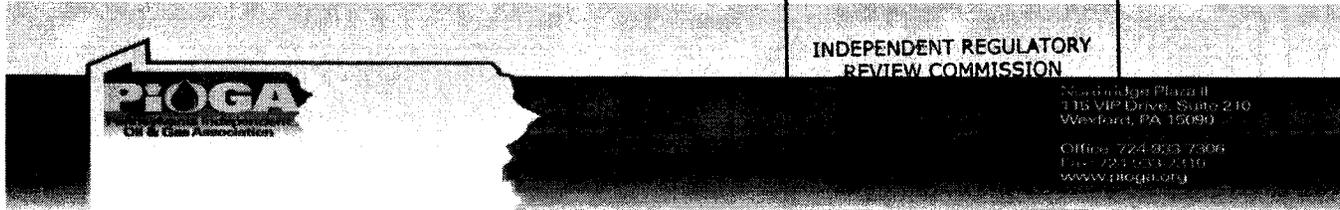


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REVIEW COMMISSION

March 14, 2014



Summary of PIOGA's comments on EQB's proposed amendments to 25 Pa. Code Chapter 78

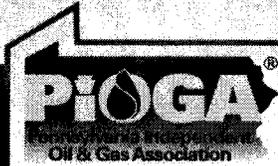
PIOGA appreciates the difficult task of the Environmental Quality Board to promulgate necessary regulations for the conduct of oil and gas operations in Pennsylvania that provide a balanced protection of property rights and the environment, allowing for the optimal development of oil and gas resources. PIOGA believes, however, that this regulatory package should be disapproved and resubmitted after revision because:

- The regulations were not complete when submitted to the EQB for publication, in part because the Department did not fully consult with the Technical Advisory Board, as required under Act 13.
- The recent Pennsylvania Supreme Court decision in *Robinson Twp. v. Commonwealth* removed the EQB's authority to promulgate new rules pursuant to Act 13 Section 3215(c) or 3215(e);
- DEP failed to review, assess, or inform the EQB and the public about the true financial impacts of the rulemaking on the oil and gas industry, especially for conventional operations; and
- DEP failed to comply with the express requirements of the Regulatory Review Act, as amended in 2012 by Act 76, to provide for reasonable accommodations and exceptions for small businesses, which constitute the majority of conventional operators.

PIOGA's comments offer these recommendations to help turn this well-intentioned, expansive proposal for consideration into a legitimate proposed regulation with a more firm foundation for public comment:

- The current scope of Chapter 78 – drilling, operation, alteration and plugging of oil and gas wells – should be retained. New rules for pipelines or impoundments should not be developed to target this industry in a unique manner, as § 78.59a.-59c. and §78.68-68b do. These rules should be deleted.
- Section 78.15's proposed well permit application requirements would create unlawful and unnecessary burdens for permit applicants regarding "special concern species" and require authorizing legislation.
- It is unreasonable for the Department to require the oil and gas industry alone to address water supplies that do not meet SDWA standards for causes or constituents unrelated to oil and gas operations. Section 78.51 should not be revised in a manner that would alter current water restoration obligations.
- EQB should adopt rules that facilitate the reuse and recycling of flowback and drill cuttings. (§ 78.58)
- Section 78.65 (site restoration) may not improperly expand restoration obligations during the well site's production phase. It also should be revised to facilitate the review and approval of restoration extension requests per the clear legislative intent of Act 13, § 3216(g).
- Section 78.66 (spill reporting and remediation) should not *mandate* compliance with Act 2 or impose alternative onerous reporting or remediation obligations that have no compelling justification.
- Any new comprehensive regulation must allow industry a reasonable amount of time to implement the sweeping new and complex operational and design criteria and clearly grandfather existing well sites and facilities associated with conventional oil and gas operations.

PIOGA also specifically endorses the Pennsylvania Grade Crude Oil Coalition's recommendation to place into a separate subchapter the regulations exclusively directed toward unconventional wells.



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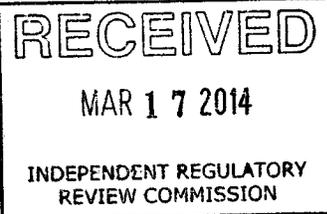
March 14, 2014

3042

Via email to: RegComments@pa.gov

Via Hand Delivery to:

Environmental Quality Board
Rachel Carson State Office Building, 16th Floor
400 Market Street
Harrisburg, PA 17101-2301



Re: Proposed amendment to 25 Pa. Code Chapter 78 (relating to oil and gas wells).

Honorable Members of the Board:

The Pennsylvania Independent Oil & Gas Association respectfully submits the following comments regarding the Environmental Quality Board's proposed amendments to 25 Pa. Code Chapter 78 that were published in the *Pennsylvania Bulletin* on December 14, 2013. The proposed rulemaking would substantially (and negatively, in our opinion) alter existing requirements regarding all aspects of oil and gas operations in Pennsylvania, for both conventional and unconventional operations.

PIOGA is a nonprofit trade association, with nearly 1,000 members, representing Pennsylvania independent oil and natural gas producers, marketers, service companies and related businesses, landowners and royalty owners. PIOGA members are subject to provisions of Pennsylvania's Oil and Gas Act (Act 13), Clean Streams Law, and other environmental statutes and implementing regulations relevant to oil and gas operations in Pennsylvania. The association and our members therefore have a direct interest in the Board's comprehensive proposal to revise Chapter 78, Subchapters A, B, C, D, E, G and H.

Introduction

PIOGA has participated in numerous meetings with the Department of Environmental Protection (DEP) since it first proposed a concept paper recommending changes to Chapter 78 in February 2012. We also participated in the July/August Technical Advisory Board (TAB) work group meetings established last summer to enable all stakeholders to discuss four critical but incomplete components of the proposed regulations. PIOGA appreciates DEP's efforts to engage in public discussion with industry and other stakeholders, but continues to have serious concerns about the legal basis upon which much of the proposed regulations depend, as well as the enormous negative impacts on oil and gas operations – especially conventional – that would be imposed without clear environmental benefits. The proposed regulations would impose costs and

burdens on conventional operations that would likely put many of these small businesses out of business. This would clearly harm a long-standing core of Pennsylvania's economy without justification and is unacceptable by any measure. Furthermore, the Precautionary Principle means that the Commonwealth bears the burden of demonstrating the proposed rules will either cause no harm or that the harm can be mitigated. The Commonwealth has not met this burden.

In short, the proposed regulations require substantial revision and additional opportunities for public comment before it may be finalized because:

- 1) the regulations were not complete when they were submitted to EQB for publication;
- 2) the recent Pennsylvania Supreme Court decision in *Robinson Twp. et al. v. Commonwealth et al.* raises substantial questions about the EQB's authority to promulgate any new rules pursuant to Act 13 Section 3215 (public resources);
- 3) the proposed well permit application requirements related to public resources create unauthorized and unnecessary burdens on permit applicants;
- 4) DEP failed to review, assess, or inform the EQB and the public about the true impacts of the rulemaking on the oil and gas industry, especially conventional operations; and
- 5) DEP failed to comply with the express requirements of the Regulatory Review Act, as amended in 2012 by Act 76, to provide for reasonable accommodation and exceptions for small businesses, which constitute the majority of conventional operators.

PIOGA offers the following general comments, followed by a thorough review of the proposed regulations section-by-section, and suggests alternative language for numerous sections where reasonable accommodation must be made.

I. When DEP forwarded the proposed regulations to the Environmental Quality Board in August 2013, it failed to comport with Section 3226 of Act 13 because it did not fully consult with the Technical Advisory Board in the formulation, drafting or presentation stages of the regulations, as required by Act 13.

In May 2013, TAB asked DEP not to submit the regulation package to the EQB as a proposed regulation because it was incomplete, as significant portions of the proposal were unresolved. In this sense, the regulation package was in the nature of an Advance Notice of Proposed Rulemaking (ANPR or ANOPR), which is not a part of the formal Regulatory Review Act (RRA) procedure but is used by some agencies to solicit public comment to formulate their regulatory proposals.¹ Being incomplete, the regulation package at this point was not a "proposed regulation" as defined in the RRA: "A document *intended for promulgation as a regulation* which an agency submits to the commission and the committees and for which the agency gives notice of proposed rulemaking and holds a public comment period pursuant to the . . . Commonwealth Documents Law."² (Emphasis added).

Indeed, DEP's May 10, 2013 email response to TAB's request acknowledged that the proposed submission was a "proposal for consideration," the implication being that additional

¹ See, e.g., The Regulatory Review Process in Pennsylvania 2012, http://www.irrc.state.pa.us/PDFs/Regulatory_Review_Process_Manual.PDF, at 23; *Rulemaking to Amend the Provisions of 52 Pa. Code, Chapter 56 to Comply with the Provisions of 66 Pa.C.S., Chapter 14; General Review of Regulations*, Docket No. L-00060182 [IRRC #2743], FINAL RULEMAKING ORDER, March 22, 2011, at 5: Our ANOPR "enabled us to gather input from the industry, consumer groups, and advocates before drafting the proposed revisions . . ."

² Commonwealth Documents Law, Act of July 31, 1968 (P.L.769, No.240)].

comment was welcome to finalize the Department's position on these aspects of the regulatory proposal. Accordingly, DEP established a TAB subcommittee workshop process to obtain additional information on these critical and unresolved issues:

- Public resource protection/ special concern species
- Waste management at well sites
- Pre-hydraulic fracturing assessment (abandoned and orphan wells)
- Water supply restoration standards

However, the Department made no changes based on the TAB subcommittee process before submitting the package to the EQB as a proposed regulation in August 2013. DEP's mere proposal with so many unresolved issues cannot, as a matter of law, be considered a regulation intended to be promulgated "as is," which it must be to qualify as a "proposed regulation" as defined in the RRA. Accordingly, after DEP finalizes its position on these aspects of the regulatory proposal *that could be effective as proposed*, the completed proposal must be resubmitted to EQB as a valid "proposed regulation" to comply with the RRA, with additional opportunity for public comment.

At this point in time, there is no complete rulemaking proposal upon which the public may provide meaningful comment. The regulation package should be resubmitted as a valid new proposed regulation with additional opportunities for public comment.

II. The recent Pennsylvania Supreme Court decision in *Robinson Township et al. v. Commonwealth of Pennsylvania et al.* removed the EQB's authority to move forward with the consideration or promulgation of any new rules pursuant to Section 3215(c) or 3215(e) of Act 13 with respect to public resources.

On December 19, 2013, the Pennsylvania Supreme Court ruled that Sections 3215(b) and 3215(d) of Act 13 are invalid and enjoined the application and enforcement of these sections. The Opinion Announcing the Judgment of the Court (OAJC) also stated that "insofar as Section 3215(c) and (e) are part of the 3215(b) decisional process, these provisions are as well incomplete and incapable of execution in accordance with legislative intent. *Application of Section 3215(c) and (e) is therefore, also enjoined.*" (Emphasis added).³ In the Commonwealth's subsequent request for reconsideration of the Supreme Court's ruling with respect to Sections 3215(c) and (e), DEP has acknowledged that these sections are currently enjoined.⁴

At this juncture, the EQB has no authority to promulgate a regulation that would authorize DEP to impose permit conditions for the mitigation of impacts to public resources *in the absence of Sections 3215 (c) and (e)* because these sections have been invalidated by the Pennsylvania Supreme Court.

DEP itself previously has stated that it has no authority to impose permit conditions regarding public resources. On November 6, 2013, three industry trade associations (PIOGA, the Pennsylvania Grade Crude Oil Coalition (PGCC) and the Pennsylvania Independent Petroleum

³ *Robinson et al. v. Commonwealth of Pennsylvania et al.*, (Pa. 2013), Opinion Announcing the Judgment of the Court (OAJC) at 159 (Part V; see also Part VI(D)).

⁴ Application for Reconsideration of the Opinions and Order entered on December 19, 2013, *Robinson Twp. et al. v. Commonwealth of Pennsylvania et al.*, Supreme Court of Pennsylvania M.D., Nos. 63, 64, 72 & 73 MAP 2012.

Producers (PIPP)) submitted a Right to Know Law request to DEP for all records related to well permit conditions that have been imposed to protect public resources with respect to aesthetic or recreational use impacts. DEP responded on January 7, 2014 that it had no such records and furthermore, that it “currently does not have the authority to condition well permits to mitigate impacts to public resources.”

III. The proposed well permit application requirements in Section 78.15 do not comply with legislative intent of Act 13, and neither DEP nor the EQB has been delegated any authority to impose obligations on well permit applicants with respect to “special concern species.”

DEP has no scientific or factual basis to impose obligations on oil and gas operators to protect “special concern species,” which are neither defined nor listed in accordance with any federal or state law or regulation. PIOGA has engaged in numerous conversations with DEP attorneys and staff about the basis upon which DEP would impose permit conditions to protect special concern species. On October 8, 2013, PIOGA met with representatives of DEP and various public resource agencies (Department of Conservation and Natural Resources (DCNR), Pennsylvania Game Commission (PGC), and Pennsylvania Fish & Boat Commission (PFBC)). In that meeting, the resource agencies acknowledged that the term “species of special concern” encompasses *all* species protected or sought to be protected in Pennsylvania.

This understanding is consistent with the publication that introduced the term – *Species of Special Concern in Pennsylvania* (H. H. Genoways and F. J. Brenner, eds., Carnegie Museum of Natural History, Special Public. No. 11, Pittsburgh, Pa., 1985), pp. 3, 5:

INTRODUCTION

Frank Dunstan – *National Audubon Society*

Thus Phase 1 of Pennsylvania’s Biological Survey, published here, determines the degree of threat to species, subspecies, and unique local populations of the native fauna and flora of the Commonwealth. *Species of Special Concern in Pennsylvania* deals with those plant and animal species whose continued existence in the Commonwealth is either threatened to a significant degree or which, because of biological factors or other causes, have a potential likelihood of becoming extirpated if present trends continue. (p. 3)

DEFINITIONS OF STATUS CATEGORIES

Frank Dunstan

Categories used to designate the status of organisms included in *Species of Special Concern in Pennsylvania* are defined below. . . .

In the following definitions, “species” is used in a general sense to include: 1) full taxonomic species, 2) subspecies or varieties, and 3) particular populations of a species or subspecies that do not have a formal taxonomic status. This use of the term agrees with that of the Federal Endangered Species Act of 1973.

Endangered.–

Threatened.–

Vulnerable.–

Status undetermined.–

Extirpated.— . . .
Recently extinct.— (p. 35)

In spite of this recognition that “special concern species” is an umbrella term that includes both listed and nonlisted species, each agency nevertheless populates the Pennsylvania Natural Diversity Inventory (PNDI) with something called “special concern species” that are not listed under state or federal rulemaking procedures. The resource agencies acknowledged that there are no set criteria, methods or processes for categorizing “special concern species.”

More importantly, in its response to PIOGA’s Right to Know Law request, DEP recently acknowledged – well after presenting this proposed rule to EQB in August of 2013 – that it has no records related to the definition, criteria or categorization of “special concern species.” DEP recommended that PIOGA could obtain such information from the relevant resource agencies. Accordingly, PIOGA sought such information from DCNR, PGC and PFBC. DCNR’s response to PIOGA’s January 6, 2014 Right to Know Law request states that DCNR does not use that term, has no such records, definition or criteria, but will provide a list of such species to DEP in accordance with DEP’s use of the term in its revised PNDI Policy of 2012.

Accordingly, DEP has drafted a proposed rule that would impose unknown and unlimited obligations to mitigate impacts to “special concern species” even though DEP had no information about the meaning of the term when the regulation was submitted to EQB in August 2013 – and still has none.

Second, while DEP’s proposal equates “critical communities” mentioned in Act 13 with “special concern species,” neither common sense nor the legislative history of the 1984 Oil and Gas Act supports this novel position.⁵ The Pennsylvania legislature did not intend in the 1984 law, and could not have intended, for the term “critical communities” to include or mean “special concern species” because, as acknowledged by the resource agencies and as shown above, the term “species of special concern” was introduced in 1985 as an “umbrella” term that encompasses threatened, endangered, rare and other categories of species, and their habitats. Some of these “species of special concern” have been listed through notice and comment rulemaking, while others are simply being noted for additional observation. As the term “critical communities” was clearly used in the 1984 Oil and Gas Act (and continued unchanged in the Act 13 reenactment) to mean a distinct category of communities to be protected, “critical communities” cannot be interpreted to encompass the entire universe of species and habitats that are encompassed within the term “species of special concern.” The DEP has no basis in law or fact from which to conclude or decree that the term “critical communities” means or is synonymous with the term “special concern species.”

Finally, neither DEP nor EQB has been delegated any statutory authority to promulgate any regulations with respect to species. Please see PIOGA’s detailed comments with respect to proposals for the mitigation of impacts to public resources generally, below.

⁵ Printer No. 2087 of Act 223, which first appeared on June 12, 1984, included the original appearance of the term “critical communities” in what became the Oil and Gas Act Section 205(c). This section of the Act is identical to Act 13 Section 3215(c). The Governor signed Act 223, including Section 205(c), into law on December 19, 1984. Section 205(c) was carried forward from Act 223 into Act 13 as Section 3215(c), unchanged except for the addition of Section 3215(c)(6).

- IV. The Department failed to review, assess, or inform the EQB and the public about the true impacts of the rulemaking on the oil and gas industry, especially conventional operations. DEP violated the Regulatory Review Act with respect to its assessing cost of compliance/impacts, and the rulemaking is being conducted in disregard to what the legislature intended

The Department's proposed revisions include numerous new obligations that would significantly increase operational costs and complexity for the oil and gas industry, and especially for conventional operations, without clear justification or environmental necessity. DEP has not fully considered the type or magnitude of costs associated with these requirements and has not provided any factual data or analysis to provide a compelling environmental need for the new requirements. None of the following proposed requirements flows from directives or mandates in Act 13; to justify adoption, each must be justified with a clear and compelling environmental need with a factual basis:

Section 78.52a (Abandoned and Orphaned Well Identification) proposes an obligation to identify the location of orphaned or abandoned wells within 1,000 feet of the well bore and along the entire length of a horizontal well bore, the costs of which would far outweigh any realizable benefits.

Section 78.73 (Well Construction and Operation) proposes an obligation to monitor orphan or abandoned wells and to notify the Department of "any change," take "action to prevent pollution of waters of the Commonwealth," and plug any orphan or abandoned well "altered" by hydraulic fracturing. In addition to obvious problems surrounding access to property not owned by the well operator, these ambiguous and sweeping obligations are not clearly delineated.

Section 78.57 (Production Fluids) proposes the removal, within three years of promulgation of the final regulations, of all underground or partially buried storage tanks used to store brine or other production fluids. This requirement fails to recognize the significant operational and cost impact on conventional operators and small businesses with dozens of such tanks.

Section 78.59a-c (Impoundments) would create requirements for freshwater and flowback impoundments that are more stringent than requirements for hazardous waste impoundments. These proposed requirements are excessive. More fundamentally, these sections are beyond the traditional scope of Chapter 78, which was not enlarged by Chapter 32 of Act 13, and should be deleted in their entirety as explained in more detail in the section-by-section comments below.

Section 78.66 (Reporting and Remediating Releases) would require small spills of less than 42 gallons of brine to be cleaned up and documented through the Land Recycling and Environmental Remediation Standards Act (known as Act 2, the Pennsylvania brownfields statute) process outlined in 25 Pa. Code Chapter 250. This proposal substantially increases the time and costs for addressing such small spills, especially on conventional (small business) operators - costs that far outweigh any environmental benefit to be realized in most circumstances.

Section 78.68 (Oil and Gas Gathering Lines) and Section 78.1 define “gathering lines” differently than Section 3218.5 of Act 13 and therefor differently than state and federal pipeline safety law. This section would impose requirements for these pipelines used in the oil and gas industry – as too broadly defined– that are not imposed on any other industry utilizing pipelines. More fundamentally, these requirements go beyond the traditional scope of Chapter 78, which was not enlarged by Section 3218.5 of Act 13, and should be deleted in its entirety as explained in the section-by-section comments below.

While each of these provisions will not affect every operator equally, the cumulative effect of the significant costs of this regulatory package will create substantial impacts to the oil and gas industry generally – and conventional (small business) operators particularly - and Pennsylvania’s economy. None of these new provisions has been justified by a factual analysis demonstrating that environmental impacts are not being addressed by existing regulations. No harms analysis has been provided that documents potential harm, let alone proposals to mitigate certain harms to Pennsylvania’s economy and to the individuals who work in the oil and gas industry, their families and their communities.

Additionally, the Department must allow industry a reasonable amount of time to implement the new and complex operational and design criteria after the effective date of the final regulation. DEP’s existing requirements are already among the most stringent oil and gas industry environmental standards in the country. Most proposed requirements apparently would become effective immediately upon the effective date of the final regulation and the proposed requirements would be even more stringent. A sudden and immediately enforceable change in regulatory requirements creates planning uncertainty for the oil and gas industry. Also, any reporting that requires new forms to be developed by DEP or electronic submissions by industry to DEP must be delayed until DEP has finalized its forms and implemented its electronic interface. Finalizing requirements without the opportunity to review and comment on the necessary implementation methods simply makes no sense. On the other hand, a phased implementation of many of the operational and design criteria in the Proposal makes sense and must be included in the rulemaking.

There should also be grandfathering provisions in the regulations. New standards should not apply to: (i) well sites and related operations that have been already constructed; (ii) to oil and gas well sites where wells have already been drilled; or (iii) to well sites and related operations for which permit applications have been submitted to DEP by an operator before the effective date of the final rulemaking. Without a grandfathering provision, unreasonable financial and practical burdens will be placed on the oil and gas industry, especially conventional (small business) operators, by requiring new operational and design criteria to apply to existing operations. Any requirement to retrofit or update existing operations would put Pennsylvania at a competitive disadvantage with respect to other states.

V. The Department failed to comply with the express requirements of the Regulatory Review Act, as amended in 2012 by Act 76, to provide for reasonable accommodation and exceptions for small businesses, which constitute the majority of conventional operators.

Many of PIOGA's conventional oil and gas operator members are small businesses within the scope of protections adopted by the Regulatory Review Act amendments of June 2012.⁶ Act 76 expressly recognizes that small businesses are critical to Pennsylvania's economy and that uniform regulatory and reporting requirements can impose unnecessary and disproportionately burdensome demands, including legal, accounting, and consulting costs, upon small businesses with limited resources.

Under Act 76, the Department must consider:

- the establishment of less stringent compliance requirements for small businesses;
- the establishment of less stringent schedules or deadlines for compliance or reporting requirements;
- the consolidation or simplification of compliance or reporting obligations;
- performance standards to replace design or operational standards; AND
- the exemption of small business from all or any part of the requirements contained in the proposed regulation.

DEP's Regulatory Analysis Form (RAF) shows that its regulation package simply does not comply with the Regulatory Review Act, as amended by Act 76 of 2012. The proposed regulations and RAF are legally and factually inadequate because DEP did not conduct the analyses required by Act 76 or provide flexible regulatory approaches for small businesses in accordance with Act 76. These actions must be a part of the proposed regulations so that small businesses and the public at large have the opportunity to review and provide meaningful comment on all proposed small business accommodations. PIOGA recommends that the EQB closely review PGCC's comments concerning the RAF for a detailed analysis of adverse impacts to conventional operations and operators, the majority of whom are Pennsylvania small businesses.

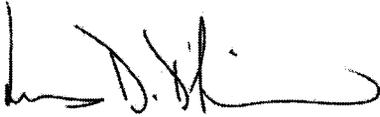
Conclusions

PIOGA respectfully submits these comments for EQB's consideration in its review of the proposed Chapter 78 regulations. We understand that these comments are being provided to the Independent Regulatory Review Commission and the applicable standing committees of the House and Senate, which is critical in light of PIOGA's concerns with the inadequacy of the Department's Regulatory Analysis Form. PIOGA also endorses comments submitted by PGCC on behalf of conventional operators, as well as the Marcellus Shale Coalition's comments on behalf of unconventional operators, and encourages the EQB to consider the full impact of the proposed regulations on conventional and unconventional operators individually and in the aggregate, and on Pennsylvania's economic future. PIOGA specifically endorses PGCC's recommendation that the EQB place regulations applicable only to unconventional operations in a subchapter separate from those that apply to oil and gas operations generally.

⁶ Act 76 of 2012, Act of Jun. 29, 2012, P.L. 657, No. 76.

PIOGA strongly urges the EQB to disapprove the DEP's Chapter 78 regulatory package as a valid "proposed regulation" under the RRA and direct DEP to draft a regulatory package that complies with the RRA and presents a *complete* final proposal to the public for comment – one that can be adopted as proposed, as required by the RRA. The EQB must ensure that the final regulations provide a balanced protection of property rights and the environment, and provide for the optimal development of oil and gas resources in accordance with Section 3202(1) of Act 13.

Sincerely,



Lou D'Amico
President and Executive Director
PIOGA

cc: E. Christopher Abruzzo, Secretary, Department of Environmental Protection
Patrick Henderson, Energy Executive, Governor's Office of Policy and Planning
Scott Perry, Deputy Secretary, Office of Oil and Gas Management, Department of Environmental Protection

Attachments: PIOGA's Master Chapter 78 Comments
 Illustration showing 2:1 interior pit slopes for comment to § 78.56
 PIOGA's September 18, 2013 letter to TAB (with detailed RAF analysis)

PIOGA's CHAPTER 78 COMMENTS

ANNEX A

Title 25. Environmental Protection Part. I. Department of Environmental Protection Subpart C. Protection of Natural Resources Article I. Land Resources CHAPTER 78. OIL AND GAS WELLS

§ 78.1. Definitions.

[(a) The words and terms defined in section 103 of the act (58 P. S. § 601.103), section 2 of the Coal and Gas Resource Coordination Act (58 P. S. § 502), section 2 of the Oil and Gas Conservation Law (58 P. S. § 402), section 103 of the Solid Waste Management Act (35 P. S. § 6018.103) and section 1 of The Clean Stream Law (35 P. S. § 691.1), have the meanings set forth in those statutes when the terms are used in this chapter.]

[(b)] (a) The following words and terms, when used in this chapter, have the following meanings, unless the context clearly indicates otherwise:

Act—[The Oil and Gas Act (58 P. S. §§ 601.101—601.605).] 58 Pa.C.S. §§ 3201-3274 (2012 Oil and Gas Act).

Act 2—The Pennsylvania Land Recycling and Environmental Remediation Standards Act (35 P.S. §§ 6062.101-6026.208).

PIOGA Comment:

PIOGA continues to object to the Department's efforts by policy and/or regulation to compel oil and gas operators to utilize what is a voluntary process for all other entities. Act 2 procedures should not be required for spills at oil and gas well sites but should continue to be available for operators who choose to use them to obtain relief from liability. As the Department is aware, Act 2 does not provide soil statewide health cleanup standards for chlorides, which is likely to be the most common constituent in spills on well sites. The absence of such a standard, along with the requirement to utilize Act 2 procedures rather than simply using a background standard or developing a site specific standard, would impose excessive and unnecessary costs on oil and gas operators that are not justified by any clear environmental benefit.

PIOGA Suggested Regulatory Change:

Remove the defined term and all references throughout Chapter 78 unless non-Act 2 alternatives are added.

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 oil and gas activities to the extent practicable.**~~

PIOGA Comment:

PIOGA objects to any requirement to return land to “approximate original conditions” unless such a commitment has been made in the approved site restoration plans or private agreements with landowners. No such obligation is created under any relevant statute and is without environmental justification. The use of the surface by those who hold the dominant mineral estate is constrained under Pennsylvania property law to a demonstration of “due regard” for the surface, which is unlikely to require restoration to the standards created in the definition above. The Department has not provided any environmental justification for this requirement.

Act 13 provides that portions of well sites not occupied by production facilities or equipment should be returned to approximate original contours when an extension of the site restoration period is sought. This language does not authorize the Department to create the unreasonable obligations in the definition above.

PIOGA Suggested Regulatory Change:

Remove the defined term and all references throughout Chapter 78.

* * *

Body of water—This term shall have the same meaning as defined in 25 Pa. Code § 105.1.

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.

PIOGA Comment:

As proposed, this definition would classify all site development activities as borrow pits since these activities involve earth disturbance. The definition would add additional permitting and bonding obligations under other applicable laws as referenced in the proposed Section 78.67. Borrow Pits.

PIOGA Suggested Regulatory 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.

* * *

~~**Centralized impoundment—A facility that meets the following:**~~

~~**(1) a natural topographic depression, manmade excavation or diked area formed primarily of earthen materials,**~~

~~**(2) designed to hold fluids or semi-fluids 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 persons or property,**~~

~~**(3) constructed solely for the purpose of servicing multiple well sites.**~~

PIOGA Comment:

Impoundments that contain freshwater, other fluids, and residual waste are extensively regulated in Pennsylvania by, inter alia, the Solid Waste Management Act and the Dam Safety and Encroachments Act. The proposed Chapter 78 standards are more stringent than existing state law. The Department has not justified a basis to impose more stringent standards than currently exist, and does not impose specific, more stringent standards on other industries. See our comments under Section 78.59c.

PIOGA Suggested Regulatory Change:

Delete this definition and section 78.59c.

* * *

~~**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.**~~

~~**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.**~~

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

~~**Conventional well—A bore hole drilled or being drilled for the purpose of or to be used for the production of oil or gas from a conventional formation.**~~

PIOGA Comment:

The rules as drafted do not adequately distinguish between conventional and unconventional wells. The way originally drafted the additional administrative and operational changes would apply across the board regardless of the nature or type of wells being developed or the scope or size of the business in operation.

PIOGA Suggested Regulatory Language:

Conventional well—A bore hole drilled or being drilled for the purpose of or to be used for the production of oil or gas from a conventional formation. Conventional wells are, irrespective of technology or design: (1) any wells drilled to produce oil; (2) wells drilled to produce natural gas from formations other than shale formations; (3) wells drilled to produce natural gas from shale formations located above the base of the Elk Group or its stratigraphic equivalent; and (4) 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 by using multilateral well bores or other techniques to expose more of the formation to the well bore; and (5) 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.

Department—The Department of Environmental Protection of the Commonwealth.

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.

Freshwater Freshwater impoundment—A facility that meets the following:

(1) is not regulated pursuant to 25 Pa. Code Chapter 105.3,

(2) a natural topographic depression, manmade excavation or diked area formed primarily of earthen materials although lined with synthetic materials,

(3) designed to hold fluids, including surface water, groundwater, and other Department-approved sources,

(4) constructed for the purpose of servicing multiple well sites.

PIOGA Comment:

Any new rule for freshwater impoundments specifically targeting oil and gas industry is inappropriate and should be deleted from Chapter 78. See our comments under Section 78.59b.

PIOGA Suggested Regulatory Change:

Delete the definition and section 78.59b below.

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

PIOGA Comment:

The current scope of Chapter 78 is limited to oil and gas wells. It does not apply to pipelines. See 25 Pa. Code §78.2. Act 13 does not require the Department to regulate gathering pipelines; Section 3218.5 of Act 13 merely requires owners and operators of gathering lines to comply with certain requirements of Pennsylvania's One-Call law. Further, the proposed definition of a "gathering" pipeline is at odds and inconsistent with that term as defined under applicable state and federal law: Act 127, PA One Call law and the federal pipeline safety laws and regulations. Pipeline activities that create any earth disturbance or require stream crossings, for this industry and all others, are sufficiently regulated in accordance with 25 Pa. Code Chapters 102 and 105. There is no need for the Department to create a new term that will create confusion and impose additional burdens on oil and gas operators that are unique to this industry and unjustified by any clear additional environmental benefit. The Department has no authority to regulate the safety of gathering lines, which is exercised exclusively by other state (PUC) and federal agencies (primarily PHMSA). The proposed definition is inconsistent with the definitions in Act 127,⁷ the federal pipeline safety laws and regulations,⁸ the PA One Call law⁹ and Act 13¹⁰.

PIOGA Suggested Regulatory Change:

Delete this definition and section 78.68, and remove all references to pipelines throughout Chapter 78.

⁷ Act 127, Section 101 (definitions): "Pipeline." A part of the physical facilities through which gas or hazardous liquids move in transportation, including a pipe valve and other appurtenance attached to the pipe, compressor unit, metering station, regulator station, delivery station, holder and fabricated assembly. **The term only includes pipeline regulated by Federal pipeline safety laws.** The term does not include a pipeline subject to the exclusive jurisdiction of the Federal Energy Regulatory Commission. (Emphasis added).

⁸ 49 C.F.R. § 192.3: "Gathering line means a pipeline that transports gas from a current production facility to a transmission line or main.": 49 C.F.R. § 192.8 How are onshore gathering lines and regulated onshore gathering lines determined? (a) An operator must use API RP 80 (incorporated by reference, see §192.7), to determine if an onshore pipeline (or part of a connected series of pipelines) is an onshore gathering line. The determination is subject to the limitations listed below. **After making this determination, an operator must determine if the onshore gathering line is a regulated onshore gathering line under paragraph (b) of this section.** (Emphasis added). 49 C.F.R. § 195.2: "Gathering line means a pipeline 219.1 mm (8 5/8 in) or less nominal outside diameter that transports petroleum from a production facility."

⁹ 73 P.S. § 176: "Line" or "facility" means an underground conductor or underground pipe or structure used in providing electric or communication service, or an underground pipe used in carrying, gathering, transporting or providing natural or artificial gas, petroleum, propane, oil or petroleum and production product, sewage, water or other service to one or more transportation carriers, consumers or customers of such service and the appurtenances thereto, regardless of whether such line or structure is located on land owned by a person or public agency or whether it is located within an easement or right-of-way. . . . **The term shall not include crude oil or natural gas production and gathering lines or facilities unless the line or facility is a regulated onshore gathering line as defined in regulations promulgated after January 1, 2006, by the United States Department of Transportation pursuant to the Pipeline Safety Act of 1992 (Public Law 102-508, 49 U.S.C. § 60101 et seq.), if the regulated gathering line is subject to the damage prevention program requirements of 49 CFR § 192.614.**" (Emphasis added). HB 1607 and SB 1084 propose to decouple the PA One Call law from Act 127 and the federal pipeline safety laws and regulations with respect to oil and natural gas production and gathering pipelines and related facilities by deleting the sentence with emphasis.

¹⁰ 58 Pa.C.S. § 3218.5 Gathering lines: "(b) Definition.—As used in this section, the term "gathering lines" means a pipeline used to transport natural gas from a production facility to a transmission line or main."

* * *

[Marcellus Shale well—A well that when drilled or altered produces gas or is anticipated to produce gas from the Marcellus Shale geologic formation.]

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. The term may also include surface waters that have been impaired by pollutional mine drainage as determined by the Department.

PIOGA Comment:

This definition is overly broad and unclear as to its meaning, especially with respect to surface waters that “have been impaired” as determined by the Department. “Mine influenced water” is not always a pollutant or a threat to water of the Commonwealth. For example, a limestone pool might contain water that meets or is better than drinking water standards. In addition, a determination of “impairment” under this definition is not tied to the substantive and procedural requirements to list a water as being impaired for purposes of Section 303(d) of the Clean Water Act, 33 U.S.C. § 1333(d). The possible scope of such determinations could therefore include a majority of surface waters in the coal fields in the Commonwealth. If the Department wishes to encourage the use and reuse of mine influenced water, it should not impose excessive and undefined burdens on the oil and gas industry for the use of such water.

PIOGA Suggested Regulatory 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.

* * *

Oil and Gas Operations—The term includes the following:

(1) well location assessment, seismic operations, well site preparation, construction, drilling, hydraulic fracturing, completion, production, operation, alteration, plugging and site restoration associated with an oil or gas well;

(2) water withdrawals, residual waste processing, water and other fluid management and storage used exclusively for the development of oil and gas wells;

(3) construction, installation, use, maintenance and repair of: (i) oil and gas pipelines;

(ii) natural gas compressor stations; and

(iii) natural gas processing plants or facilities performing equivalent functions; and

(4) construction, installation, use, maintenance and repair of all equipment directly associated with activities specified in paragraphs (1), (2) and (3), 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.

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

PIOGA Comment:

This proposed definition of oil and gas operations significantly expands the current scope of Chapter 78. It proposes to regulate seismic operations, water withdrawals, and pipelines, among other activities that are currently beyond the scope of Chapter 78. See §78.2. Act 13 does not require the Department to expand the scope of Chapter 78. The Act 13 definition of “Oil and Gas Operations” appears in Chapter 33 (section 3301), which is the chapter governing local ordinances relating to the oil and gas industry. There is no such definition in Chapter 32, which establishes technical standards for drilling, altering, operating, and plugging oil and gas wells. The General Assembly thus provided a definition of “oil and gas operations” to be used for determining “where” drilling may occur (Chapter 33) but not for regulating “how” drilling will occur (Chapter 32). The Pennsylvania Supreme Court’s decisions in *Range Resources v. Salem Township*, 964 A. 2d 869 (Pa. 2009) and *Huntley & Huntley v. Borough of Oakmont*, 964 A. 2d 855 (Pa. 2009) confirm and uphold this distinction.

There is no reason, and DEP has not suggested any, that these regulations should enlarge the current scope of Chapter 78. In addition, DEP has used the term “oil and gas activities” throughout Chapter 78, which raises questions about the significance of the varied usages. The key to regulatory success is in its consistency and clarity, which is yet to be attained here. PIOGA will make comments throughout the subsections below to recommend the appropriate term in the context of the provision.

PIOGA Suggested Regulatory Change:

Delete the definition.

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 the Department determines a prior owner or operator benefited from the well as provided in section [210(a)] **3220(f)** of the act **(relating to plugging requirements)**.

* * *

PCSM plan—A post construction stormwater management plan. **This term shall have the same meaning as defined in 25 Pa. Code § 102.1 (relating to definitions).**

Pit—A natural topographic depression, manmade excavation or diked area formed primarily of earthen materials designed to hold fluids, semi-fluids 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.

PIOGA Comment:

Small conventional operators utilize small pits on a very short temporary basis that should not be subject to the numerous obligations and standards created in the proposed revisions, which mention pits more than 50 times. The costs of such obligations significantly outweigh any environmental benefit. Exemptions should be created throughout this rulemaking for pits with a footprint less than 1/5 of an acre.

PIOGA Suggested Regulatory Language:

See relevant subsections below.

Pre-wetting—Mixing brine with antiskid material prior to roadway application.

Process or Processing—The term shall have the same meaning as “processing” as defined in the Solid Waste Management Act (35 P. S. §§ 6018.101—6018.1003).

PIOGA’s Comment:

This term cannot have this meaning in a rule that considers both residual waste processing and natural gas processing. This raises additional confusion because the Solid Waste Management Act generally requires residual waste processing activities to have a permit, which is not the intent of Section 78.58

PIOGA Suggested Regulatory Language:

DEP should remove the definition and use the term ‘processing’ in the ordinary, plain meaning sense of the word, or revise the definition above to restrict it to the term as used in Section 78.58.

PPC plan—A written preparedness, prevention and contingency plan.

PIOGA Comment:

“PPC plan” should be defined in accordance with a statutory or regulatory reference. In addition, PIOGA is concerned about the unnecessary burden created for small operators who conduct operations at multiple well sites in close proximity where the PPC plan would be the same for all such operations. If the Department’s concern is that PPC plans tend to become outdated with changing personnel or methods, that concern can be addressed by requiring PPC plans to be updated with any change in the relevant information. See below and Section 78.55 for suggested edits.

PIOGA Suggested Regulatory Language:

PPC plan—A written preparedness, prevention and contingency plan prepared in accordance with 25 Pa. Code 91.34, 102.5(l), or 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.

* * *

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—**The fluctuating upper water level surface of an unconfined or confined aquifer, where the hydrostatic pressure is equal to the ambient atmospheric pressure. The term does not include the perched water table or the seasonal high water table.**

Regulated substance—**Any substance defined as a regulated substance in section 103 of The Pennsylvania Land Recycling and Environmental Remediation Act (Act 2) (35 P.S. § 6026.103).**

PIOGA Comment:

The use of the term “regulated substances” as defined under Act 2 – “The term shall include hazardous substances and contaminants regulated under the act of October 18, 1988 (P.L. 756, No. 108), known as the Hazardous Sites Cleanup Act, and substances covered by the act of June 22, 1937 (P.L. 1987, No. 394), known as The Clean Streams Law, the act of January 8, 1960 (1959 P.L. 2119, No. 787), known as the Air Pollution Control Act, the act of July 7, 1980 (P.L. 380, No. 97), known as the Solid Waste Management Act, the act of July 13, 1988 (P.L. 525, No. 93), referred to as the Infectious and Chemotherapeutic Waste Law, and the act of July 6, 1989 (P.L. 169, No. 32), known as the Storage Tank and Spill Prevention Act.” – is too broad.

The term “regulated substances” was developed in a cleanup context but does not apply in the regulatory management of residual waste, in part because there is no threshold concentration to qualify as a regulated substance. The DEP’s approach ignores the facts that: (i) in the regulatory context, the focus of the Oil and Gas Act is on preventing pollution (Clean Streams Law) or harm to the public health, safety, welfare or the environment (Act 97, Solid Waste Management Act) from oil and gas operations; and (ii) not all materials containing regulated substances cause pollution or harm to the public health, safety, welfare or the environment. For example, when the concentration of regulated substances is low, such as meeting “Clean Fill” limits, the material is not regulated as a residual waste.

In addition, the proposed definition includes “substances covered by” the Clean Streams Law, such as sediment. This would create an unreasonable and unattainable standard under several sections of Chapter 78. See, for example, Section 78.61 that would allow the “disposal” of drill cuttings only if they are not contaminated with “regulated substances.” Under the Act 2 definition, however, any and all materials that might be considered as “pollution” under the Clean Streams Law are regulated substances and therefore *no* cuttings may be disposed under this section because cuttings, no matter what they contain, are “substances covered by” the Clean Streams Law. Section 78.66 is likewise impaired by the use of such a broadly defined term where some “regulated substances” may have absolutely no environmental impact when spilled on well sites.

PIOGA’s suggested language is set forth in comments to the particular regulatory provisions that use the term “regulated substances” but, in a nutshell, our approach is that materials generated at the well site that contain regulated substances should be managed so as not to cause

(i) "pollution" (per the Clean Streams Law standards) or (ii) harm to the public health, safety, welfare or the environment (per the standards of Act 97 and 25 Pa. Code Chapter 287.

PIOGA Suggested Regulatory Change and Language:

Delete the definition and see relevant subsections below for recommended revisions.

[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.]

* * *

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

Temporary pipelines—Pipelines used for oil and gas operations that meet the following:

(1) transport materials used for the drilling and/or hydraulic fracture stimulation of a well and the residual waste generated as a result of those activities;

(2) lose its functionality after the well site it serviced has been restored pursuant to 25 Pa. Code § 78.65 (related to restoration).

PIOGA Comment:

DEP should not target the oil and gas industry for special provisions related to pipelines that are not imposed on other activities and are largely duplicative of Chapter 102.

PIOGA's Suggested Regulatory Change:

Delete the definition and the new Section 78.68b.

Watercourse—This term shall have the same meaning as defined in 25 Pa. Code § 105.1.

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 by law, and protects public health, safety and welfare.

* * *

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

(1) The owner or operator of a public water system as defined in section 3 of the act of May 1, 1984 (P.L.206, No.43), known as the Pennsylvania Safe Drinking Water Act.

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

Water source –

(1) Any of the following:

- (i) Water of this Commonwealth.**
- (ii) A source of water supply used by a water purveyor.**
- (iii) Mine pools and discharges.**
- (iv) Any other waters that are used for drilling or completing a well in an unconventional formation.**

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

- (i) Which are used for drilling or completing a well in an unconventional formation; and**
- (ii) Which do not discharge into waters of this Commonwealth.**

PIOGA Comment:

PIOGA understands subsection (2) [which, as published in the Pennsylvania Bulletin version of the proposed regulations, is referred to as subsection (ii)] of this definition to be intended to allow operators to reuse flowback and production waters for drilling and completing unconventional wells without including those sources in a Water Management Plan. The definition is confusing, however, because subsection (2) appears to conflict with, rather than provide an exception to, subsection (1)(iv).

PIOGA Suggested Regulatory Change:

Delete subsections (1)(iv) and (2).

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

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

- (1) The person designated as **[the well operator or] operator or well operator** on the permit application or well registration.
- (2) 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.**
- (3) **[In cases where]** 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.

Wetland—This term shall have the same meaning as defined in 25 Pa. Code § 105.1.

* * *

[§ 78.2. Scope.

This chapter specifies procedures and rules for the drilling, alteration, operation and plugging of oil and gas wells, and for the operation of a coal mine in the vicinity of an oil or gas well.]

PIOGA Comment:

The current scope of Chapter 78 should be retained as is. Please see our comment under the definition of “Oil and Gas Operations” above.

PIOGA Suggested Regulatory Language:

This chapter specifies procedures and rules for the drilling, alteration, operation and plugging of oil and gas wells, and for the operation of a coal mine in the vicinity of an oil or gas well.

78.3 Reserved

PIOGA Comment:

PIOGA strongly supports and recommends the addition of a Small Business Exemption to provide relief to operators where such relief will have minimal or no environmental impact. In accordance with the Regulatory Review Act, the Department is required to provide such exemptions to reduce the impact of the proposed regulation on small businesses.

PIOGA Suggested Regulatory Language:

Definition:

Small Business—the term is defined in accordance with the size standards described by the United States Small Business Administration’s Small Business regulations under 13 C.F.R. Ch. 1. Part 121 or its successor regulation.

Add § 78.3. Small Business Exemption

Upon registration with the Department, Small Businesses, as defined in the Regulatory Review Act (Act of Jun. 25, 1997, P.L. 252 No. 24, as amended) are exempt from the electronic notification and submission requirements throughout this chapter and may submit such notification and applications to the Department in hard copy by United States mail.

* * *

§ 78.11 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).

PIOGA Comment:

PIOGA members have been concerned about the Department's new position following the adoption of Act 13, which interpreted some provisions of the Act to require well permits to be posted prior to construction of well sites or access roads. PIOGA does not believe that this interpretation is required or necessary under the language of the Act. It has imposed great burdens on conventional operators who build well sites on leases according to operational efficiency and contractor availability, which does not ordinarily coincide with permit applications and issuance. The timing of permit applications and issuance is further complicated and delayed by the Department's proposed revisions to Section 78.15 below. Revisions to Chapter 78.11 would clarify the obligations with respect to the permits and approvals needed to construct well sites.

PIOGA Suggested Regulatory 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.

* * *

§ 78.15. Application requirements.

- (a) An application for a well permit shall be submitted [on forms furnished by the] **electronically to the** Department **through its website** and contain the information required by the Department to evaluate the application.
- (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] **3225** of the act [(58 P. S. § 601.215)] **(58 Pa.C.S. § 3225)**, the fee in compliance with § 78.19 (relating to permit application fee schedule), proof of **the** notifications **required under section 3211(b.1) of the act (58 Pa.C.S. § 3211(b.1))**, necessary requests for variance or waivers or other documents required to be furnished by law or the Department, **and the information contained**

in subsection (c)–(e). The person named in the permit shall be the same person named in the bond or other security.

(c) The applicant shall submit information identifying parent and subsidiary business entities operating in Pennsylvania with the first application submitted after [effective date] and provide any changes to its business relationships 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.

(e) If an applicant seeks to locate a well on a well site where the applicant has obtained a permit under 25 Pa.Code § 102.5 (relating to permit requirements) and complied with 25 Pa.Code § 102.6(a)(2), the applicant is deemed to comply with subsection (d).

(f) An applicant proposing to drill a well at a location listed in paragraph (1) shall notify the applicable resource agency, if any, in accordance with paragraph (2) and provide the information in paragraph (3) to the Department in the well permit application.

(1) This subsection applies if the proposed surface location of the well 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.

(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.

(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, within 1000 feet of a water well, surface water intake, reservoir or other water supply extraction point used by a water purveyor.

(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 and information in paragraph (3) to the public resource agency at least 15 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 shall have 15 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 any such comments.

(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;

(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.

(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 shall 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 pursuant to this subsection shall be an action that is appealable to the Environmental Hearing Board. The Department shall have the burden of proving that the conditions were necessary to protect against a probable harmful impact of the public resource.

PIOGA Comments:

Initially, Section 3215(e) of Act 13 requires the Department to develop regulatory criteria to condition permits to protect public resources while ensuring optimal oil and gas resource development, and respecting oil and gas owner property rights. However, the proposed regulations in Chapter 78, Section 78.15 do not adequately implement or address these requirements – the regulatory criteria for conditioning a permit have not been provided, and the draft regulations only frame the Department's authority to implement the conditions – essentially, "putting the cart before the horse." If industry is required to avoid or mitigate potential impacts to these resources, the criteria used to assess impacts must be established and provided.

- I. DEP no longer has authority to promulgate rules or proceed with rulemaking activity related to any regulations proposed in Sections 78.15(b) through (g) of the Chapter 78 proposed regulations implementing or applying Sections 3215(b), 3215(c) or 3215(e) of Act 13.

In accordance with the December 19, 2013 Pennsylvania Supreme Court's *Robinson* decision and as acknowledged by the Commonwealth and DEP in their January 2, 2014 Application for Reconsideration of the *Robinson* decision, Sections 3215(c) and (e) of Act 13 are currently enjoined. The DEP itself believes that application of these Sections is enjoined. In its Reconsideration Application, the Department requested a remand of this aspect of the *Robinson* decision to ensure that its "ability to protect important public resources is not needlessly eliminated." Consequently, DEP concedes that it no longer has authority to proceed with rulemaking activity related to these enjoined sections or to promulgate proposed Sections 78.15(b) through (g).

Robinson held that Sections 3215(c) and 3215(e) are not severable from Section 3215(b) which was enjoined in its entirety.

"Moreover, insofar as Section 3215(c) and (e) are part of the 3215(b) decisional process, these provisions are as well incomplete and incapable of execution in accordance with legislative intent. Application of Section 3215(c) and (e) is therefore, also enjoined."

See *Robinson*, OAJC at 159.

Section 3215(b)(4) addresses setbacks from blue-lined streams and water bodies and wetlands and allows for waivers of the setbacks provided certain conditions are satisfied by waiver applicants. Section 3215(c)(6) expressly incorporates subsection 3215(b) by applying it to the public resource identified as "Sources used for public drinking supplies." Accordingly, Section 3215(c)(6) is enjoined as it expressly incorporates invalidated Section 3215(b) and cannot reasonably be severed from the Section 3215(b) decisional process.

Moreover, blue-lined streams and water bodies as well as wetlands (the subjects of Section 3215(b) set-back buffers) are identified public resources themselves (e.g. "scenic rivers" or "habitats" of an endangered aquatic species), and may, as well, be or clearly are part of, found upon, integral to, and indispensable or key features of all of the other public resources identified in Section 3215(c). Simply put, the consideration of impacts to the public resources identified in Section 3215(c) is incapable of being accomplished or executed "in accordance with the legislative intent" as the legislative intent is for the constitutionally defective waiver provision to apply to the location of all wells with respect to the water body, wetlands, and public drinking supply setback buffers to/on all the public resources identified in Section 3215(c). Consequently, Section 3215(c) is now incomplete as the location of wells on or in relation to the public resources is a potential, if not an absolutely certain, part of the 3215(b) decisional process and now cannot be accomplished in accordance with the legislative intent. Pointedly, it would be a rare occurrence if in the preparation of the well site plats to be sent to surface owners such as DCNR and the Game Commission, other public resource managers, and municipalities as part of the well permit notification and comment process (as well as the preparation of the erosion and sediment control plans for accompanying access roads and other infrastructure) that blue-lined streams and water bodies as well as wetlands would not be encountered and that decisions about set-backs and possible waivers would not be implicated. In short, Section 3215(c) cannot reasonably be severed from the 3215(b) decisional process. That process contemplated waivers to accommodate and recognize optimal development considerations and protection of private property rights in siting wells on public lands and otherwise in relation to public resources.

In like manner, and as section 3215 contemplates the waiver of various set-backs, the development of the criteria to use in conditioning a well permit, providing for optimal development, or protecting private property rights as directed in Section 3215(e) cannot be accomplished in accordance with legislative intent as the constitutionally defective waiver provision, would necessarily operate and apply in the decisional process of conditioning permits. Accordingly, Section 3215(e) cannot stand alone and is now incomplete.

PIOGA Suggested Regulatory Change:

Since the Pennsylvania Supreme Court refused to reconsider the constitutionality of Sections 3215(c) and (e), all revisions to implement or apply these Act 13 provisions – proposed Sections 78.15 (b) through (g) – must be removed from the proposed regulations.

- II. In the event authority to promulgate or to further proceed with rulemaking related to Sections 78.15(b) through (g) of the Chapter 78 proposed regulations is restored or the DEP proceeds with the public resource related rulemaking, PIOGA recommends a substitute regulation for various and substantial reasons. That substitute proposal appears in paragraph IV below.

DEP's proposed revisions to Section 78.15 would create an expanded, new, open-ended, confusing and unnecessary consultation and administrative determination process for its consideration of well permit conditions to protect public resources, and at the same time would impose new legal obligations, applicable throughout the Commonwealth, on well operators to take actions to protect habitats of hundreds of what the DEP terms "special concern species," which species are neither threatened nor endangered. With respect to these non-threatened and non-endangered species, the proposal would easily result in the addition of tens of millions, possibly hundreds of millions, of dollars in unneeded and unjustified survey and mitigation costs for an indeterminate number of species that are neither threatened nor endangered. The topic of "special concern species" or "species of special concern" is discussed in greater detail in paragraph III below.

Act 13 of 2012, Section 3215, limited rather than expanded DEP's authority to condition well permits for the mitigation of probable harmful impacts to public resources.

- o The list of public resources identified in Act 13 was unchanged from the 1984 Act it replaced with the single exception that it added "sources used for public drinking supplies" as a new public resource. However, Act 13, unlike the 1984 Act, includes the express requirement for the EQB to "develop criteria" in three distinct categories for DEP to utilize and satisfy 1) for conditioning a permit with respect to the resources "identified" in Act 13 based on its impact, 2) for ensuring optimal development of the resource and 3) for respecting property rights of oil and gas owners before it may place a condition on any well permit.
- o Also, in the public resource protection section of Act 13 the new "Applicability" sub-section 3215(g) states that "Nothing in this section shall alter or abridge the terms of any contract ... or other agreement entered into prior to the effective date..." of the section.

Contrary to these statutory mandates, DEP's proposed rule does not identify any criteria for any of the three required categories and makes no provision to respect pre-existing (pre-2012) contracts and agreements such as deeds, leases, and surface use and coordination agreements between public land surface owners and oil and gas owners. In short, the proposed regulations are not in conformity with legislative intent and DEP has no authority to promulgate regulations that do not identify and articulate required criteria and that do not make provision for pre-existing contracts and agreements.

- III. Special Concern Species: Proposed Section 78.15(f)(iv) pertaining to "special concern species:" 1) does not conform to the intention of the legislature and 2) the DEP/EQB has not been delegated the statutory authority to promulgate a regulation about the habitat of such a "species".

Numbered paragraphs 1 through 6 below repeat the PIOGA comments that accompanied the presentation of the proposed regulations to the EQB in August, 2013. Paragraph number 7 reports the results of PIOGA's October 8, 2013 meeting with the DEP and relevant state agencies concerning the concept of "special concern species." Paragraph 8 notes that the introduction of the concept and term "species of special concern" (or "special concern species") in relation to Pennsylvania species protection post-dates the passage of the 1984 Oil and Gas Act where the public resource consideration provisions and the term "critical communities" first appeared. Paragraph 9 notes that documents PIOGA obtained on January 8, 2014 in response to a right to know request confirm that the DEP did not even know what "species of special concern" were when it submitted the proposed Chapter 78 Section 78.15(f)(iv) to the EQB in August 2013.

1. PADEP's proposed rule would equate "critical communities" with "special concern" species, which is not supported by fact or law and would have substantial repercussions on well permitting under the Oil and Gas Act.
2. The Pennsylvania Natural Diversity Inventory (PNDI) system was originally set up with two goals—species protection as part of the DEP permitting process and government and conservation planning efforts - two goals that do not necessarily coincide.
3. The Pennsylvania Natural Heritage Program (PNHP) maintains a list of special concern species, which cannot be the source of undefined obligations for permit applicants because it is a disparate grouping of entries, over 50% of which have not been designated any status in accordance with rulemaking procedures.¹¹ Even among those designated by state agencies, aside from those listed as threatened or endangered, no particular protections are conferred upon any species.
4. Recent activity on the PNHP list, which contains over 1600 entries, also indicates why the database cannot be used to determine legal obligations of permit applicants. Between May 2012 and August 2012, entries with no codes increased from 400 to

¹¹ Federal and state agencies must follow rulemaking procedures to "list" or "designate" species as qualifying under various regulatory definitions such as threatened, endangered, rare or vulnerable. These species have corresponding status codes in the PNHP list, which can be found at <http://www.naturalheritage.state.pa.us/RankStatusDef.aspx>. The list also contains "codes" for several hundred species, as suggested by the Pennsylvania Biological Survey, which has no listing or rulemaking authority.

534. In the 14 months between 5/25/2012 and 7/31/2013, the following activity occurred:

- federal listed species increased from 25 to 39, most of which are “partial” status;
 - state listed species increased from 751 to 776, which is not reflective of rulemaking activity during that time period, raising a question about the daily accuracy of the list;
 - species with Pennsylvania Biological Survey codes, but with no corresponding federal or state codes, increased from 145 to 204.
5. PHNP’s list of special concern “species” includes non-species entries as well. There are:
- 20 “geology” entries, listing anticlines, drainage patterns, erosional remnants, kettelholes, meandering channels, potholes, dunes, waterfalls and rapids; and
 - 161 “community” entries, listing lakes, wetlands, woodlands, marshes, cliffs, meadows, tree stands, forests, thickets, shrubland, peatland, and more.
6. PNDI receipts do in fact provide hits for plant communities. Every natural plant community that occurs in Pennsylvania is on that list including the most common forest types, such as the “northern hardwood” plant community. Pennsylvania has over 29 million acres of land, over 16 million of which is forested. About 38% of Pennsylvania forests, over 6 million acres, are of the northern hardwoods type. We are unaware if anyone received a hit for “northern hardwoods” but there have been hits for the very common “hemlock-northern hardwood” subtype.
7. The scope of the concept known as “special concern species” or “species of special concern.”
- In an effort to further understand the scope of the proposed obligations related to special concern species—which are any species other than threatened or endangered species that have been placed in a database tool used for project and permit reviews—PIOGA requested a meeting and met on October 8, 2013 with representatives from DEP, Pennsylvania Game Commission, Pennsylvania Fish and Boat Commission and the Department of Conservation and Natural Resources. DCNR informed attendees that:
 - The actual database of special concern species, upon which permit obligations are based, is not public, viewable or printable;
 - “Special concern” species, other than threatened or endangered species, are added by agencies and scientist volunteers without public notice, comment, participation or rulemaking procedures; and
 - The resource agencies acknowledged that there are no binding legal survey or mitigation obligations associated with special concerns species that are neither threatened nor endangered.

8. The Pennsylvania Legislature is Not Clairvoyant.

- In the absence of any explanation and in an effort to understand how the DEP recently arrived at the conclusion that “special concern species” meant or equates to the term “critical communities” in Section 3215(c)(4) of Act 13 and the identical and earlier use of the term in the original 1984 Oil and Gas Act legislation, PIOGA examined the legislative record and relevant historic publications. This review resulted in the following findings:
 - Senate Bill 402 of the 1983 and 1984 Legislative Session was the Bill that comprised the 1984 Oil and Gas Act or what became Act 223.
 - The Original Bill referred to the Senate Environmental Resources and Energy Committee on February 24, 1983 had no separate provisions addressing consideration of public resources in well permitting.
 - Printers copy number 2087 of the Bill, which first appeared on June 12, 1984 included a Section 205(c) which is identical to the current Act 13 Section 3215(c), to include the term “critical communities” except for the Act 13 addition of subsection 3215(c) (6) pertaining to public drinking water supplies and 3215(b) waivers.
 - Act 223, to include Section 205(c) was signed in the House and Senate on November 29, 1984 and approved by the Governor on December 19, 1984.
 - As reported on the Pennsylvania Biological Survey (PABS) website, the book or publication discussing “species of special concern” in Pennsylvania was not published until 1985.
 - The PABS history states: “The Pennsylvania Biological Survey traces its origin to an initiative by representatives of the National Audubon Society, Pennsylvania Game Commission, Pennsylvania Fish and Boat Commission, and the former Department of Natural Resources (now two departments - Department of Conservation and Natural Resources and Department of Environmental Protection), who met in 1979 to discuss the need to develop a coordinated inventory and assessment of the flora and fauna of Pennsylvania. The Survey's first task was to document the status of plants and animals of special concern in Pennsylvania. A subsequent five-year effort resulted in the publication in 1985 of Species of Special Concern in Pennsylvania (H. H. Genoways and F. J. Brenner, eds., Carnegie Museum of Natural History, Special Public. No. 11. Pittsburgh, Pa. 1985). This volume contained information on the status of 297 species, including representatives of all 5 classes of vertebrates, selected groups of invertebrates, and vascular plants.” According to the experts who wrote and edited this book, the term “special concern species” includes both listed and nonlisted species; it is an umbrella term with no clear meaning or definition.
 - The term “critical communities” as used in Act 223 and Act 13 predated the publication of this inventory of and any general use of the term “species of special concern” or “special concern species” by at least 7 months.
 - There is no reference in the legislative history of Act 223 to “species of special concern” or “special concern species.”

Because the term, concept, and actual inventory of “special concern species” or “species of special concern” with respect to Pennsylvania post-dates the use of the term “critical communities,” in Act 223 the Pennsylvania legislature could not and did not intend for the term to include or mean “species of special concern” or “special concern species.” Accordingly, the DEP has no basis in law or fact from which to conclude that the terms “critical communities” means or is synonymous with the terms “special concern species” or “species of special concern.” Accordingly, it cannot extend legal protection obligations to such species via Chapter 78 regulatory revisions absent authority delegated to it to do so by the legislature.

8. When the DEP submitted proposed Section 78.15(f)(iv) to the EQB as a proposed rule on August 30, 2013, it did not even know the meaning or potential meaning of the term “special concern species.”

The Agenda for a “DEP and Jurisdictional Agency Meeting” held on Friday, November 1, 2013 with respect to “public resources” poses in the 9:10 to 9:30 meeting time frame titled “Species of Special Concern” three questions. The questions were: 1) “What is the universe of species considered as species of special concern?” 2) What is the process for listing a species of special concern by each jurisdictional agency?” and 3) What are the mitigation measures recommended by the jurisdictional agencies for species of special concern?” The foregoing Agenda document was obtained by PIOGA in January 2014 pursuant to a Right to Know Law request.

PIOGA Suggested Regulatory Approach and Language:

Should authority to proceed with regulations implementing or applying Section 3215 (c) be restored, or should the DEP proceed with its rulemaking initiative in the absence of authority to do so, PIOGA proposes that the following regulation be considered and adopted as the substitute for the current proposed regulation (new language is in blue).

“Section 78.15 Application Requirements

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

(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] **3225** of the Act [(58 P. S. § 601.215)] **(58 Pa. C.S. § 3225)**, the fee in compliance with § 78.19 (relating to permit application fee schedule), proof of the notifications **required under Section 3211(b.1) of the Act (58 Pa. C.S. § 3211(b.1))**, necessary requests for variance or waivers or other documents required to be furnished by law or the Department, **and the information contained in subsections (c)-(e)**. The person named in the permit shall be the same person named in the bond or other security.

(c) The applicant shall submit information identifying parent and subsidiary business entities that operate in Pennsylvania with the first application submitted after [effective date] and update changes to such information on subsequent applications.

(d) The applicant shall utilize the Pennsylvania Natural Diversity Inventory (PNDI) to identify **the presence or absence of a state or federal threatened or endangered species where the**

proposed well site or access road is located and shall provide proof of notification and consultation with the applicable resource agency regarding the screening for the presence of such species and their critical habitat in the well permit application. For purposes of consulting with the Department, if the proposed well site or access road will have a probable harmful impact on such species or their critical habitat, the applicant shall submit a proposed plan or measures to avoid, prevent, or minimize the impact in accordance with state and federal laws pertaining to the protection of threatened or endangered species and their habitat. An applicant's submission of the proposed plan or measures concludes the information required to be submitted to the Department pursuant to subsection (b).

(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), the applicant is deemed to comply with the application submission requirements of subsections (b) and (d) with respect to supplying the required information regarding proof of consultation with the applicable resource agency and the Department.

(f) An applicant proposing to drill a well at a location listed in paragraph (1) shall notify the applicable resource agency, if any, in accordance with paragraph (2) and provide the information in paragraph (3) to the Department in the well permit application.

(1) This subsection applies if the proposed well 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.

(iii) within 200 feet of a national natural landmark.

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

(v) in the case of an unconventional well, within 1000 feet of a water well, surface water intake, reservoir or other water supply extraction point used by a water purveyor.

(vi) in a location that will impact critical habitat of state or federal threatened or endangered species.

(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 and information in paragraph (3) to the public resource agency at least 15 days prior to submitting its well permit application to the Department. With respect to surface landowners who are also the public resource agency to be notified, the notification required by Section 3211 (b.1.) of the Act, provided it includes the information prescribed by this subsection, satisfies the notification requirements of this subsection. With respect to subsection (f) (vi) above, the notification requirements of this paragraph only apply if the applicant has not previously notified the applicable resource agency pursuant to the applicant's use of the PNDI process. **The applicant shall submit proof of notification required by this subsection with the well permit application. From the date of notification, the public resource agency shall have 15 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 any such comments** within 10 days of receipt of the comments.

(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 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 and physically separate and distinct area of the public resource that may be affected by the well, well site and access road.

(g) Subject to satisfying and complying with the criteria prescribed in subparagraphs (1)-(3) below, the Department may include conditions in the well permit to avoid or mitigate impacts to the public resource. The presence of well sites and the conduct of oil and gas operations on or in the vicinity of public resources, as listed in Section 3215(e) of the Act, are not in and of themselves an impact or considered a harm requiring or authorizing the imposition of any well permit conditions under Section 3215(e). The conduct of oil and gas operations is one of many lawful and multiple uses of land that occur on or in the vicinity of public resources.

As prescribed in Section 3215(e)(1) of the Act, in determining whether to impose a condition, the Department shall utilize the following three sets of criteria:

(1) Criteria to use for conditioning a well permit based on its impact:

(i) No permit condition may be imposed unless DEP determines that such a condition is necessary to protect against the probable harm.

(ii) No permit condition may be imposed unless the evidence of probable harm is supported by clear and convincing evidence that the harm to the public resource is probable, rather than merely possible or speculative harm.

(iii) No permit condition may be more restrictive or limiting with respect to a well, well site or access road than the set-back prescriptions contained in the applicable section of Act 13 unless it is shown by clear and convincing evidence that the existing protections of Act 13, Clean Streams Law, or other applicable statutes are insufficient to protect against the specified harm or unless the applicant consents in writing to the condition.

(iv) No permit condition may be more restrictive or limiting with respect to a well, well site, or access road or the conduct of oil and gas operations incident thereto than the existing measures and protections established and required under Chapter 78, Act 13, or any other environmental Act or regulation administered by the Department unless it is shown by clear and convincing evidence that the existing measures and protections are insufficient to protect against the specified harm or unless the applicant consents in writing to the condition.

(v) The nature of the harm to be avoided or mitigated by the permit condition must be clearly described in the terms of any proposed permit condition and permit.

(2) Criteria, in addition to those in paragraph (1), to ensure optimal development of oil and gas resources:

(i) no condition implicating surface activities or operations may be imposed that results in commercially unreasonable financial burdens on applicants.

(ii) for purposes of conservation and avoiding the waste of recoverable oil and gas resources, no conditions may be imposed that result in alterations to the well design in a way that will reduce the anticipated volume of recoverable gas or oil resources.

(iii) for purposes of administering this subsection, no condition may be imposed that results, or could result, in permitting delays in violation of the Permit Decision Program.

(iv) permitting decisions may not be influenced by an applicant's refusal to waive the financial burden restriction.

(3) Criteria, in addition to those in paragraphs (1) and (2) above, to use for respecting private property rights of oil and gas owners:

(i) in accordance with subsection 3215(g)(2) of the Act, no conditions may be imposed on well permits where the proposed condition itself alters or abridges the terms of any lease, deed, surface use agreement or similar contract or agreement between a surface owner and subsurface oil and gas owner or to which they are subject as signatories or successors in interest.

(ii) denial of a well permit is not a prevention, avoidance, or mitigation measure authorized by this section.

(iii) no permit conditions may be imposed if the effect would deprive the owner of the oil and gas rights of the right to produce or share in the oil or gas underlying a surface tract.

(h) A decision to impose or not to impose a condition is non-precedential and does not bind the Department or applicant or require either adhering to or including the same condition or conditions addressing the same subject matter in any subsequent permits.

(i) The issuance of a permit containing conditions imposed by the Department pursuant to this subsection shall be an action that is appealable to the Environmental Hearing Board. The Department shall have the burden of proving that the conditions were necessary to protect against a probable harmful impact of the public resource.

* * *

Subchapter C. ENVIRONMENTAL PROTECTION PERFORMANCE STANDARDS

§ 78.51. Protection of water supplies.

* * *

(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. **Such notices should be made to the appropriate Department regional office or by calling the Department's state wide toll free number 1-800-541-2050.** The notice and request must include the following:

PIOGA Comment:

The term “operating activities” is undefined and is used here improperly to expand this section beyond the scope of Section 3218 of Act 13, which is limited by Section 3218(b) to “pollution or diminution of a water supply as a result of the drilling, alteration or operation of an oil or gas well.” The term “oil and gas activities” is used throughout the proposed regulations and should be evaluated in each context for the appropriate term. See below for PIOGA’s recommendations in relevant sections. For this section, PIOGA believes the first sentence of this provision should remain as it currently stands.

PIOGA Suggested Regulatory Language:

(b) A landowner, water purveyor or affected person suffering pollution or diminution of a water supply as a result of the drilling, alteration or operation of an oil or gas well may so notify the Department and request that an investigation be conducted. Such notices should be made to the appropriate Department regional office or by calling the Department’s state wide toll free number 1-800-541-2050. 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)] **3218(c)** of the act [(58 P. S. § 601.208(c))] **(58 Pa.C.S. § 3218(c))**, the Department will issue orders to the well operator necessary to assure compliance with this section. **The presumption established by 58 Pa.C.S. § 3218(c) is not applicable to pollution resulting from well site construction.**

PIOGA Comment:

The proposed regulation adds “well site construction” to the list of activities enumerated in §3218(b) of Act 13 that trigger the reporting and investigation activities set forth in §3218(b). The Department has no authority to amend the statutory language and this addition should be stricken.

PIOGA Suggested Regulatory Language:

(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 58 Pa.C.S. § 3218(c) 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 meeting the criteria for adequacy as follows:

* * *

(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), or is comparable to the quality of the water supply before it was affected by the operator if that water supply **exceeded those [did not meet these]** standards.

PIOGA Comment:

Section 3218(a) of Act 13 requires an operator to restore an affected water supply to Pennsylvania Safe Drinking Water Act standards or “comparable to the quality of the water supply before it was affected by the operator if the water supply exceeded those [water quality] standards (emphasis added).” This language clearly provides two standards, but the Department has correctly recognized only one. While proposed Section 78.51(d)(2) uses the statutory word “exceeded,” the Department has suggested that it is interpreting Act 13 through this regulatory section to require an operator to restore a water supply to a minimum of SDWA standards or to a higher standard if the water supply was better than SDWA standards before drilling – interpreting the word “exceeded” in this context to mean that a particular constituent of the pre-drill water quality was lower than the maximum SDWA standard for that constituent, e.g., pre-drilling level of 1 ppm when the level determined to be safe by SDWA standards is 5 ppm. The Department’s interpretation means that operators would be required to restore the water supply quality to the 1 ppm level rather than the SDWA level.

The Department’s suggested position, that a water source that does not meet the SDWA standard before drilling – i.e., the water quality is worse than the standard – will not be considered “restored” by industry until it meets those standards or better after drilling, is a dramatic departure from current law and is contrary to the accepted and current meaning of the statutory term “exceeded.” In this context, “exceeded” means that a particular constituent of the pre-drill water quality was higher than the SDWA standard for that constituent. The statutory requirement therefore is that operators that impact water supplies must restore those supplies to a maximum of SDWA standards or to the quality of the supply if it did not meet those standards before drilling activities. The existing obligation makes sense because many water supplies do not meet SDWA standards in areas not served by public water utilities and many water supplies are not used for drinking, and restoring water supplies to particular constituent levels lower than those determined to be safe by SDWA standards may not even be possible or, if possible, may be prohibitively expensive.

It is unreasonable to require the oil and gas industry to upgrade private water supply quality, at industry expense, beyond the quality that existed pre-drilling. No other industry is required to do this, and there is no legal requirement for a Pennsylvania homeowner to treat or upgrade his or

her private water supply to SDWA standards. The current language in Chapter 78 provides clear guidance to Department staff, operators and the public and should be retained and, significantly, is consistent with the accepted and current meaning of the term "exceeded" in this context. Nothing in Section 3218(a) demonstrates a legislative intent to change the accepted and current meaning of the term "exceeded."

PIOGA Suggested Regulatory 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. § § 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 these standards.

* * *

(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] 3251** of the act **[(58 P. S. § 601.501)] (58 Pa.C.S. § 3251)**.

(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 through the Department's website.**

§ 78.52. Predrilling or prealteration survey.

(a) A well operator who wishes to preserve its defense under sections **[208(d)(1)] 3218(d)(1)(i) and 3218(d)(2)(i)** of the act **[(58 P. S. § 601.208 (d)(1))] (58 Pa.C.S. §§ 3218(d)(1)(i) and 3218 (d)(2)(i))** 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.

(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.

(d) An operator electing to preserve its defenses under sections **[208(d)(1)] 3218(d)(1)(i) and 3218(d)(2)(i)** of the act **[(58 P. S. § 601.208 (d)(1))] (58 Pa.C.S. §§ 3218(d)(1)(i) and 3218 (d)(2)(i))** shall provide a copy of all the **sample** results **taken as part** of the survey to the Department **by electronic means in a format determined by the Department within 10 business days of receipt of all the sample results taken as part of the survey. The operator shall provide a copy of any sample results to** **[and]** 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 sections **[208(d)(1)] 3218(d)(1)(i) and 3218(d)(2)(i)** of the act **[(58 P. S. § 601.208 (d)(1))] (58 Pa.C.S. §§ 3218(d)(1)(i) and 3218 (d)(2)(i))**.

PIOGA Comment:

PIOGA recommends that the Department still accept hard copies or electronic means for the sample results submittal to accommodate small, conventional operators. In addition, the language still needs to be clear that results are not due into Department until the operator has received every laboratory analysis completed as part of the site survey.

PIOGA's Suggested Regulatory 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 complete well site survey to the Department by electronic means or other approved format determined by the Department within 10 business days of receipt of all sample results taken as part of the all samples taken as part of the survey for that well site. 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. Survey results not received by the Department within 10 business days, including those submitted as described above with regard to batch submissions, may not be used to preserve the operator's defenses under sections 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 **independent [certified] Pennsylvania accredited** laboratory and the person who conducted the survey.
- (3) A description of where and how the samples **[was] 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 sections **[208(d)(1)] 3218(d)(1)(i) and 3218(d)(2)(i)** of the act **[(58 P. S. § 601.208 (d)(1))] (58 Pa.C.S. §§ 3218(d)(1)(i) and 3218 (d)(2)(i))** 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.

(g) The operator of an unconventional well must provide written notice to the landowner or water purveyor indicating that the presumption established under section 3218(c) of the act (58 Pa.C.S. § 3218(c)) 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 sections 3218(d)(1)(ii) and 3218(d)(2)(ii) of the act (58 Pa.C.S. §§ 3218(d)(1)(ii) and 3218(d)(2)(ii)). Proof of written notice shall be presumed if provided in accordance with section 3212(a) of the act (58 Pa.C.S. § 3212(a)).

PIOGA Comment:

PIOGA recommends clarification as to when the landowner is deemed to have refused access for water testing.

PIOGA Suggested Regulatory Language:

(g) After the last sentence of subparagraph (g), add the following: "Refusal shall be presumed if the operator does not receive a response from the landowner or water purveyor within 30 days of confirmed receipt."

§ 78.52a. Abandoned and orphaned well identification.

(a) Prior to hydraulically fracturing the well, the operator of a gas well or horizontal oil well shall identify the location of orphaned or abandoned wells 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.

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

(1) A review the Department's orphaned and abandoned well database;

(2) A review of applicable farm line maps, where accessible; and

(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.

(c) Prior to hydraulically fracturing a well, the operator shall submit a plat to the Department showing the location and GPS coordinates of orphaned and abandoned wells identified pursuant to subsection (b) and proof of notification that the operators submitted questionnaires pursuant to subsection (b)(3).

PIOGA Comment:

The abandoned and orphaned well identification requirement in this section is an unreasonable administrative and operational burden that is disproportionate to any perceived benefit. Thousands of conventional and unconventional wells have been hydraulically fractured over the years without Department-mandated abandoned well identification procedures and without significant environmental impact. Operators have conducted their own due diligence over the years to ensure precautions were taken to avoid potential well communication issues. Operating companies have relied upon both private and public databases as well as best management practices to aid in the identification and location of abandoned wells. PIOGA is not aware that an increase in horizontal drilling and associated high rate/volume stimulation has led to an increased number of cases of communication with abandoned and orphaned wells. This rule is unnecessary, without any clear environmental benefit, and outside the scope of Act 13.

If a registered well has not been operated in a year and if the well has an inactive status, the well is considered abandoned and the operator must plug the well. Where no responsible party is identified for abandoned or orphan wells, they are plugged utilizing the surcharges from the orphan and abandoned plugging funds through the Well Plugging Program. Although the Commonwealth contracts for the plugging, Pennsylvania's oil and gas industry pays for the work through surcharges over and above the permit fees paid to the Department. Act 13 (Oil and Gas Act, Section 3271) continued the provision for surcharges. The orphan surcharge is \$200 for a gas well or \$100 for an oil well. The abandoned well surcharge is \$50.

The action of permitting, drilling and completing a new conventional or unconventional oil or gas well does not, in and of itself change the status of any orphan or abandoned wells in the vicinity. The Department lacks the statutory authority to shift its responsibility to manage orphan and abandoned to the present day industry.

Operators should have options about when to complete the outlined identification process – whether before permitting the well or before hydraulic fracturing – to allow more operational flexibility.

A landowner questionnaire will create problems. Many landowners will not answer questions or allow access to their properties, especially if they do not benefit from the prospective well. Keep in mind that large production units common in the unconventional industry are not nearly as common in conventional operations, so the obligations and cooperation from adjacent landowners will likely be problematic. In addition, there is a great deal of difference in the scale of drilling and hydraulic fracturing activities between conventional and unconventional operations regarding water usage, downhole pressures and quantities of materials used in the hydraulic fracturing process.

The use of a database that includes active, inactive, orphaned and abandoned wells will rely heavily on the accuracy of the data. If the accuracy of the data (location, well details, etc.) is questionable, then the operator is penalized by assessing inaccurate data, which could potentially

significantly change drilling and completion plans for each well. The completion phases of well development should not be interrupted if abandoned and orphaned wells cannot be precisely located or if coordinates cannot be assigned to them. Lastly, to our knowledge the Department generated questionnaire forms have not been made available for review, therefore accurate and complete comments cannot be made on this section. Chapter 78.52a(b)(3) should be completely removed, or at a minimum postponed until the public has an ample opportunity to review and critique the contents of the questionnaire.

PIOGA Suggested Regulatory Language:

§ 78.52a. Abandoned and orphaned well identification.

(a) Prior to hydraulically fracturing a conventional oil or gas well, the operator shall identify the location of inactive, orphaned or abandoned wells within 500 feet measured horizontally from the vertical well bore, whose total depth is known or reasonably expected to be less than 500 feet above the shallowest vertical depth to be stimulated as part of the hydraulic fracturing process. Prior to hydraulically fracturing an unconventional oil or gas well, the operator shall identify the location of inactive, orphaned or abandoned wells within 1,000 feet measured horizontally from the vertical well bore, whose total depth is known or reasonably expected to be less than 1,500 feet above the shallowest vertical depth to be stimulated as part of the hydraulic fracturing process. 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.

(b) Identification shall be deemed to have been satisfied by conducting the following:

(1) A review the Department's inactive, orphaned and abandoned well database;

(2) A review of applicable farm line maps, where accessible.

(c) Prior to hydraulically fracturing a well, the operator shall submit a plat to the Department showing the location and if possible, the GPS coordinates of wells identified pursuant to subsection (b), whose total depth is known to be less than 500 feet for a conventional well and less than 1,500 feet for an unconventional well above the shallowest vertical depth to be stimulated by hydraulic fracturing. The operator may identify on the plat those wells that are identified in the Department's database, but field verification of the identified well has not been confirmed utilizing reasonable investigatory efforts.

§ 78.53. Erosion and sediment control.

[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 activities shall comply with the requirements of 25 Pa. Code 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 for oil and gas well [operations] activities 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, and the Oil And Gas Operators Manual, Commonwealth of Pennsylvania, Department of Environmental Protection, Guidance No. 550-0300-001, as amended and updated.

..*

PIOGA Comment:

This section is already covered under Chapter 102, which covers erosion and sedimentation control regulations very thoroughly. PIOGA disagrees with this redundant regulation. Also, the defined term "oil and gas operations" instead of "oil and gas activities" should be used because the phrase "earth disturbance activities associated with oil and gas activities is redundant." The Department's manual and guidance should not be incorporated into a rule.

PIOGA Suggested Regulatory Language:

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

§ 78.55. 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] Persons conducting oil and gas operations shall prepare and implement site specific PPC plans according to the requirements in 25 Pa.Code § 91.34 and 102.5(l).

PIOGA Comment:

This section is titled "Control and Disposal Planning; Emergency Response for Unconventional Well Sites" (in the Pennsylvania Bulletin version), which is misleading and appears to limit the section to unconventional wells.

Paragraph "(a)" mandates the implementation of "site specific PPC plans according to §§ 91.34 and 102.5(l)." Neither of the cross-referenced regulations is specific to unconventional activities. The requirement for operators to generate "site specific" PPC Plans needs additional clarity and should be consistent throughout the PA Code. Section 91.34(b) says that the Department "may" require the submission of a plan. How does a conventional operator discern if a request for a plan will be forthcoming and what would be the timeframe given to the operator to produce a plan? If the Department may or may not be requiring a plan (as intimated in 91.34(b)) and 78.55 is specific to unconventional operators, conventional operators will not be able to interpret applicability. They cannot be assured that their drilling and completion operations will not be interrupted by an order to produce a plan within some undetermined timeframe and based on interpretational discretion.

The regulatory language regarding the PPC plans and their applicability lacks clarity and consistency. Conventional operators should be permitted to develop a general, PPC template as opposed to the site specific expectation mandated for the unconventional operators. These proposed additions should be given further consideration regarding the clarity of these regulations.

Section 78.55(a) also broadens the scope of PPC plans to any “person” conducting oil and gas operations,” generally, whereas subsection (b) is specific to operators at well sites, which makes section 78.55(a) even more confusing. Subsection (a) should be clarified to apply only to oil and gas operations that do not take place at well site

PIOGA Suggested Regulatory Language:

(a) Preparation and implementation of plan for oil and gas operations at a location other than a well site. Prior to generation of waste, persons conducting oil and gas operations at a location other than a well site shall prepare and implement PPC plans according to the requirements in 25 Pa.Code § 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 [a] plan [for the control and disposal of fluids, residual waste and drill cuttings,] prior to storing, using, generating or transporting regulated substances to, on or from a well site [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.

PIOGA Comment:

The term “regulated substances” is not sufficiently precise, as explained above in our comments concerning its definition. The existing list of materials for which a PPC plan is required should be retained.

PIOGA Suggested Regulatory Language:

(b) Preparation and implementation of plan for well sites. The well operator shall prepare a site specific PPC plan prior to storing, using, generating or transporting 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.

[(b)](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 in section 78.64a. The PPC plan shall 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.

PIOGA comment:

The Proposal has not clarified the nature of equipment that should be described in the PPC plan. The second sentence of this subsection should be deleted.

PIOGA Suggested Regulatory Language:

(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 section 78.64a.

(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 §§ 78.54, 78.56—78.58 and 78.60—78.63. The **PPC** plan must also include a pressure barrier policy **developed by the operator** that identifies barriers to be used during identified operations.

[(c)(d.1) Revisions. The **well** operator shall revise the **PPC** plan prior to implementing a change to the practices identified in the **PPC** plan.

[(d)(d.2) Copies. A copy of the **well operator's PPC** plan shall be provided to the Department, **the Pennsylvania Fish and Boat Commission or the landowner** upon request and shall be available at the **[well]** site during drilling and completion activities for review.

PIOGA Comment:

The Pennsylvania Fish and Boat Commission and a landowner have no authority or right to review a PPC plan. The Department should have the only authority to request and review a PPC plan.

PIOGA Suggested Regulatory Language:

(d.2) 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.

(d.3) Guidelines. With the exception of the pressure barrier policy required in 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, shall be deemed to meet the requirements of this section.*

* * *

§ 78.56. [Pits and tanks for t]Temporary [containment] storage.

(a) Except as provided in §§ 78.60(b) and 78.61(b) (relating to discharge requirements; and disposal of drill cuttings), the operator shall contain **[pollutional] regulated** substances from the drilling, altering, completing, recompleting, servicing and plugging the well, 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:

(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.

PIOGA Comment:

The term “regulated substances” is not sufficiently precise, as explained above in our comments concerning its definition, and is unnecessary in this paragraph.

PIOGA Suggested Regulatory Language:

(a) Except as provided in §§ 78.60(b) and 78.61(b) (relating to discharge requirements; and disposal of drill cuttings), the operator shall contain substances generated from the drilling, altering, completing, recompleting, servicing and plugging the well, 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:

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

(2) Modular aboveground storage structures that are assembled on site may not be utilized to store regulated substances without Department approval. The Department shall maintain a list of approved modular storage structures on its website. The owner or operator shall notify the Department at least 3 business days before the commencement of construction of these storage structures. This notice shall be submitted electronically to the Department through its website and include the date the storage structure installation will commence. If the date of installation is extended, the operator shall re-notify the Department with the date that the installation will commence which need not be 3 business days in advance.

PIOGA Comment:

PIOGA appreciates the Department’s willingness to review and approve aboveground storage structures once and then have that structure be preapproved for future use without additional review. That should be stated in the regulation. The term “regulated substances” is overly broad as used in this section, as noted elsewhere in these comments.

PIOGA Suggested Regulatory Language:

(2) Modular aboveground storage structures that are assembled on site may not be utilized to store substances under this section without Department approval. The Department shall maintain a list of approved modular storage structures on its internal website. The owner or operator shall notify the Department at least 3 business days before the commencement of construction of these storage structures. This notice shall be submitted electronically to the Department through its

website and include the date the storage structure installation will commence. If the date of installation is extended, the operator shall re-notify the Department with the date that the installation will commence which need not be 3 business days in advance. The Department shall set forth a procedure for companies supplying such structures to follow to obtain Department approval. Once a design has been approved by the Department, subsequent assembly of the approved structure at another site does not require a new approval, but would require notices to landowners and local governments.

[(2)] (3) 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.**

PIOGA Comment:

The proposal changes the word “waste” to “regulated substances.” The use of this term is not sufficiently precise, as explained above in our comments concerning its definition, and results in an unreasonable and unlawful expansion of the scope of this section. So that the scope of this provision is not unreasonably and unlawfully broadened, the proposed term “regulated substances” should be rejected and the correct terms “fluid” and “waste” should continue to be used.

PIOGA’s Suggested Regulatory Language:

(3) 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. If an open standby tank or open standby 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.

[(3)] (4) Pits, [and] 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 or fences shall completely surround all pits to prevent unauthorized acts of third parties and damage caused by wildlife.

PIOGA Comment:

Unconventional wells should not be singled out to require fencing around pits. If it is acceptable to have a unfenced pit on a conventional well site, why not an unfenced pit on an unconventional well site? A chain link fence may provide for some protection from third parties and wildlife, but not all. There is no way to prevent a person who wants to vandalize a pit from doing so simply by putting up a fence, as a person can use wire cutters to access the pit. PIOGA has heard arguments from environmental groups who want fences built high enough to keep out deer and tight enough at the bottom 1-2 feet to keep out small animals. Even with those types of protections, animals that tunnel under the ground, that can climb fences like snakes, or that can jump over fences like deer cannot be kept out under all circumstances. There have been many incidents along the roads where deer jump the fence and run into traffic, or where deer jump a fence and then cannot get back out and are stranded. PIOGA does not believe that putting nets on either pits nor impoundments should be required as birds get caught in nets and then die.

There are too many unanswered questions here. For example, the proposed language does not address when this must be done: for only new pits or impoundments or would it also include existing ones. If existing ones, then what would be the time frame to comply? Requiring fencing creates legal ramifications, such as potential liability for trespassers. DEP apparently has not considered the cost/benefit analysis of this requirement. Installing fencing can range in tens of thousands of dollars to possibly keep out an animal. There are many other industries that have a variety of pits or impoundments that do not require fences around them such as electric generation, mining and paper manufacturing as a few examples.

PIOGA Suggested Regulatory Change:

Delete subsection (5).

(6) 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 freshwater, fire prevention materials and spill response kits are excluded from the requirements of this paragraph.

PIOGA Comment:

Consideration must be given to locking access lids to tanks. During normal well production, the well is blown to the tank and pressure must be released through the access lids on some wells. If this is shut and locked, the tank can explode due to the increased pressure.

PIOGA Suggested Regulatory Language:

(6) Unless an individual is present at the well site or the well is not in production, 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 freshwater, fire prevention materials and spill response kits are excluded from the requirements of this paragraph.

(7) 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 containing an appropriate warning of the contents such as flammable, corrosive or a similar warning.

PIOGA Comment:

An operator, whether it is a conventional or unconventional operator, should display a sign to provide such notice; however, this section should only be applied to operations after the regulations take effect and should not be made retroactive. The signs only need to be for contents such as flammable, corrosive or similar warnings that would be needed for emergency responders.

PIOGA Regulatory Suggested Language:

(7) The operator of an well site shall display a sign on or near the tank or other approved storage structure identifying the contents, if the contents warrant identification for emergency responders such as flammable, corrosive or a similar warning. This section shall not be applied to existing well sites.

[(4)] (8) A pit, [or] 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:]

PIOGA Comment:

The proposal changes the words "pollutional substances" and "wastes" to "regulated substances." The use of this term is not sufficiently precise, as explained above in our comments concerning its definition, and results in an unreasonable and unlawful expansion of the scope of this section. So that the scope of this provision is not unreasonably and unlawfully broadened, the proposed term "regulated substances" should be rejected and the correct terms "pollutional substances" and "waste" should continue to be used.

PIOGA's Suggested Regulatory Language:

(8) A pit, tank, or other approved storage structure that contains drill cuttings from below the casing seat, wastes or fluids other than tophole water, fresh water and uncontaminated drill cuttings shall be impermeable.

[(i) The pits] (9) Pits shall be constructed with a synthetic flexible liner that covers the bottom and sides of the pit. [The] [l]Liners used in a pit with a footprint area of 1/5 of an acre or more or other approved storage structures shall comply with the following:

(i) Have [with] 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) 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 website.

PIOGA Comment:

PIOGA appreciates the Department's willingness to review and approve liners one time and then have preapproved liners available for future use without additional review. That should be stated in the regulation.

Also, if previously acceptable 20 mil liners are no longer adequate, then the conventional well industry finds this objectionable as the associated increased costs of thicker liners will not necessarily translate into reduced environmental risk. Pits associated with conventional operations are small in size and generally open for a short amount of time. The 30 mil requisite is an excessive and inappropriate standard for conventional operators who land farm drill cuttings or perform service work on an existing producing well.

PIOGA Suggested Regulatory Language:

(ii) For unconventional operators, liners 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 website. The Department shall set forth a procedure for suppliers of such liners to follow to obtain Department approval. For conventional operators the liner shall be at least 20 mils thick unless otherwise approved by the Department.

(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 shall 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.

PIOGA Comment:

The proposal changes the word "waste" to "regulated substance." The use of this term is not sufficiently precise, as explained above in our comments concerning its definition, and results in an unreasonable and unlawful expansion of the scope of this section. So that the scope of this provision is not unreasonably and unlawfully broadened, the proposed term "regulated substances" should be rejected and the correct term "waste" should continue to be used.

PIOGA's Suggested Regulatory Language:

(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 material stored therein and the liner is resistant to physical, chemical and other failure during transportation, handling, installation and use. Liner compatibility for waste shall 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. **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. [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.]**

[(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.

PIOGA Comment:

Pits with 2:1 slopes are both impractical and unnecessary for conventional well operations. Pit collapse at conventional sites has not been a problem, largely because those pits are small in size and generally open for a short period of time. The average size of a pit for conventional oil wells is: 15' x 35' x 6' (width x length x depth). This requirement would increase that size from 525 square feet to 2100 square feet or more - an increase of 400% leading to an increase in the size of the well pad. While this may be a reasonable safeguard for long-term pits on multi-well unconventional pads, it represents an unnecessary expense to conventional operators whose pits are significantly smaller and are open only a fraction of the time by comparison. This increase would cause added expenses to the operator requiring:

- 1.) A larger pit liner
- 2.) Construction expenses
- 3.) Additional timber damage
- 4.) Land-use agreement changes
- 5.) Restoration costs

By mandating 2:1 interior slopes, pit size will need to increase significantly in order to accommodate sufficient volume. Therefore, bigger pits will translate into larger locations, increased environmental damage, and additional costs to the operator.

These pits are temporary in nature and should be exempt if they are less than 1/8 an acre in size and are in use for 90 days or less. This paragraph (10) details the construction parameters for pits mandating a 2 to 1 horizontal to vertical slope for the interior sides. While this may be a reasonable safeguard for long-term pits on multi-well unconventional pads, it is an unnecessary expense to conventional operators. It will require a much larger footprint of disturbed area and is not practical in confined drilling areas. Bigger pits will translate into larger locations, increased environmental damage, and additional costs to the operator.

*Please refer to the attached illustration showing how 2:1 interior pit slopes translate into larger pits, larger pads, increased costs, and potentially more environmental damage.

PIOGA Suggested Regulatory Language:

(10) The pit shall be constructed so that the liner sub-base 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. For pits associated with unconventional well development or that will remain open for more than 30 days, the interior slopes of the pit with a foot print area of 1/5 acre or more must have a slope no steeper than 2 horizontal to 1 vertical. The liner sub-base 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 sub-base for the liner, unless otherwise approved by the Department.

[(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. The determination shall be made by a soil scientist or other similarly trained person using accepted and documented scientific methods. The individual's determination shall 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.

PIOGA Comment:

Operators, their consultants and Department field staff sometimes disagree on the distance between the pit bottom and seasonal high groundwater table, often when there is accumulated precipitation in the pit before the liner is installed. An accepted agronomic definition of "seasonal high groundwater table" is the endosaturation. See Keys to Soil Taxonomy (11th ed. 2010), U.S. Department of Agriculture and National Resources Conservation Service, pg. 24. The seasonal high groundwater table should not be based on episaturated conditions. Episaturated soil is saturated soil in a horizon that overlies an unsaturated horizon, where the unsaturated horizon lies within a depth of 2 meters from the surface, i.e., a perched water table. Episaturation is associated with the presence of perched water tables through Pennsylvania that may be as shallow as 12 inches that are not associated with wetland areas. Without using the more precise definition of endosaturation, a significant percentage of pits will have to be constructed to grade, which may eliminate or the option of cutting pits into grades and/or require that pits be placed on fill. This may not be practical in some circumstances and may disturb more surface area and have a greater environmental impact than necessary.

The definition of "seasonal high groundwater table" in section 78.1 should be revised for clarification, to make a clear separation between groundwater and precipitation accumulated or beneath in a pit prior to the liner being installed. This determination is not intended to require a high degree of expertise. Geologists and wetlands biologists with a good soil background should be able to make this determination without a problem.

PIOGA Suggested Regulatory Language:

Revise the definition of “Seasonal high groundwater table” in section 78.1 as follows: “The soil is saturated with water in all layers from the upper boundary of saturation to a depth of 200 cm or more from the mineral soil surface.”

(12) Stormwater shall 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 shall 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 § 78.61, § 78.62 or § 78.63 (relating to disposal of residual waste—pits; and disposal of residual waste—land application).

PIOGA Comment:

Operators should be allowed to use or reuse pit contents if the liner is compromised instead of requiring the contents of the pit/tank/structure to be managed/disposed of as a residual waste.

PIOGA Suggested Regulatory Language:

(14) If a liner becomes torn or otherwise loses its integrity, the pit or approved storage structure shall be managed to prevent the contents from leaking. If repair of the liner or construction of another temporary pit or approved storage structure is not practical or possible, the contents may be used or reused as permitted by law or shall be removed and disposed at an approved waste disposal facility or disposed on the well site in accordance with § 78.61, § 78.62 or § 78.63 (relating to disposal of residual waste—pits; and disposal of residual waste—land 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. This notice shall be submitted electronically to the Department through its website and include the date the liner will be installed. If the date of installation is extended, the operator shall re-notify the Department with the date of installation which need not 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, shall not be stored in any open top structure or pit. Tanks used for storing or separating condensate during well completion shall be monitored and shall 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 on forms provided by the Department.

(c) Disposal of uncontaminated drill cuttings in a pit or by land application shall comply with § 78.61. A pit used for the disposal of residual waste, including contaminated drill cuttings, shall comply with § 78.62. Disposal of residual waste, including contaminated drill cuttings, by land application shall comply with § 78.63.

(d) **[Unless a permit under The Clean Streams Law (35 P. S. §§ 691.1—691.1001) or approval under § 78.57 or § 78.58 (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,] [t]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)] 3216(g) of the act [(58 P. S. § 601.206(g))] (58 Pa.C.S. 3216(g)) and § 78.65(d).** Pits used during servicing, plugging and recompleting the well shall be removed or filled within 90 **calendar** days of construction.

PIOGA Comment:

This subsection should be clarified to require removal or filling of pits after the completion of all drilling on a well pad rather than completion of drilling.

PIOGA Suggested Regulatory Language:

(d) The owner or operator shall remove or fill the pit within 9 months after completion of all drilling on a well site, or in accordance with the extension granted by the Department under section 3216(g) of the act and §78.65(d). Pits used during servicing, plugging and recompleting the well shall be removed or filled within 90 calendar days of construction.

§ 78.57. Control, storage and disposal of production fluids.

(a) Unless a permit has been obtained under § 78.60(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 shall not be used to store brine and other fluids produced during operation of the well.** 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.

(b) Except as provided in § 78.56 (relating to pits and tanks for temporary [**containment storage**]), the 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.] **Secondary containment capable of preventing tank contents from entering waters of the Commonwealth is required for all new, refurbished or replaced 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 shall have containment capacity sufficient to hold the volume of the largest single tank, plus an additional 10% of volume for precipitation. Compliance with § 78.64 (relating to containment around oil and condensate tanks) or using double walled tanks capable of detecting a leak in the primary container shall fulfill the requirements in this subsection.**

PIOGA Comment:

This one size fits all regulation is excessive when applied to many conventional wells. The associated volumes and chemistry/salinity of conventional well brine are different than that of unconventional brine, therefore this regulation should make a distinction as well. We agree that wells that produce liquid hydrocarbons or wells within an agreed-upon distance from surface waters should have tanks equipped with secondary containment. However, wells that produce small amounts of brine with moderate to low salinity located safely away from surface waters should not need costly and aesthetically displeasing dikes or double wall tanks. For example, a conventional well with adequate distance from any surface water that produces less than 10 bbl/month of low salinity brine (used for dust suppression and de-icing on local roads) does not need a double wall tank or a tank equipped with a dike. On one hand, the Department encourages the road spreading of conventional brine, but on the other hand, the Department perceives that the environmental risk is great enough that secondary containment is necessary in all cases of new, refurbished, or replaced tanks associated with conventional wells.

This rule should focus on the need for secondary containment on wells, both conventional and unconventional, whose production includes a liquid hydrocarbon component and/or is located within a certain distance from surface water.

PIOGA Suggested Regulatory Language:

(c) New, refurbished or replaced tanks or other aboveground containment structures approved by the Department, including their associated manifolds, that contain brine and other fluids produced

during operation of wells that produce oil, condensate, or other liquid hydrocarbons and are located within 100 feet of surface waters shall be equipped with secondary containment capable of preventing tank contents from entering surface waters. 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 shall have containment capacity sufficient to hold the volume of the largest single tank, plus an additional 10% of volume for precipitation. Compliance with § 78.64 (relating to containment around oil and condensate tanks) or using double walled tanks capable of detecting a leak in the primary container shall fulfill the requirements in this subsection.

[(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.**

PIOGA Comment:

The term "seasonal high groundwater table" should be defined as provided in see our comments under section 78.56(a)(11) above.

- (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 § 78.60(a) and the remaining pit contents and liner shall be removed and disposed under §§ 78.62 and 78.63 (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 § 78.53 (relating to erosion and sedimentation 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.]

(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.

(e) Underground or partially buried storage tanks may not be used to store brine or other fluids produced during operation of the well unless approved by the Department. Existing underground or partially buried storage tanks shall be removed within 3 years of the effective date of this subsection. A well operator utilizing underground or partially buried storage tanks as of the effective date of this section shall provide the Department with a list of the well sites where the underground or partially buried storage tanks are located and schedule for removal of the tanks within six months from the effective date of this subsection.

PIOGA Comment:

This section states that an operator must remove underground or partially buried tanks within 3 years of the effective date of the subsection and goes on to state that removal must be scheduled within 6 months of the effective date. Underground tanks are allowed at gas stations and industrial facilities. They should be allowed at well sites also.

Moreover tank burial is done for functional reasons not considered in the Analysis. In some instances production water is virtually fresh; in these cases the tanks are buried to prevent the water from freezing and to allow its removal in winter. In other instances the tanks are buried to facilitate drainage to the tank. The specific gravity of production water is greater than oil, and production water is drained by gravity to a production water storage tank. For this process to function, the production water tank must be physically lower than the oil tank. Thus, particularly in flat regions, the production water tank is buried. Where burying is no longer permitted under the proposed regulations, and where the region is relatively flat, the entire storage facility will have to be redesigned to allow for production water separation and storage. One alternative will be to elevate the oil storage tanks on earthen berms or other supports. Another alternative will be to install significant additional tank capacity so that the production water can always be drained into a relatively empty storage tank. In either event the cost will be significant—existing plumbing must be disconnected and re-plumbed, additional tanks or earthwork will be required, and liquid will have to be temporarily removed and stored.

PIOGA Suggested Regulatory Language:

(e) A well operator utilizing underground or partially buried storage tanks as of the effective date of this section shall provide the Department with a list of the well sites where the underground or partially buried storage tanks are located.

(f) All new, refurbished or replaced tanks that store brine or other fluid produced during operation of the well must comply with the applicable corrosion control requirements in the Department's storage tanks regulations at 25 Pa. Code §§ 245.531-534.

(g) All new, refurbished or replaced tanks storing brine or other fluids produced during operation of the well shall be reasonably protected from unauthorized acts of third parties. Unless the tank is surrounded by a fence, tank valves and access lids shall utilize locks, open end plugs or removable handles and ladders on tanks shall be retractable or other measures that prevent access by third parties.

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

[For pits in existence on July 29, 1989, the operator may request approval for an alternate method of satisfying the requirements of § 78.57(c)(2)(iii) (relating to control, storage and disposal of production fluids), the angle of slope requirements of § 78.57(c)(2)(v) and the liner requirement of § 78.57(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 § 78.57. The operator shall request approval under § 78.57(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 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.

PIOGA Comment:

As an overarching comment, Chapter 78 should encourage the processing, recycling and beneficial reuse of fluids and waste at well sites. Regarding waste and water management at a well site, the natural gas industry has been recycling and/or reusing water and minimizing fresh water use for quite some time now, and unfortunately the new regulations are forcing operators to rethink this option. In order to increase the amount of water being reused/recycled in the Commonwealth, the regulations need to provide an avenue for the operator to document, move, or reuse water from one site to another. In addition, the Office of Oil and Gas should have its own regulations concerning water management, which should not conflict or be confused with those of the Office of Waste Management.

Details regarding the approval process of processing fluids by the Department are needed, as is a reference to the storage or reuse of fluids consistent with § 78.56. The regulations should encourage and facilitate the processing, recycling and reuse of water at well sites. The changes suggested above clarify that operators may conduct such processing at well sites and such operations are under the jurisdiction of the Department's Office of Oil and Gas Management and do not require approval under the Solid Waste Management Act and the Department's Waste Management program.

PIOGA Suggested Regulatory Change and Language:

Please see PIOGA's proposed revision to this entire section below. Comments on individual subparts of the rule are noted before the revision at the end of this section.

(b) Approval from the Department is not required for the following activities conducted at a well site or centralized impoundment permitted under § 78.59c:

(1) mixing fluids with freshwater;

(2) aerating fluids; or

(3) filtering solids from fluids.

(c) The operator may request to process drill cuttings only at the well site where those drilling 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.

PIOGA Comment:

The phrase "to process drill cuttings" is unclear. Solidification material such as sawdust or wood pellets should be permitted to be used without Department approval.

PIOGA Suggested Regulatory Language:

The revision below deletes the requirement to obtain prior DEP approval to process drill cuttings.

(d) 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 requirements of the Solid Waste Management Act.

(e) Processing of fluids in a manner approved pursuant to subsection (a) shall 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 prior to the commencement of processing operations. This notice shall be submitted electronically to the Department through its website and include the date activities will commence.

(f) Sludges, filter cake or other solid waste remaining after the processing or handling of fluids pursuant to subsections (a) or (b), including solid waste mixed with drill cuttings, shall be characterized pursuant to 25 Pa. Code § 287.54 before the solid waste leaves the well site.

PIOGA Comment:

Sludges, filter cake or other solid waste remaining after the processing or handling of fluids at a well site may still be considered liquid waste if it fails the paint filter test. Thus if the material is classified as liquid waste, then this material may be taken to a treatment or recycling facility for further treatment. If this is the case, it can take up to approximately 27 days to get the results for certain parameters needed to characterize a waste for disposal. If an operator takes the residual waste to a recycling facility rather than a landfill, it makes sense to do simply the chemical analysis the recycling facility needs for its permit, where the liquid waste will be mixed with other waste and then treated for either reuse and/or disposal. The recycling facility must complete its own characterization pursuant to the residual waste regulation.

Requiring that an operator keep this material onsite until a full chemical analysis can be done (up to 27 days) is not practicable or would require much larger well pads be built in order to

store this material or would cause massive delays in operations. Therefore, we suggest that DEP adds to the end of this paragraph "for disposal."

PIOGA Suggested Regulatory Language:

§ 78.58. Onsite and offsite processing.

(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. The 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 operation may not result in pollution of land or waters of the Commonwealth.

(b) Approval from the Department is not required for the following activities conducted at a well site or centralized impoundment permitted under § 78.59c:

- (1) mixing fluids with freshwater;
- (2) aerating fluids;
- (3) filtering solids from fluids;
- (4) physical removal of free phase hydrocarbons;
- (5) the addition of biocides to reuse fluids; or
- (6) any other activity approved by the Department and posted on its website.

(c) 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 Section 3218.3 of Act 13 (the Act);
- (4) Temporary storage complies with applicable requirements of the act and regulations relating to tanks;

(5) Temporary storage occurs in approved storage structures in accordance with applicable requirements of Sections 78.56 and 78.57;

(6) Processing of fluids is conducted in accordance with this Subsections 78.58(a) or (b);

(7) Temporary storage and/or processing will not exceed a single consecutive twelve month period; all onsite activity incidental to temporary storage and/or processing must occur within this timeframe;

(8) 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;

(9) 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;

(10) 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.

(d) An operator may request approval from the Department to temporarily store and/or process fluids generated by the development, drilling, stimulation, alteration, operation or plugging of an oil or gas well at a location other than a well site or centralized impoundment. The request shall be submitted on forms provided by the Department, accompanied by a written consent from the landowner, and subject to the following conditions:

(1) The operator prepares and maintains a current PPC plan that is consistent with the Department's regulations for the location;

(2) The operator maintains accurate transportation records of the fluids entering and leaving the location consistent with consistent with Section 3218.3 of Act 13;

(3) Temporary storage complies with applicable requirements of the act and regulations relating to tanks;

(4) Temporary storage occurs only in above ground tanks subject to applicable requirements of Section 78.56 and 78.57;

(5) Any processing is conducted in accordance with this Subsections 78.58(a) and/or (b);

(6) Temporary storage and/or processing will not exceed a single consecutive twelve month period and all onsite activity incidental to temporary storage and/or processing must occur within this timeframe;

(7) The operator must notify the Department of the locations where temporary storage 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 and beneficial re-use activities are conducted in accordance with this Chapter.

(e) An operator may process drill cuttings at the well site where those drill cuttings were generated where such processing operation will not result in pollution of land or waters of the Commonwealth.

(f) Sludges, filter cake or other materials remaining after the processing or handling of fluids pursuant to this subsection (a) or (b), including materials mixed with drill cuttings, shall be characterized pursuant to 25 Pa. Code § 287.54 before the material leaves the well site for disposal.

§ 78.59a. Impoundment embankments.

(a) Embankments constructed for freshwater and centralized impoundments for oil and gas activities shall meet the following requirements:

PIOGA Comment:

The proposed regulations have extensive new requirements for impoundment embankments, freshwater impoundments, and centralized impoundments beyond those any other industry must follow for impoundments, regardless of what is contained in them. The Dam Safety and Encroachments Act extensively regulated freshwater impoundments and the Solid Waste Management Act extensively regulates residual waste impoundments. DEP has significantly underestimated the cost of designing, constructing and maintaining impoundments to the standards in sections 78.59a through 78.59c. Further, no other industry has been singled out for specific rules on the use of impoundments; persons conducting operations in any non-oil and gas context are governed by the existing laws and regulations of general applicability.

PIOGA Suggested Regulatory Change:

Delete Section 78.59a entirely.

(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.

(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 shall not be used around sand. 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 shall be 12 feet.

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

(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 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.

(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. Soils shall 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.

(7) No particles greater than 6 inches in any dimension shall be used for embankment construction.

(8) Soil used in embankment construction shall 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 shall be 9 inches.

(iii) Soil shall be compacted until visible non-movement of the embankment material.

(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 25 Pa. Code § 102.22 must 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 two feet. The rockfill shall be durable, evenly distributed, and underlain by a Class 2, Type A geotextile.

§ 78.59b. Freshwater impoundments.

PIOGA Comment:

The proposed regulations have extensive new requirements for impoundments storing fresh water, beyond those any other industry must follow for storing fresh water. Freshwater impoundments are already regulated under the Dame Safety and Encroachments Act.

Moreover, DEP's 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. Likely costs may be five times DEP's figure. Regulating freshwater impoundments for only the oil and gas industry is inappropriate.

PIOGA's Suggested Regulatory Change:

Delete Section 78.59b entirely.

(a) In addition to meeting the requirements of 25 Pa. Code § 78.59a, freshwater impoundments shall comply with this section.

(b) A well operator that constructed a freshwater impoundment shall register the location of the freshwater impoundment within 60 calendar days of the effect of this section by providing the Department, in writing, with the GPS coordinates, township and county where the freshwater impoundment is located. 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.

(c) Freshwater impoundments shall be constructed with a synthetic impervious liner.

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

(e) 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 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. The operator shall submit records demonstrating compliance with this subsection to the Department upon request.

(f) Freshwater impoundments shall be restored by the operator that the impoundment is registered to by removing excess water and the synthetic liner and returning the 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 within nine months of completion of drilling the last well serviced by the impoundment. A two-year restoration extension may be requested pursuant to section 3216(g) of the act (58 Pa.C.S. § 3215(g)). If written consent is obtained from the landowner, the requirement to return the

~~site to approximate original contours may be waived by the Department if the liner is removed from the impoundment.~~

~~(g) 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 shall 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 and include; a procedure and schedule to test the mine influenced water. This testing shall be conducted at the source prior to storage in the impoundment; and~~

~~(ii) a records retention schedule for the mine influenced water test results.~~

~~(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) The Department may require the operator to test water sources proposed to be stored in a freshwater impoundment prior to storage.~~

§ 78.59c. Centralized impoundments.

PIOGA Comment:

The proposed regulations have extensive new requirements for centralized impoundments that in several respects are more stringent than the requirements for residual waste and even hazardous waste impoundments. The proposed standards may be in direct conflict with the Act 97/Chapter 287 standards, including siting limits. Another example is the proposed synthetic liner permeability standard in section 78.59c(e)(2), which is three orders of magnitude more stringent than residual waste impoundments. These proposed requirements are beyond those any other industry must follow to manage produced water and residual waste. Moreover, DEP's 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. Likely costs may be five times DEP's figure.

The overall review of this section and its associated requirements makes it impractical, if not impossible, to construct a centralized impoundment. The up-front costs and site evaluation places the operator in a high risk position with no guarantee of permit issuance for central impoundment construction. Given the potential time frame of up to one year lead time for such an evaluation, the operator will likely seek other options for fluid management.

PIOGA Suggested Regulatory Change:

Delete Section 78.59c entirely.

(a) A well operator proposing to build a centralized impoundment that is also classified as hazard potential category 4 and size category C pursuant to 25 Pa. Code § 105.91 (relating to classification of dams and reservoirs) shall obtain a permit on forms provided by the Department prior to construction of the impoundment and shall also comply with this section. An operator proposing to build a centralized impoundment that is also classified as hazard potential category 1, 2 or 3 or size category A or B pursuant to 25 Pa. Code § 105.91 shall obtain a permit from the Department prior to construction of the impoundment and comply with 25 Pa. Code Chapter 105.

(b) The embankment of the centralized impoundment shall meet the requirements of 25 Pa. Code § 78.59a.

(c) Centralized impoundments shall not be constructed in any portion of the following areas:

(1) In a floodplain of waters of this Commonwealth as defined in section 3215(f)(5) of the act (58 Pa.C.S. § 3215(f)(5));

(2) In or within 100 feet measured horizontally of a 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.

(5) Within 500 feet measured horizontally from an occupied dwelling without the written consent of the owner of the building. Within 100 feet measured horizontally from any solid blue line stream, spring or body of water, except wetlands, identified on the most current 7.5 minute topographic quadrangle map of the United States Geological Survey.

(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 without the written consent of the water purveyor.

(d) The bottom of the impoundment shall be at least 20 inches above the seasonal high groundwater table. The applicant may request approval from the Department to use an alternative that maintains the required separation distance of 20 inches by artificial means such as an under drain system throughout the lifetime of the impoundment, by submitting a request to the Department for approval. In no case shall the regional groundwater table be affected.

(e) Centralized impoundments shall be constructed with a liner system composed of the following components:

(1) A sub-base that meets the following:

(i) Bears the weight of the liner system, impounded fluid, and equipment operating on the impoundment without causing or allowing a failure of the liner system.

(ii) Accommodates potential settlement without damage to the liner system.

(iii) Be compatible with the impounded fluid.

(iv) Covers the bottom and sidewalls of the impoundment.

(vi) Is covered with non-woven geotextile fabric to cushion the secondary liner and allow for adequate venting between the secondary liner and sub-base to prevent entrapment of gases beneath the liner system.

(vii) Is constructed of a natural clay material and include an upper 6 inches that meets the following:

(A) Is free of coarse rock fragments greater than 0.75" in diameter.

(B) Is hard, uniform, smooth and free of debris, rock fragments, plant materials and other foreign material.

(C) Is no more permeable than 1.0×10^{-6} cm/sec., based on laboratory and field testing. Soil compaction and permeability testing shall be conducted on the bottom and sides at a minimum rate of once per 2,500 square feet.

(D) Is compacted to a density of at least 95% standard proctor.

(2) A secondary liner that meets the following:

(i) Prevents the migration of fluid from the impoundment.

(ii) Is designed, constructed and maintained so that the physical and chemical characteristics of the liner are not adversely affected by the impounded fluid, and the liner is resistant to physical, chemical and other failure during transportation, handling, installation and use. Liner compatibility shall satisfy ASTM Method D5747 Compatibility Test for Wastes and Membrane Liners.

(iii) Covers the bottom and sidewalls of the impoundment.

(iv) Is composed of a synthetic material with a coefficient of permeability not greater than 1.0×10^{-10} cm/sec., based on laboratory testing.

(v) Has a minimum thickness of 40 mil unless a greater thickness is recommended by the manufacturer's specifications.

(vi) Is installed according to manufacturer's specifications under the supervision of an authorized representative of the manufacturer. A Department approved quality assurance and quality control plan shall be implemented in the field during the installation of the liner.

(vii) Is inspected for uniformity, damage and imperfections during construction and installation.

(viii) Use of a composite secondary liner may not be substituted for a separate primary liner.

(3) A leak detection system that meets the following:

(i) Rapidly detects and collect liquid entering the leak detection zone, and rapidly transmit the liquid to a sump.

(ii) Withstands chemical attack from the water or wastewater being impounded.

(iii) Withstands anticipated loads, stresses and disturbances from impounded liquid.

(iv) Functions without clogging.

(v) (v) Does not affect the primary or secondary liner by puncturing, cracking, tearing, stretching or otherwise losing its physical integrity.

(vi) Cover the bottom and sidewalls of the impoundment.

(vii) Create a flow zone between the secondary liner and the primary liner equal to, or more permeable than 1.0×10^{-2} cm/sec., based on laboratory testing and, when required by the Department, field testing.

(viii) Contain a perforated piping system capable of detecting and intercepting liquid within the leak detection zone and conveying the liquid to a collection sump.

(A) The collection sump shall be equipped with a sump pump with a switch to automatically activate the pump if a leak occurs.

(B) Discharge from the sump pump shall be directed back into the impoundment or other suitable containment. The sump shall have no outlet other than the sump pump discharge.

(C) The pump and sump shall be of sufficient size and capacity to convey any leak that may occur back into the impoundment without a discharge.

(ix) A piping system that meets the following requirements:

(A) The slope, size and spacing of the piping system shall assure that liquids drain from the leak detection zone.

(B) The pipes shall be installed as close to perpendicular to the flow as practicable and shall have a minimum post-settlement grade of at least 2%.

(C) The minimum diameter of the perforated pipe shall be 4 inches with a wall thickness of Schedule 80 or greater as specified by ASTM, or equivalent.

(D) The pipes shall be cleaned and maintained as necessary to ensure the effectiveness of the system.

(x) A minimum bottom slope of 2%.

(xi) Designed to allow the operator to monitor and record leakage rates.

(xii) Not contain carbonate stones or aggregate with sharp edges.

(xiii) The operator shall monitor the leak detection zone weekly to determine whether liquid is flowing from the zone. These records shall be made available to the Department upon request.

(4) A primary liner that meets the following:

(i) The effectiveness of the primary liner may not be adversely affected by the physical or chemical characteristics of the impounded fluids from the impoundment.

(ii) Designed, constructed and maintained so that the physical and chemical characteristics of the liner are not adversely affected by the impounded fluid and be resistant to physical, chemical and other failure during transportation, handling, installation and use. Liner compatibility shall satisfy ASTM Method D5747 Compatibility Test for Wastes and Membrane Liners, or other compatibility tests approved by the Department.

(iii) Cover the bottom and sidewalls of the impoundment.

(iv) Composed of a synthetic material with a coefficient of permeability not greater than 1.0×10^{-10} cm/sec., based on laboratory testing.

(v) A minimum thickness of 40 mil unless a greater thickness is required by manufacturer recommendations.

(vi) Installed according to manufacturer's specifications under the supervision of an authorized representative of the manufacturer. A Department approved quality assurance and quality control plan shall be implemented in the field during the installation of the liner.

(vii) Inspected for uniformity, damage and imperfections during construction and installation.

(viii) Use of a composite primary liner does not relieve the operator of responsibility for a separate secondary liner.

(ix) Allowable leakage rates through the primary liner shall be determined based upon the maximum depth of the impounded fluid as specified in Table 1. The area shall be calculated as the area of the liner in contact with the impounded fluid. Weekly leakage rates shall be documented and provided to the Department upon request. These records shall be made available to the Department upon request.

Table 1

Fluid Height (ft)	Allowable Leakage Rate (gallons/acre/day)
$h \leq 10$	340
$10 < h \leq 15$	420
$15 < h \leq 20$	490
$20 < h \leq 25$	550
$25 < h \leq 30$	610
$h > 30$	case by case

(x) In the event that the flow rate of leakage through the primary liner, as collected in the leak detection sump, exceeds the value in Table 1 for a given fluid depth, the operator shall notify the Department within 24 hours, drain the impoundment to the extent necessary to repair the impoundment and shall repair the impoundment. Notice shall be made electronically to the Department through its website.

(f) Hydrogeologic investigation—An operator that intends to construct a centralized impoundment must initially complete a baseline hydrogeologic investigation to document background conditions pursuant to this subsection.

(1) The investigation shall determine the groundwater flow beneath the site and adjacent area, based on an initial round of water quality testing, a groundwater elevation study and a review of reasonably available secondary source information. The results of the initial round of water quality testing shall be submitted with the permit application.

(2) A second round of testing, including water quality testing and water level measurements, shall also be completed. The second round of testing shall be conducted between 90 and 120 calendar days from the initial round of testing. The results of the second round of water quality testing may be submitted after the permit application is submitted. The Department will not make a decision on the permit application until the operator submits the results of the second round of water quality testing.

(3) The water quality testing required by this subsection shall include the constituents listed subsection (i)(6) below.

(4) If during the groundwater elevation study, soil mottling is apparent within the intended confines of the impoundment or within 20 inches of its base, or if the seasonal high water table will be adjusted using engineering controls in order to accommodate the impoundment, the requirements of 25 Pa. Code §§ 289.121-123 (relating to phase I application requirements — site analysis) must be followed and the groundwater monitoring period must be extended to four quarterly tests.

(5) Only passive drainage systems that lower the seasonal high water table and do not alter the supply of receiving water bodies or downgradient groundwater users may be utilized to adjust the seasonal high groundwater table.

(g) An operator that operates a centralized impoundment shall install, operate and maintain a water quality monitoring system that can detect the entry of regulated substances into the groundwater or surface water. The water quality monitoring system shall accurately characterize groundwater flow, groundwater chemistry and flow systems on the site and adjacent area. The system shall include the following:

(1) A minimum of one monitoring well at a point hydraulically upgradient from the impoundment area in the direction of increasing static head that is capable of providing representative data of groundwater not affected by the impoundment, except when the impoundment occupies the most upgradient position in the flow system. In that case, sufficient down gradient monitoring wells shall be placed to determine the extent of adverse effects on groundwater from the impoundment in the event of a liner system failure.

(2) A minimum of three monitoring wells at points hydraulically downgradient in the direction of decreasing static head from the area around a centralized impoundment. In addition to the downgradient wells, the Department may allow one or more springs for monitoring points if the springs are hydraulically downgradient from the impoundment, if the springs are developed and protected in a manner approved by the Department and if the springs otherwise meet the requirements of this subchapter.

(h) The upgradient and downgradient monitoring wells shall be:

(1) Sufficient in number, location and depth to accurately characterize water quality.

(2) Located so that they do not interfere with routine operations.

(3) Located within 200 feet of the permitted centralized impoundment and at least 100 feet closer to the centralized impoundment than the nearest private drinking water well, except as necessary to comply with paragraph (4).

(4) Upgradient monitoring wells shall be located so that they will not be affected by adverse effects on groundwater from the impoundment.

(5) Downgradient monitoring wells shall be located so that they will provide early detection of adverse effects on groundwater from the impoundment.

~~(6) The well equipment and materials shall be decontaminated prior to installation.~~
~~(i) Monitoring wells and casing of monitoring wells shall be constructed as follows:~~

~~(1) The casing shall maintain the integrity of the monitoring well borehole and shall be constructed of material that will not react with the groundwater being monitored.~~

~~(2) The minimum casing diameter shall be 4 inches unless otherwise approved by the Department in writing.~~

~~(3) The well shall be constructed with a screen that meets the following requirements:~~

~~(i) The screen shall be factory made.~~

~~(ii) The screen may not react with the groundwater being monitored.~~

~~(iii) The screen shall maximize open area to minimize entrance velocities and allow rapid sample recovery.~~

~~(iv) The well shall be filter packed with chemically inert clean quartz sand, silica or glass beads. The material shall be well rounded and dimensionally stable.~~

~~(v) The casing shall be clearly visible and protrude at least 1 foot above the ground, unless the Department has approved flush mount wells.~~

~~(vi) The annular space above the sampling depth shall be sealed to prevent contamination of samples and the groundwater.~~

~~(vii) The casing shall be designed and constructed in a manner that prevents cross contamination between surface water and groundwater.~~

~~(viii) Alternative casing designs for wells in stable formations may be approved by the Department.~~

~~(4) Monitoring well casings shall be enclosed in a protective casing that shall:~~

~~(i) Be of sufficient strength to protect the well from damage by heavy equipment and reasonably protected from the unauthorized acts of third parties.~~

~~(ii) Be installed for at least the upper 10 feet of the monitoring well, as measured from the well cap, with a maximum above grade surface of 3 feet, unless otherwise approved by the Department in writing.~~

~~(iii) Be cemented and placed with a concrete collar at least 3 feet deep to hold it firmly in position.~~

~~(iv) Be numbered for identification with a label capable of withstanding field conditions and painted in a clearly visible color.~~

~~(v) Protrude above the monitoring well casing.~~

(vi) Have a lockable cap.

(vii) Be made of steel or another material of equivalent strength.

(5) Analyses of data collected shall be submitted to the Department within 60 calendar days of sampling or 15 calendar days after completion of analyses, whichever is sooner, unless the Department approves another time period.

(6) Water samples must be collected from monitoring wells on a minimum frequency of once per calendar quarter and at a minimum, analyzed for the following parameters:

(i) Total dissolved solids,

(ii) Total Chloride,

(iii) Total Sulfates,

(iv) pH,

(v) Specific conductance,

(vi) Total Iron, and

(vi) Other parameters specified by the Department.

(i) Plans, specifications and reports for site characterization and groundwater testing systems required by this section shall be prepared and sealed by a registered professional geologist.

(k) The design engineer shall provide oversight for all aspects of impoundment 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 impoundments required by this section shall reasonably ensure mechanical integrity of the structure and function, shall be prepared by a registered professional engineer and shall be affixed with the engineer's seal and a certification which shall read 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 impoundment dams and Chapters 105 and 78 of the Rules and Regulations of the Department of Environmental Protection and is true and correct.

(m) Upon completion of construction of the impoundment, a facility completion and final certification report must 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:

- (1) A statement that the engineer provided oversight for all aspects of construction.
- (2) Soils classification testing results for the embankments.
- (3) Soil compaction testing results for the sub base, and for the clay portion of the secondary liner if a natural or remolded clay liner is used.
- (4) As built drawings noting any deviation from the original plans approved by the Department.
- (5) Quarry tickets for drain material.
- (6) Quality assurance and quality control test results.
- (7) Color photographs of the following at a minimum:
- (i) The cleared and grubbed foundation.
 - (ii) Leak detection system installation.
 - (iii) Placement and compaction of fill.
 - (iv) The completed embankments.
 - (v) The completed sub base.
 - (vi) The completed secondary liner
- (8) The impoundment shall not be used until the facility completion and final certification report is received and approved by the Department. The Department shall make a determination on the facility completion and final notification report within 30 business days.
- (n) Centralized impoundments shall be restored according to the following requirements:
- (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 pursuant to section 3216 (g) of the act.
 - (2) The site shall be restored to approximate original conditions including preconstruction contours.
 - (3) The site shall support the land uses that existed prior to oil and gas activities to the extent practicable.
 - (4) 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 shall demonstrate that the alternate practice provides equivalent or superior protection to the requirements of this section.**~~

§ 78.60. Discharge requirements.

(a) The owner and operator may not cause or allow a discharge of a substance, **fill or dredged material** to the waters of this Commonwealth unless the discharge complies with this subchapter and Chapters 91—93, 95, **102** and **[102] 105**. The Clean Streams Law (35 P. S. §§ 691.1—691.1001), **The Dam Safety and Encroachments Act (32 P.S. §§ 693.1 – 693.280)**, and the act.

(b) The owner and operator may not discharge tophole water or water in a pit as a result of precipitation by land application unless the discharge is in accordance with the following requirements:

* * *

(7) The area of land application is not within 200 feet of a water supply or within 100 feet of a **[stream] watercourse[,] or body of water [or a wetland]** unless approved as part of a waiver granted by the Department under section **[205(b)] 3215(b)** of the act **[(58 P. S. § 601.205(b))] (58 Pa.C.S. § 3215(b))**.

PIOGA Comment:

In *Robinson Twp. et al. v. Commonwealth of Pennsylvania et al.*, the Pennsylvania Supreme Court invalidated Section 3215(b) in Act 13. All references to this section should be deleted from Chapter 78. However, PIOGA supports a setback of 100 feet from the edge of the well site measured horizontally to any solid blue lined stream, spring or body of water as identified on the most current 7 ½ minute topographic quadrangle map of the United States Geological Survey, together with provisions for reasonable waivers upon submission of a plan identifying additional measures to protect these waters. This comment applies wherever section 3215(b) is referenced in these draft regulations.

(8) If the water does not meet the requirements of paragraph (2) or (4), the Department may approve treatment prior to discharge to the land surface.

(c) Compliance with subsection (b) shall be documented by the operator and made available to the Department upon request while conducting activities pursuant to subsection (b) and shall be submitted pursuant to § 78.65(f)(1).

§ 78.61. Disposal of drill cuttings.

(a) *Drill cuttings from above the casing seat—pits.* The owner or operator may dispose of drill cuttings from above the casing seat determined in accordance with § 78.83**[(b)](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.

PIOGA 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 effectively 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 oil and gas operations.

PIOGA Suggested Regulatory 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] watercourse[,] or** body of water **[or a wetland]** unless approved as part of a waiver granted by the Department under section **[205(b)] 3215(b)** of the act **[(58 P. S. § 601.205(b))] (58 Pa.C.S. § 3215(b))**.

(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 § 78.60 (relating to discharge requirements).

PIOGA Comment:

The term "waste" should not be used in reference to uncontaminated drill cuttings from above the casing seat. These materials are not residual wastes.

PIOGA's Suggested Regulatory Language:

(6) The free liquid fraction of the uncontaminated drill cuttings shall be removed and disposed under § 78.60 (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 § 78.53 (relating to erosion and sediment[ation] 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 casing seat—land application.* The owner or operator may dispose of drill cuttings from above the casing seat determined in accordance with § 78.83[(b)](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 tophole water, fresh water or gases.

PIOGA 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 oil and gas operations.

PIOGA Suggested Regulatory 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.

(4) The disposal area is not within 100 feet of a **[stream,] watercourse or** body of water **[or wetland]** unless approved as part of a waiver granted by the Department under section **[205(b)] 3215(b)** of the act **[(58 P. S. § 601.205(b))] (58 Pa.C.S. § 3215(b)).** 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 § 78.60.

(9) The drill cuttings are spread and incorporated into the soil. **The loading and application rate of drill cuttings shall 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 § 78.53. 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 casing seat.* After removal of the free liquid fraction and disposal in accordance with § 78.60, drill cuttings from below the casing seat determined in accordance with § 78.83[(b)](c) may be disposed of as follows:

(1) In a pit that meets the requirements of § 78.62(a)(5)—(18) and (b) (relating to disposal of residual waste—pits).

(2) By land application in accordance with § 78.63(a)(5)—(20) and (b) (relating to disposal of residual waste—land 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 website. Use of approved solidifiers will not require the operator to request approval from the Department.**

(e) A pit used for the disposal of residual waste, including contaminated drill cuttings, shall comply with § 78.62. Land application of residual waste, including contaminated drill cuttings, shall comply with § 78.63.

(f) The owner or operator shall notify the Department at least 3 business days before disposing of drill cuttings pursuant to this section. This notice shall be submitted electronically to the Department through its website 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 need not be 3 business days in advance.

PIOGA Comment:

Virtually all residual waste approved for beneficial use contains regulated substances. However, the “concentrations” are often low, either below Clean Fill or Regulated Fill levels. The mere existence of a regulated substance in drill cuttings or other waste is not a concern and should not trigger any absolute prohibition on placement reuse – whether the drill cuttings are from conventional or unconventional formations. The Department has no factual, scientific or legal basis for distinguishing between conventional and unconventional drill cuttings or prohibiting the land application of drill cuttings from unconventional formations.

The Department has issued General Permits allowing the direct land application of drill cuttings at Act 2 sites as capping or fill material even though they contain regulated substances. On January 2013, DEP approved drill cuttings for fill material at the Palmerton, Carbon County Act 2 site. On March 2013, it approved drill cuttings and stabilized drilling fluids as a co-product as a replacement for soil in capping at the Palmerton site. On September 2013, DEP approved the beneficial use of drill cuttings as fill material under Act 2 at the Hazleton,

Luzerne County mine reclamation/remediation site. In November 2011 DEP approved a General Permit from Clean Earth Inc. for a 3-year demonstration project to beneficially use drill cuttings on a statewide basis at Act 2 brownfield sites as capping material on a site in Bucks County and any subsequent brownfield site subject to public notice. In August 2013, DEP approved the beneficial use of drill cuttings as a substitute for fine aggregate in the production of asphalt.

These uses were approved because the concentrations of the contaminants are low and do not pose a threat of pollution or harm. Accordingly, Chapter 78 cannot arbitrarily prohibit land application merely because of the existence of “regulated substances.”

PIOGA Suggested Regulatory Language:

Remove/delete any language defining drill cuttings managed or placed at the well site as a “residual waste.” Remove any language defining on-site management or placement of drill cuttings as “disposal.”

§ 78.62. Disposal of residual waste—pits.

(a) After the removal and disposal of the free liquid fraction of the waste under § 78.60(a) (relating to discharge requirements), the owner or operator may dispose of residual waste, including contaminated drill cuttings, in a pit at the well site if the owner or operator satisfies the following requirements:

(1) The **residual** waste is generated by the drilling, **or stimulation [or production]** of an oil or gas well that is located on the well site where the **residual** waste is disposed. **Solid waste generated by hydraulic fracturing of unconventional wells and solid waste generated by processing of fluids pursuant to § 78.58, may not be disposed of on the well site.**

PIOGA Comment:

PIOGA questions the legality and scientific basis for the blanket prohibition of on-site disposal of waste generated by hydraulic fracturing of unconventional wells and solid waste generated by processing of fluids pursuant to § 78.58. On-site disposal should be permitted if the waste meets the requirements of Section 78.62(b). Benefits would include conservation of landfill space and reduced heavy traffic on local communities.

PIOGA Suggested Regulatory Language:

(1) The residual waste is generated by the drilling, or stimulation of an oil or gas well that is located on the well site where the residual waste is disposed. Solid residual waste generated by hydraulic fracturing of unconventional wells and solid residual waste generated by processing of fluids pursuant to § 78.58, may not be disposed of on the well site unless it meets the requirements of § 78.62(b).

(2) The well is permitted under section [201] 3211 of the act [(58 P. S. § 601.201)] (58 Pa.C.S. § 3211) or registered under section [203] of the act (58 P. S. § 601.203).

(3) The requirements of section ~~[215]~~ 3225 of the act [(58 P. S. § 601.215)] (58 Pa.C.S. § 3225) are satisfied by filing a surety or collateral bond for wells drilled on or after April 18, 1985.

(4) Compliance is maintained with the act and this title.

(5) The owner or operator shall notify the Department at least 3 business days before disposing residual waste according to this section. This notice shall be submitted electronically to the Department through its website and include the date the residual waste will be disposed. If the date of disposal changes, the operator shall re-notify of the new proposed date of disposal.

~~[(5)]~~ (6) The disposal area is not within 200 feet measured horizontally from an existing building, unless the current owner thereof has provided a written waiver consenting to the disposal closer than 200 feet. The waiver shall be knowingly made and separate from a lease or deed unless the lease or deed contains an explicit waiver from the current owner.

~~[(6)]~~ (7) The disposal area is not within 100 feet of a ~~[stream,]~~ watercourse or body of water ~~[or wetland]~~.

~~[(7)]~~ (8) The disposal area is not within 200 feet of a water supply.

[(8)] (9) The bottom of the pit is a minimum of 20 inches above the seasonal high groundwater table. The well operator shall determine that the pit bottom is at least 20 inches above the seasonal high groundwater table prior to using the pit. The determination shall be made by a soil scientist or other similarly trained person using accepted and documented scientific methods. The individual's determination shall 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.

PIOGA Comment:

The term "seasonal high groundwater table" should be defined as provided in our comments under section 78.56(a)(11) above.

[(9)] (10) The pit is designed, constructed and maintained to be structurally sound and impermeable.

[(10)] (11) The pit and liner meet the requirements of 78.56 (a)(8)-(10). [is lined with a synthetic flexible liner that is compatible with the waste and 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 liner thickness shall be at least 30 mils. Adjoining sections of liners shall be sealed together in accordance with the manufacturer's directions to prevent leakage. The operator may use an alternate liner or natural materials, if the material and the installation procedure to be used are approved by the Department. Notice of the approved liners and installation procedures will be published by the Department in the *Pennsylvania Bulletin*.

(12) 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 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.

(13) 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. If the pit bottom or sides consist of rock, shale or other material that may cause the liner to fail and leak, 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.

(14) 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 owner or operator shall correct damages or imperfections before placing waste in the pit, and shall maintain the pit until closure of the pit.]

[(14)] (12) Prior to encapsulating the residual waste within the liner, the free liquid fraction of the residual waste shall be removed and disposed under § 78.60(a).

[(15)] (13) The liner shall be folded over, or an additional liner shall be added, to completely cover the residual waste and the residual waste is shaped so that water does not infiltrate the liner and is not confined above the liner.

[(17)] (14) Puncturing or perforating the liner is prohibited.

[(18)] (15) The pit shall be backfilled to at least 18 inches over the top of the liner and graded to promote runoff with no depressions that would accumulate or pond water on the surface. The stability of the backfilled pit shall be compatible with the adjacent land.

[(19)] (16) The surface area of the backfilled pit area shall be revegetated to stabilize the soil surface and comply with § 78.53 (relating to erosion and sediment[ation] 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 erosion.

(b) A person may not dispose of residual waste, including contaminated drill cuttings, at the well site unless the residual waste meets the following requirements:

(1) The concentration of contaminants in the leachate from the residual waste does not exceed 50% of the maximum concentration in 40 C.F.R. § 261.24 Table I (relating to characteristic of toxicity).

(2) The concentration of contaminants in the leachate from the residual waste does not exceed 50 times the primary maximum contaminant level in effect under § 109.202 (relating to State MCLs, MRDLs and treatment technique requirements).

(3) For other health related contaminants, the concentration of contaminants in the leachate from the **residual** waste does not exceed 50 times the safe drinking water level established by the Department.

(4) Leachate characteristics are determined in accordance with methods approved by the Department.

* * *

§ 78.63. Disposal of residual waste—land application.

(a) The owner or operator may dispose of residual waste, including contaminated drill cuttings, at the well site by land application of the waste if the owner or operator satisfies the following requirements:

(1) The **residual** waste is generated by the drilling[or production] of an oil or gas well that is located on the well [side] site. **Residual waste generated by hydraulic fracturing of unconventional wells and residual waste generated by processing pursuant to § 78.58, may not be disposed of by land application.**

PIOGA Comment:

PIOGA questions the legality and scientific basis for the blanket prohibition of land application of residual waste generated by hydraulic fracturing of unconventional wells and solid waste generated by processing of fluids pursuant to § 78.58. Land application should be permitted if the waste meets the requirements of Section 78.63(b). Benefits would include conservation of landfill space and reduced heavy traffic on local communities.

PIOGA Suggested Regulatory Language:

(1) The residual waste is generated by the drilling or stimulation of an oil or gas well that is located on the well site. Residual waste generated by hydraulic fracturing of unconventional wells and residual waste generated by processing pursuant to § 78.58, may not be disposed of on the well site unless it meets the requirements of § 78.63(b).

(3) The well is permitted under section [201] **3211** of the act [(58 P. S. § 601.201)] **(58 Pa.C.S. § 3211)** or registered under section [203] **3213** of the act [(58 P. S. § 601.215)] **(58 Pa.C.S. § 3213)**. The requirements of section [215]**3222** of the act [(58 P. S. § 601.215)] **(58 Pa.C.S. § 3222)** are satisfied by filing a surety or collateral bond for wells drilled on or after April 18, 1985.

(4) Compliance with the act and this title is maintained.

(5) The owner or operator shall notify the Department **electronically through its website** at least 3 [working] **business** days before the land application activity is to occur. **The notification shall include the date on which the land application is to occur. If the date of land application is extended, the operator shall re-notify the Department of the new proposed date which need not be 3 business days in advance.**

* * *

(20) The land application area shall be revegetated to stabilize the soil surface and comply with [§ 78.53] **25 Pa. Code Chapter 102** (relating to erosion and sediment[ation] 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 erosion.

(21) If [a chemical] **additional** analysis conducted pursuant to paragraph 19 fails to show compliance with [paragraph [(18)] **this section**, the owner or operator shall remediate the land application area until compliance is demonstrated.

(b) A person may not dispose of residual waste, including contaminated drill cuttings, at the well site unless the concentration of contaminants in the leachate from the waste does not exceed the maximum concentration stated in **40 C.F.R.** § 261.24 Table I (relating to characteristic of toxicity).

* * *

(d) Compliance with subsection (b) shall be documented by the operator and made available to the Department upon request while conducting activities pursuant to subsection (a) and shall be submitted pursuant to § 78.65(f)(7).

* * *

§ 78.64a Containment systems and practices at unconventional well sites.

PIOGA Comment:

As an overarching comment, this section needs to clearly differentiate between general pad containment systems and “secondary” containment, and the requirements thereof. General pad containment systems should be differentiated between surface containment systems vs. sub-surface containment systems. The appropriate inspection, leak detection, stormwater management, and maintenance requirements for each of these two alternatives should be established in separate sections.

For general pad surface containment, the permeability specification in the draft regulation is overly stringent. General pad containment does not have water under head on it. Tear and puncture resistance and durability is more important.

Secondary containment should be clearly defined as separate, surface, individualized containment units employed for containment of specific substances or operational units. Specific requirements for various units, such as the 10% rule, for fuel tanks, or brine tanks, should be articulated in this section.

Since Act 13 references the need for operators to have a containment plan, this section should include language that states that an operator who has submitted a containment plan to the

Department that conforms with Department guidelines for such plans is deemed to meet the requirements of this section.

(a) This section shall only apply 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.

(c) 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.

PIOGA Comment:

In subsections (c) and (e)(1), commercial products, for example cement in the cement trucks, are not Act 2 "regulated substances" or solid wastes. Using "regulated substances" in this context is too broad and may exceed the Department's authority. This subsection conflicts with Act 13, which specifies a list of six materials that must be in containment systems when stored on unconventional well sites. See Section 3218.2(e).

PIOGA Suggested Regulatory Language:

(b) 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.

(c) Containment systems shall be used when drilling mud, hydraulic oil, diesel fuel, drilling mud additives, hydraulic fracturing additives, or hydraulic fracturing flowback is 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) Pits and centralized impoundments that comply with this Chapter are deemed to meet the requirements of this section.

(e) Containment systems shall meet all of the following:

(1) 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.

(2) Have a coefficient of permeability no greater than 1×10^{-10} cm/sec.

(3) The physical and chemical characteristics of all liners, coatings or other materials used as part of the system, that could potentially come into direct contact with regulated

substances being stored, shall 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.

PIOGA comment:

This proposed subsection is overly broad, would apply to cement in cement trucks, and conflicts with Act 13, which provides a specified list of materials that require storage in containment systems. The subsection is unnecessary because it is redundant with revised subsection (c) above.

Regarding subsection (e)(3), 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 (\$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.

PIOGA Suggested Regulatory Change:

Delete subsection (e)

(f) Secondary containment: An operator shall utilize secondary containment when storing additives, chemicals, oils or fuels. The secondary containment shall 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.

PIOGA comment:

The final sentence of this subsection is vague and contrary to Act 13 which has no such mandatory secondary containment for storing additives, chemicals, oils or fuels. The first sentence of this section must be deleted. PIOGA understands that the Department's concern that an impervious berm should be used with the liner to provide sump capacity. PIOGA suggests stating this directly.

PIOGA Suggested Regulatory Language:

(f) Areas where additives, chemicals, oils or fuels are 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) Subsurface secondary containment systems may be employed at the well site. Subsurface secondary containment shall meet the following requirements:

(1) Subsurface secondary containment systems shall 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 shall be at least 30 mils. Adjoining sections of the subsurface containment system shall 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) Be designed to allow for the management or removal of stormwater.

(3) Be designed and installed in a manner that prevents damage to the system by the subbase or the movement of equipment or other activities on the surface.

(4) Not be used to store regulated substances.

(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) 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.

PIOGA 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.

PIOGA Suggested Regulatory Language for the last sentence of (h):

(h) Stormwater shall be removed as soon as practicable and prior to the capacity of secondary containment being reduced by 10% or more.

(i) 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 shall 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 § 78.66.

PIOGA 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 78.66 will apply.

PIOGA Suggested Regulatory Language:

(i) Substances that escape from primary containment or are otherwise spilled onto a containment system shall be removed as soon as practicable. 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 regulated substance escaped the containment system, the operator shall notify the Department in accordance with §78.66.

(j) Stormwater that comes into contact with regulated substances stored within the secondary containment area shall be managed as residual waste.

PIOGA Comment:

Stormwater that does not come into contact with a regulated substance should be allowed to be discharged according to 78.60. Stormwater that is not discharged is not a residual waste.

PIOGA Suggested Regulatory Language:

(i) Stormwater that comes into contact with regulated substances stored within the secondary containment area shall be managed as residual waste when disposed. Stormwater that does not come into contact with a regulated substance may be discharged according to 78.60.

(k) Inspection reports and maintenance records shall be available at the well site for review by the Department.

(l) Documentation of chemical compatibility of containment systems with material stored within the system shall be provided to the Department upon request.

§ 78.65. Site restoration.

(a) [In addition to complying with section 206 of the act (58 P. S. § 601.206), an owner or operator shall meet the following requirements:] The owner or operator shall restore the land surface within the area disturbed pursuant to section 3216 of the act (58 Pa.C.S. § 3216) and 25 Pa. Code Chapter 102.

[(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) Restoration after drilling — 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 in time. 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 § 78.64a.

PIOGA Comment:

Section 78.64a, referenced in the last sentence of this provision, does not apply to conventional operators. It should be clarified that compliance with Section 78.64a only applies within Section 78.65 to unconventional operators.

PIOGA Suggested Regulatory Language:

Revise the last sentence of (d) as follows: “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. Supplies or equipment on unconventional sites must be maintained in accordance with § 78.64a.”

(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 the requirements in 25 Pa. Code § 102.8.

(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 wellhead(s) 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, shall comply with all post construction stormwater management requirements in 25 Pa. Code Chapter 102.

(v) The site is permanently stabilized according to 25 Pa. Code § 102.22(a).

PIOGA Comment:

These proposed restoration obligations exceed those imposed by Chapter 102 and may exceed those within approved site restoration plans.

- Providing a blanket conclusion that “compacted” soil is impervious is overly broad, vague, and unreasonable.
- DEP has no authority under Act 13 or otherwise to require restoration to “approximate original conditions” unless that obligation is part of an approved site restoration plan. There is no requirement in sections 3215(c) or (d) of Act 13, or in the Chapter 102 regulations, to restore well sites to approximate original contours or conditions. The term “approximate original contours” is used in section 3215(g) only in the context of restoration extension requests. Aside from being beyond the Department’s authority to require, such an obligation would impose unreasonable measures in many topographic areas of Pennsylvania.
- The rule should clarify that well site “restoration” occurs at two very different times – post drilling and post plugging – that entail very different obligations.

PIOGA Suggested Regulatory Language:

(1) An area utilized for post drilling production 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 the applicable requirements in 25 Pa. Code § 102.8.

(ii) Remaining impervious areas are minimized. Impervious areas may include 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) 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 a post construction stormwater management plan approved pursuant to applicable requirements in 25 Pa. Code Chapter 102.

(v) The site is permanently stabilized according to 25 Pa. Code § 102.22(a).

(2) The restoration period in this subsection may be extended by the Department for an additional period of time, not to exceed two years, 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.

(3) The demonstration under paragraph (2) shall be submitted on forms provided by the Department six months after the completion of drilling, for approval by the Department. The demonstration must include all of the following:

(i) A site restoration plan that shall provide for:

(A) The timely removal or fill of all pits used to contain produced fluids or residual wastes;

(B) The removal of all drilling supplies and equipment not needed for production, including containment systems;

(C) The stabilization of the well site that shall include interim post construction storm water management best management practices in compliance with 25 Pa. Code §102.8 including 25 Pa. Code §§ 102.8(a)–(m); or

(D) Other measures to be employed to minimize accelerated erosion and sedimentation in accordance with The Clean Streams Law.

(E) A minimum uniform 70% perennial vegetative cover over the disturbed area, with a density capable of resisting accelerated erosion and sedimentation, or a BMP which permanently minimizes accelerated erosion and sedimentation.

(F) Return 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.

PIOGA Comment:

PADEP's draft rule with respect to extensions of restoration period exceeds the authority and defeats the intent of Act 13 to allow for the most economical and environmentally friendly extension of well site restoration obligations.

PIOGA Suggested Regulatory Language:

- (2) 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.
- (3) The demonstration under 78.65(e)(2) 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, unless otherwise agreed by the surface owner.
- (4)** 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.

~~(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)(A)-(E) and all PCSM requirements in 25 Pa. Code Chapter 102.~~

(e) Restoration after plugging—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.

PIOGA Comment:

See comments related to “approximate original conditions” above.

PIOGA Suggested Regulatory Language:

(e) Restoration after plugging—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 in accordance with the approved site restoration plan, so that it 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.

PIOGA Comment:

The term “seasonal high groundwater table” should be defined as provided in our comments under section 78.56(a)(11) above.

(7) The test results required by §§ 78.62 and 78.63 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.

§ 78.66. Reporting and remediating releases.

(a) Scope - This section applies to reporting and remediating spills or releases of regulated substances on or adjacent to well sites and access roads.

PIOGA Comment:

As an overarching comment, it is critical to recognize that Act 2 was enacted to eliminate “environmental hazards on existing commercial and industrial land across this Commonwealth,” and that the “reuse of industrial land is an important component of sound land-use policy that will prevent the needless development of prime farmland, open space areas and natural areas and reduce public costs for installing new water, sewer and highway infrastructure.” 35 P.S. § 6026.102(1). Thus, the policy and focus of Act 2 is to clean up and reuse industrial land. Although Act 2 cleanup standards are to be employed wherever DEP requires cleanup under certain listed statutes including the Clean Streams Law, the Oil and Gas Act is not a specifically listed statute to which Act 2 applies. Thus, Act 2 procedures and standards should not be casually adopted to the oil and gas fields without considering their implications, especially on the conventional industry.

In addition, DEP has not fully weighed the harm that is to be mitigated with the costs imposed for such mitigation. Operational releases of brine to the ground surface during the 100-year history of oil and gas drilling in the Commonwealth for the most part has not been observed to have any significant or lasting environmental effect. DEP must consider this historical knowledge and context before altering cleanup requirements, especially for small spills of substances that have low toxicity and are readily remediated, such as brine and crude oil.

[(a) A](b) Reporting releases -

(1) An operator or 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, [shall comply with the following reporting and corrective action requirements: of § 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.

PIOGA Comment

The oil and gas industry is already subject to release reporting under various federal laws that have reportable quantity thresholds as well as Pennsylvania law, particularly section 91.33 of the Clean Streams Law regulations. This section 78.66(b)(1) would impose a reporting obligation that is in addition to section 91.33, for a spill or release of 5 gallons or more of brine over 24 hours that is not completely contained by a containment system, regardless of whether there is an actual or threatened impact to waters of the Commonwealth. This requirement should be limited to reporting releases of 5 gallons or more of brine outside of containment.

PIOGA Suggest Regulatory 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 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 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. 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 the contamination 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.**

(3) Upon the occurrence of any spill or release, the operator or responsible party shall take necessary corrective actions to:

- (i) Prevent the ~~regulated~~ 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 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.

(5) After responding to a spill or release, the operator 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.

PIOGA Comment:

The requirement to decontaminate equipment is unnecessary for the vast majority of materials that would be hauled from a site during spill cleanup at well sites. This provision should be deleted or modified to require decontamination of equipment only where justified by a clear and compelling purpose.

PIOGA Suggested Regulatory Change:

Delete subsection (5) above.

(c) Remediating releases - Remediation of an area affected by a spill or release is required. The operator or responsible party must remediate a release in accordance with one of the following:

(1) Spills or releases to the ground of less than 42 gallons at a well site that do not impact or threaten to pollute of waters of the Commonwealth may be remediated by removing the soil visibly impacted by the 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 25 Pa.Code § 250.707(b)(1)(iii)(B) (relating to statistical tests).

PIOGA Comment:

Small spills by conventional operations have been handled in an environmentally friendly manner for over one hundred years. Experience under DEP's new Spill Policy has shown that the costs added by compliance with this section can be three or four times higher than costs of traditional cleanup measures. The costs to clean up small spills of crude oil, for example, that have been documented through an Act 2 process, have increased from \$2,500 to over \$11,000, even where secondary testing, which would further increase costs, was not required.

This proposed section substantially increases the time and costs for addressing small spills, costs that far outweigh any benefit to be realized in most circumstances. DEP should not require an attainment demonstration under the Act 2 process for small spills because that process can require many soil and groundwater samples over several months or years, which imposes

significant cost to clean up a small spill and provides no meaningful additional environmental protection.

Requiring Chapter 250's statistically-based cleanup standards for all spills less than 42 gallons onto the ground or a well pad surface would result in more expensive remediation for these small spills, depending upon the substance spilled. Small spills (up to 10 gallons), whether brine or crude oil, are normally handled by immediately absorbing, vacuuming, or excavating a generous area around and under the spill, to visual, olfactory, and field metered standards. Onsite bioremediation in situ has been used successfully for many years and should be encouraged. The federal Environmental Protection Agency recognizes that bioremediation is a proven alternative tool that can be used to treat crude oil spills, has issued fact sheets and similar technical materials to guide on-scene coordinators response to such spills, and has recommended the evaluation of bioremediation as a cleanup option for crude oil spills in Pennsylvania.¹² Because such small spills have no real potential to pollute, this approach is environmentally sound and operationally efficient.

PIOGA Suggested Regulatory Change:

Remove the final sentence of paragraph (c)(1) above.

(2) For spills or releases to the ground of more than 42 gallons or that impact or threaten pollution of waters of the Commonwealth, the operator or responsible person may satisfy the requirements of this subsection by demonstrating attainment of one or more of the standards established by Act 2 and 25 Pa.Code Chapter 250 (relating to administration of land recycling program).

PIOGA Comment:

As for larger spills, persons who remediate spills at oil and gas sites in Pennsylvania have always had the option to utilize the Act 2 process to obtain liability relief. However, there are no statewide health standards for chlorides, which may be a common constituent of spills related to oil and gas operations. Requiring compliance with Act 2 for brine spills potentially creates an excessive burden and expense for oil and gas operators to develop background or site specific standards of attainment, with uncertain environmental benefit. By the time such standards and cleanup plans are developed, chloride impacts may have naturally attenuated to the point that further remediation is unnecessary or could do more environmental harm than good. This is not in the spirit of Act 2, which was intended to encourage voluntary cleanups that address actual risks and not require that every site be immediately returned to pristine condition. Site specific factors should be reviewed to allow bioremediation and natural attenuation for such spills.

¹² See, e.g., NRT Fact Sheet: *Bioremediation in Oil Spill Response*, A.D. Venosa, U.S. EPA Region 4; and *Proposed Cleanup Guidelines for Small Crude Oil Spills using Bioremediation* (Process Selection Flow Chart), J. Brown (Lockheed Martin/REAC) and H. Allen (USEPA/ERT); and *Voodoo Science: The Practical Application of Bioremediation Techniques as a Removal Response Option at Oil Spill Sites in the Northwestern Pennsylvania Oil Patch*, V.E. Zenone, USEPA Region III (April 2004).

As written, the subsection allows operators to satisfy cleanup obligations through compliance with Act 2, which oil and gas operators have been able to do without this rule. DEP should continue to allow oil and gas operators to utilize Act 2 as a voluntary process.

(2) For releases of more than 42 gallons or that impact or threaten pollution waters of the Commonwealth, as an alternative to (2), the responsible party may remediate a spill or release using the Act 2 background or Statewide health standard in the following manner:

(i) Within 15 business days of the spill or release, the operator or 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 water supplies, buildings or utilities, and

(E) Interim remedial actions planned, initiated or completed.

(ii) The initial report shall also include a summary of the actions the operator or 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 impacts identified or discovered during interim remedial actions or site characterization shall also be reported in writing to the Department within 15 calendar days of their discovery.

(iii) Within 180 calendar days of the spill or release, the operator or responsible party must perform a site characterization to determine the extent and magnitude of the contamination and submit a site characterization report to the appropriate Department Regional Office describing the findings. The report shall include a description of any interim remedial actions taken. For a background standard remediation, the site characterization shall contain information required by 25 Pa.Code § 250.204(b)-(e) (relating to final report). For a Statewide health standard remediation, the site characterization shall contain information required by 25 Pa.Code § 250.312(a) (relating to final report).

(iv) This report may be a final remedial action report if the interim remedial actions meets all of the requirements of an Act 2 background or Statewide health standard remediation or combination thereof. Remediation conducted under this section shall not be required to meet the notice and review provisions of these standards except as described in this section.

(v) If the site characterization indicates that the interim remedial actions taken did not adequately remediate the release the operator or responsible party must develop and submit a remedial action plan to the appropriate Regional Office of the Department 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 25 Pa.Code § 245.311(a) (relating to remedial action plan).

(vi) Once the remedial action plan is implemented, the responsible party must 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 pursuant to this paragraph may elect to utilize Act 2 at any time.

PIOGA Comment:

This "alternative" to Act 2 creates a lengthy, costly, and onerous process that does not provide a reasonable alternative to Act 2 in cases where substances spilled are benign and/or low volume. The rule must allow operators to request a reasonable alternative process in such cases.

PIOGA Suggested Regulatory Change and Language:

Remove all references to regulated substances above and add the following new subsection 78.66 (c)(4):

NEW 78.66(c)(4) - For any releases of more than 42 gallons or that would result or create a danger of pollution of waters of the Commonwealth, operators may propose an alternative to (2) and (3) above within 10 days of becoming aware of the spill or release where: the spill has been contained and controlled through appropriate measures, including but not limited to installation of temporary diversion ditches, deployment of absorbent materials, excavation and stockpiling of soils as appropriate, and where the operator submits a remedial action plan that describes the alternative in sufficient detail for the Department to determine whether the alternative satisfies the goals of the Act and this Chapter. The Department will make a determination whether to allow the alternative method within 15 days of receipt.

[(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 by 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 § 78.1 (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.]

§ 78.67. Borrow pits.

(a) An operator who owns or controls a borrow pit that does not require a permit pursuant to the Noncoal Surface Mining Conservation and Reclamation Act pursuant to the exemption in 3273.1(b) of the act (58 Pa. C.S. § 3273.1(b)) relating to noncoal borrow areas for oil and gas well development, shall operate, maintain and reclaim the borrow pit in accordance with the performance standards established in 25 Pa. Code Chapter 77 Subchapter I, 25 Pa. Code Chapter 102 and other applicable laws.

(b) Operators shall register the location of their existing borrow pits within 60 calendar days of the effective date of this section by providing the Department, in writing, with the GPS coordinates, township and county where the borrow pit is located. The operator shall register the location of a new borrow pit 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 (58 Pa.C.S. § 3273.1) shall meet one of the following:

(1) be restored within nine 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 in time.

(2) obtain a noncoal surface mining permit for its continued use, unless relevant exemptions apply pursuant to the Noncoal Surface Mining Conservation and Reclamation Act and regulations promulgated thereunder. A two-year extension of the restoration requirement may be approved pursuant to section 78.65(d).

§ 78.68. Oil and gas gathering lines.

PIOGA Comment:

Oil and gas gathering lines are not within the traditional scope of Chapter 78, as provided under section 78.2, which limits the scope to rules for the drilling, alteration, operation and plugging of oil and gas wells and for the operation of a coal mine in the vicinity of an oil or gas well. As

stated in comments above, Act 13's reference to "gathering lines" does not provide a basis for enlarging the scope of Chapter 78 to include them.

PIOGA Suggested Regulatory Change:

Delete section 78.68 in its entirety.

(a) All earth disturbance activities associated with oil and gas gathering line installations and supporting facilities shall be limited to 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.

(b) Highly visible flagging, markers or signs shall 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.

(c) The operator shall maintain topsoil and subsoil during excavation pursuant to 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 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.

(d) Backfilling of the gathering line trench shall be conducted in a manner that minimizes soil compaction to ensure that water infiltration rates of the soil have not been decreased.

(e) Equipment shall not be refueled within the jurisdictional floodway of any watercourse or within 50 feet of any body of water.

(f) Materials staging areas shall be outside of a jurisdictional floodway of any watercourse or greater than 50 feet from any body of water.

(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 25 Pa. Code Chapter 102.

(h) All buried metallic gathering lines shall be installed and placed in operation in accordance with 49 CFR Pt. 192 or 195 (relating to transportation of natural and other gas pipeline; minimum Federal safety standards; and transportation of hazardous liquids by pipeline).

§ 78.68a. Horizontal directional drilling for oil and gas pipelines.

PIOGA Comment:

Horizontal directional drilling for oil and gas pipelines is not within the traditional scope of Chapter 78, as provided under section 78.2, which limits the scope to rules for the drilling, alteration, operation and plugging of oil and gas wells and for the operation of a coal mine in the vicinity of an oil or gas well. As stated in comments above, nothing in Act 13, including its reference to “gathering lines,” provides a basis for enlarging the scope of Chapter 78 to these proposed requirements.

PIOGA Suggested Regulatory Change:

Delete section 78.68a in its entirety.

~~**(a) Any horizontal directional drilling associated with pipeline construction related to oil and gas operations, including 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 Chapters 102 (relating to erosion and sediment control) and Chapter 105 (relating to dam safety and waterway management).**~~

~~**(b) Prior to commencement of any horizontal directional drilling activity, the directional drilling operator shall develop a PPC plan pursuant to 25 Pa. Code § 102.5(l) (relating to permit requirements). The PPC plan shall 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 on site during drilling operations and made available to the Department upon request.**~~

~~**(c) The Department shall be notified at least 24 hours prior to commencement 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 website 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 commence.**~~

~~**(d) All required permits and Material Safety Data Sheets shall be on site during horizontal directional drilling operations and be made available to the Department upon request.**~~

~~**(e) Materials staging areas 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 shall be listed on the Department's website.**~~

~~**(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. Monitoring shall be in accordance with the PPC Plan.**~~

~~**(h) Horizontal directional drilling activities shall 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 shall immediately implement the contingency plan developed pursuant to subsection (b).**~~

~~**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 shall request an emergency permit pursuant to 25 Pa. Code § 105.64 (relating to emergency permits), if necessary.**~~

~~**(i) Any water supply complaints received by the operator shall be reported to the Department within 24 hours through the Department's website.**~~

~~**(j) Horizontal directional drilling fluid returns and drilling fluid discharges shall be contained, stored and recycled or disposed of in accordance with 25 Pa. Code Article IX (relating to residual waste management).**~~

§ 78.68b. Temporary pipelines for oil and gas operations.

PIOGA Comment:

Temporary pipelines for oil and gas operations are not within the traditional scope of Chapter 78, as provided under section 78.2, which limits the scope to rules for the drilling, alteration, operation and plugging of oil and gas wells and for the operation of a coal mine in the vicinity of an oil or gas well. As stated in comments above, nothing in Act 13, including its reference to "gathering lines," provides a basis for enlarging the scope of Chapter 78 to these proposed requirements.

PIOGA Suggested Regulatory Change:

Delete section 78.68b in its entirety.

~~**(a) Temporary pipelines shall meet applicable requirements in 25 Pa. Code Chapters 102 (relating to erosion and sediment control) and Chapter 105 (relating to dam safety and waterway management).**~~

~~**(b) Temporary pipelines that transport fluids other than fresh ground water, surface water, water from water purveyors or approved sources, shall be installed aboveground except when crossing pathways, roads or railways where the pipeline may be installed below ground surface.**~~

~~**(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).**~~

~~**(d) The section of a temporary pipeline crossing over a watercourse or body of water, except wetlands, shall not have joints or couplings. Temporary pipeline crossings over wetlands shall utilize a single section of pipe to the extent practicable. Shut off valves shall be installed on both sides of the temporary crossing.**~~

(c) In addition to the requirements of subsection (c), temporary pipelines used to transport fluids other than fresh ground water, surface water, water from water purveyors or approved sources, shall have shut off valves, check valves or other method of segmenting the pipeline placed at designated intervals, to be determined by the pipeline diameter, that prevent the discharge of no more than 1000 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 pipeline.

(g) Temporary pipelines shall be pressure tested prior to being first placed into service and after the pipeline is moved or altered. A passing test is holding 125% of the anticipated maximum pressure for two hours. 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.

(i) Temporary pipelines shall be inspected prior to and during each use. Inspection dates and any defects and repairs to the temporary pipeline shall be documented and made available to the Department upon request.

(j) Temporary pipelines not in use for more than 7 calendar days shall be emptied and depressurized.

(k) Flammable materials shall not be transported through a temporary pipeline.

(l) Temporary pipelines must be removed in accordance with the required restoration timeline of the well site it serviced under section § 78.65.

(m) An operator must keep records regarding the location of all temporary pipelines, the type of fluids transported through those pipelines, and the approximate period of time that the pipeline was installed. Such records must be made available to the Department upon request.

§78.69. Water management plans.

(a) WMPs for unconventional well operators. An unconventional well operator shall obtain a Department approved WMP pursuant to section 3211 (m) of the act (58 Pa. C.S. § 3211(m)) prior to withdrawal or use of water sources for drilling or completing an unconventional well.

(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) record keeping shall be implemented in the Ohio River Basin. Reports required in all river basins of the Commonwealth shall be submitted electronically to the Department.

(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 25 Pa. Code Chapter 95.10(b) will satisfy the reuse plan requirement. An unconventional well operator shall make the reuse plan available for review by the Department upon request.

(d) When applicable, the requirements of this section 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 requirement in (a) for a WMP approved by the Department.

(e) Expiration. Individual water sources within a WMP are valid for 5 years.

(f) Renewal. 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.

PIOGA Comment:

Automatic extensions of approved WMPs should be allowed in the event that the Department does not act in a timely manner to renew the WMP after submittal of a renewal application.

PIOGA Suggested Regulatory Language:

(e) Expiration. Individual water sources within a WMP are valid for 5 years unless the approval to use the source is extended or renewed.

(f) Renewal and Extension. A WMP 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 a water source under a WMP. If the Department does not act upon a timely submittal of a renewal application 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 operator's renewal application for that individual water sources. This subsection shall go into effect 6 months after the effective date of the regulation.

(g) Suspension and revocation. The Department may suspend or revoke an approved water source within a WMP for failure to comply with the WMP or for any reasons contained in sections 3252, 3259 and 3211(m) of the act (58 Pa. C.S. §§ 3252, 3259, 3211(m)).

(h) Termination. A WMP holder 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.

(i) Denial. The Department may deny approval of 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.

(3) The WMP will 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.

§ 78.70. Road-spreading of brine for dust control and road stabilization.

(a) Road-spreading of brine from oil and gas wells for dust suppression and road stabilization shall only be conducted pursuant to a plan approved by the Department and shall not result in pollution of the waters of the Commonwealth. Only production brines from conventional wells, not including coalbed methane wells, may be used for dust suppression and road stabilization pursuant to 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.

PIOGA Comment:

Why prohibit brine spreading of unconventional well produced fluid without data and tests to support the prohibition? This determination should only be made after analysis of the brine is conducted per 78.70(c)(8). Analysis has shown that unconventional production fluid can have the same quality as conventional production fluid. The Department has not provided a scientific basis for not allowing the spreading of other fluids.

PIOGA Suggested Regulatory Language:

(a) Road-spreading of brine from oil and gas wells for dust suppression and road stabilization shall only be conducted pursuant to a plan approved by the Department and shall not result in pollution of the waters of the Commonwealth. Only produced fluids from unconventional wells approved in accordance with (c)(8) or production brines from conventional wells, but not including coalbed methane wells, may be used for dust suppression and road stabilization pursuant to 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.

(b) Road-spreading of brine for dust control and road stabilization shall only be conducted on unpaved roads.

(c) Road-spreading plans shall be submitted annually to the Department for approval and shall include the following:

PIOGA Comment:

Annual renewal of road spreading plans is not necessary or effective in most cases, especially where brine composition remains relatively constant from year to year.

PIOGA Suggested Regulatory Language:

(c) After the initial approval by the Department, road-spreading plans shall be submitted for review and approval every five years unless brine composition changes by more than 20% from the previous year, in which case the road-spreading plan shall be submitted at the end of the year of the composition change.

(1)The name, address and telephone number of the plan applicant and of each person who will conduct the actual road-spreading.

(2)The license plate number of each road-spreading truck.

(3)An original signed and dated statement from the person that owns or maintains the roads where road-spreading will be conducted authorizing the use of brine on roads and that that person will supervise the frequency of road-spreading.

(4)A national wetland inventory map identifying the following:

(i) roads where the road-spreading be conducted,

(ii) any brine storage areas not located on a well site,

(iii) bodies of water and watercourses within 150 feet of the roads identified in (i).

(5) A description of how road-spreading will be conducted, including the equipment to be used and the method for controlling the rate of application of the brine.

(6) The proposed rate and frequency of application.

(7) The name of each well and the associated geologic formation from which the brine is produced.

PIOGA Comment:

This is a serious logistical issue. An operator may have 3200 gas wells on its bond. Listing each well and all producing formations which produce brine should not be necessary. It is impossible to know in advance what wells we will spread brine from over the course of a year.

Perhaps a general statement in the application indicating the range of formations which we have/had produced in all owned wells is more appropriate.

PIOGA Suggested Regulatory Language:

Delete subsection (7).

(8) A chemical analysis of the brine using parameters provided by the Department. A representative sample of the brine may be used, provided that the operator demonstrates that the representative sample is equivalent to the brine being used for road-spreading.

(d) Plans approved under this section will expire on December 31st of each year.

(e) Road-spreading shall be conducted according to the following:

(1) The application of production brine to unpaved roads shall be performed in accordance with the Department approved plan.

(2) The brine shall only be applied at a rate and frequency necessary to suppress dust and stabilize the road, but in no event at a rate or frequency greater than the rate and frequency contained in the approved plan.

(3) The road-spreading shall prevent direct infiltration to groundwater.

(4) Brine shall not enter bodies of water or water courses.

(f) Recommended application rates: The road should ~~shall~~ initially be spread at a rate up to one-half gallon per square yard. The road should ~~shall~~ subsequently be spread at a rate of up to one-third gallon per square yard. The application rate for race tracks and mining haul roads should be determined for each site and shall not exceed one gallon per square yard.

PIOGA Comment:

The amounts of brine allowed to be spread are minimal at best and may be cost prohibitive to operate under this section. Current practice allows for flexibility in the application rate, which should be retained if this rule is codified.

PIOGA Suggested Regulatory Language:

(f) Recommended application rates: The road should ~~shall~~ initially be spread at a rate up to one-half gallon per square yard. The road should ~~shall~~ subsequently be spread at a rate of up to one-third gallon per square yard. The application rate for race tracks and mining haul roads should be determined for each site and shall not exceed one gallon per square yard.

(g) Requirements for road-spreading. Road-spreading shall meet the following:

(1) Free oil shall be separated from the brine before spreading.

(2) Brine shall not be applied within 150 feet of bodies of water or watercourses.

(3) Brine must be spread by use of a spreader bar with shut off controls in the cab of the truck.

(4) Brine shall not be spread on roads or sections of roads which have a grade in excess of ten percent (10%).

(5) Brine shall not be spread on wet or frozen roads, during precipitation events, or when precipitation is imminent.

(h) Trucks utilized to spread brine shall have signs identifying plan applicant's name and business address on both sides of the vehicle. The signs shall have lettering that is at least six inches in height.

(i) A copy of the current Department approved road-spreading plan shall be kept in the road-spreading vehicle any time road-spreading is being conducted and shall be made available to the Department upon request.

(j) Except for storage at the well site, all storage of brine shall be in tanks in a manner that complies with the requirements set forth in 25 Pa. Code Chapter 299.

(k) The Department shall be notified at least 24 hours before road-spreading will begin. This notice shall be submitted electronically to the Department through its website and include the date the road-spreading will occur and where the activity will occur. If the date of road-spreading changes, the operator shall re-notify the Department in accordance with this paragraph.

(l) The person identified on the road-spreading plan shall submit a monthly report to the Department on forms provided by the Department listing the locations, frequency and amounts of brine spread during the previous month. Monthly brine spreading reports must be received by the Department on the 15th day of the month that follows the month the brine was spread. These reports must be submitted to the Department on a monthly basis even if no road-spreading of brine took place during the previous month.

(m) Any changes to the approved road-spreading plan must be submitted to the Department for approval. Approval must be obtained from the Department in writing prior to deviating from the plan or implementing any revisions to the plan.

(n) Failure to comply with this section may result in the Department rescinding the plan approval.

(o) Persons conducting road-spreading of brine for dust control and road stabilization activities shall be deemed to have a residual waste permit by rule if those activities comply with the requirements of this section.

§ 78.70a Pre-wetting, anti-icing and de-icing.

(a) Use of brine from oil and gas wells for pre-wetting, anti-icing and de-icing shall only be conducted pursuant to a plan approved by the Department and shall not result in pollution of the waters of the Commonwealth. Only production brines from

conventional wells, not including coalbed methane wells or wells drilled in hydrogen sulfide areas, may be used for pre-wetting, anti-icing and de-icing pursuant to 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.

PIOGA Comment:

Repeating our comment from Section 78.70 above, there is no reason to prohibit brine spreading of unconventional well produced fluid without data and tests to support the prohibition. This determination should be made only after analysis of the brine is conducted per 78.70a(c)(8). Analysis has shown that unconventional production fluid can have the same quality as conventional production fluid. The Department has not articulated a basis for not allowing the spreading of other fluids.

PIOGA Suggested Regulatory Language:

(a) Use of brine from oil and gas wells for pre-wetting, anti-icing and de-icing shall only be conducted pursuant to a plan approved by the Department and shall not result in pollution of the waters of the Commonwealth. Only production fluid from unconventional wells that complies with subsection (e) below and production brines from conventional wells, not including coalbed methane wells or wells drilled in hydrogen sulfide areas, may be used for pre-wetting, anti-icing and de-icing pursuant to 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.

(b) Use of brine for pre-wetting, anti-icing and de-icing shall only be conducted on paved roads to address winter driving conditions.

PIOGA Comment:

The term "paved" should be further defined to include "tar and chip" sections of township roads.

PIOGA Suggested Regulatory Language:

(b) Use of brine for pre-wetting, anti-icing and de-icing shall only be conducted on paved roads and tar and chipped roads to address winter driving conditions.

(c) Plans required by subsection (a) shall be submitted annually to the Department for approval and shall include the following:

(1) The name, address and telephone number of the plan applicant and of each person who will conduct the actual road-spreading.

(2) The license plate number of each road-spreading trucks.

(3) An original signed and dated statement from the person that owns or maintains the roads where road-spreading will be conducted authorizing the use of brine on roads and that that person will supervise the frequency of road-spreading.

(4) A national wetland inventory map identifying the following:

(i) roads where the road-spreading be conducted,

(ii) any brine storage areas not located on a well site,

(iii) bodies of water and watercourses within 150 feet of the roads identified in (i).

(5) A description of how the brine will be applied including the equipment to be used and the method for controlling the rate of application of the brine.

(6) The proposed rate and frequency of the application.

(7) The name of each well and the associated geologic formation from which the brine is produced.

PIOGA Comment:

This is a serious logistical issue. An operator may have 3200 gas wells on its bond. Listing each well and all producing formations which produce brine should not be necessary. It is impossible to know in advance what wells we will spread brine from over the course of a year. Perhaps a general statement in the application indicating the range of formations which we have/had produced in all owned wells is more appropriate.

PIOGA Suggested Regulatory Language:

Delete subsection (7).

(8) A chemical analysis of the brine for the parameters required by subsection (e). A representative sample of the brine to be spread may be used, provided that the operator demonstrates that the representative sample is equivalent to the brine being used for pre-wetting, anti-icing and de-icing.

(d) All plans will expire on June 30th of each year.

(e) Brines used for pre-wetting, anti-icing, and de-icing activities shall meet the following:

<u>Allowable Level</u>	<u>Parameter</u>	<u>Allowable Level</u>
<u>Pre-wetting</u>		<u>Anti-icing/De-icing</u>
<u>>170,000 mg/l</u>	<u>TDS</u>	<u>>170,000 mg/l</u>
<u>>80,000 mg/l</u>	<u>Chloride</u>	<u>>80,000 mg/l</u>
<u>>40,000 mg/l</u>	<u>Sodium</u>	<u>>40,000 mg/l</u>
<u>>20,000 mg/l</u>	<u>Calcium</u>	<u>>20,000 mg/l</u>
<u>5 to 9.5</u>	<u>pH</u>	<u>5 to 9.5</u>

<500 mg/l	Iron	<500 mg/l
<100 mg/l	Barium	<30 mg/l
<10 mg/l	Lead	<5 mg/l
<1,000 mg/l	Sulfate	<400 mg/l
<15 mg/l	Oil & Grease	<15 mg/l
<0.5 mg/l	Benzene	<0.5 mg/l
<0.7 mg/l	Ethylbenzene	<0.7 mg/l
<1 mg/l	Toluene	<1 mg/l
<1 mg/l	Xylene	<1 mg/l

(f) The recommended application rates for use of the natural gas well brines are shall be limited to 10 gallons per ton for pre-wetting use, less than 50 gallons per lane per mile for anti-icing use, and less than 100 gallons per lane per mile for de-icing.

PIOGA Comment:

EQB's proposed amounts of brine allowed to be spread are minimal at best and may be cost prohibitive to operate under this section, i.e., there needs to be a lot of roadway to spread a standard 100 bbl (4200 gallon) truck volume. Current practice allow for flexibility in the application rate, which should be retained if this rule is codified.

PIOGA Suggested Regulatory Language:

(f) The recommended application rates for use of the natural gas well brines should be 10 gallons per lane per mile for pre-wetting use, less than 50 gallons per lane per mile for anti-icing use, and less than 100 gallons per lane per mile for de-icing

(g) Brines shall not be mixed with other types of solid wastes except bottom ash from the combustion of coal.

(h) Brine shall only be applied to the antiskid material immediately prior to roadway application. Application of brine to uncontained antiskid storage piles is prohibited.

(i) Anti-icing, de-icing and the spreading of pre-wetted antiskid material shall not be conducted on wooden or grated deck bridges.

(j) Brine shall not enter bodies of water or water courses.

(k) Except for storage at the well site, all storage of brine shall be in tanks in a manner that complies with the requirements set forth in 25 Pa. Code Chapter 299.

(l) Every 3 years each source of brine used for pre-wetting, anti-icing, and de-icing shall be analyzed for the parameters in subsection (e) prior to submittal of the plan required by subsection (a). The analysis shall be for each individual well utilized or it may be a composite of one or more samples of brines from wells, which produce gas from the same formation. The well permit number and producing formations shall be submitted with the analysis. If the brines used are obtained from a permitted brine treatment facility, the analysis of a representative composite sample shall be submitted along with the facility's NPDES permit number.

(m) For each new source of brine, the applicant shall submit an analysis of a representative sample of the brine including all parameters in subsection (e) to the Department. The brine analysis shall be submitted no less than thirty calendar days prior to use. The applicant may utilize the brine in accordance with this section 30 calendar days after submittal of the brine analysis unless otherwise instructed by the Department.

(n) Records of the analytical evaluations conducted on brine pursuant to subsections (e) and (l) shall be maintained by the applicant for a minimum of five years at the applicant's place of business and shall be available to the Department for inspection. At a minimum, these records shall include information on the dates of testing, each parameter tested, the results, the laboratory sampling procedures, analytical methodologies and the chain of custody.

(o) Trucks utilized to spread brine or pre-wetted antiskid material shall have signs identifying the person's name and business address on both sides of the truck. The signs shall have lettering that is at least six inches in height. Controls for spreading brine and pre-wetted anti-skid material shall be located in the cab of the truck.

(p) A copy of the current Department approved plan shall be kept in the spreading truck any time brine or pre-wetted antiskid material spreading is being conducted and shall be made available to the Department upon request.

(q) The Department shall be notified at least 24 hours before brine or pre-wetted antiskid material spreading will begin. This notice shall be submitted electronically to the Department through its website and include the date the activity will occur and the location where the activity will occur. If the date changes, the operator shall re-notify the Department in accordance with this paragraph.

(r) The responsible person identified on the approved plan shall submit a monthly report to the Department on forms provided by the Department listing the locations, frequency and amounts of brine or pre-wetted antiskid material spread during the previous month. Monthly brine spreading reports must be received by the Department on or before the 15th day of the month that follows the month production brine was spread. These reports must be submitted to the Department on a monthly basis even if no activity took place in the previous month.

(s) Any changes to the approved plan must be submitted to the Department for approval. Approval must be obtained from the Department in writing prior to deviating from the plan or implementing any revisions to the plan.

(t) Failure to comply with this section may result in the Department rescinding the plan approval.

(u) Persons using brine for pre-wetting, anti-icing and de-icing activities in accordance with this section shall be deemed to have a residual waste permit by rule.

* * *

§ 78.73. 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) Orphaned or abandoned wells identified pursuant to section 78.52a that likely penetrate a formation intended to be stimulated shall be visually monitored during stimulation activities. The operator shall immediately notify the Department of any change to the orphaned or abandoned well being monitored and take action to prevent pollution of waters of the Commonwealth or discharges to the surface.

PIOGA Comment:

This section is written in a manner that raises more questions than it answers. It is difficult for an operator to determine if an orphaned or abandoned well “likely” penetrates a formation intended to be stimulated. “Visually monitored” during stimulation is not defined. There is not defined periodic obligation regarding visual monitoring in regards to the hydraulic fracturing process, especially if the orphaned or abandoned well is not on the operator’s lease. An operator likely will not be able to visually monitor a well if it is on an adjacent property and the operator has no legal access.

The Department may need to be involved in the monitoring process of these wells since an operator may not have the authority to access the property to monitor these wells. Also, an operator will not know whether it has penetrated the formation that is to be stimulated since these wells are abandoned, may have little or no available data regarding the well construction or the zone formerly produced and these wells are likely not registered with the Department. If there is no information regarding the depth, an operator may or may not be willing to assume that it is not “likely” to be penetrating the formation that will be stimulated.

There is significant concern regarding the geographic coordinates for a large number of wells that may exist in the Department’s database. Many historic orphaned and abandoned well locations may have been derived from old mapping, which brings a great deal of concern regarding the accuracy of data that the Department and operators will be relying upon for abiding by regulations set in this section and 78.52a. In addition, it is anticipated there will be several cases in the future where wells will be buried or inaccessible for “visual monitoring”. In this case, PIOGA questions the Department’s intention regarding the monitoring obligations going forward, as it is not practical to overburden the operator with significant monitoring over long periods of time.

PIOGA Suggested Regulatory Language:

(c) Orphaned or abandoned wells in the vicinity of a well which is hydraulically fractured that are identified pursuant to section 78.52a and that can be located on the ground using reasonable efforts shall be monitored during periods of actual fluid pumping operations, provided that

surface access to such wells can be obtained. Such monitoring shall include a visual inspection of the well at least every four hours, or following each stage of hydraulic fracturing, whichever is shorter, or other monitoring arrangement approved by the Department. The operator shall immediately notify the Department of any change to the well being monitored and take action to prevent pollution of waters of the Commonwealth or discharges to the surface.

(d) An operator that alters an orphaned or abandoned well by hydraulic fracturing shall plug the orphaned or abandoned well.

[(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)] (d)**, 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 well must be equipped with a check valve to prevent backflow from the pipelines into the well.

* * *

§ 78.122. 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:

* * *

(11) Whether methane was encountered in other than a target formation.

(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. [(11)]

(14) Other information required by the Department.

PIOGA Comment:

Operators should not have to identify borrow pits on their well records, which are often on locations owned and operated by third parties for the use of multiple activities, including those other than oil and gas activities. There is no statutory authority or environmental justification to require this requirement in well records.

PIOGA Suggested Regulatory Change:

Delete subsection (13).

(b) Within 30 calendar days after completion of the well, **when the well is capable of production**, the well operator shall **arrange for the [submit] submission of** a completion report to the Department on a form provided by the Department that includes the following information:

* * *

(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.

PIOGA Comment:

Operators should not have to identify impoundments on their well records, which are by the new proposed definitions subject to separate permitting and approvals. There is no statutory authority or environmental justification to require this requirement in completion records.

PIOGA Suggested Regulatory Change:

Delete subsection (9).

(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) **or other applicable state law.**

[(d) 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.]

§ 78.123. Logs and additional data.

(a) If requested by the Department within 90 calendar days after the completion **[of drilling]** or recompletion **of drilling [of a well]**, 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 **of drilling [a well]**, 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.

[(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)] (d) [The information requested by the Department] Data required under subsections **[(a)] (b) and [(b)] (c)** shall be **retained by the well operator and filed with [provided to] the Department [by the operator, within] no more than 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.] Upon request, the Department shall extend the deadline up to five years from the date of completion of the well.**

[(d)] (e) [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.] The department shall be entitled to utilize information collected under this subsection in the enforcement proceedings, in making

designations or determinations under section 1927-A of The Administrative Code of 1929 and in aggregate form for statistical purposes.

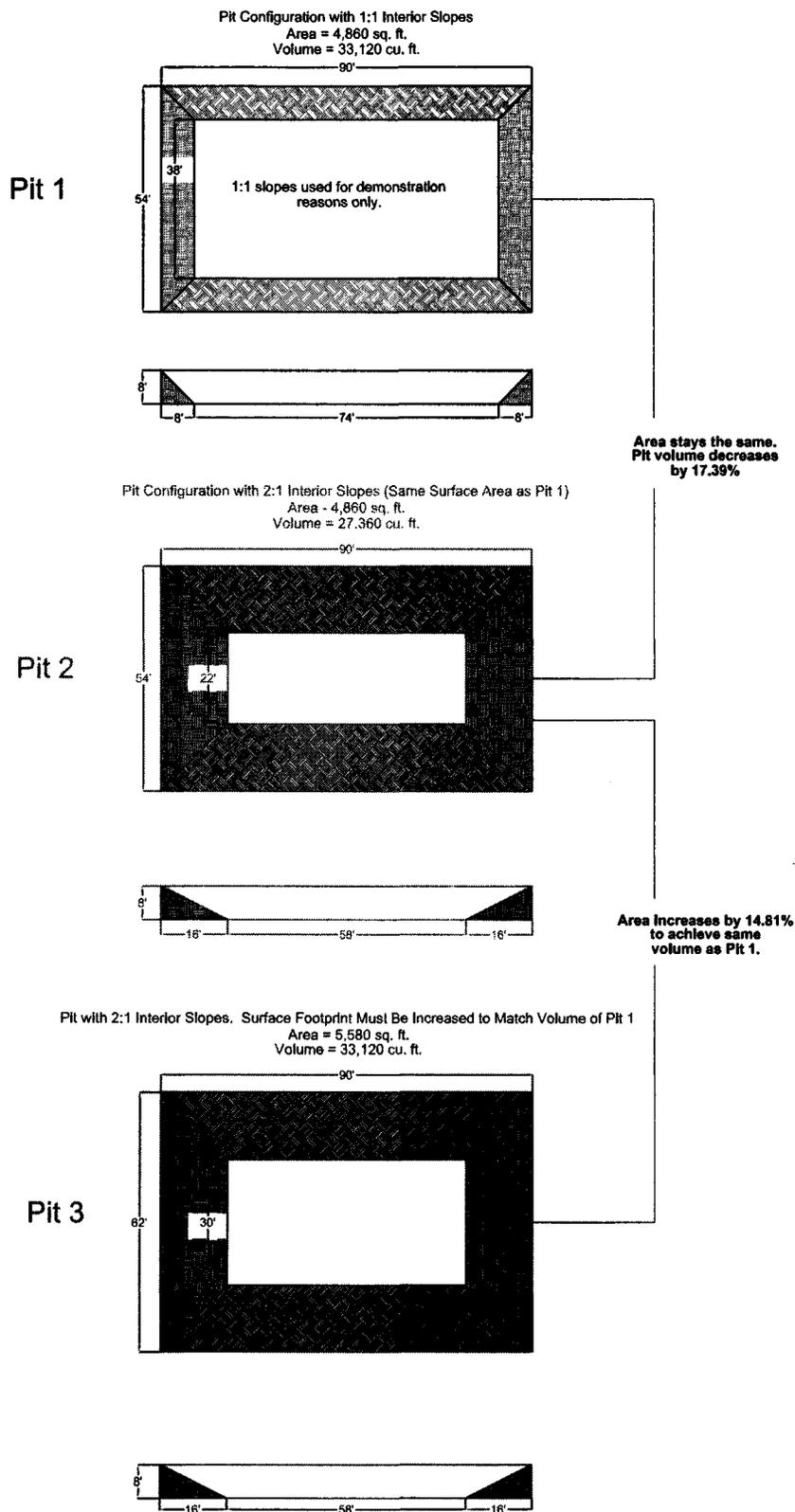
PIOGA Comment:

The proposed revisions to subsection (d) have removed the current three year protection for logs generated under subpart (a) without providing a timeframe in which such information should be submitted to DEP. Revisions to Subpart (d) also refer to "required" data that would only be "required" if requested in a timely manner by DEP under subparts (a) through (c).

PIOGA Suggested Regulatory Language:

(a) If requested by the Department within 90 days of completion or recompletion of drilling, the well operator shall 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.

78.56(10) Temporary Containment - Addressing Proposed 2:1 Interior Slopes



78.56(10) Temporary Containment

In order to achieve sufficient capacity, pit size will increase by 14.81% if interior slopes are constructed 2 horizontal to 1 vertical, opposed to 1 horizontal to 1 vertical.

To accommodate larger pits, conventional well pads must increase in size. Associated construction costs and environmental costs will increase proportionately.

- Pit 1 - 60' X 100', 20 mil liner @ \$1,087.06
- Pit 3 - 80' X 100', 20 mil liner @ \$1,816.68
- % cost increase associated with larger liner needed to accommodate 2:1 interior slopes = 67%

Conventional well pits are generally small in size and open for relatively short periods of time and should be exempt from this provision. These pits can be constructed properly without the need of 2:1 interior slopes.

September 18, 2013

Robert W. Watson, Ph. D., Chairman
Samuel E. Fragale
Gary E. Slagel
Burt A. Waite
Arthur E. Yingling
Pennsylvania Oil and Gas Technical Advisory Board

**Re: Pennsylvania Department of Environmental Protection's
Proposed Revisions to 25 Pa. Code Chapter 78, Subpart C:
Subcommittee Workshop Discussions**

Dear Honorable Members of the Pennsylvania Oil and Gas Technical Advisory Board:

The Pennsylvania Independent Oil and Gas Association (PIOGA) respectfully submits the following comments on the Pennsylvania Department of Environmental Protection's proposed revisions to *25 Pennsylvania Code Chapter 78, Subchapter C, Environmental Protection Standards*, dated April 2, 2013. PIOGA's comments at this time focus on the four topics of discussion at the Pennsylvania Oil and Gas Technical Advisory Board's subcommittee meetings on July 17-18, 2013 and August 14-15, 2013 (public resources, pre-hydraulic fracturing assessment, waste management at well sites, and water supply restoration standards), and provide some review of the Department of Environmental Protection's *Regulatory Analysis Form* as it relates to these four topics. PIOGA appreciated the opportunity to participate in TAB's workshop discussions and commends the members of TAB for their ongoing efforts to engage stakeholders in this rulemaking process.

At the outset, PIOGA would like to express its agreement with TAB's July 16, 2013 report to the Environmental Quality Board regarding the rule that was proposed for publication, as well as the September 17, 2013 letter from the Marcellus Shale Coalition to TAB, which further elaborates the weaknesses and deficiencies in the Department's proposed rule with reference to the four subcommittee topics.

As noted in our previous submissions, PIOGA is concerned that the scope of the proposed rulemaking is overly broad, well beyond regulations that are necessitated by either the Act or actual environmental impacts of the development of oil and gas resources across the Commonwealth. PIOGA incorporates by reference all previous submissions related to this rulemaking. In addition to those comments, criticisms and recommendations, please consider the following comments in TAB's further review and reports related to Chapter 78.

Public Resource Protection, 25 Pa. Code §78.15

PIOGA's has numerous concerns with the Department's proposed revisions to Chapter 78 permit application requirements, most of which are concisely summarized in MSC's recent comment letter.

As for the scope and purpose of the proposed rule, the Department recently acknowledged that "the point of the public resource protection provisions in Act 13 is really to get at things that DEP doesn't already – the impacts don't fall within purely environmental protection." See the attached article from the Pittsburgh Post-Gazette, dated August 26, 2013, quoting Scott Perry from the TAB meeting in State College. The Department, however, does not have authority under Act 13 to regulate non-environmental matters that are more properly the subject of property law, contract law or local ordinances. Given the broad language of the proposed rule, the failure to provide any criteria by which permit conditions may be considered, and the Department's view of its scope, there is no clear limit to what may be required to mitigate impacts to public resources under this proposed rule.

With regard to the Department's proposal to equate "critical communities" with "special concern" species, PIOGA has attached a fact sheet that further demonstrates the flaws in the Department's position. It cannot be denied that the vast majority of entries of "special concern" species in the PNDI database are species, plant communities, or geologic features have never been designated or listed under a rulemaking process by any federal or state agency. Of equal concern is the short period of time in which hundreds of entries have been added to the database in recent months – entries that can and do show up as hits on PNDI receipts, obtained in the course of project review, without any regulatory process or public accountability. The PNDI database, in its current form, does not provide an appropriate legal foundation upon which well permit conditions or obligations can be based.

As further evidence of the unreliability of the Pennsylvania species classification system as a whole, the Pennsylvania Biological Survey provided a report to DCNR, stating:

"No agency has codified or formalized a listing process with quantifiable ranking criteria, documentation requirements, directions for handling uncertainty, a species monitoring requirement and timeline for reassessment or meaningful citizen participation." . . .

"Agency-specific taxa, i.e., vascular plants (DCNR), fish, reptiles and amphibians (PFBC), and birds and mammals (PGC), have been assessed using different criteria and ranking procedures. Without explanation, arbitrary weights are applied to ranking variables. Expert opinion may be substituted for the lack of data or perceived shortcomings in ranking criteria. No manual of procedures exists that 1) standardizes definitions, 2) outlines documentation requirements, 3) provides objective criteria for classification of a broad range of taxa according to their risk of state extinction, and 4) provides direction for interpreting and using criteria and handling uncertainty. Without clear guidance, it is difficult to introduce consistency between different people and over time. Inconsistency and minimal or no transparency can lead to a lack of confidence over time."

(emphasis added). See the attached *Progress Report* of the PABS to DCNR (2004). The Department cannot use Chapter 78 to elevate “special concern” species to a protected status when the scientific basis of species that are actually listed by state agencies is vulnerable to such criticism.

The Department’s Regulatory Analysis Form

The Department is required by the Regulatory Review Act, 71 P.S. §745.5(a), to provide a regulatory analysis of its proposed rulemaking to the Independent Regulatory Review Commission and the relevant standing committees of the Senate and House of Representatives. The Department’s *Regulatory Analysis Form*, which is posted on EQB’s website along with the proposed rule and preamble, however, fails to satisfy the requirements of the Act. Generally, the analysis is incomplete because the various subsections of review only address portions of the proposed rule, rather than the comprehensive rule package. Specific examples of errors and omissions include the following.

- Section 7: The RAF states the “goal of the regulation” to be to establish performance standards and preventions of spills. This statement fails to acknowledge the enormous breadth of this rulemaking, which substantially alters the legal obligations related to oil and gas operations in Pennsylvania.
- Section 9: The RAF fails to answer the question about relevant state or federal court decisions. Oil and gas surface activities are conducted largely within the context of Pennsylvania property law, under which subsurface rights are the dominant estate. Recent state and federal case law, including the *Belden & Blake v. DCNR*, 969 A.2d 528 (Pa. 2008) and *Minard Run v. USFS*, 670 F.3d 236 (3d Cir. 2011), reaffirm this well-established principle. The Department’s rulemaking related to oil and gas operations and permitting must recognize these constraints within which well permitting decisions can be made and cannot create new rights for surface owners beyond the limits of its statutory authority to protect the environment.
 - Additionally, the RAF misstates the provisions “mandated” by Act 13. Act 13 did not require “a streamlined process for addressing potential impacts to public resources.” Act 13 required the EQB to establish criteria for consideration of well permit conditions to 1) address probable harmful impacts to public resources; 2) ensuring optimal development of oil and gas resources, and 3) respecting property rights of oil and gas owners. The proposed rule fails to provide such criteria.
- Section 10: The RAF describes the compelling public interest as motivated by unconventional operations, which may result in earth disturbance “at least 10 times the size of earth impacted at a conventional site.” This characterization fails to acknowledge that unconventional well sites may have ten times as many wells as conventional sites, thus efficiently using a single earth disturbance to develop multiple wells.
 - As for the subsections in this section, the RAF states that the rule protects tourism, sports and recreation, as the “public resources” of the Commonwealth, but fails to recognize the development of oil and gas resources is also a recognized use of the public lands of the Commonwealth.

- In the subsection on abandoned and orphan wells, the RAF states that “altering” a well can lead to a number of issues including methane migration and water supply impacts, which implies a risk of such impacts that is far beyond the factual reality.
- Section 11: The RAF incorrectly states that the rule does not impose any requirements that are more stringent than federal standards. Federal standards require protection of threatened and endangered species, which is a limited number of species that are listed in accordance with strict criteria through rulemaking procedures. The proposed rule would require protection of “special concern” species, which includes hundreds of species that are not listed through any rulemaking procedure but are simply compiled by volunteers. This significant expansion of species protection is far more stringent than the federal standard.
- Section 12: The RAF states that Pennsylvania will “join a growing list of states to comprehensively address the regulation of surface activities and industry practices at oil and gas well sites.” The statement fails to acknowledge that Pennsylvania has been at the forefront of states comprehensively regulating oil and gas operations. In addition, the state to state comparison is incomplete because it fails to address or consider whether Pennsylvania will be disadvantaged by the rules’ proposed protection of public resources, which go above and beyond those required by any state, without justification.
- Section 13: The RAF states that the rule will not affect other regulations or agencies. That is misleading. The Department’s interpretation of its proposed water supply replacement regulation (§ 78.51) would require oil and gas operators to replace a water supply affected by drilling with water that meets Safe Drinking Water Act standards, regardless of whether the water supply met those standards beforehand. This is a reversal from current law and contradicts legal requirements applicable to all other industries. Operators in the mining industry, for example, are only required to replace an affected water supply with water of an equivalent pre-mining quality.
- Section 14: The RAF states that the TAB unanimously voted for the Department to present the proposed rulemaking to the EQB, a statement does not accurately reflect TAB’s position. While TAB voted at the April 2013 meeting to agree that the rule be submitted to EQB, TAB immediately thereafter informed the Department, on April 30 and again on May 6, that it had reconsidered its position and accordingly advised against transmission of the rule to the EQB until TAB had completed the subcommittee process and was afforded the opportunity to provide its input on the entire rulemaking package. In its July Report to EQB strongly recommended that EQB delay publication because the rulemaking package is not yet ready for public comment. Having pulled significant portions of the rule from discussion at the April TAB meeting, and establishing a TAB subcommittee process to address those portions, the Department circumvented TAB’s full review of the rule before it was presented to EQB. The RAF does not convey the true position of the Technical Advisory Board.

- Section 17: The RAF notes that the proposed rule “will increase costs on oil and gas operators in the Commonwealth.” See below for a more detailed discussion of those costs and the inadequacy of the Department’s review of those costs.
- Section 18: The RAF states that the identification of public resources involves the cost of a “data base query and field site visit” to address impacts to threatened or endangered species, which fails to inform the EQB of the cost of mitigation of impacts that may be required under the rule for other public resources and other species. Alarming, the proposed expansion of species by four times the current number to be protected, a critical fact that is not identified or described in the RAF, would exacerbate what these potential costs could become.
- Section 22: The RAF states that “many operators choose to utilize consultants for portions of their operations.” This statement misstates the fact that specialized consultants must be used by most operators to be able to comply with several of the rule’s new obligations.
- Section 24: The RAF does not provide an economic impact statement related to adverse impacts on small businesses.
 - Subsection (b) is supposed to provide costs of compliance, but simply states that some obligations may or may not apply to operators who “choose” certain business practices. This statement is not responsive to the question. The rule does not allow a choice of identifying public resources or abandoned wells. The rule does not allow a choice for operators who currently use underground or partially buried tanks that would be required to be removed under the rule.
 - Subsection (c) is supposed to provide a statement of “probable effect” on small businesses. Simply stating that many small businesses are involved in tourism entirely fails to answer the question related to the thousands of small oil and gas operators impacted by the rule.
- Section 25: This section is supposed to provide a description of special provisions for small businesses, but simply states that the burdens on conventional operators were minimized by including only those provisions deemed necessary. This statement fails to respond to the question about special provisions for small businesses. An accurate response would state that there are no special provisions for small businesses.

Cost Estimates

PIOGA has repeatedly asked the Department to conduct a thorough analysis of the cost impacts of the proposed rulemaking and is deeply concerned about the Department’s failure to do so.

The Preamble to the proposed rule misleadingly states that total compliance costs for unconventional operators are estimated to be below \$96,636,950 annually with an estimated savings of \$21,734,700 per year. The cost estimates, however, entirely exclude certain costs that will be incurred because the Department simply declined to estimate certain obligations, such as mitigation of impacts to public resources. According to one operator, mitigation of impacts just

for species (special concern, threatened and endangered) has cost over \$400,000 in the past three years. This cost, incurred in the course of permitting about 100 wells, can be extrapolated to derive a number for the over 9,000 unconventional wells that were permitted between 2010 and 2012, resulting in estimated costs over \$36 million for the mitigation of impacts to species in that time frame. This number does not include mitigation to the other public resources listed in Act 13 that would be subject to the Department's new review process. New mitigation requirements for these non-environmental public resource impacts, together with anticipated more aggressive enforcement of mitigation for special concern species, could easily double or triple the \$36 million cost estimate for any given three year (or 9,000 well permits) period to costs approaching or exceeding \$100 million. Entirely lacking such significant, and available, numbers, the Department's cost analysis is unreliable and cannot provide the basis for any meaningful discussion of cost impacts.

Equally troubling is the Department's projected cost savings for unconventional operators, which consists almost entirely of "savings" from well site restoration extensions. The number was derived from a project restoration cost of \$50,000, multiplied by 434, as a projected number of well sites built each year, for a total savings of over \$21 million. The reasoning suffers from several flaws. First, and most importantly, postponing well site restoration does not save any money; it simply defers and likely increases the eventual costs of that activity. Second, the Department generally has not been approving extension requests, other than for an additional month or two, which certainly does not result in any calculable savings.

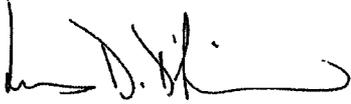
Additionally, the total compliance costs for conventional operators are estimated to range from \$5 to \$12 million dollars, which includes zero dollars related to mitigation of impacts to public resources, which is discussed above, and assigns zero dollars to the identification of abandoned and orphan wells, stating that Section 78.52a does not apply to conventional operators. This latter assertion appears to misstate the obligations of the proposed rule as drafted and is contradictory to early portions of the regulatory analysis that expressly acknowledged Section 78.52a as among those provisions applicable to conventional operators.

Conclusion

In sum, PIOGA remains concerned that the Department has not fully appreciated the impact of the proposed regulation with respect to obligations created or costs imposed, which prevents any realistic understanding of whether the benefits outweigh the costs. Significant revisions are required to develop a rule that properly achieves the balance required by Act 13 to optimize the development of the resource in a manner that is consistent with protection of the environment. PIOGA respectfully submits these comments for TAB's consideration in its review of the proposed regulation under Chapter 78 and anticipates that they will be published on the TAB website as a part of TAB's record of this rulemaking process. This comment is also being provided to the Independent Regulatory Review Commission and the relevant standing committees of the House and Senate because of PIOGA's concerns with the unsettling inadequacy of the Department's *Regulatory Analysis Form*.

Please let me know if we can provide any further information or assistance.

Sincerely,



Lou D'Amico
President and Executive Director

Attachments: Species Fact Sheet, Pennsylvania Biological Survey Progress Report (2004), and *Post-Gazette* article (August 26, 2013)

cc: Scott Perry, Deputy Secretary, Office of Oil and Gas Management
Christopher Abruzzo, Acting Secretary, Department of Environmental Protection
Patrick Henderson, Pennsylvania Energy Executive
Senator Gene Yaw, Chair, Senate Environmental Resources and Energy Committee
Representative Ron Miller, Chair, House Environmental Resources and Energy Committee
Independent Regulatory Review Commission
PIOGA – Board of Directors
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