energy API

Associated Petroleum Industries of Pennsylvania
A Division of API

Rolf Hanson
Executive Director

240 North Third Street
P.O. Box 925
Harrisburg, Pennsylvania
Telephone 717-234-7983
Fax 717-234-5461
Email hansonr@api.org
www.api.org

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Environmental Quality Board
P.O. Box 8477
Harrisburg, PA 17105-8477

Re: Proposed Rulemaking, Title 25 PA Code Chapter 78, Oil and Gas Wells

Dear Sirs:

The Associated Petroleum Industries of Pennsylvania (APIP), a division of the American Petroleum Institute (API), is pleased to provide comments on the subject proposed rulemaking. APIP/API is a national trade association representing over 400 companies involved in all aspects of the oil and natural gas industry including exploration and production, transportation, marketing and refining. As such, our members have a direct interest in the proposed rulemaking.

Comments are provided by section in the order in which they appear in the proposed rulemaking.
§ 78.1: The Board specifically requested comments on the definition of "deepest fresh groundwater." The current definition uses the term within its own definition. The term "fresh groundwater" should be defined with reference to numerical water quality standards and the technical practicability of producing a sufficient quality and quantity of water for its intended use.

In the definition for "Surface casing", change "migration of gas" to "migration of natural gas".
"Casing seat" – This definition is somewhat confusing. Any casing string (conductor, surface, intermediate, production) technically has a "casing seat". It is not necessary to specify "surface casing or coal protection casing or intermediate casing". The definition should read: "The depth to which casing is set. In wells without surface casing, the casing seat shall be considered to be equal to 50 feet below the deepest fresh groundwater."

"Intermediate casing" – Change the definition to, "A string of casing set after the surface casing and before production casing, not to include coal protection casing. Where necessary, intermediate casing provides additional isolation, stabilization and well control."
There is no definition for "blow-out prevention equipment." See comment about Subchapter D Section 78.72(a) below.

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§ 78.51(d)(3)(B): Change "system which" to "system that".

§ 78.51(d)(3)(B)(ii): Add parentheses, as shown, to the term "reasonably foreseeable uses"

§ 78.72(a): Add the underlined "The operator shall use blow-out prevention equipment after setting surface casing with a competent casing seat in the following circumstances:"

§ 78.72(c): States that "...additional controls for a blow-out preventer...not associated with the rig hydraulic system must be located away from the drilling rig..." Please clarify whether or not this is referring to actuation from the accumulator unit.

§ 78.73(b): Change "and prevent pollution or diminution of groundwater" to "and prevent diminishing of the quantity and/or quality of groundwater".

§ 78.73[(c)](d): Change "recom- pleted" to "recompleted".

§ 78.73(f): Please reconsider the requirement for a check valve to prevent backflow from the pipeline. In the event of a pressure change, it would be preferable for gas to flow back into the well than cause a pressure problem in surface equipment with the resultant potential for safety or release issues. Excessive turbulence can promote valve erosion and cause loss of containment (gas and water). In addition, flowing gas through a check valve creates an obstruction and disrupts flow.

§ 78.82(2): The definition of conductor pipe under 78.1 states that it is "used to stabilize the top of the wellbore in shallow unconsolidated formations". This definition seems consistent with standard industry practice. Section 78.82(2), however, states that "conductor pipe shall be installed in a manner that prevents infiltration of surface water or fluids from the operation into groundwater". As stated in definition section, conductor is primarily for stabilization of shallow unconsolidated formations, and not necessarily for groundwater isolation. Please clarify.

§ 78.83[(b)](c): Change "freshwater based" to "freshwater-based" and change "redrilling" to "re-drilling".

§ 78.83(f): Please clarify whether the "subsequent string of casing" used to isolate additional fresh groundwater zones may also be used as production casing. Also please clarify whether "fresh groundwater" refers to "deepest fresh groundwater" that is yet to be clearly defined.

§ 78.83a(c): Change "well specific" to "well-specific".

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§78.83c(b): The term "shallowest productive horizon" is undefined. Therefore it is not clear whether this term is meant to refer to formations that have been used for producing gas wells historically or any formation where a show of gas is encountered while drilling.

§ 78.83c(c): It is unnecessary to specify that the cement may be pumped to surface if it is only required that it be pumped at least 500 feet above the production casing seat.

§78.84 (b), (c) and (f): The phrase "anticipated maximum pressure" is used in (b) and (c) where in (f), the phrase used is "highest expected working pressure". This is probably intended to mean the same thing and, if so, the same words should be used to avoid confusion.

§ 78.84(b) and (c): Subsection (b) states "surface casing must be a string of new pipe". Subsection (c) states "used casing may be approved for use as surface, intermediate, or production casing." Subsection (b) should be reworded if used casing can indeed be used for surface casing when certain conditions are met.

§ 78.84(f): Casing is selected such that failure theoretically occurs at a pressure no less than the maximum anticipated working pressure plus a certain design factor, say 20%. To actually pressure test at that design pressure would pose a safety risk to workers during the pressure test. By design, the casing has a potential to fail at that higher-than-expected pressure. Please restate the requirement to say, "Casing which is attached to a blow-out preventer with a pressure rating of greater than 3,000 psi must have a pressure rating that is at least 20% greater than the anticipated maximum pressure to which it will be exposed and shall be pressure tested. A passing pressure test is holding the anticipated maximum pressure to which the casing will be exposed for 30 minutes with not more than a 10% decrease in pressure. Certification of the pressure test shall be confirmed by entry and signature of the person performing the test on the driller's log."

§ 78.85(c): Rather than one overall minimum 8 hour setting time, it would be better to specify various mixes with different minimum setting times to avoid having to obtain Department approval for reduced setting times.

Please clarify whether or not "cementing operations" includes a green cement pressure test after bumping plug.

§ 78.85(c)(2): Please clarify whether or not "nippling up on or in conjunction to the casing" includes wellhead nipple up / cutting casing.

§ 78.85(c)(4): Please clarify whether this section applies to surface casing or an inner string cement job.

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§ 78.85[(c)](d): Please clarify under what circumstances a reduced cement setting time would be allowed, i.e., what requirements define a special cement or additives. Consider changing the 8-hour waiting time to 8 hours or a certain amount of compressive strength, whichever occurs sooner.

Consider changing the first sentence to, "Where special cement, additives or operating practices are used..."

§ 78.88(a): The requirement for quarterly mechanical integrity inspections is excessive. Experience justifies mechanical integrity testing on one to two year intervals. In practice, operators visit sites multiple times during the year and check the equipment without performing the detailed requirements of a well integrity test. This level of testing will require an increase in staffing by industry and regulators to manage the additional testing and reporting.

The term "operating well", needs to be defined.

This section should clearly state that obtaining the required information does not involve shutting in and entering the well.

§ 78.88(b)(4): Change to read: "If there is above ground level visual evidence of progressive corrosion, rusting or other signs of equipment deterioration."

§ 78.89(a): With the extensive presence of significant shallow coal and carbonaceous shale formations in Pennsylvania, opportunities exist for naturally occurring gas migration totally unrelated to deep oil and gas drilling and production. DEP should consider this when developing regulations and evaluating alleged incidents. The provisions of this section could cause the unintended consequence of excessive reporting of gas migration unrelated to oil and gas drilling and production, resulting in wasted industry and DEP resources investigating such incidents. Clarification of roles and responsibilities in the investigation would be helpful, e.g., who should interview the complainant. Also, consideration should be given to potential measures to discourage the malicious misuse of the complaint procedure.

§ 78.122(a) and § 78.122(b): These two sections call for individual reports. If possible, these should be incorporated into one report to streamline the process and eliminate some administrative burden.
Thank you for the opportunity to provide input for the development of this important program. If there are any questions regarding the comments provided, please do not hesitate to contact me at the information given above.

Sincerely,

Rolf W. Hanson

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