



September 28, 2020

Harry Wise
Technical Guidance Coordinator
Department of Environmental Protection
Rachel Carson State Office Building
P.O. Box 2063
Harrisburg, PA 17105-2063

Re: Proposed Guidelines for Development of Operator Pressure Barrier Policy for Unconventional Wells (DEP ID: 800-0810-003). Submitted electronically via <https://www.ahs.dep.pa.gov/eComment/>

Dear Mr. Wise:

The Marcellus Shale Coalition (MSC), a regional trade association with a national membership, hereby submits the following comments to the Pennsylvania Department of Environmental Protection (PA DEP or Department) regarding PA DEP's Proposed Guidelines for Development of Operator Pressure Barrier Policy for Unconventional Wells (DEP ID: 800-0810-003), Technical Guidance Document (TGD). The MSC was formed in 2008 and is currently comprised of approximately 125 producing, midstream, transmission and supply chain members who are fully committed to working with local, county, state and federal government officials and regulators to facilitate the development of the natural gas resources in the Marcellus, Utica and related geological formations. Our members represent many of the largest and most active companies in natural gas production, gathering, processing and transmission in the country, as well as the suppliers and contractors who partner with the industry.

The MSC submits the following comments on the Department's proposed TGD.

General Comments

1. The PA DEP Draft Guidelines for Development of Operator Pressure Barrier Policy for Unconventional Wells TGD suggests that the Barrier Policy, which an operator includes in its PPC plan, must go well-beyond the plain language of the regulatory language found at 25 Pa. Code §78a.72(i). This proposed TGD exceeds the scope of the applicable regulatory language and authority vested with the Department.

The bulk of the TGD is a checklist to confirm whether the operator is in compliance with existing regulations, including 25 Pa. Code §§ 78a.54-78a.58, 78a.60-78a.61, 78a.71, 78a.72, 78a.74, 78a.76, 78a.84, 78a.87, and 79.12. The MSC encourages the department to narrow the scope of the TGD and ensure it accurately tracks the relevant regulatory language, particularly where paraphrasing by the Department appears to alter the regulatory obligation of the operator.

2. The MSC recommends that PA DEP delete Section VII, “*Special Consideration for Sensitive Offset Environments During Drilling and Completion Activities*”, as the Department does not have authority under the existing regulations to include this new category of obligations, and the term “*Sensitive Offset Environments*” is not defined in Chapter 78a.
3. Similarly, the MSC recommends that PA DEP delete Section VIII, “Incident Reporting”, as this is not related to the requirement for a Pressure Barrier Policy. Reporting obligations under existing regulations could be cross-referenced, but as the Department acknowledges, no additional regulatory obligations may be imposed in a technical guidance document.
4. Notwithstanding disclaimers to the contrary, the TGD establishes new requirements, including definitions not found in regulation as well as new obligations not found in regulations. It seems clear that failure to follow the TGD will lead to disapprovals. Regardless of the merits of the specific provisions of the proposed TGD, such requirements should be developed through the rulemaking process.

Specific Comments

1. Section II. Definitions
 - a. “Mechanical Pressure Barriers” definition – For purposes of § 78a.72(i) which requires two mechanical pressure barriers during drilling and completions, it’s unclear how the number of mechanical barriers are counted. For example, if a BOP has two rams and one annular preventer, is that counted as three mechanical barriers total (as we believe it should be)? If not, the MSC would suggest that cement or fluid columns should also be allowable as “mechanical barriers” since they too can be tested.
2. Section III. Operations Addressed in Pressure Barrier Policy
 - a. At the beginning of Section III identifying operations to be addressed in a Pressure Barrier Policy (PBP), operations (1) to (3) match those listed in § 78a.72(a)(1) to (3), but it’s unclear why the additional circumstances listed in § 78a.72(a)(4) to (6) are not also included in this list in Section III since those circumstances are also required by regulation to use blow-out prevention equipment. For consistency with the regulatory language, the MSC suggests that the situations in § 78a.72(a)(4) to (6) be added to the list in Section III (and in Figure 1) as well.
 - b. Section III (2) – The MSC requests clarification as to why PA DEP is specifying “solid core” hydraulic fracturing plugs. Most operators do not use solid core

plugs.

- c. In the final paragraph of item Section III, the MSC recommends deleting everything except for the first sentence. If an operator determines that a pressure barrier is not necessary, the policy document should not specify items to be included in a contingency plan or offer suggestions for what one should contain.
3. Section VI. Worksheet Questions - General
 - a. Should a checklist be retained, the MSC recommends that it would be more efficient to consolidate the various compliance provisions into a single query regarding compliance with §78a.72, without adding new obligation for descriptions of compliance.
 4. Section VI. Worksheet Questions - Subsection I. Applicability
 - a. Question I.1. of the checklist asks if a BOP is required per certain regulations and includes both §§ 78a.87(a)(1) and (a)(2) in the regulatory references. However, there is no BOP requirement specified in § 78a.87(a)(1), only in § 78a.87(a)(2), which is correctly noted in the Worksheet citations for Question I.1. The MSC recommends that the reference to § 78a.87(a)(1) be removed from this question, as shown below:
 - i. *“I.1. Is a BOP required under §§ 78a.72 or 78a.87(a)(2) ~~(1)-(2)~~, or has the operator identified other operations requiring a pressure barrier?”*
 - b. Also related to § 78a.87(a), that regulatory language refers to a “gas storage reservoir protective area” but that is not a defined term in the regulations, and it is not clear what constitutes the “protective area.” Though not specific to this Pressure Barrier Policy guidance document, PA DEP should consider clarifying that “protective area” terminology related to gas storage reservoirs either here or in a separate FAQ.
 5. Section VI. Worksheet Questions - Subsection II. Equipment
 - a. Question II.2a. As previously stated, contingency planning and “what ifs” do not belong in a policy document. It is also unclear what level of detail PA DEP would be expecting, given the broadly worded language of “where a casing string may malfunction or become defective.” The MSC recommends deleting this question.
 - b. Question II.5. – In the second sentence of this question, it is unclear specifically which “BOP inspection sheets” are being referenced.
 - c. Question II.6. – The term “maximum anticipated pressure (MAP)” as used here and elsewhere in the worksheet questions, should be changed to “maximum

anticipated surface pressure (MASP),” as stated in § 78a.71(b)(2) and in API Std. 53, as shown below:

- i. *“II.6. What is the maximum anticipated surface pressure (MASP) in pounds per square inch (psi) for the relevant operations that the BOP and ancillary equipment, casing and well head could be subjected to?”*
- a. Questions II.10. and II.11. – The reference to “API Recommended Practice 53” should be changed to “API Standard 53,” which is the correct current title of that document, as further explained in the related comment to Appendix A below.
- b. Question II.12a – The request for the FIT/LOT test “pressure (psi)” should be changed to “equivalent pounds per gallon” as shown below. The test pressure by itself means very little without the associated total vertical depth and fluid density during the test.
 - i. *“If yes, what was the FIT/LOT test equivalent pounds per gallon ~~pressure (psi)~~?”*
- c. Question II.13. of the checklist asks: “Based on the competency of the casing seat and MAP, is a hard shut-in permissible?” Shoe tests are only required if an operator wants to seal gas off the intermediate casing string. The PA DEP should provide a regulatory reference within the checklist when a Shoe test is required.
- d. Question II.14 includes a reference to “casing,” which is not consistent with the question’s associated regulatory citation to § 78a.72(d) which does not include “casing.” The requirements associated with casing, for purposes of this Pressure Barrier Policy document, are adequately covered by other Questions in this section, such as II.2, II.5, II.6, II.21, and II.22, so it is unnecessary to also include “casing” in this Question II.14. For consistency with the cited § 78a.72(d) the MSC recommends that it should be removed as shown below:
 - ii. *“II.14. Do the ~~casing~~, pipe fittings, valves and unions placed on or connected to the BOP system have working pressure ratings in excess of the MAP, per § 78a.72(d)?”*
- e. Question II.16, II.17. and II.18. – The references to “API RP 53” and “API Recommended Practice 53” should be changed to “API Standard 53,” which is the correct current title of that document, as further explained in the related comment to Appendix A below.
- f. Question II.19. The Department should include provisions for digitally capturing approvals. Industry data recording is generally fully digital currently.

- g. Question II.23. The Department should include provisions for digitally capturing this information.
 - h. Question II.24. of the checklist states: “Please provide a brief description and schematic of the well head assembly that clearly indicates which string of casing the “A” section of the well head will be attached to during the referenced operation.” This information is already provided as part of the casing and cementing plan and appears unnecessary. The MSC recommends that it be removed.
 - i. Questions II.25 & II.25a – The purpose of this TGD is for an operator to develop a Pressure Barrier Policy for a specific unconventional well. These questions address issues already covered in other regulations and guidance documents. The MSC again recommends that these questions be deleted from the TGD. If retained, it should be limited to a cross reference to the obligations that exist in the regulations, but it cannot add new obligations in this guidance. The guidance should strike the sentence requiring a description of compliance.
6. Section VI. Worksheet Questions, Subsection III. Training/Certification
- a. Question III.1. – To be grammatically correct, this question should be slightly modified as shown below:
 - i. *“III.1. Is there/Will there be an International Association of Drilling Contractors (IADC) certified individual or other individual certified by a DEP-approved organization present on site during operations requiring a BOP, per § 78a.72(h)?”*
7. Section VI. Worksheet Questions, Subsection IV. Contingency Plan
- a. The MSC strongly encourages the removal of specific requirements of Contingency Plans within the TGD. This section should be revised to only include obligations of a contingency plan in regulations and cross-referencing the requirements without adding new obligations in the TGD.
8. Section VII. Special Considerations for Sensitive Offset Environments During Drilling and Completions Activities – The MSC recommends that this section be deleted from the TGD as it is beyond the regulatory authority and purpose of the guidance.
9. Section VIII. Incident Reporting – The MSC recommends that this section be deleted from the TGD as it is beyond the regulatory authority and purpose of the guidance.

10. Appendix A

- a. In both the Question & Response subsections, PA DEP should clarify that “API Recommended Practice 53” (API RP 53) was reclassified by API to “API Standard 53” (API Std. 53) with the 4th Edition in 2012, and then with the 5th Edition in 2018 (which is the current edition) was re-titled “Well Control Equipment Systems for Drilling Wells.” As such “API Recommended Practice 53” (API RP 53) no longer officially exists, and PA DEP should now refer to it as “API Standard 53” (API Std. 53) in this document and Appendix A when discussing what the current API standard contains regarding testing.

At the next rulemaking opportunity for Chapters 78 and 78a, DEP should also change the reference in § 78.72(f) and § 78a.72(f) from “API RP53, ‘API Recommended Practice for Blowout Prevention Equipment Systems for Drilling Wells,’” to “API Std. 53, ‘Well Control Equipment Systems for Drilling Wells,’”

11. The comments and questions below relate to the applicability of §78a.72 (Use of Safety Devices – blow-out prevention equipment), regulations that have been in effect since February 2011. Responses to these comments and questions might be better addressed in FAQs rather than a guidance document.

- a. §78a.72(a) indicates that blow-out equipment is necessary:
 - i. When drilling a well that is intended to produce natural gas from an unconventional formation (subparagraph (1))
 - ii. When well head pressures or natural open flows are anticipated at the well site that may result in a loss of well control (subparagraph (3))

How do these two criteria interact? If drilling is occurring beneath intermediate casing set, for example, at 2,000’, in an area that has been extensively drilled, is BOP equipment necessary prior to drilling through formations where an operator has not experienced significant pressures or flows?
- b. In §78a.72(i), there is no definition of “mechanical pressure barrier” nor is there a definition in 78a.1. Some of the air rigs used to drill top-holes for Pennsylvania gas shale wells are not designed with a sufficient substructure to accommodate two mechanical BOP’s. The Department should accept, in lieu of one of the mechanical barriers, having materials on the site (e.g. water and appropriate mud additives) and an adequate mud pump to promptly address pressures that may be encountered.

The MSC remains committed to working with the Department to ensure a reasonable and predictable process is in place that meets the needs of both the industry and the Department, while ensuring protection of the Commonwealth’s resources.



Thank you for your consideration of these comments. Please do not hesitate to contact me if you have any questions or desire additional clarification.

Sincerely,

A handwritten signature in blue ink, appearing to read "Jim Welty", with a long horizontal flourish extending to the right.

Jim Welty
Vice President, Government Affairs