANFR purports to require remediation under Act 2 standards. However, the procedural remediation requirements under the draft which reflects a far more “command and control” framework than Act 2.

- MSC agrees with the prior OG TAB’s position in Section I of its July 18, 2013 Report and Recommendation Letter to the EQB that the Department’s then-proposed Section 78.66 substantially increases the time and costs for addressing small spills of less than 42 gallons of a regulated substance, and that in most circumstances the costs to comply with the proposed regulation would far exceed the environmental benefit to be realized.
- The proposed Section 78a.66 disregards and otherwise makes the future status of the Department’s current policy, Addressing Spills and Releases at Oil & Gas Well Sites or Access Roads, Document No. 800-5000-001, unclear.

{(a) A release of a substance causing or threatening pollution of the waters of this Commonwealth, shall comply with the reporting and corrective action requirements of § 91.33 (relating to incidents causing or threatening pollution).

(b) If a reportable release of brine on or into the ground occurs at the well site, the owner or operator shall notify the appropriate regional office of the Department as soon as practicable, but no later than 2 hours after detecting or discovering the release.

(c) The notice required under subsection (b) shall be by telephone and describe:

(1) The name, address and telephone number of the company and person reporting the incident.

(2) The date and time of the incident or when it was detected.

(3) The location and cause of the incident.

(4) The quantity of the brine released.

(5) Available information concerning the contamination of surface water, groundwater or soil.

(6) Remedial actions planned, initiated or completed.

(d) If, because of an accident, an amount of brine less than the reportable amount as described in § 78a.1 (relating to definitions), spills, leaks or escapes, that incident does not have to be reported.

(e) Upon the occurrence of any release, the owner or operator shall take necessary corrective actions to:

(1) Prevent the substance from reaching the waters of this Commonwealth.

(2) Recover or remove the substance which was released.

(3) Dispose of the substance in accordance with this subchapter or as approved by the Department.]

(a) Scope. This section applies to reporting and remediating spills or releases of regulated substances on or adjacent to well sites and access roads.

(b) Reporting releases.

(1) An operator or OTHER responsible party shall report the following spills and releases of regulated substances to the Department in accordance with paragraph (2):

(i) A spill or release of a regulated substance causing or threatening pollution of the waters of this Commonwealth, IN THE MANNER REQUIRED BY § 91.33 (RELATING TO INCIDENTS CAUSING OR THREATENING POLLUTION).

(ii) A spill or release of 5 gallons or more of a regulated substance over a 24-hour period that is not completely contained by a containment system.

MSC comment:

Sections 78a.66(b)(1) above and (2) below create a two-tiered release reporting system for the oil and gas industry that is unique to this industry. As stated above, the oil and gas industry is already subject to the requirements for reporting releases pursuant to 25 Pa. Code § 91.33 that apply to all other regulated entities in Pennsylvania, as well as the numerous federal reporting requirements under CERCLA (40 C.F.R. 302), CWA (40 C.F.R. 112), and EPCRA (40 C.F.R. 355) that provide specified reportable quantity thresholds.

In addition to the requirements of Section 91.33, Section 78a.66(b)(1) as currently proposed would impose an obligation to report any spill or release of 5 gallons or more of a regulated substance over a 24-hour period that is not completely contained by a containment system. This reporting obligation applies regardless of whether there is any actual or threatened impact to waters of the Commonwealth or any other impact to the environment or to public health or safety. Assuming that PADEP has proposed this section to replace the current “reportable release of brine” provision, MSC recommends that this additional requirement be clarified and limited to reporting releases of 5 gallons or more of brine outside of containment.

The reporting framework that exists under Pennsylvania law for every other industry has worked well. There is nothing sufficiently unique in this regard about the oil and gas industry that warrants a separate and significantly more onerous approach to reporting for the oil and gas industry in comparison with all other elements of the regulated community.

MSC’s suggested amendatory language:

(b) Reporting releases -

(1) An operator or responsible party shall report the following spills and releases to the Department in accordance with paragraph (2):

(i) A spill or release resulting in or causing a danger of pollution of the waters of this Commonwealth as required by § 91.33 (relating to incidents causing or threatening pollution); or

(ii) A spill or release of 5 gallons or more of brine over a 24-hour period that is not completely contained by a containment system.

(2) In addition to MEETING the notification requirements of § 91.33 (relating to incidents causing or threatening pollution), the operator or OTHER responsible party shall contact the appropriate regional Department office by telephone or call the Department's Statewide toll free number [at (800) 541-2050] as soon as practicable, but no later than 2 hours after discovering the spill or release. To the extent known, the following information shall be provided:

MSC comment:

The avenues for notifying the Department are inconsistent and unreliable, primarily for after-normal-business-hours incidents. The calls are answered, but the information is not always relayed in a dependable manner. It seems that an additional electronic avenue for reporting releases is warranted, especially given the fact that the Department seems to favor the electronic submission of all data. If operators or responsible parties were able to enter the information electronically, the data would be more accurate. The Department could still review the submissions in real time, forward the reports to the appropriate parties within the Department, or to the Emergency Response Team after-hours.

With respect to deletion of the telephone number, MSC has concerns as to where its members should go to find the correct phone number for reporting. The phone number should be posted in a clear and easily accessible location by the Department.

(i) The name of the person reporting the [incident] SPILL OR RELEASE and telephone number where that person can be reached.

(ii) The name, address and telephone number of the OPERATOR OR OTHER responsible party.

(iii) The date and time of the [incident] SPILL OR RELEASE or when it was discovered.

(iv) The location of the [incident] SPILL OR RELEASE, including directions to the site, GPS coordinates or the 911 address, if available.

(v) A brief description of the nature of the [incident] SPILL OR RELEASE and its cause, what potential impacts to public health and safety or the environment may exist, including any available information concerning the [contamination] POLLUTION OR THREATENED POLLUTION of surface water, groundwater or soil.

(vi) The estimated weight or volume of each regulated substance spilled or released.

(vii) The nature of any injuries.

(viii) Remedial actions planned, initiated or completed.

MSC comment:

The proposed reporting obligation requires a description of “contamination” and an estimated weight or volume of “each regulated substance” spilled or released, which create an ambiguous and often impractical requirement to estimate impacts and constituents of spilled substances.

MSC’s suggested amendatory language:

(2) In addition to the notification requirements of 25 Pa. Code § 91.33, the operator or responsible party shall contact the appropriate regional Department office by telephone or call the Department’s statewide toll free number 1-800-541-2050 as soon as practicable, but no later than 2 hours after discovering the spill or release. In the alternative, notice can be provided to the Department through its website. To the extent known, the following information shall be provided:

(i) The name of the person reporting the incident and telephone number where that person can be reached.

(ii) The name, address and telephone number of the responsible party.

(iii) The date and time of the incident or when it was discovered.

(iv) The location of the incident, including directions to the site, GPS coordinates or the 911 address, if available.

(v) A brief description of the nature of the incident and its cause, what potential impacts to public health and safety or the environment may exist, including any available information concerning impacts to surface water, groundwater or soil.

(vi) The estimated weight or volume of the substance spilled or released.

(vii) The nature of any injuries.

(viii) Remedial actions planned, initiated or completed.

(3) ~~Upon the occurrence of any spill or release, the~~ THE operator or OTHER responsible party shall take necessary corrective actions to prevent:

(i) The regulated substance from ~~reaching~~ POLLUTING OR THREATENING TO POLLUTE the waters of the Commonwealth.

(ii) Damage to property.

(iii) Impacts to downstream users of waters of the Commonwealth.

MSC comment:

This section requires necessary corrective actions that are to be taken following a spill or release. The provisions of this section are phrased as broad objectives to be achieved, and would potentially create liability where factors beyond the control of the operator prevent the attainment of the listed goals. In addition, the requirement to prevent damage to property is vague and unduly broad.

MSC's suggested amendatory language:

(3) Upon the occurrence of any spill or release, the operator or responsible party shall take appropriate action to:

- (i) Prevent the substance from reaching the waters of the Commonwealth.
- (ii) Prevent damage to property.
- (iii) Prevent impacts to downstream users of waters of the Commonwealth.

(4) THE OPERATOR OR OTHER RESPONSIBLE PARTY SHALL IDENTIFY AND SAMPLE WATER SUPPLIES THAT HAVE BEEN POLLUTED OR FOR WHICH THERE IS A POTENTIAL FOR POLLUTION IN A REASONABLE AND SYSTEMATIC MANNER. THE OPERATOR OR OTHER RESPONSIBLE PARTY SHALL RESTORE OR REPLACE A POLLUTED WATER SUPPLY IN ACCORDANCE WITH § 78a.51 (RELATING TO PROTECTION OF WATER SUPPLIES). THE OPERATOR OR OTHER RESPONSIBLE PARTY SHALL PROVIDE A COPY OF THE SAMPLE RESULTS TO THE WATER SUPPLY OWNER AND THE DEPARTMENT WITHIN 5 DAYS OF RECEIPT OF THE SAMPLE RESULTS FROM THE LABORATORY.

MSC comment:

See MSC's comments to the proposed Section 78a.51.

The term "reasonable and systematic manner" is ambiguous and does not provide a standard with which operators can comply. The requirement to provide a copy of the sample results within 5 days should be modified to read "5 business days."

~~{(4)}~~ (5) The Department may immediately approve temporary emergency storage or transportation methods necessary to prevent or mitigate harm to the public health, safety or the environment. Storage may be at the site of the incident or at a site approved by the Department.

MSC comment:

This section appears to be designed to facilitate emergency response measures by vesting PADEP with certain discretionary powers to approve temporary emergency storage or transportation methods. It is unclear why treatment is not included in this list given that

emergency treatment activities may be part of a response action. While MSC supports the need for regulatory flexibility to facilitate emergency response actions, it believes that the provision does not go far enough. Specifically, the regulations should be clear that permits and other forms of formal authorization are not to be required where to do so would delay timely implementation of response actions. In that regard, Pennsylvania's regulations contain similar provisions to facilitate emergency response actions under other regulatory programs. See, e.g., 25 Pa. Code § 287.101(d).

MSC's suggested amendatory language:

(5) The Department shall not require a permit or other formal authorization for temporary emergency remediation methods, including treatment, storage and transportation, necessary to prevent or mitigate harm to the public health, safety or the environment. Treatment and storage may be at the site of the incident or at an alternative appropriate site. The operator or responsible party shall promptly notify the Department if treatment or storage will take place at a location that is not the site of the incident.

~~(5)~~ (6) After responding to a spill or release, the operator OR OTHER RESPONSIBLE PARTY shall decontaminate equipment used to handle the regulated substance, including storage containers, processing equipment, trucks and loaders, before returning the equipment to service. Contaminated wash water, waste solutions and residues generated from washing or decontaminating equipment shall be managed as residual waste.

MSC comment:

This section is designed to address steps to decontaminate equipment used in responding to a spill or release. On its face, Section 78a.66(b)(6) requires that all equipment, including storage containers, processing equipment, trucks and loaders, be decontaminated in all instances following a response to a spill or release. Decontamination of equipment may be necessary if the equipment is going to be used for other purposes where cross-contamination could be an issue. However, a bright line mandate cuts too far. For example, if spilled diesel fuel is recovered and placed in a tank that is dedicated to holding diesel fuel, there would be little reason to empty and decontaminate the tank before putting more diesel fuel in the tank. To address this issue, MSC recommends revising Section 78a.66(b)(6) as set forth below. In addition, the second sentence of Section 78a.66(b)(6) describing how contaminated wash water, waste solutions and residues are to be managed is unnecessary.

MSC's suggested amendatory language:

(6) After responding to a spill or release, the operator shall decontaminate equipment, including storage containers, processing equipment, trucks and loaders, where necessary and appropriate, before returning the equipment to service.

(c) Remediating releases. Remediation of an area [affected] POLLUTED by a spill or release is required. The operator or OTHER responsible party shall remediate a release in accordance with [one of] the following:

MSC comment:

The “alternate remediation option” included in the Department’s December 2013 proposed regulation was intended to establish an expedited procedure for responding to a spill where Act 2 liability protection was not desired by the owner or operator. However, as MSC pointed out in its previous comments to the Department in March 2014², the “alternate remediation option” that the Department in fact proposed was a process that was more onerous than the full Act 2 process because of the restrictive timetables that applied. The Department has eliminated the “alternative remediation option” in the proposed Section 78a.66(c), but preserved the restrictive timetables and other procedural requirements of the proposed “alternative remediation option”. These procedures for submission of written reports, site characterizations, remedial action plans and progress reports included in Section 78a.66 are not derived from Act 2, which is a voluntary process that contains no such deadlines.

(1) Spills or releases to the ground of less than 42 gallons at a well site that do not ~~impact or~~ POLLUTE OR threaten to pollute ~~of~~ waters of the Commonwealth may be remediated by removing the soil visibly impacted by the SPILL OR release and properly managing the impacted soil in accordance with the Department’s waste management regulations. The operator or responsible party shall notify the Department of its intent to remediate a spill or release in accordance with this paragraph at the time the report of the spill or release is made. ~~Completion of the cleanup should be documented through the process outlined in § 250.707(b)(1)(iii)(B) (relating to statistical tests).~~

MSC comment:

The decision regarding an operator’s intent to remediate a spill or release, and related PADEP notification, should be allowed to be made at a later time.

(2) For spills or releases to the ground of more than 42 gallons or that ~~impact~~ POLLUTE or threaten ~~pollution of~~ TO POLLUTE waters of the Commonwealth, the operator or OTHER responsible person MUST ~~may satisfy the requirements of this subsection by demonstrating~~ DEMONSTRATE attainment of one or more of the standards established by Act 2 and Chapter 250 (relating to administration of land recycling program) IN THE FOLLOWING MANNER:

MSC’s comment:

It is feasible that a spill in excess of 42 gallons could occur on a well pad that results in absolutely no risk to waters of the Commonwealth or environment. For example, some spills of greater than 42 gallons could be captured along a site drainage swale or settling basin and completely remediated prior to any offsite contamination. Spills that pose no offsite risk to the environment should not require Act 2 clearance from the Department.

~~(3) For releases of more than 42 gallons or that impact or threaten pollution waters of the Commonwealth, as an alternative to paragraph (2), the responsible party may remediate a spill or release using the Act 2 background or Statewide health standard in the following~~

² See MSC comment to 78.66(c)(3)(viii) on page 103 (“The Alternate Remediation process proposed by the Department was intended to establish a simplified, expedited procedure for properly responding to a spill where Act 2 liability protection was not desired. Instead the Department has fashioned a process that is more onerous than the full Act 2 Process because of the restrictive timetables that apply.”).

manner:]

(i) Within 15 business days of the spill or release, the operator or OTHER responsible party shall provide an initial written report that includes, to the extent that the information is available, the following:

(A) The regulated substance involved.

(B) The location where the spill or release occurred.

(C) The environmental media affected.

(D) ~~[Impacts to]~~ POLLUTION OR THREATENED POLLUTION OF water supplies.

(E) IMPACTS TO buildings or utilities.

~~[(E)] (F) Interim remedial actions planned, initiated or completed.~~

(ii) The initial report must also include a summary of the actions the operator or OTHER responsible party intends to take at the site to address the spill or release such as a schedule for site characterization, to the extent known, and the anticipated timeframes within which it expects to take those actions. After the initial report, any new POLLUTION OR OTHER impacts identified or discovered during interim remedial actions or site characterization shall also be reported in writing to the Department within 15 ~~[calendar]~~ BUSINESS days of their discovery.

~~(iii) Within 180 calendar days of the spill or release, the operator or OTHER responsible party shall perform a site characterization to determine the extent and magnitude of the [contamination] POLLUTION and submit a site characterization report to the appropriate Department regional office describing the findings. THE TIME TO SUBMIT THE SITE CHARACTERIZATION REPORT MAY BE EXTENDED BY THE DEPARTMENT. The report must include a description of any interim remedial actions taken. [For a background standard remediation, the site characterization must contain information required under § 250.204(b)] ~~[(c) (relating to final report). For a Statewide health standard remediation, the site characterization must contain information required under § 250.312(a) (relating to final report).]~~~~

(iv) ~~[This] THE report UNDER PARAGRAPH (iii) may BE CONSIDERED TO be a final remedial action report if the interim remedial actions meet[s] all of the requirements of an Act 2 [background or Statewide health standard] remediation. [or combination thereof.] [Remediation conducted under this section may not be required to meet the notice and review provisions of these standards except as described in this section.]~~

MSC comment:

The revised draft rulemaking removes significant flexibility with respect to public notice requirements pertaining to remediation submissions. Under Act 2 (Sections 302(c)(4) and 303(h)(4)), both intent to remediate and final report submissions are not required to be published

for public notice for remediation to background or statewide standards if the person conducting the remediation submits the final report within 90 days of the release. Such flexibility extended to all other industries under Act 2 is not afforded under the revised draft rulemaking. The prior draft regulations specifically acknowledged an operator's ability to conduct simplified cleanups quickly and without public notice, but those provisions have been deleted in the most recent draft. As a result an operator may not be able to follow the expedited remediation approach under Act 2.

(v) If the site characterization indicates that the interim remedial actions taken did not adequately remediate the SPILL OR release, the operator or OTHER responsible party shall develop and submit a remedial action plan to the appropriate Department regional office for approval. The plan is due within 45 calendar days of submission of the site characterization to the Department. Remedial action plans should contain the elements outlined in § 245.311(a) (relating to remedial action plan).

(VI) A REMEDIAL ACTION PROGRESS REPORT SHALL BE SUBMITTED TO THE DEPARTMENT THREE MONTHS FOLLOWING THE DATE OF REMEDIAL ACTION PLAN IMPLEMENTATION.

(vi) [~~Once~~] AFTER the remedial action plan is FULLY implemented, the OPERATOR OR OTHER responsible party shall submit a final report to the appropriate Department regional office for approval. [~~The Department will review the final report to ensure that the remediation has met all the requirements of [the background or Statewide health standard, or combination thereof, except the notice and review provisions. Relief from liability will not be available to the responsible party, property owner or person participating in the cleanup.]~~

[~~(vii) An operator or responsible party remediating a release under this paragraph may elect to utilize Act 2 at any time.]~~

§ 78a.67. Borrow pits.

(a) An operator who owns or controls a borrow pit that does not require a permit under the Noncoal Surface Mining Conservation and Reclamation Act (52 P.S. §§ 3301-3326) under the exemption in section 3273.1(b) of the act (relating to relationship to solid waste and surface mining), BECAUSE THE PIT IS USED EXCLUSIVELY FOR EXTRACTION OF MINERALS FOR THE PURPOSE OF OIL AND GAS WELL DEVELOPMENT, INCLUDING ACCESS ROAD CONSTRUCTION, shall operate, maintain and reclaim the borrow pit in accordance with the performance standards in Chapter 77, Subchapter I (RELATING TO ENVIRONMENTAL PROTECTION PERFORMANCE STANDARDS) and IN ACCORDANCE WITH Chapter 102 (relating to environmental protection performance standards; and erosion and sediment control), and other applicable laws. THE MINING PERMIT EXEMPTION ONLY APPLIES SO LONG AS THE BORROW PIT IS SERVICING AN OIL AND GAS WELL SITE WHERE A WELL IS PERMITTED UNDER SECTION 3211 OF THE ACT (RELATING TO WELL PERMITS) OR REGISTERED UNDER SECTION 3213 OF THE ACT (RELATING TO WELL REGISTRATION AND IDENTIFICATION) AND THE REQUIREMENTS OF SECTION 3225 OF THE ACT (RELATING TO BONDING) ARE SATISFIED BY

FILING A SURETY OR COLLATERAL BOND FOR WELLS DRILLED ON OR AFTER APRIL 18, 1985. AREAS SUBJECT TO THE MINING PERMIT EXEMPTION MUST BE INCLUDED IN ANY PERMIT REQUIRED UNDER CHAPTER 102.

MSC comment:

For consistency with the § 78a.1 definition of “borrow pit”, the language in the first sentence of this subsection should be modified to read “. . . because the pit is used exclusively for extraction of materials for the purpose of oil and gas development . . .”.

Chapter 77 (“Noncoal” Mining) of Title 25 of the Pennsylvania Code was promulgated pursuant to the Noncoal Surface Mining Conservation and Reclamation Act (“NSMCRA”). Section 3273.1(b) of the Oil and Gas Act of 2012 exempts from obligations of NSMCRA and its implementing regulations any borrow area where minerals are extracted solely for the purpose of oil and gas well development, including access road construction, if the owner or operator of a well has a permit, maintains a bond, and is in compliance with the Act and applicable regulations. The proposed subsection 78a.67(a) is contrary to the Section 3273.1(b) exemption established by the Legislature because it would require operators of such borrow pits to nevertheless operate, maintain and reclaim the borrow pit in accordance with the performance standards in Chapter 77, Subchapter I (a regulation implemented pursuant to NSMCRA). The provisions of proposed subsection 78a.67(a) regarding compliance with Chapter 77 should therefore be deleted.

(b) Operators shall register the location of their existing borrow pits by _____, (Editor's Note: The blank refers to 60 calendar days the effective date of adoption of this proposed rulemaking.) by providing the Department, ~~in writing,~~ ELECTRONICALLY, THROUGH THE DEPARTMENT'S WEBSITE, with the GPS coordinates, township and county where the borrow pit is located. The operator shall register the location of a new borrow pit IN THE SAME MANNER prior to construction.

(c) Borrow pits used for the development of oil and gas well sites and access roads that no longer meet the conditions under section 3273.1 of the act must meet one of the following:

(1) Be restored within 9 months after completion of drilling THE FINAL WELL ON A WELL SITE SERVICED BY THE BORROW PIT ~~[all permitted wells on the well site]~~ or 30 calendar days after the expiration of all ~~[existing]~~ well permits on ~~[the well site]~~ WELL SITES SERVICED BY THE BORROW PIT, whichever occurs later in time.

(2) Obtain a noncoal surface mining permit for its continued use, unless relevant exemptions apply under the Noncoal Surface Mining Conservation and Reclamation Act and regulations promulgated thereunder. ~~[A 2-year]~~ AN extension of the restoration requirement may be approved under § 78a.65(d) (relating to site restoration).

MSC comment:

MSC recommends that 78a.67(b) be deleted. Sections 78a.67(c)(1) and (2) provide adequate authority for the Department to ensure restoration of the borrow pit. In addition, Section 78a.67(a) requires an operator who owns a borrow pit to operate, maintain and reclaim the borrow pit in accordance with the performance standards in Chapter 102 and Chapter 77.

As it relates to subsection 78a.67(c)(1), operators may open a borrow pit for use at one well pad and later determine that the pit could also serve future well pad(s) and access road(s) construction. As written, it is not clear whether and, if so, how operators are to identify what well sites the borrow pit will service. For example, acquisitions by an operator or fluctuating natural gas markets may result in more well sites to be serviced by a borrow pit. The Department should allow an operator the flexibility to extend the life of the borrow pit by adding more well sites to be serviced as they are determined.

MSC's suggested amendatory language:

Delete section 78a.67(b).

(d) A WELL OPERATOR WHO CONSTRUCTED A BORROW PIT PRIOR TO _____ (Editor's Note: The blank refers to the effective date of adoption of this rulemaking.) SHALL HAVE THE BORROW PIT INSPECTED BY A QUALIFIED PERSON FOR COMPLIANCE WITH THE REQUIREMENTS OF THIS SECTION PRIOR TO _____. (Editor's Note: The blank refers to 180 days after the effective date of adoption of this proposed rulemaking.) ANY BORROW PITS THAT DO NOT COMPLY WITH THE PROVISIONS OF SUBSECTION (a) SHALL BE UPGRADED TO MEET THE REQUIREMENTS OF THIS SECTION OR CLOSED IN ACCORDANCE WITH SUBSECTION (c) BY _____ (Editor's Note: The blank refers to one year after the effective date of adoption of this proposed rulemaking.)

MSC comment:

New subsection (d) should be deleted, as borrow pits constructed prior to the effective date of these proposed amended regulations should not be retroactively required to comply with new standards set forth in this subsection. Upgrading a borrow pit that is already in existence to the new standards may be impossible. On a related note, subsection (d) is unclear as drafted because it places the requirements of this subsection on the operator that constructed a borrow pit – not the current operator who owns or controls the borrow pit.

MSC's suggested amendatory language:

Delete subsection 78a.67(d).

§ 78a.68. Oil and gas gathering PIPELINES [lines].

(a) THE REQUIREMENTS OF THIS SECTION APPLY TO ALL [A#] earth disturbance activities associated with oil and gas gathering PIPELINE [line] installations and supporting facilities[are limited to] INCLUDING the construction right-of-way, work space areas, pipe storage yards, borrow and disposal areas, access roads and other necessary areas identified on the erosion and sediment control plan. THE CONSTRUCTION, INSTALLATION, USE, MAINTENANCE, REPAIR AND REMOVAL OF OIL AND GAS GATHERING PIPELINES UNDER THIS SECTION MUST BE CONDUCTED IN ACCORDANCE WITH THE REQUIREMENTS OF CHAPTERS 102 AND 105 (RELATING TO EROSION AND SEDIMENT CONTROL; AND DAM SAFETY AND WATERWAY MANAGEMENT).

MSC comment:

The Department's proposed language in this subsection is not necessary. Gathering line construction is an "oil and gas operation", as defined in Act 13 and the most recent version of this ANFR, and erosion and sediment control requirements for oil and gas operations are addressed in Section 78a.53. Additionally, the Department's use of "supporting facilities" is an undefined phrase that could be broadly interpreted to include a multitude of ancillary facilities beyond the scope of this subsection. MSC suggests deleting this phrase.

MSC's suggested amendatory language:

The requirements of this section apply to all earth disturbance activities associated with oil and gas gathering pipeline installations including the construction right-of-way, work space areas, pipe storage yards, borrow and disposal areas, access roads and other necessary areas identified on the erosion and sediment control plan. The construction, installation, use, maintenance, repair and removal of oil and gas gathering pipelines under this section must be conducted in accordance with the requirements of Chapter 105 (relating to dam safety and waterway management).

(b) Highly visible flagging, markers or signs must be used to identify the shared boundaries of the limit of disturbance, wetlands and locations of threatened or endangered species habitat prior to land clearing. The flagging, markers or signs shall be maintained throughout earth disturbance activities and restoration or PCSM activities.

MSC's comment:

As written this language is very restrictive and nearly impossible to continuously implement. Flagging, markers, etc. are temporary features that are routinely removed or otherwise disturbed by landowners, weather conditions, animals, etc. and no operator should be subject to violation if these temporary markers are not continuously maintained, and means for denoting the limits of disturbance should be left up to the applicant. Additionally, boundaries described in this section are often not "shared", so the Department's use of this word in the provision is not clear.

MSC's suggested amendatory language:

(b) Shared boundaries of the limit of disturbance, wetlands and other water resources, and the location of threatened and endangered species habitats shall be clearly identified on project mapping and with temporary markings in the field prior to earth disturbances. When practical and necessary, these temporary markings should be maintained while nearby earth disturbances are ongoing.

(c) The operator shall maintain topsoil and subsoil during excavation under the following, unless otherwise authorized by the Department:

(1) Topsoil and subsoil must remain segregated until restoration.

(2) Topsoil and subsoil must be prevented from entering watercourses and bodies of water.

(3) Topsoil cannot be used as bedding for pipelines.

(4) Native topsoil [or] AND imported topsoil must be of equal or greater quality to ensure the land is capable of supporting the uses that existed prior to earth disturbance.

MSC comment:

This subsection should be revised for clarity.

MSC's suggested amendatory language:

(4) Imported topsoil must be of equal or greater quality to native topsoil to ensure the restored land is capable of supporting the uses that existed prior to earth disturbance.

(d) Backfilling of the gathering PIPELINE [line] trench shall be conducted in a manner that minimizes soil compaction AT THE SURFACE to ensure that water infiltration rates WILL BE SUFFICIENT TO SUPPORT THE ESTABLISHMENT OF VEGETATIVE GROWTH TO MEET STABILIZATION OR RESTORATION REQUIREMENTS.

MSC comment:

Soil compaction above original conditions along the trench line may occur in areas of steep terrain to prohibit water penetration, as water penetration can create the potential for saturated soil and large scale sediment transport. The presumed goal of this section is to ensure vegetative growth post construction. MSC requests that the measurable requirement of this section be removed as it could unnecessarily require extensive, costly pre/post construction soil compaction analysis.

MSC's suggested amendatory language:

(d) Backfilling of the gathering pipeline trench shall be conducted in a manner that minimizes soil compaction to ensure that vegetative growth can be established during restoration.

(e) Equipment may not be refueled within the [jurisdictional] floodway [of any waterecourse] or within 50 feet of any body of water.

MSC Comment:

MSC requests that language be added to allow for an alternate approach to be considered and approved, depending on site-specific circumstances.

MSC's suggested amendatory language:

(e) Equipment may not be refueled within the floodway or within 50 of any body of water, unless otherwise approved in writing by the Department.

(f) Materials staging areas shall be LOCATED outside of a [jurisdictional] floodway [of any waterecourse] or greater than 50 feet from any body of water, UNLESS OTHERWISE APPROVED IN WRITING BY THE DEPARTMENT.

~~**(g) [The gathering line operator shall maintain the pipeline right of way, service roads and points of access to minimize the potential for accelerated erosion and sedimentation and to manage post construction stormwater and minimize impacts to existing riparian buffers in accordance with Chapter 102 (relating to erosion and sediment control).**~~

(h) All buried metallic gathering PIPELINES [lines] shall be installed and placed in operation in accordance with 49 CFR Part 192 or 195 (relating to transportation of natural and other gas by pipeline: minimum Federal safety standards; and transportation of hazardous liquids by pipeline).

MSC comment:

Section 78a.68(g) is likely preempted under federal law. The Pipeline Safety Act authorizes federal regulation of the safety of gas and hazardous liquid pipelines and liquefied natural gas (“LNG”) facilities, 49 U.S.C. § 60101 et seq. To protect the federal interest in the regulation of these facilities, the Act includes a provision that preempts state regulation of pipeline safety matters in three circumstances, 49 U.S.C. §§ 60104(c), 60105(a). First, a state authority is prohibited from regulating the safety of “interstate” pipelines or LNG facilities, except with respect to the application of state one-call damage prevention laws. Second, a state authority is prohibited from regulating the safety of “intrastate” pipelines and LNG facilities unless it has submitted an annual certification to participate in the federal pipeline safety program. Third, a state authority that has submitted an annual certification cannot adopt or enforce a pipeline safety standard that is incompatible with the federal requirements.

The regulation proposed in section 78a.68(g) is likely preempted under the Pipeline Safety Act under the prohibition that applies to state authorities who lack a certification to regulate intrastate pipeline facilities. *Olympic Pipeline Co. v. City of Seattle*, 437 F.3d 872 (9th Cir. 2006). The U.S. Court of Appeals for the Ninth Circuit addressed a similar situation in *Olympic Pipeline Co. v. City of Seattle*, a case that involved an intrastate hazardous liquid pipeline operator who was seeking to renew a franchise agreement with a city government. In response to concerns raised by a recent incident, the city proposed to include a hydrostatic pressure testing requirement in its new franchise agreement with the operator. The operator challenged the city’s ability to include such a provision in the agreement, and the Ninth Circuit held on appeal that the Pipeline Safety Act expressly preempted the hydrostatic pressure testing requirement, because the city did not have a certification from PHMSA to regulate the safety of intrastate hazardous liquid pipelines. The Ninth Circuit observed that the Washington Utilities and Transportation Commission was the only agency that had a certification to participate in the federal pipeline safety program; therefore, it was the only state authority that could regulate the safety standards and practices of intrastate hazardous liquid pipelines in that jurisdiction.

The same rationale applies here. The Pennsylvania Public Utility Commission is the only state authority in the Commonwealth of Pennsylvania that has a certification to regulate the safety of intrastate pipeline facilities, and that certification only applies to gas pipeline facilities. All hazardous liquid pipeline facilities in Pennsylvania (whether intrastate or interstate) are subject to regulation by the U.S. Department of Transportation’s Pipeline and Hazardous Materials Safety Administration (PHMSA), the federal agency that administers the Pipeline Safety Act. The Pennsylvania Department of Environmental Protection does not participate in the federal safety program or have a certification from PHMSA to regulate any pipeline facilities. Accordingly, PADEP cannot prescribe or enforce any safety standards or practices for intrastate

gas or hazardous liquid pipeline facilities, including by issuing a regulation that requires compliance with the minimum federal safety standards in 49 C.F.R. Parts 192 or 195.

In the alternative, requiring that all buried metallic gathering lines comply with the entirety of the requirements in 40 C.F.R 192 and 195, as proposed, goes well beyond the 58 P.S. § 3218.4(a) requirement that only references compliance with 49 C.F.R. 192, Subpart 1 (relating to corrosion control). If the Department does not delete Section 78a.68(g) per our suggestion, this provision should be revised to only reference the relevant corrosion control aspects of the Federal regulations per the Oil and Gas Act of 2012.

MSC's suggested amendatory language:

Delete Section 78a.68(g) because it is an unenforceable requirement that is likely preempted under the Pipeline Safety Act.

§ 78a.68a. Horizontal directional drilling for oil and gas pipelines.

(a) ~~Any~~ NO horizontal directional drilling ACTIVITIES associated with pipeline construction related to oil and gas operations, including gathering and transmission pipelines, that occur[s] beneath any body of water or watercourse ~~will~~ MAY COMMENCE PRIOR TO ~~be authorized~~ AUTHORIZATION by the Department in accordance with Chapters 102 and 105 (relating to erosion and sediment control; and dam safety and waterway management).

MSC comment:

Pipeline construction is an "oil and gas operation", as defined in Act 13 and the most recent version of this ANFR. Erosion and sediment control requirements for oil and gas operations are addressed in Section 78a.53, thus the reference to Chapter 102 is not necessary.

Inclusion of the phrase "pipeline construction related to oil and gas operations" is confusing. Horizontal directional drilling is an activity associated with pipeline construction and is included in the definition of "oil and gas operation". MSC recommends that the introductory clause be clarified to read as follows: "Any horizontal directional drilling that is associated with construction of oil and gas activity, including well development, gathering and transmission pipelines, that occurs beneath any body ..."

MSC's suggested amendatory language:

(a) Any horizontal directional drilling that is associated with construction of oil and gas activity, including well development, gathering and transmission pipelines, that occurs beneath any body of water or watercourse must be authorized by the Department in accordance with 25 Pa. Code Chapter 105 (relating to dam safety and waterway management).

(b) Prior to beginning of any horizontal directional drilling activity, THE PERSON PLANNING TO CONDUCT THOSE ACTIVITIES ~~the directional drilling operator~~ shall develop a PPC plan under § 102.5(l) (relating to permit requirements). The PPC plan must include a site specific contingency plan that describes the measures to be taken to control, contain and collect any discharge of drilling fluids and minimize impacts to waters of the Commonwealth. The PPC plan must be present onsite during drilling operations and made available to the Department upon request.

MSC comment:

This provision is redundant of the Department's proposed Section 78a.55(a), which would apply to all "oil and gas operations", as defined. Accordingly, MSC believes that Subsection 78a.68a(b) is not necessary.

MSC's suggested amendatory language:

Delete subsection 78a.68a(b).

(c) The Department shall be notified at least 24 hours prior to beginning of any horizontal directional drilling activities, including conventional boring, beneath any body of water or watercourse. Notice shall be made electronically to the Department through its web site and include the name of the municipality where the activities will occur, GPS coordinates of the entry point of the drilling operation and the date when drilling will begin.

(d) All required permits and Material Safety Data Sheets shall be on site during horizontal directional drilling ACTIVITIES [operations] and be made available to the Department upon request.

(e) Materials staging areas shall be outside of a floodway, as defined in § 105.1 (relating to definitions), of any watercourse or greater than 50 feet from any body of water.

MSC comment:

MSC requests that language be added to allow for an alternate approach to be considered and approved, depending on site-specific circumstances.

MSC's suggested amendatory language:

(e) Unless an alternative plan is approved by the Department, materials staging areas for horizontal directional drilling operations shall be outside of a floodway, as that term is defined in 25 Pa. Code Chapter 105, of any watercourse or greater than 50 feet from any body of water.

(f) Drilling fluid additives other than bentonite and water must be approved by the Department prior to use. All approved horizontal directional drilling fluid additives will be listed on the Department's web site. USE OF A PRE-APPROVED HORIZONTAL DIRECTIONAL DRILLING FLUID ADDITIVE DOES NOT REQUIRE SEPARATE DEPARTMENT APPROVAL.

(g) Horizontal directional drilling ACTIVITIES [operations] shall be monitored for pressure and loss of drilling fluid returns. Bodies of water and watercourses over and adjacent to horizontal directional drilling ACTIVITIES [operations] shall also be monitored for any signs of drilling fluid discharges. Monitoring shall be in accordance with the PPC plan.

MSC comment:

Monitoring for pressure and loss of fluid returns can vary and require frequent modifications. Loss of fluid and/or pressure does not always yield an inadvertent return, thus monitoring requirements should not be memorialized in a PPC plan. MSC suggests clarifying this statement to ensure that monitoring for discharges be established, but not monitoring for pressure and fluid loss.

MSC's suggested amendatory language:

(g) Horizontal directional drilling operations shall be monitored for pressure and loss of drilling fluid returns. Bodies of water and watercourses over and adjacent to horizontal directional drilling operations shall also be monitored for any signs of drilling fluid discharges.

(h) Horizontal directional drilling activities may not result in a discharge of drilling fluids to waters of the Commonwealth. If a discharge occurs during horizontal directional drilling activities, the ~~[drilling operator]~~ PERSON SUBJECT TO SUBSECTION (a) shall immediately implement the contingency plan developed under subsection (b).

MSC comment:

Horizontal directional drilling activities will be performed under DEP authorization, per paragraph (a), and in accordance with a site-specific PPC plan. For purposes on paragraph (h), it should be sufficient to specify that the contingency plan portion of the PPC Plan must be implemented.

MSC's suggested amendatory language:

If a discharge of drilling fluids to waters of the Commonwealth occurs during horizontal drilling activities, the drilling operator shall immediately implement the contingency plan portion of the site-specific PPC plan.

(i) When a drilling fluid discharge or loss of drilling fluid circulation is discovered, the loss or discharge shall be immediately reported to the Department, and the ~~[operator]~~ PERSON SUBJECT TO SUBSECTION (a) shall request an emergency permit under § 105.64 (relating to emergency permits), if necessary FOR EMERGENCY RESPONSE OR REMEDIAL ACTIVITIES TO BE CONDUCTED.

MSC comment:

It may not be practical or reasonable for industry to report all "loss of drilling fluid circulation", particularly when the fluid does not come to the surface.

MSC's suggested amendatory language:

(i) When a drilling fluid discharge is discovered, the operator shall request an emergency permit under 105.64 (relating to emergency permits), if necessary.

(i) Any water supply complaints received by the ~~[operator]~~ PERSON SUBJECT TO SUBSECTION (a) shall be reported to the Department within 24 hours ELECTRONICALLY TO THE DEPARTMENT through ~~[the Department's]~~ ITS web site.

(k) Horizontal directional drilling fluid returns and drilling fluid discharges shall be ~~contained, stored and recycled or disposed of~~ MANAGED in accordance with Article IX (relating to residual waste management).

MSC comment:

MSC supports the beneficial reuse of drilling fluid, and requests that provisions for such be included in the proposed subsection.

MSC's suggested amendatory language:

(k) Management of horizontal directional drilling fluid returns and drilling fluid discharges shall be in accordance with Part I, Subpart D, Article IX (relating to residual waste management).

§ 78a.68b. ~~Temporary~~ WELL DEVELOPMENT pipelines for oil and gas operations.

MSC comment:

This title is confusing. Well development pipelines constitute an "oil and gas operation" as defined by Act 13 and the most recent version of this rule, so the inclusion of "for oil and gas operation" is redundant. MSC suggests revising the heading simply to state: "Well Development pipelines."

Section 78a.68b, as proposed, would prohibit the use of centralized semi-permanent underground pipelines which are the least environmentally impactful conveyance method as opposed to trucking and repeated installation of "real" temporary surface lines. This will result in hundreds of thousands of additional truck road hours per year to transport fluids.

Oil and gas water pipelines should be subject to the same regulatory framework as other industries operating within Pennsylvania (mining, chemical, municipal sewage lines, etc). There are no industry specific permits or prohibitions in place for any other industrial underground pipelines regardless of the material(s) these pipelines convey.

(a) THE CONSTRUCTION, INSTALLATION, USE, MAINTENANCE, REPAIR, AND REMOVAL OF WELL DEVELOPMENT ~~Temporary~~ pipelines must meet applicable requirements in Chapters 102 and 105 (relating to erosion and sediment control; and dam safety and waterway management).

MSC comment:

The language relating to Chapter 102 would not be necessary since a Well development pipeline is an "oil and gas operation", as defined in Act 13 and the current version of this rule, and erosion and sediment control requirements for oil and gas operations are addressed in Section 78a.53.

MSC's suggested amendatory language:

(a) Well Development pipelines must meet applicable requirements in Chapter 105 (relating to dam safety and waterway management).

(b) OPERATORS SHALL INSTALL WELL DEVELOPMENT [~~Temporary~~] pipelines that transport fluids other than fresh ground water, surface water, water from water purveyors or OTHER DEPARTMENT-approved sources [~~shall be installed~~] aboveground except when crossing pathways, roads or railways where the pipeline may be installed below ground surface, OR CROSSING A WATERCOURSE OR BODY OF WATER WHERE THE PIPELINE MAY BE INSTALLED BELOW THE GROUND SURFACE WITH PRIOR DEPARTMENT APPROVAL.

MSC Comment:

“Other Department-approved sources” of fluids is vague and undefined, and it is not clear what Department regulatory framework/mechanism would be used for the approval of these speculative “other sources” This provision should be further clarified by the Department.

(c) [~~Temporary~~] WELL DEVELOPMENT pipelines [~~cannot~~] MAY NOT be installed through existing stream culverts, storm drain pipes or under bridges CROSSING STREAMS without approval by the Department under § 105.151 (relating to permit application for construction or modification of culverts and bridges).

MSC Comment:

There may be instances where culverts, casing, or apparatuses which could be construed as culverts were previously installed for the specific purpose of installing temporary piping across impediments.

MSC Suggested Amendatory Language:

(c) Temporary pipelines cannot be installed through existing stream culverts, storm drain pipes or under bridges without approval by the Department pursuant to § 105.151 (relating to permit application for construction or modification of culverts and bridges); except where such structures were previously specifically installed for this purpose.

(d) The section of a [~~temporary~~] WELL DEVELOPMENT pipeline crossing over a watercourse or body of water, except wetlands, may not have joints or couplings, UNLESS SECONDARY CONTAINMENT IS PROVIDED. [~~Temporary~~] WELL DEVELOPMENT pipeline crossings over wetlands must utilize a single section of pipe to the extent practicable. Shut off valves shall be installed on both sides of the temporary crossing.

MSC comment:

This section needs clarification. Secondary containment could be established adjacent to the watercourse where shut off valves could be installed, but relatively impossible within the watercourse itself where joints and couplings may exist. It’s practical to require the minimum number of joints and couplings possible for watercourse crossings.

This section does not address fused joints. Fused joints have been discussed with the Department numerous times, and industry has provided the Department with documentation

and samples of fused joints. Properly fused joints are, in fact, stronger than the pipe itself. The Department should not consider a fused joint "a joint", as described in this section. The inclusion/approval of fused joints would effectively allow for a "single section of pipe" as dictated in this section.

While placing shutoff valves at both ends of a stream crossing may seem like good practice, it is counter to the original intent of this section. Placing shutoff valves at both ends of a stream crossing essentially places a minimum of four (4) mechanical joints/couplings in very close proximity to stream crossings. Additionally, the valves would provide little to no protection to the stream if there was a line failure as they could not be actuated until an operator manually isolated the subject valves.

(e) In addition to the requirements of subsection (c), ~~temporary~~ WELL DEVELOPMENT pipelines used to transport fluids other than fresh ground water, surface water, water from water purveyors or approved sources, must have shut off valves, check valves or other ~~method~~ METHODS of segmenting the pipeline placed at designated intervals, to be determined by the pipeline diameter, that prevent the discharge of ~~no~~ more than 1,000 barrels of fluid. Elevation changes that would effectively limit flow in the event of a pipeline leak shall be taken into consideration when determining the placement of shut off valves and be considered effective flow barriers.

(f) Highly visible flagging shall be placed at regular intervals, no greater than 75 feet, along the entire length of the ~~temporary~~ WELL DEVELOPMENT pipeline.

MSC comment:

An allowance for alternative marking methods is needed in this section as cattle and other farm animals eat typical flagging.

MSC's suggested amendatory language:

(f) Highly visible flagging, or other alternative marking method approved by the Department, shall be placed at regular intervals, no greater than 75 feet, along the entire length of the Well Development pipeline.

(g) ~~Temporary~~ WELL DEVELOPMENT pipelines shall be pressure tested prior to being first placed into service and after the pipeline is moved, REPAIRED or altered. A passing test is holding 125% of the anticipated maximum pressure for 2 hours. Leaks or other defects discovered during pressure testing shall be repaired prior to use. PRESSURE TEST RESULTS AND ANY DEFECTS AND REPAIRS TO THE WELL DEVELOPMENT PIPELINE SHALL BE DOCUMENTED AND MADE AVAILABLE TO THE DEPARTMENT UPON REQUEST.

MSC comment:

Similar to paragraphs (b) and (e), this type of prescriptive pressure testing requirement should be limited to pipelines used to transport fluids other than fresh ground water, surface water, water from water purveyors or approved sources, or in the alternative, a 15 minute (rather than 2 hour) pressure test should be adequate for those water sources.

MSC's suggested amendatory language:

(g) Well development pipelines shall be pressure tested prior to being first placed into service and after the pipeline is moved or altered. For well development pipelines that transport fluids other than fresh ground water, surface water, water from water purveyors or approved sources, a passing test is holding 125% of the anticipated maximum pressure for 15 minutes. Leaks or other defects discovered during pressure testing shall be repaired prior to use.

(h) Water used for hydrostatic pressure testing shall be discharged in a manner that does not result in a discharge to waters of the Commonwealth unless approved by the Department IN WRITING.

(i) [Temporary] WELL DEVELOPMENT pipelines shall be inspected prior to and during each DAY THE PIPELINE IS IN use. Inspection dates and any defects and repairs to the [temporary] WELL DEVELOPMENT pipeline shall be documented and made available to the Department upon request.

MSC comment:

The requirement to inspect these pipelines "daily" should be limited to only those pipelines carrying fluids other than fresh ground water, surface water, water from water purveyors or other Department-approved sources.

(i) [Temporary] WELL DEVELOPMENT pipelines not in use for more than 7 calendar days shall be emptied and depressurized. IN NO CASE MAY A WELL DEVELOPMENT PIPELINE BE IN USE FOR MORE THAN TWELVE MONTHS WITHOUT APPROVAL FROM THE DEPARTMENT.

MSC comment:

MSC suggests replacing the word "and" with the word "or", as both will relieve pressure on the pipe, reducing the potential for discharge. There may be instances where an operator intends to utilize the pipeline within a reasonable timeframe after the initial "use". Dewatering the entire pipeline would be a wasteful and unnecessary action.

The regulatory framework/mechanism for Department approval of a well development pipeline proposed to be in use for more than twelve months is not clear. This is acceptable with the word "temporary" added back into the regulation but places an undue and burdensome restriction on landowners as repeated installation and removal of pipelines that could be installed semi-permanently underground would have substantially less environmental impact.

MSC's suggested amendatory language:

(j) Well Development pipelines not in use for more than 7 calendar days shall be emptied or depressurized.

(k) Flammable materials may not be transported through a [temporary]

WELL DEVELOPMENT pipeline.

(l) [Temporary] WELL DEVELOPMENT pipelines shall be removed in accordance with the required restoration timeline of the well site it serviced under § 78a.65 (relating to site restoration).

(m) An operator shall keep records regarding the location of all [temporary] WELL DEVELOPMENT pipelines, the type of fluids transported through those pipelines and the approximate period of time that the pipeline was installed. The records shall be made available to the Department upon request.

(N) RECORDS REQUIRED UNDER THIS SECTION SHALL BE RETAINED BY THE OPERATOR FOR ONE YEAR AFTER THE WELL DEVELOPMENT PIPELINE IS REMOVED.

§78a.69. Water management plans.

MSC comment:

The Department has not provided an adequate statement of need or estimate of cost to the regulated community pursuant to the requirements of Pennsylvania's Regulatory Review Act. The ANFR is not a substitute for an agency to fulfill any of the formal steps of the Regulatory Review Act or the accompanying requirements imposed on the promulgating agency. Accordingly the Department should not proceed to finalize this totally rewritten provision regarding centralized impoundments WMP, but should withdraw Section 78a.69 and proceed with a separate proposed rulemaking in order to fully and properly comply with the RRA.

~~(a) [WMPs for unconventional well operators. An unconventional well operator shall obtain a Department approved WMP under section 3211(m) of the act (relating to well permits) prior to withdrawal or use of water sources for drilling or completing an unconventional well.] GENERAL.~~

(1) EXCEPT AS PROVIDED IN (2), NO PERSON MAY WITHDRAW OR USE WATER FROM WATER SOURCES WITHIN THIS COMMONWEALTH FOR DRILLING OR HYDRAULIC FRACTURE STIMULATION OF ANY NATURAL GAS WELL GOVERNED BY THIS CHAPTER EXCEPT IN ACCORDANCE WITH A WMP APPROVED BY THE DEPARTMENT PURSUANT TO THIS SECTION. THE WMP SHALL DEMONSTRATE THAT THE WITHDRAWAL AND USE OF SUCH WATER SOURCES PROTECTS THOSE WATER SOURCES AS REQUIRED BY LAW AND PROTECTS PUBLIC HEALTH, SAFETY AND WELFARE.

MSC comment:

MSC recommend that the phrase "and protects public health, safety and welfare" be deleted from this subsection, as it is inconsistent with the Legislature's intent in § 3211(m) of the Oil and Gas Act of 2012. Additionally, it is unduly broad and otherwise unnecessary as long as all of the other conditions in the proposed § 78a.69 are met.

(2) A WATER PURVEYOR THAT MEETS THE REQUIREMENTS FOR WATER

ALLOCATION PERMITS OR ORDERS OF CONFIRMATION PURSUANT TO THE WATER RIGHTS ACT (32 P.S. §§ 631 – 641), AND SAFE DRINKING WATER PERMITS PURSUANT TO THE SAFE DRINKING WATER ACT (35 P.S. §§ 721.1 – 721.17), AS APPLICABLE, IS NOT REQUIRED TO APPLY FOR A WMP UNDER THIS SECTION.

MSC comment:

MSC notes that while clarifications have been made to subsection 78a.69(a) to confirm that water management plan and subsequent source approvals are not required for water sources outside the Commonwealth, MSC suggests that a similar clarification be made to the definition of “water management plan” in 25 Pa. Code § 78.1.

(b) ~~Implementation. The requirements imposed by the Susquehanna River Basin Commission pertaining to:~~

(1) ~~posting of signs at water withdrawal locations.~~

(2) ~~monitoring of water withdrawals or purchases.~~

(3) ~~reporting of withdrawal volumes, in stream flow measurements and water source purchases and.~~

(4) ~~recordkeeping shall be implemented in the Ohio River Basin. Reports required in all river basins of the Commonwealth shall be submitted electronically to the Department.]~~

WATER MANAGEMENT PLAN REQUIREMENTS. A WMP ISSUED BY THE DEPARTMENT SHALL MEET THE FOLLOWING PURSUANT TO THIS SECTION:

(1) PROTECT INSTREAM FLOW.

(2) PREVENT ADVERSE EFFECTS ON QUANTITY AND QUALITY OF WATER AVAILABLE TO OTHER USERS.

(3) PROTECT AND MAINTIAN DESIGNATED AND EXISTING USES OF WATER SOURCES.

(4) PREVENT ADVERSE IMPACTS TO WATER QUALITY IN THE WATERSHED CONSIDERED AS A WHOLE.

(5) PROTECT GROUNDWATER RESOURCES INCLUDING NEARBY WATER WELLS.

(6) PROVIDE FOR WATER REUSE.

MSC comment:

See MSC comment to ANFR subsection 78a.69(g) (“Denial”) below.

(c) ~~Reuse plan. An unconventional well operator submitting a WMP application shall develop a reuse plan for fluids that will be used to hydraulically fracture wells. A wastewater source reduction strategy in compliance with § 95.10(b) (relating to treatment requirements for new and expanding mass loadings of Total Dissolved Solids (TDS)) will satisfy the reuse plan requirement. An unconventional well operator shall make the reuse~~

~~plan available for review by the Department upon request.~~ **APPLICATION REQUIREMENTS. A REQUEST FOR APPROVAL UNDER THIS SECTION SHALL BE SUBMITTED ON FORMS FURNISHED BY THE DEPARTMENT AND SHALL INCLUDE THE FOLLOWING:**

MSC comment:

The Department's current WMP application form and instructions (PADEP Doc. No. 8000-PM-OOGM0087) lists several water sources for which unconventional well operators are required to obtain approval, including surface water, groundwater, wastewater, cooling water, mine water discharge, and public water supplies. As proposed, subsection 78a.69(c) would require persons submitting a WMP application to include all of the items listed in 78a.69(c)(1) to (11). Subsection (1) is likely the only subsection relevant to all water sources that could be approved by the Department in the context of a WMP. For example, it would not be feasible to conduct a low flow analysis or a withdrawal and diversion impact analysis for some wastewater sources that could be approved as part of a WMP. In subsection (5), the authority – not the person purchasing the water – has the obligation to demonstrate that the sale of public water would not adversely affect the public water supply. Subsection 78a.69(c) should be amended to reflect that the items listed in 78a.69(c) shall be included in a person's WMP application "as applicable" depending on the water source requested for approval.

(1) GENERAL WATER SOURCE INFORMATION INCLUDING IDENTIFICATION OF SOURCE NAME, SOURCE TYPE, AVERAGE DAILY AND INSTANTANEOUS MAXIMUM WITHDRAWAL RATES.

(2) A PLAN FOR MONITORING AND REPORTING OF WATER SOURCES AND USES.

(3) A LOW FLOW ANALYSIS.

(4) A WITHDRAWAL AND DIVERSION IMPACT ANALYSIS.

(5) A DESCRIPTION OF HOW THE PROPOSED WITHDRAWAL WILL NOT ADVERSELY AFFECT THE QUANTITY OR QUALITY OF WATER AVAILABLE TO OTHER USERS OF THE SAME WATER SOURCES. WHEN OBTAINING WATER FROM A PUBLIC WATER SUPPLY, THE APPLICATION SHALL INCLUDE A DESCRIPTION OF HOW THE WITHDRAWAL WILL NOT ADVERSELY AFFECT THE PUBLIC WATER SUPPLY SYSTEM.

(6) AN OPERATIONS PLAN THAT INCLUDES AN INTAKE DESIGN, A FLOW SCHEMATIC SHOWING HOW WATER IS TO BE WITHDRAWN, A SITE LAYOUT AND A FOOTPRINT FOR EACH SURFACE WATER WITHDRAWAL.

(7) FOR GROUNDWATER SOURCES, A HYDROGEOLOGIC REPORT THAT INCLUDES INFORMATION NECESSARY TO EVALUATE THE HYDRAULIC CHARACTERISTICS OF THE AQUIFER AND DEMONSTRATES THE SUITABILITY OF THE PROPOSED GROUNDWATER SOURCE. A REPORT THAT FOLLOWS APPLICABLE GUIDANCE ISSUED BY EITHER THE SUSQUEHANNA RIVER BASIN COMMISSION OR THE DEPARTMENT WILL SATISFY THIS REQUIREMENT.

(8) A REUSE PLAN FOR FLUIDS THAT WILL BE USED TO HYDRAULICALLY FRACTURE WELLS. A WASTEWATER SOURCE REDUCTION STRATEGY IN COMPLIANCE WITH § 95.10(b) (RELATING TO TREATMENT REQUIREMENTS FOR NEW AND EXPANDING MASS LOADINGS OF TOTAL DISSOLVED SOLIDS (TDS)) WILL SATISFY THE REUSE PLAN REQUIREMENT.

(9) PROOF OF CONSULTATION WITH THE PENNSYLVANIA NATURAL HERITAGE PROGRAM REGARDING THE PRESENCE OF A STATE OR FEDERAL THREATENED OR ENDANGERED SPECIES AT THE LOCATION OF A WITHDRAWAL.

(10) PROOF OF NOTIFICATION OF THE PROPOSED WITHDRAWAL TO MUNICIPALITIES AND COUNTIES WHERE THE WATER SOURCE WILL BE LOCATED.

(11) PROOF OF CONSULTATION WITH THE PENNSYLVANIA HISTORIC AND MUSEUM COMMISSION REGARDING THE PRESENCE OF A HISTORICAL OR ARCHAEOLOGICAL SITE INCLUDED ON THE FEDERAL OR STATE LIST OF HISTORICAL PLACES AT THE LOCATION OF A WITHDRAWAL.

MSC comment:

Operators have an independent obligation to ensure no impacts to known historical or archaeological sites and a WMP application does not trigger a federal nexus, therefore the proof of consultation with the PHMC should not be required. This should not be a requirement for a WMP. A desktop review of the GIS database should be sufficient.

(d) APPROVAL OF WMPS.

(1) When applicable, the requirements of [this section] SUBSECTIONS (b) – (c) are presumed to be achieved for those portions of a WMP for which there is an approval from the Susquehanna River Basin Commission, the Delaware River Basin Commission or the Great Lakes Commission. Nothing in this subparagraph shall effect the requirements in SUBSECTION (a) for a WMP approved by the Department.

(2) FOR SOURCES IN THE OHIO AND POTOMAC RIVER BASINS, USE OF GUIDANCE ISSUED BY THE DEPARTMENT SHALL BE PRESUMED TO MEET THE REQUIREMENTS OF SUBSECTIONS (b) - (c).

MSC comment:

The “requirements” that the Department would impose under this section for water sources located in the Ohio and Potomac River Basins are completely omitted as written, and the Department has not provided any clarification to the public regarding its alleged “guidance” referenced in this proposed provision. Just to clarify, this provision omits requirements for WMP requirements and application requirements for water sources located in parts or all of the following Western Pennsylvania counties: Greene, Fayette, Somerset, Bedford, Fulton, Franklin, Adams, Washington, Westmoreland, Cambria, Indiana, Armstrong, Allegheny, Beaver, Lawrence, Butler, Armstrong, Jefferson, Clarion, Venango, Mercer, Forest, Elk,

Clearfield, Cameron, Potter, McKean, Warren, Crawford, and Erie Counties (30 counties). In other words, 30 of the 67 Pennsylvania counties would be covered by the implicated guidance, with the caveat that many of Eastern Pennsylvania's counties do not provide water sources for the oil and gas industry. Additionally, the Department has not made clear if it intends to issue one or multiple guidance documents, and it is unclear as to what the timeframe is for issuance of draft guidance(s) referenced in this provision. The absence of explicit regulation for water sources in these 30 counties is a glaring omission from this proposed ANFR and therefore this provision cannot be implemented as written and should be deleted.

MSC's suggested regulatory language:

Delete subsection (2).

(3) THIS SUBSECTION DOES NOT AFFECT THE REQUIREMENT IN SUBSECTION (a) FOR A WMP APPROVED BY THE DEPARTMENT.

(4) NOTWITHSTANDING PARAGRAPHS (1) – (2), THE DEPARTMENT MAY ESTABLISH ADDITIONAL REQUIREMENTS AS NECESSARY TO COMPLY WITH THE LAWS OF THE COMMONWEALTH.

MSC comment:

MSC understands that the Department has the responsibility to ensure that WMP issued to unconventional well operators comply with the applicable laws of the Commonwealth. However, this is a broad statement that does not clarify "what" additional requirements (and if the requirements are to be established by future rulemaking), nor does it specify "applicable" laws of the Commonwealth. No other provision of this ANFR includes such a reservation. The need for this reservation of rights in the section is unclear as 58 P.S. § 3211(m)(3)(ii) already states that the Department may establish additional requirements as necessary to comply with the laws of the Commonwealth. As such, the proposed subsection (d)(4) is duplicative of Section 3211(m)(3)(ii) of the Act and is unnecessary for the Department to also include in this rulemaking.

MSC's suggested amendatory language:

Delete subsection (d)(4).

(e) OPERATIONAL REQUIREMENTS. A PERSON WHOSE WMP HAS BEEN APPROVED BY THE DEPARTMENT SHALL COMPLY WITH THE WMP, AND SHALL MEET THE FOLLOWING:

(1) PRIOR TO ANY WITHDRAWAL, POST A SIGN AT THE ENTRANCE TO THE WATER SOURCE WITHDRAWAL LOCATION, DISPLAYING THE NAME OF THE PERSON AND CONTACT TELEPHONE NUMBER, WATER WITHDRAWAL APPROVAL CONDITIONS INCLUDING DAILY WITHDRAWAL VOLUME, MAXIMUM INSTANTANEOUS WITHDRAWAL RATE AND PASSBY FLOW REQUIREMENTS, IF APPLICABLE, AND THE WMP WATER SOURCE EXPIRATION DATE.

(2) MEASURE WATER WITHDRAWALS AND PURCHASES USING CONTINUOUS-RECORDING DEVICES OR FLOW METERS. WATER SOURCES HAVING PASSBY FLOW CONDITIONS SHALL CONDUCT INSTREAM FLOW MONITORING AND MEASURING USING METHODS ACCEPTABLE TO THE DEPARTMENT.

(3) SUBMIT QUARTERLY REPORTS TO THE DEPARTMENT BY ELECTRONIC MEANS CONSISTING OF DAILY WITHDRAWAL VOLUMES, IN-STREAM FLOW MEASUREMENTS AND/OR WATER SOURCE PURCHASES.

(4) RETAIN WITHDRAWAL DATA AND DAILY INSTREAM FLOW MEASUREMENTS AND PURCHASES FOR A PERIOD OF AT LEAST FIVE YEARS. THESE RECORDS SHALL BE AVAILABLE FOR REVIEW BY THE DEPARTMENT UPON REQUEST.

MSC comment:

Subsections 78a.69(e)(3) and (4) appear to contradict each other. If unconventional well operators submit complete quarterly reports electronically to the Department per subsection (3), it is not clear why operators need to maintain records to make available for the Department's review as the Department will already have the records.

~~(e) Expiration~~ (f) ADMINISTRATION OF WMPS.

(1) APPROVALS FOR ~~[Individual]~~ INDIVIDUAL water sources within a WMP are valid for 5 years.

~~(f) Renewal~~ (2) A WMP renewal application shall be submitted at least 6 months prior to the expiration of the 5-year term for withdrawal or use of a water source under a WMP.

MSC comment:

Proposed Subsections 78a.69(f)(1) and (2) should be revised to allow for the administrative extension of individual water sources within a WMP where the operator has submitted a timely renewal application, in the event that the Department does not act in a manner to renew the individual water source before the 5 year expiration date.

Additionally, a phase-in period of 6 months from the effective date of the final regulation should be added to the proposed renewal subsection (f) for water sources approved under a WMP.

MSC's suggested regulatory language:

(1) *Expiration.* Individual water sources within a WMP are valid for 5 years, unless the approval to use the individual water source is administratively extended or renewed.

(2) *Renewal and Extension.* A renewal application for individual water sources within a WMP shall be submitted at least 6 months prior to the expiration of the 5 year term for withdrawal or use of the individual water source. If the Department does not act upon a timely submittal of a renewal application by the WMP holder within the 5 year term, the approval of the individual

water source is deemed to be administratively extended until such time as the Department acts on the unconventional well operator's renewal application for that individual water source. This subsection shall go into effect 6 months after the effective date of the final regulation.

~~[(g) Suspension and revocation.]~~ (3) The Department may suspend or revoke an approved water source within a WMP for failure to comply with the WMP or for any reasons in sections 3211(m), 3252 and 3259 of the act (relating to well permits; public nuisances; and unlawful conduct).

MSC comment:

Suspending or revoking an approved water source for what could be minor noncompliance with the WMP is an excessive action, and could have negative financial impacts on a municipal water purveyor. The Department should consider tailoring this provision to account for minor noncompliance matters that shouldn't result in suspension or revocation of an approved water source.

~~[(h) Termination. A WMP holder may]~~ (4) A PERSON WHOSE WMP HAS BEEN APPROVED BY THE DEPARTMENT MAY terminate approval of any water source within an approved WMP by submitting a letter to the Department's Oil and Gas District Office requesting termination of the water source approval.

MSC comment:

A process for amending WMPs should be added to this section.

MSC's suggested amendatory language:

NEW (g) *Amendments.* Amendments to an approved water source in a WMP may be submitted during the 5 year term for withdrawal or use of the approved water source, on forms provided by the Department. Such amendments will be considered valid if no response from the Department is received within 30 days of receipt of submission of the form requesting the amendment.

~~[(i)]~~ (g) Denial. The Department may deny ~~[approval of]~~ AN APPLICATION FOR a WMP for any of the following reasons:

(1) The WMP application is administratively incomplete.

~~[(2) The WMP will adversely affect the quantity or quality of water available to other users of the same water sources.]~~ THE WMP APPLICATION DOES NOT DEMONSTRATE THAT THE REQUIREMENTS OF THIS SECTION WILL BE MET.

~~[(3) The WMP does not protect and maintain the designated and existing uses of the water sources.~~

~~[(4) The WMP will cause an adverse impact to water quality in the watershed as a whole.]~~

MSC comment:

According to the Department's statements at its March 20, 2015 OGTAB meeting, Section 78a.69 was reorganized for clarity. However the Department's proposed changes in this ANFR to Section 78a.69, particularly subsections (b) and (g) are contrary to the Department's statement. With respect to this "Denial" subsection 78a.69(g), the Department's proposed rulemaking reversed or removed the language from 58 P.S. § 3211(m)(2) set by the Legislature that requires approval when water management plans meet the listed criteria:

- (2) The department *shall review and approve* water management plans based upon a determination that the proposed withdrawal, when operated in accordance with the proposed withdrawal operating conditions set forth in the plan, including conditions relating to quantity, withdrawal rate and timing and any passby flow conditions, will:
 - (i) not adversely affect the quantity or quality of water available to other users of the same water sources;
 - (ii) protect and maintain the designated and existing uses of water sources;
 - (iii) not cause adverse impact to water quality in the watershed considered as a whole; and
 - (iv) include a reuse plan for fluids that will be used to hydraulically fracture wells.

The current ANFR has moved and paraphrased language of 58 P.S. § 3211(m)(2) from subsection 78a.69(g) to proposed subsection 78a.69(b). The proposed language in 78a.69(b) should, but does not, accurately track the Legislature's language in 58 P.S. § 3211(m)(2) so that the burden is not shifted inappropriately. For instance, the Department has proposed to add a new criterion in subsection 78a.69(b)(5) – "Protect groundwater resources including nearby water wells." The proposed addition of this criterion is confusing because 58 P.S. § 3211(m)(2)(i) does not allow WMP that will "adversely affect the quantity or quality of water available to other users of the same water sources", whereby "water sources" is proposed to be defined to include "waters of the Commonwealth" which includes groundwater. As such, this new criterion in subsection 78a.69(b)(5) is duplicative and could lead to confusion, and therefore should be deleted. Additionally, MSC recommends that the Department should be obligated to notify an unconventional operator if it denies an operator's application to withdraw or use a water source.

MSC's suggested amendatory language:

- (g) The Department shall review and approve water management plans based upon a determination that the proposed withdrawal, when operated in accordance with the proposed withdrawal operating conditions set forth in the plan, including conditions relating to quantity, withdrawal rate and timing and any passby flow conditions, will:
 - (1) Not adversely affect the quantity or quality of water available to other users of the same water sources;
 - (2) Protect and maintain the designated and existing uses of water sources;
 - (3) Not cause adverse impact to water quality in the watershed considered as a whole; and
 - (4) Include a reuse plan for fluids that will be used to hydraulically fracture wells.

The Department shall notify an operator in writing if it has denied an operator's application for the withdrawal or use of a water source for inclusion in the operator's WMP.

§ 78a.70. Road-spreading of brine for dust control and road stabilization.

MSC comment:

MSC objects to the outright prohibition of unconventional production brines, as the quality – and not the source – of the production brines should be the determining factor as to whether the production brines can be used for dust control and road stabilization.

~~**{(a) Road spreading of brine from oil and gas wells for dust suppression and road stabilization shall be conducted under a plan approved by the Department and may not result in pollution of the waters of the Commonwealth. Only} NO production brines from {conventional} UNCONVENTIONAL wells, {not including coalbed methane wells,} may be used for dust suppression and road stabilization. {under this section. The use of drilling, hydraulic fracture stimulation flowback, plugging fluids or production brines mixed with well servicing or treatment fluids, except detergents, may not be used for dust suppression and road stabilization.**~~

* * *

§ 78a.70a. Pre-wetting, anti-icing and de-icing.

MSC comment:

MSC objects to the outright prohibition of unconventional production brines, as the quality – and not the source – of the production brines should be the determining factor as to whether the production brines can be used for dust control and road stabilization.

~~**{(a) Use of brine from oil and gas wells for pre wetting, anti icing and de icing shall only be conducted under a plan approved by the Department and may not result in pollution of the waters of the Commonwealth. Only} NO production brines from {conventional} UNCONVENTIONAL wells, {not including coalbed methane wells,} may be used for pre-wetting, anti-icing and de-icing. {under this section. The use of drilling, hydraulic fracture stimulation flowback, plugging fluids, or production brines mixed with well servicing or treatment fluids, except detergents, may not be used for pre wetting, anti icing and de icing activities.**~~

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Subchapter D. WELL DRILLING, OPERATION AND PLUGGING

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§ 78a.73. General provision for well construction and operation.

(a) The operator shall construct and operate the well in accordance with this chapter and ensure that the integrity of the well is maintained and health, safety, environment and property are protected.

(b) The operator shall prevent gas, oil, brine, completion and servicing fluids, and any other fluids or materials from below the casing seat from entering fresh groundwater, and shall otherwise prevent pollution or diminution of fresh groundwater.

(c) THE OPERATORS OF ACTIVE AND INACTIVE WELLS IDENTIFIED AS PART OF AN AREA OF REVIEW SURVEY CONDUCTED UNDER § 78a.52a (RELATING TO AREA OF REVIEW) THAT LIKELY PENETRATE WITHIN 1500 FEET MEASURED VERTICALLY OF A FORMATION INTENDED TO BE STIMULATED SHALL BE NOTIFIED AT LEAST 72 HOURS PRIOR TO COMMENCEMENT OF HYDRAULIC FRACTURING. Orphaned [or] AND abandoned wells identified AS PART OF AN AREA OF REVIEW SURVEY CONDUCTED under § 78a.52a (relating to AREA OF REVIEW [abandoned and orphaned well identification]) that likely penetrate WITHIN 1500 FEET MEASURED VERTICALLY OF a formation intended to be stimulated shall be visually monitored during stimulation activities. ALL WELLS WITH AN UNKNOWN TRUE VERTICAL DEPTH SHALL BE PRESUMED TO PENETRATE WITHIN 1500 FEET MEASURED VERTICALLY OF THE FORMATION INTENDED TO BE STIMULATED. The operator shall immediately notify the Department ELECTRONICALLY THROUGH THE DEPARTMENT'S WEB SITE of any change to [the] AN orphaned or abandoned well being monitored OR OF ANY TREATMENT PRESSURE CHANGES INDICATIVE OF ABNORMAL FRACTURE PROPAGATION AT THE WELL BEING STIMULATED. IN SUCH AN EVENT THE OPERATOR SHALL CEASE STIMULATING THE WELL THAT IS THE SUBJECT OF THE AREA OF REVIEW SURVEY and take action to prevent pollution of waters of the Commonwealth or discharges to the surface. THE OPERATOR MAY NOT RESUME STIMULATION OF THE WELL THAT IS THE SUBJECT OF THE AREA OF REVIEW SURVEY WITHOUT DEPARTMENT APPROVAL.

MSC Comment:

The obligation to notify other active or inactive well operators identified under proposed Section 78a.52a in advance of hydraulic fracturing must be a reasonable efforts standard. The operator should only be required to obtain and use information in current Department records for the active or inactive well operator, and notice should be via certified mail or other reasonable method to confirm notice was provided.

MSC objects to the Department's proposal that all wells in the area of review with an unknown true vertical depth (no well record) are presumed to penetrate within 1,500 feet measured vertically of the formation intended to be stimulated. This proposal is untenable and illogical for reasons more fully described below.

As the state where oil was originally discovered in 1859, Pennsylvania has a long history of oil and gas drilling. During the first 100 years of the industry, there were no requirements set by Pennsylvania for well permitting or registration. Estimates have been made that several hundred thousand undocumented wells might exist in Pennsylvania from this early and unregulated period. There are, however, numerous published reports and other private records of such early drilling, that describe technologies employed, depths drilled and commercially developed fields during this time period. Many of these reports were compiled by the Pennsylvania Geological Survey and US Geological Survey working with oil and gas companies at the time such reports were compiled. These reports confirm that early exploration and field development was conducted at depths generally less than 3,000 feet, with very minor exception. The first significant "deep" drilling in Pennsylvania occurred in 1930-1950, targeting the Oriskany sandstone located just beneath the Marcellus Shale. Initial "deep" wells were very expensive by 1930's standards, and quite prolific, so there was great interest in documenting that activity. There are numerous detailed reports that document this early deep drilling in Tioga, Potter, and surrounding counties elsewhere in the state. The Pennsylvania Geologic Survey, as the agency that compiled many of these deep drilling reports, constructed a database of deep well records that MSC understands to be quite complete. Later drilling (1960's and later) required permitting, so is well-chronicled in DEP records for wells of all depths.

In several areas of Pennsylvania, it is possible that abandoned wells with no depth record may be found. However, it is a near certainty that these wells are less than 3,000 feet deep, and not a possible conduit for fluids during hydraulic fracturing operations for an unconventional well. As an example, one operator has a proposed well pad in Washington County that falls within the McDonald Oilfield, a very prolific oilfield that was discovered in the 1880's. Based on old, published reports, there are over 100 wells that fall within the proposed area of review around the proposed lateral wellbores planned at this location. None of these wells has an original well record, although it is well known that the zones that were targeted for drilling and that produced from this field were found at depths less than 2,500 feet. To assume that all of these wells have total depths within 1,500 feet of the Marcellus Shale (approximately 6,500 feet in this area), and to try and monitor them as described in the proposed regulation is nonsensical, an unnecessary expense, and would provide no environmental protection. There have been a series of important technical papers in the past several years concluding that the vertical extent of induced fractures is finite, and rarely exceed 1,500 feet. MSC understands that there has been no case where hydraulic fracturing fluids have migrated vertically from an induced fracture in the Marcellus shale into wells with total depth more than 1,500 feet above the shale.

MSC recommends that the Department's proposal be amended to allow operators to demonstrate – through the presentation of data or other evidence (see proposed subsection 78a.52a(b)) – to the Department that wells in the area of review with an unknown true vertical depth are not likely to penetrate within 1,500 feet measured vertically of the formation intended to be stimulated. As described above, there is other data available that could be presented to demonstrate likely depth of well; for instance, the Pennsylvania Geologic Survey historical reports about oil and gas development in certain localities of evidence.

The requirement to visually monitor identified wells during hydraulic fracturing is subjective and therefore not a clear standard, and may not be possible in certain cases where surface access is prohibited by landowners. It is not practical to continuously monitor wells over long periods of time, and it is not clear to the MSC whether the proposed language would require 24 hour/7 days a week monitoring.

Locating a well in the field that has been identified from the Department's database or an old map or geologic report is not assured for a variety of reasons and access to private lands to conduct a search may not be possible for an operator. A reasonable efforts standard should apply to both the obligation to locate and the obligation to monitor wells.

Changes in stimulation treatment pressures that may be indicative of "abnormal fracture propagation" should not require reporting to the Department. The terminology "abnormal fracture propagation" is far too subjective to be a proper basis for triggering an immediate notification to the Department, and would generally be indicative of situations having no probable relevance to impacting another well. For example, if a stimulation plan calls for fracture propagation to approximately 300 feet, and treatment pressure indicates that fractures may only be extending 100 feet or may be extending to 500 feet, both of those situations could be considered "abnormal" by the operator but would have no relevance to impacting a well that may be 1000 feet away.

It is not reasonable for the Department to require "immediate" notifications to be done "electronically" given the remoteness of some of these visual monitoring activities, nor is it necessary. MSC suggests that the Department either change the notification requirement to within 24 hours, in which case electronic notification would be acceptable, or remove the electronic requirement from the immediate notification provision.

MSC suggested amendatory language:

(c) The operators of active and inactive wells identified as part of an area of review survey conducted under § 78a.52a (relating to area of review) that likely penetrate within 1500 feet measured vertically of a formation intended to be stimulated shall be notified at least 72 hours prior to commencement of hydraulic fracturing. Orphaned and abandoned wells identified as part of an area of review survey conducted under § 78a.52a (relating to area of review) likely penetrate within 1500 feet measured vertically of a formation intended to be stimulated shall be visually monitored during stimulation activities, provided that surface access can be obtained. The operator shall immediately notify the Department of any change to an orphaned or abandoned well being monitored. In such an event the operator shall cease stimulating the well that is the subject of the area of review survey and take action to prevent pollution of waters of the Commonwealth or discharges to the surface. The operator may not resume stimulation of the well that is the subject of the area of review survey without Department approval.

(d) An operator that alters an orphaned or abandoned well by hydraulic fracturing shall plug the orphaned or abandoned well IN ACCORDANCE WITH THIS CHAPTER, OR THE OPERATOR MAY ADOPT THE ALTERED WELL AND PLACE IT INTO PRODUCTION.

MSC comment:

The requirement that an operator who alters an orphaned or abandoned well must plug the well may require assistance from the Department, particularly with respect to police powers to gain access to a site on private property.

~~[(c)]~~ **(e)** After a well has been completed, recompleted, reconditioned or altered the operator shall prevent surface shut-in pressure and surface producing back pressure inside the surface casing or coal protective casing from exceeding the following pressure: 80% multiplied by 0.433 psi per foot multiplied by the casing length (in feet) of the applicable casing.

~~[(d)]~~ **(f)** After a well has been completed, recompleted, reconditioned or altered, if the surface shut-in pressure or surface producing back pressure exceeds the pressure as calculated in subsection ~~[(c)]~~ **(e)**, the operator shall take action to prevent the migration of gas and other fluids from lower formations into fresh groundwater. To meet this standard the operator may cement or install on a packer sufficient intermediate or production casing or take other actions approved by the Department. This section does not apply during testing for mechanical integrity in accordance with State or Federal requirements.

~~[(e)]~~ **(g)** Excess gas encountered during drilling, completion or stimulation shall be flared, captured or diverted away from the drilling rig in a manner that does not create a hazard to the public health or safety.

~~[(f)]~~ **(h)** ~~[Except for gas storage wells, the]~~ THE well must be equipped with a check valve to prevent backflow from the pipelines into the well.

* * *

Subchapter E. WELL REPORTING

§ 78a.121. Production reporting.

~~(a) [The well operator shall submit an annual production and status report for each permitted or registered well on an individual basis, on or before February 15 of each year.] [The operator of a well permitted to produce gas from the Marcellus shale formation] Each operator of an unconventional well shall submit a MONTHLY production and status report for each well on an individual basis, [on or before February 15 and August 15 of each year] WITHIN 45 CALENDAR DAYS OF THE CLOSE OF EACH MONTHLY REPORTING PERIOD. Production shall be reported [for the preceding calendar year or in the case of {a Marcellus shale} an unconventional well,] for the preceding [6 months] reporting period.~~ When the production data is not available to the operator on a well basis, the operator shall report production on the most well-specific basis available.

(b) The ~~[annual]~~ MONTHLY production report must include information on the amount and type of waste produced and the method of waste disposal or reuse, INCLUDING THE SPECIFIC FACILITY OR WELL SITE WHERE THE WASTE WAS MANAGED. Waste information submitted to the Department in accordance with this subsection is deemed

to satisfy the residual waste biennial reporting requirements of § 287.52 (relating to biennial report).

MSC comment:

Act 173 of 2014, known as the Unconventional Well Report Act, effective March 31, 2014, repealed 58 P.S. § 3222a.1 of the Oil and Gas Act of 2012 and required unconventional oil and gas well operators to file a monthly well production report with the Department. Act 173 does not address waste production reporting, and the proposed revisions to § 78.121(b) are contrary to the intent of Act 173. Moreover, the proposed revisions are well in exceedance of Pennsylvania's Solid Waste Management Act and its implementing regulations. Pursuant 25 Pa. Code § 287.52, persons or municipalities that generate more than an average of 2,200 pounds of residual waste per generating location per month based on generation in the previous year are required to submit a biennial report by March 1 of each odd numbered year. Pursuant to the current 25 Pa. Code § 78.121, unconventional oil and gas well operators are required to submit waste production data on February 14 and August 14 of each year (the current rule still reflects annual waste production reporting, which is not consistent with current Department requirements for unconventional oil and gas well operators). This is already four times more frequent than what is required by 25 Pa. Code § 287.52 for every other industry entities, as well as municipalities, that meet the threshold generation amount. The proposed revisions, which are outside the intent of Act 173 and beyond the scope of Pennsylvania's Solid Waste Management Act, propose to unduly expand the reporting requirement for unconventional oil and gas well operators to twelve times a year. This would be **24 times** more frequent than what is required by 25 Pa. Code § 287.52 for every other industry.

Presently, the Department's waste reporting portion of the production report requires that the specific waste processing or disposal facility, or other method of waste management, be selected from a pre-populated drop down list, and does not allow the user to enter other information, such as a well site name. Since the Department has not provided industry with a proposed form revision for us to review that would accommodate this change, the requirement to specify a "well site where the waste was managed" should be removed.

According to MSC's member unconventional oil and gas well operators, preparation of the waste data would take at least 20-30 hours per month, and could potentially take much longer depending on the number of unconventional wells owned by the operator and the number of specific facilities or wells sites where the waste produced was managed. The proposed increase in frequency and data requested to monthly reporting places significant costs on operators without providing a commensurate benefit to the public or PADEP. Pulling, sorting and filtering data on a monthly basis is not a feasible or cost effective exercise, nor will it provide the Department with any additional information that is not already provided in the current semiannual reporting structure. As such, MSC suggests that subsection 78.121(b) be modified to reflect the Department's current requirements for unconventional oil and gas well operators to submit the amount and type of waste produced and the method of waste disposal or reuse semiannually on February 14 and August 14 of each year.

MSC's suggested amendatory language:

(b) The production report due on or before February 14 and August 14 of each year must include information on the amount and type of waste produced and the method of waste

disposal or reuse. Waste information submitted to the Department in accordance with this subsection is deemed to satisfy the residual waste biennial reporting requirements of § 287.52 (relating to biennial report).

~~(b)~~ (c) The production report shall be submitted electronically to the Department through its web site.

§ 78a.122. Well record and completion report.

(a) For each well that is drilled or altered, the operator shall keep a detailed drillers log at the well site available for inspection until drilling is completed. Within 30 calendar days of cessation of drilling or altering a well, the well operator shall submit a well record to the Department on a form provided by the Department that includes the following information:

MSC Comment:

The driller log references in subsections (a) and (a)(9) are vague and could be confusing to industry. If intended to be the same drillers log in both subsections, the drilling personnel on the rig are not the appropriate parties to provide the name and depth of formations from the surface to total depth, depth of oil and gas producing zone, depth of fresh water and brines. This is a post well process for other personnel to evaluate and prepare, and it is not appropriate to require industry to have this information be available at the rig site while drilling.

- (1) Name, address and telephone number of the permittee.**
- (2) Permit number, and farm name and number.**
- (3) Township and county.**
- (4) Date drilling started and completed.**
- (5) Method of drilling.**
- (6) Size and depth of conductor pipe, surface casing, coal protective casing, intermediate casing, production casing and borehole.**
- (7) Type and amount of cement and results of cementing procedures.**
- (8) Elevation and total depth.**
- (9) Drillers log that includes the name and depth of formations from the surface to total depth, depth of oil and gas producing zone, depth of fresh water and brines and source of information.**
- (10) Certification by the operator that the well has been constructed in accordance with this chapter and any permit conditions imposed by the Department.**
- (11) Whether methane was encountered other than in a target formation.**

MSC comment:

This requirement is vague and very broad, as there is no limit to the location. This requirement should be clarified to better identify the location(s) where methane may be encountered.

(12) The country of origin and manufacture of tubular steel products used in the construction of the well.

(13) The borrow pit used for well site development, if any.

(14) CERTIFICATION BY THE OPERATOR THAT THE MONITORING PLAN REQUIRED UNDER SECTION 78a.52a (RELATING TO AREA OF REVIEW) WAS CONDUCTED AS OUTLINED IN THE AREA OF REVIEW REPORT.

MSC comment:

MSC recommends that this section, which appears for the first time in the ANFR, be deleted. The § 78a.52a monitoring plan requirements are just one of many requirements that operators must adhere to, and there is no reason to single this requirement out as one that must be certified in the well record report. The § 78a.52a monitoring plan will have to be submitted to PADEP, per 78a.52a(d), which is adequate proof that the monitoring plan was developed. In addition, the monitoring plan will not actually be “conducted” per § 78a.73(c) until the well is stimulated, which may be long after the well record is due, so certification in the well record that the monitoring plan was actually “conducted” would not be possible in those cases.

[(11)] ~~(14)~~ (15) Other information required by the Department.

(b) Within 30 calendar days after completion of the well, when the well is capable of production, the well operator shall [submit] arrange for the submission of a completion report to the Department on a form provided by the Department that includes the following information:

MSC comment:

This language for completion reports states that submissions shall be made “when the well capable of production”. This wording is unclear and should be clarified to account for the time between completion and the initial turn in line date of the well.

MSC’s suggested amendatory language:

(b) Within 30 calendar days after completion of the well, when the well is capable of production and turned in line, the well operator shall arrange for the submission of a completion report to the Department on a form provided by the Department that includes the following information:

- (1) Name, address and telephone number of the permittee.
- (2) Name, address and telephone number of the service companies.
- (3) Permit number and farm name and number.

(4) Township and county.

(5) Perforation record.

(6) Stimulation record which includes the following:

(i) A descriptive list of the chemical additives in the stimulation fluid, including any acid, biocide, breaker, brine, corrosion inhibitor, crosslinker, demulsifier, friction reducer, gel, iron control, oxygen scavenger, pH adjusting agent, proppant, scale inhibitor and surfactant.

(ii) The percent by **[volume] mass** of each chemical additive in the stimulation fluid.

(iii)[A list of the chemicals in the Material Safety Data Sheets, by name and chemical abstract service number, corresponding to the appropriate chemical additive.] The trade name, vendor and a brief descriptor of the intended use or function of each chemical additive in the stimulation fluid.

(iv)[The percent by volume of each chemical listed in the Material Safety Data Sheets.] A list of the chemicals intentionally added to the stimulation fluid, by name and chemical abstract service number.

(v) The maximum concentration, in percent by mass, of each chemical intentionally added to the stimulation fluid.

[(v)] (vi) The total volume of the base fluid.

[(vi)] (vii) A list of water sources used under an approved water management plan and the volume of water used from each source.

[(vii)] (viii) The total volume of recycled water used.

[(viii)] (ix) The pump rate and pressure used in the well.

(7) Actual open flow production and shut in surface pressure.

(8) Open flow production and shut in surface pressure, measured 24 hours after completion.

(9) The freshwater [and centralized] impoundment, if any, used in the development of the well.

(c) When the well operator submits a stimulation record, it may designate specific portions of the stimulation record as containing a trade secret or confidential proprietary information. The Department will prevent disclosure of the designated confidential information to the extent permitted under the Right-to-Know Law (65 P.S. §§ 67.101—~~67.3103~~ 67.3104) or **other applicable State law.**

MSC comment:

Section 78a.122 sets forth requirements relating to well records and completion reports. With respect to the proposed revisions to Section 78a.122(b) related to well completion reports, the revisions recognize the fact that vendors and service providers hired by well operators do not disclose to the operators certain information about the chemicals added to the stimulation fluid because that information is considered by the vendor or service provider to be a trade secret or confidential proprietary information. This dynamic is reflected in the current oil and gas regulations at 25 Pa. Code § 78a.122(d), which recognizes the relationship among operators, vendors and service providers by allowing operators to arrange to have their vendors and service providers provide certain information directly to the Department when necessary. MSC appreciates that the Department has retained this concept in its proposed revisions to Chapter 78 and supports those proposed changes to Section 78a.122(b).

In a scenario where a vendor or service provider is providing information directly to the Department in accordance with Section 78a.122(b), as proposed, it is the vendor or service provider that considers the information to be a trade secret or confidential proprietary information. Consistent with that framework, MSC believes that Section 78a.122(c), as proposed, should be revised slightly to recognize that the vendor or service provider (as opposed to the operator) may be the entity designating the information submitted directly to the Department as a trade secret or confidential proprietary information. These minor changes will harmonize the requirements in Section 78a.122(c), as proposed, with the structure reflected both in Section 78a.122(b), as proposed, and as currently exists in the oil and gas regulations.

MSC's suggested amendatory language:

(c) When a stimulation record is submitted, specific portions of the stimulation record may be designated as containing a trade secret or confidential proprietary information. The Department will prevent disclosure of the designated confidential information to the extent permitted under the Right-to-Know Law (65 P. S. §§ 67.101—67.3103) or other applicable state law.

(d) THE WELL RECORD REQUIRED BY SUBSECTION (a) AND THE COMPLETION REPORT REQUIRED BY SUBSECTION (b) SHALL BE SUBMITTED ELECTRONICALLY TO THE DEPARTMENT THROUGH THE DEPARTMENT'S WEB SITE. [In addition to submitting a stimulation record to the Department under subsection (b), and subject to the protections afforded for trade secrets and confidential proprietary information under the Right-to-Know Law, the operator shall arrange to provide a list of the chemical constituents of the chemical additives used to hydraulically fracture a well, by chemical name and abstract service number, unless the additive does not have an abstract service number, to the Department upon written request by the Department.]

§ 78a.123. Logs and additional data.

a) If requested by the Department within 90 calendar days after the completion **[of drilling]** or recompletion **[of a well] of drilling**, the well operator shall submit to the Department a copy of the electrical, radioactive or other standard industry logs run on the well.

(b) In addition, if requested by the Department within 1 year of the completion **[of drilling]** or recompletion **[a well] of drilling**, the well operator shall file with the Department a copy of the drill stem test charts, formation water analysis, porosity, permeability or fluid saturation

measurements, core analysis and lithologic log or sample description or other similar data as compiled. No information will be required unless the operator has had the information described in this subsection compiled in the ordinary course of business. No interpretation of the data is to be filed.

MSC comment:

Paragraphs (a) and (b) paraphrase language from section 3222 of Act 13. Current Chapter 78 regulations provide that this information could be submitted up to 3 years after completion of a well, providing an effective 3 year confidentiality period for this data. The proposed paragraph (d) would eliminate the confidentiality period for log information described in paragraph (a), requiring that logs be submitted immediately upon request. The MSC believes it is important to maintain a reasonable confidentiality period for all geologic data submitted to the Department in order to protect the enormous capital investment being committed to development of the Commonwealth's oil and natural gas resources. We believe that a 3 year confidentiality period is adequate and is consistent with rules applied in other oil and gas producing states.

MSC's suggested amendatory language:

(a) If requested by the Department, the well operator shall, within 90 days of completion or recompletion of drilling, submit a copy of any electrical, radioactive or other standard industry logs which have been run. Any such data submitted under this subsection shall be held confidential by the Department for a period of three years following completion of drilling or deepening.

[(b)] (c) Upon notification by the Department prior to drilling, the well operator shall collect additional data specified by the Department, such as representative drill cuttings and samples from cores taken, and other geological information that the operator can reasonably compile. Interpretation of the data is not required to be filed.

[(c) The information requested by the Department under subsections (a) and (b) shall be provided to the Department by the operator, within 3 years after completion of the well unless the Department has granted an extension or unless the Department has requested information as described in subsection (d). If the Department has granted an extension, the information shall be submitted in accordance with the extension, but in no case may the extension exceed 5 years from the date of completion of the well.

(d) In accordance with the request of the Department, the operator shall submit the information described in this section for use in investigation or enforcement proceedings, or in aggregate form for statistical purposes.]

(d) Data required under subsections (b) and (c) shall be retained by the well operator and filed with the Department no more than 3 years after completion of the well. Upon request, the Department will extend the deadline up to 5 years from the date of completion of the well.

(e) The Department is entitled to utilize information collected under this section in the enforcement proceedings, in making designations or determinations under section 1927-A of The Administrative Code of 1929 (71 P.S. § 510-27) and in aggregate form for statistical purposes.

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Subchapter G. BONDING REQUIREMENTS

§ 78a.301. Scope.

In addition to the requirements of section [215 of the act (58 P.S. § 601.215)] 3225 of the act (relating to bonding), and section 1606-E of The Fiscal Code (72 P.S. § 1606-E), this subchapter specifies certain requirements for surety bonds, collateral bonds, replacement of existing bonds, maintaining adequate bond and bond forfeiture.

MSC comment:

MSC recommends that the reference to 72 P.S. § 1606-E be deleted. This provision applies only to conventional wells, and should not be referenced in Chapter 78a.

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