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Summary of Comments on Chapter 78 Submitted by API-PA

General – 1) clarify the effective date for the new requirements and grandfather permitted wells not yet drilled, 2) definitions and sections of text that refer the reader to other statutes or regulations. It would be better to provide the intended definition, 3) sections that are very detailed and prescriptive should be given some flexibility to allow for the use of alternate methods as approved by the Department, and 4) recognize landowner rights.

78.1 – suggest changes to definitions of approximate original contour, centralized impoundment, gathering pipelines, mine influenced water, pit and water source.

78.15 – clarification regarding business relationship, critical communities (special concern species), and need to develop criteria for conditioning permits.

78.52a – suggest grandfathering existing permits and place limit on waiting time for landowners to return completed questionnaire.

78.55 – oppose provision of PPC plan to F&BC and landowner.

78.56 – recommendations on method of determining liner integrity and reuse of liquids spilled within containment area.

78.57 – request determination of when flow-back becomes produced water.

78.58 – propose language to encourage reuse/recycling of fluids.

78.59b – propose removal of references to air pollution.

78.59c – specify liner installation procedures and monitoring well construction with protective casing.

78.65 – no need for section on removal of equipment from well site – in law.

78.66 – notification provisions (business days instead of calendar days).

78.67 – use of term “other laws” which does not specify what they are.

78.68 – approval for additives used in boring for pipelines and inspections.

78.69 – applicability of water reuse plan for operators with very few unconventional wells.

78.70 – use of parameters for road-spreading is not consistent with water quality standards.

78.73 – limit plugging of orphan wells to wells altered by hydraulic fracturing.

78.122 – determination of when a well is capable of production.





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March 13, 2014



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

Submitted via email to RegComments@pa.gov and hand carry

Re: Comments on Proposed Amendments to Chapter 78, Environmental Protection Performance Standards at Oil and Gas Wells

Dear Sir/Madam:

Associated Petroleum Industries of PA (API-PA) is pleased to offer comments on the proposed revisions to Chapter 78 that were published in the Pennsylvania Bulletin on Saturday, December 14, 2013.

API-PA is a division of the American Petroleum Institute (API), a national trade association that represents all segments of America's technology-driven oil and natural gas industry. Its more than 580 members - including large integrated companies, exploration and production, refining, marketing, pipeline, and marine businesses, and service and supply firms - provide most of the nation's energy and are backed by a growing grassroots movement of over 15 million Americans. The industry also supports 9.8 million U.S. jobs and 8 percent of the U.S. economy, delivers \$85 million a day in revenue to our federal government, and, since 2000, has invested over \$2 trillion in U.S. capital projects to advance all forms of energy, including alternatives. Many of our members have a direct interest in this notice of proposed rulemaking.

API is also a standard setting organization. For 89 years, API has led the development of petroleum and petrochemical equipment and operating standards. These standards represent the industry's collective wisdom on everything from drill bits to environmental protection and embrace proven, sound, engineering and operating practices and safe, interchangeable equipment and materials for delivery of this important resource to our nation. API maintains more than 650 standards and recommended practices. Many of these are incorporated into state and federal regulations; and increasingly, they're being adopted by the International Organization for Standardization. API encourages and participates in the

development of state regulations that are protective of the public, the environment and the industry workforce. In this context, API offers the following comments and looks forward to continuing to work with DEP in the development of these Chapter 78 regulations.

Although wells have been hydraulically fractured for more than 60 years, thanks to industry innovation and technological advancements, shale formations across the country that were previously "stranded resources" are now productive due to the combination of horizontal drilling and hydraulic fracturing. Shale formations including the Marcellus produced 1.4 trillion cubic feet of natural gas during the first 6 months of 2013, supporting national energy security. Pennsylvania's contribution in this success story is demonstrated by the fact that Pennsylvania supplied 8.8% of the nation's demand for natural gas in 2012. This renaissance has not taken place in a vacuum.

All aspects of the oil and natural gas industry have been and continue to be highly regulated. Since the outset of increased activity in PA, DEP and other regulatory agencies have put into place additional regulatory requirements that reflect the technological changes that have taken place in the industry. Over the last several years, DEP has put into place more stringent regulations relating to well construction and casing. Act 9 of 2012, and the corresponding regulations already incorporated into Chapter 78, require emergency response safety measures at unconventional drill sites. Act 13 of 2012 provided for enhanced water protections, well setbacks and casing standards. Other regulatory measures include enhanced general permits for air and more stringent exemption criteria, discharge changes prohibiting municipal wastewater treatment plants from accepting oil and gas waste fluids, and increased recycling of produced water.

The State Review of Oil & Natural Gas Environmental Regulations (STRONGER), a national non-profit organization charged with assessing states' oil and gas regulations, reviewed Pennsylvania's oil and gas regulatory program in May 2013 at the request of the DEP. STRONGER released their report in September 2013 finding that Pennsylvania's program "is, over all, well-managed, professional and meeting its program objectives." Key excerpts from the report include:

- The review team commends DEP for increasing its staff levels to address additional permitting, inspection and enforcement activities related to increased unconventional gas well development. Over the past four years, as unconventional gas well development has increased in Pennsylvania, the Office of Oil and Gas Management has increased its staff from 64 to 202 employees.
- DEP is commended for initiating a comprehensive evaluation of radiation levels specifically associated with unconventional gas development. This TENORM study is the first of its kind in the nation.

-DEP is commended for its hydraulic fracturing program. Standards for well casing and cementing require that the operator conduct those activities to control the well at all times; prevent migration of gas or other fluids into sources of fresh groundwater; and prevent pollution of fresh groundwater.

API-PA supports strong environmental safeguards and stewardship, and commends DEP on their regulatory oversight program; however we do have concerns with several provisions contained in the proposed rulemaking.

General Comments

Due to the wide-ranging impact these revisions will have on oil and gas operations it is important for industry to know if these new provisions will apply to existing wells and previously approved water management plans or sources. It is suggested that language be added to clarify the effective date for the new requirements in Subchapter C and that wells constructed prior to that date are grandfathered in for purposes of the new requirements.

There are a number of definitions and sections of text that refer the reader to other statutes or regulations. This causes the reader search elsewhere to find that other statute or regulation and look it up before being able to understand what Chapter 78 requires. This is not user friendly and does not facilitate regulatory understanding and compliance. For example, with regard to definitions, it would be better to provide the intended definition in §78.1 or to state, "As defined in 25 Pa. Code § XXX.X," rather than refer to a statutory citation which requires more effort to locate. This should be done for the definitions of body of water, PCSM plan, process or processing, regulated substance, watercourse, water purveyor, and wetland. It should also be done for § 78.51(d)(2), § 78.57(f), § 78.65 (d)(1)(v), § 78.66 (b)(2), § 78.66 (c)(1), § 78.68a(k), § 78.69(b), and numerous other sections.

A number of sections are very detailed and prescriptive. It is suggested that these sections be given some flexibility to allow for the use of alternate methods as approved by the Department. These sections include § 78.59a. Impoundments and Embankments, § 78.59b. Freshwater Impoundments, § 78.59c. Centralized Impoundments, § 78.60. Discharge Requirements, § 78.61. Disposal of Drill Cuttings, § 78.62. Disposal of Residual Waste - Pits, § 78.63. Disposal of Residual Waste - Land Application, § 78.64a. Containment Systems and Practices at Unconventional Well Sites, § 78.65. Site Restoration, § 78.66. Reporting and Remediating Releases, § 78.68. Oil and Gas Gathering Lines, § 78.68a. Horizontal Directional Drilling for Oil and Gas Pipelines, § 78.68b. Temporary Pipelines for Oil and Gas Operations, § 78.70. Road-Spreading of Brine for Dust Control and Road Stabilization, and § 78.70a. Pre-Wetting, Anti-Icing and De-Icing. There may be additional sections where it would be advantageous to both the Department and the operator to apply the same concept.

The proposed regulation does not recognize landowner rights. For example, in § 78.73(c) and (d) it is presumed that the landowner will grant access to the well operator to monitor orphaned and abandoned wells during stimulation and to plug the orphaned and abandoned well if it is altered by the stimulation. The landowner is not required to grant the operator access, so the operator might not be able to comply through no fault of its own. Another example of the need for landowner action is found in § 78.52a(b)(3) regarding the questionnaire to determine the locations of orphaned and abandoned wells. In these instances, the operator could certify the lack of cooperation by the landowner. It is recommended that a time limit of 30 days be placed on the landowner for providing to the operator the ability to comply through access or response, or upon certification, the operator be relieved of the duty to comply.

Specific Comments

§ 78.1. Definitions – approximate original conditions - The definition talks about “land uses that existed prior to oil and gas activities.” Land use is outside of the DEP’s jurisdiction to regulate and is largely an issue to be resolved between the Lessor and the Operator.

§ 78.1. Definitions – centralized impoundment, number (2) – This definition talks about “... the escape of which may result in air, water or land pollution ...” It is interesting to note that the oil and gas program regulations contain air pollution controls. This should be carefully considered, especially in light of recently promulgated federal air rules found at 40 CFR Part 60 Subpart OOOO which will be implemented by the air quality program.

In addition, it is suggested that language be added to clarify that this definition does not include secondary containment or impoundments at well sites. The language should also clarify that a “centralized impoundment” does not include freshwater impoundments.

§ 78.1. Definitions – gathering pipelines – This definition is not consistent with the Department of Transportation definitions of a “gathering line” at 49 C.F.R. § 192.3 or § 195.2. To avoid confusion, we suggest that the DEP rules simply use the DOT definitions.

§ 78.1. Definitions – mine influenced water - It is suggested that the second sentence be deleted. The first sentence captures any relevant discharges to surface waters from mining activities. The term “mine influenced water” should not also include the entire surface water body into which those discharges occur, as the second sentence implies.

§ 78.1. Definitions – pit - It is suggested that language be added to clarify that this definition does not include secondary containment or impoundments at well sites.

§ 78.1. Definitions – water source – It seems as though the first term, (i)(A) "Waters of the Commonwealth," would encompass the following three sources of water listed in (i)(B)-(D). It is suggested that it read, "Waters of the Commonwealth, including" and then go on to list the other sources.

§ 78.15 (c) - Language should be added to clarify what change in business relationships means or alternatively, replace the wording "changes to its business relationships" with "changes to this information" which would more clearly refer back to the information previously provided (ie. The information identifying parent and subsidiary business entities operating in Pennsylvania).

§78.15 (f)(1)(iv) – This section requires an operator to notify the applicable resource agency if the well location will impact "other critical communities," which is then defined to mean "special concern species." Section 3215 (c)(4) of the Oil and Gas Act of 2012 requires the department to consider the impact of the proposed well on habitats of rare and endangered flora and fauna and "other critical communities," which is not defined in the statute. There is no legal basis or indication of legislative intent for the department to determine that "other critical communities" equates to "special concern species" nor is there any rational ecological basis for equating "communities" with "individual species." The term "special concern species" has no legislative or regulatory definition and no state agency has been given legislative authority to designate "special concern species," or to require that such species be protected through regulation or permit condition. Consequently, it is recommended that the term "special concern species" be removed from this section. If the department feels compelled to define "other critical communities" in the regulation, it is recommended that the last sentence in this subsection be changed to read, "For the purposes of this subparagraph, other critical communities means the habitat of species formally proposed for inclusion on the list of Threatened and Endangered Species."

§78.15 (g) – This section fails to satisfy the legislative intent of Section 3215 (e) of the Oil and Gas Act of 2012. The statute required the development of criteria for the purposes of conditioning permits, ensuring optimal development of oil and gas resources, and respecting property rights of oil and gas owners. No such criteria are proposed. It is recommended that this section be deleted from the rulemaking until the department develops, through the formal rulemaking process, criteria that meet the intent of the statute.

§ 78.52a (a) – It is suggested that language is added to include a 6 month effective date to allow for wells already permitted but not yet completed.

§ 78.52a (b)(3) –it is suggested that the Department add to this section the length of time operators are going to be required to wait for property owners to complete and return the “questionnaire.”

§ 78.55 (f) – This section requires the well operator to provide the PPC plan to, in addition to the Department, the Pennsylvania Fish and Boat Commission or the landowner upon request. This is unreasonable. The Fish and Boat Commission and the landowner have no jurisdiction to access PPC plans. The Department should not by regulation give them authority they do not have otherwise, or be placed in a situation by those parties that would require the Department to take enforcement action for violations of this section. It is strongly recommended that these proposed changes be deleted.

§ 78.56 (a)(9)(iv) – It is suggested that language is added to allow for visual inspections of a liner as means to satisfy the liner integrity requirement.

§ 78.56 (a)(14) – It is suggested that language is added to allow for the reuse and storage of liquids if the liner is compromised instead of requiring the contents of the pit/tank/structure to be managed/disposed as a residual waste.

§ 78.57 (c), (d), (f), and (g) – There is no indication of when flowback water is considered to be “brine or other fluids produced during operation of the well.” For the waste regulations, flowback (804) waste is generated for 30 days after fracturing. After that, it is considered to be production fluids (801).

The manifolding and security requirements will become cumbersome if intended to apply during the initial flowback period.

§ 78.58 (a) – It is suggested that the following language is added to encourage the beneficial reuse of fluids:

(a) An operator may request authorization from the Department to process and beneficially reuse fluids generated by the development, drilling, stimulation, alteration, operation or plugging of an oil and gas well to develop, drill or stimulate an oil and gas well. The Department shall approve of an operator’s request to process and beneficially reuse fluids so long as the following conditions are met:

- (1) The well site where the fluids are to be reused is permitted and bonded under the Act;
- (2) The operator provides prior notice to the Department on forms prepared by the Department, which notice shall be submitted electronically to the Department through its web site and include the date(s) processing activities will commence at the site;

- (3) The operator possesses an approved water management plan that meets the criteria set forth in Section 78.69 and the operator conducts processing activities in compliance with its approved plan; and
- (4) The operator has prepared and maintains a site specific Preparedness, Prevention and Contingency (PPC) Plan that meets the criteria set forth in Section 78.55.

(b) An operator may manage fluids described in Section 78.58(a) in an impoundment registered under 78.59b or permitted under Section 78.59c so long as any such impoundment is operated and maintained in accordance with those sections and any applicable permit or registration.

(c) An operator may manage fluids described in Section 78.58(a) in an aboveground storage tank located at the well site so long as the tank is operated and maintained in accordance with Section 78.56 and 78.57.

(d) An operator that processes and beneficially reuses fluids pursuant to this section at a well site, in accordance with this paragraph shall be deemed to have a residual waste processing permit by rule under Article IX.

(e) An operator subject to this section is not required to apply for a permit under Article IX or comply with the operating requirements of Article IX so long as the authorized processing and beneficial reuse activities are conducted in accordance with this Chapter.

(f) The Department may require an operator to apply for, and obtain, an individual or general permit under Article IX, or take other appropriate action, when the Department determines that the processing activity harms, or threatens to harm, the health, safety or welfare of the people of the Commonwealth or results in pollution of land or waters of the Commonwealth.

It is further recommended that the existing § 78.58 (b) through (f) be retained and renumbered as § 78.58 (g) through (k).

§ 78.59b (g)(1)(i) – This section includes the requirement to demonstrate that the impoundment will prevent air pollution. It is suggested that, since air pollution control falls within the jurisdiction of another program, the reference to air pollution be deleted.

§ 78.59c (e)(2)(vi) – This section requires an authorized representative of the liner manufacturer to supervise the installation of the liner, and then goes on to require a Department approved quality assurance and quality control plan to be implemented

during construction. This is overkill. It would be more reasonable to require either the manufacturer representative supervision or a Department approved plan, but not both. It is recommended that this section be revised to allow either, but not require both.

§ 78.59c (e)(4)(vi) – This section is similar to § 78.59c (e)(2)(vi) above, so the comment is the same.

§ 78.59c (i)(3)(iv) – This section requires monitoring wells to be “filter-packed” with chemically inert materials. It is recommended that the term “filter-packed” be defined or more descriptive text should be used.

§ 78.59c (i)(4) – This section should be written more clearly. First, it requires the monitoring well casing to be enclosed in a protective casing that will protect the well from damage by heavy equipment. There are few, if any, protective well casings that can stand up to heavy equipment, especially when it is to be around the upper 10 feet of the monitoring well. Most heavy equipment will make short work of any casing that is constructed around a monitoring well as described. It is recommended that this standard be made more realistic.

And the section also requires the protective casing to protrude above the monitoring well casing. If that is done, it will be difficult to do any maintenance on the well, sample the well, repair the well, and eventually plug the well, especially if the protective casing will withstand heavy machinery. It is recommended that this section be rewritten in a manner that is practical and reasonable.

§ 78.65 (d) – Section 3216(c) of Act 13 requires the removal of equipment not needed for production. Since this is already addressed in statute, this section is not necessary and could be deleted.

§ 78.66 (c)(3)(ii) – It is suggested that the language be revised to state, “...within 15 business days of their discovery.” to be consistent with other notification provisions in this section.

§ 78.67 (a) – The end of this subsection requires the operator of a borrow pit to operate, maintain and reclaim the site in compliance with the environmental performance standards of non-coal mining regulations and with the erosion and sediment control regulations and “other applicable laws.” It is suggested that either these “other applicable laws” be identified or that this all-encompassing reference be deleted.

§ 78.68a (f) – This section requires prior Department approval before using any drilling fluid additives other than bentonite and water for horizontal boring for

pipelines. It also requires the Department to post on its website approved additives that have been approved for horizontal drilling for pipelines.

Horizontal drilling or boring for pipelines is often necessary when crossing roads and streams. The need for specific additives may not be known until unforeseen circumstances occur. It would be costly and unreasonable to require the operation to shut down until Department approval of an additive is obtained. While there have been a few instances where problems were noted when crossing streams, prior Department approval of additives will not address the issue. The pressure monitoring and reporting required in subsequent § 78.68a (g), (h) and (i) should be adequate. It is recommended that this Department approval is unnecessary and should be deleted.

§ 78.68b(i) – It is unclear how often these inspections must occur and how often they must be documented. Please provide clarity regarding the proposed extent of these temporary pipeline inspections.

§ 78.69 (c) – This section requires an unconventional well operator to develop a water reuse plan for fluids that will be used in future hydraulic fracturing operations. A water reduction strategy developed under 25 Pa Code Chapter 95.10(b) satisfies this requirement.

There may be operators who do not have the facilities, ability or need to treat and reuse flow-back and produced water. They should have the option of disposal available to them. It is recommended that the disposal option be recognized and accepted by the Department, and that the regulations recognize that option.

§ 78.70a (e) – This section contains parameters for brine used for pre-wetting and anti-icing on roadways. Allowable Levels for Pre-wetting and for Deicing are provided in table form. It is noted that some of these parameters have no standards under 25 Chapter 93. It is suggested that parameters for which no limits have been set to meet water quality standards be deleted.

§ 78.73 (d) – This section requires an operator who alters an orphaned or abandoned well during hydraulic fracturing to plug it. Section 3203 of the Oil and Gas Act of 2012 defines alteration as an operation which changes the physical characteristics of a well bore. While hydraulically fracturing into a nearby orphaned or abandoned well may cause fluids to appear at the surface, hydraulic fracturing does not usually result in alteration of the well (i.e. changing the physical characteristics), as that term is defined in § 3203. Consequently, it is suggested that this section should be clarified to apply only when the orphaned or abandoned well is altered, or the section should be deleted.

§ 78.122 (b) – There is no definition of the DEP’s definition/interpretation of when a well is capable of production. Clarification should be provided.

Thank you for the opportunity to offer comments on the proposed Chapter 78 revisions. If you have any questions or if additional information is needed regarding our comments, please let me know.

Sincerely,

A handwritten signature in black ink that reads "Stephanie C. Wissman". The signature is written in a cursive style with a large initial 'S'.

Stephanie Catarino Wissman
Executive Director

Cc: Scott Perry, Deputy Secretary for Oil & Gas Management, DEP
Kurt Klappowski, Director, Bureau of Oil & Gas Planning & Program
Management, DEP