

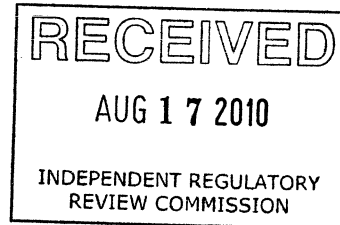


Shell Exploration & Production

2857

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150 N. Dairy Ashford  
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August 9, 2010



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

Subject: Comments to Proposed Rule, Title 25 PA Code Chapter 78, Oil and Gas Wells

To Whom It May Concern,

Shell appreciates the opportunity to provide the attached comments to the proposed rule, Title 25 PA Code Chapter 78, Oil and Gas Wells.

Shell supports the disclosure of hydraulic fracturing fluid ingredients to state regulators under proper agreement of confidentiality. Therefore, we ask that you pay particular attention to our comment for **§ 78.122 (b)(6)** regarding confidentiality.

Regards,

George Deeley, Ph.D.

1 Attachment

## Attachment 1

### Shell Comments to Title 25 PA code Chapter 78, Oil and Gas Wells

Shell appreciates the opportunity to provide input to the proposed rule, Title 25 PA Code Chapter 78, Oil and Gas Wells, and offers the following comments to each reference section.

**§ 78.1:** The Board specifically requested comments on the definition of “deepest fresh groundwater.” The proposed definition uses the term within its own definition. We suggest that the term “fresh groundwater” be defined with reference to numerical water quality standards and technical practicability of producing a sufficient quality and quantity of water for its intended use. Also, 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 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 Part (a) below.

**§ 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”.

**§ 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...” Is this referring to actuation from the accumulator unit?

**§ 78.72[(f)](h):** The rig floor is where the crew conducts drilling operations such as adding or removing drill pipe. It is a small area, and not safe for an individual who is not an integral part of the physical work. Proper control of the process can be maintained by having the responsible person on the well site and participating in the drilling activities, i.e., on duty.

**§ 78.73(b):** Change to clarify terminology (bold terms in original) “...**and prevent pollution or diminution of...**” to “...**and prevent diminishing of quantity and/or quality of...**”

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

**§ 78.73(f):** Reconsider this 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 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):** Definition of conductor pipe under 78.1 Definitions 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 Part (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 any groundwater isolation. Please clarify.

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

**§ 78.83(f):** Can the "subsequent string of casing" used to isolate additional fresh groundwater zones also be used as production casing? Please clarify. Does "fresh water" in this instance refer to "deepest fresh groundwater" that is yet to be clearly defined, and should consider both quantity and quality.

**§ 78.83a(c):** Change (bold terms in original) "...well specific..." to "...well-specific..."

**§ 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) and (c):** Part (b) states "surface casing must be a string of new pipe". Part (c) states "used casing may be approved for use as surface, intermediate, or production casing." Part (b) should be reworded if used casing can indeed be used for surface casing if 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. After all, by design, the casing has a potential to fail at that higher than expected pressure. Please restate the requirement to: "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 must be holding the anticipated maximum pressure to which it 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(b):** Rather than one overall minimum 8 hour setting time, would it be possible to specify various mixes with different minimum setting times in this section. These options may avoid having to obtain Department approval for reduced setting times.

**§ 78.85(c):** Does the EQB consider "cementing operations" to include a green cement pressure test after bumping plug? Please clarify.

**§ 78.85(c)(2):** Does "nippling up on or in conjunction to the casing" include wellhead nipple up / cutting casing?

**§ 78.85(c)(4):** Would this apply to an inner string cement job? Please clarify?

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

Can the first sentence be changed to include the underlined: “Where special cement or additives or operating practices are used...”

**§ 78.88(a):** The need 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 per year and check the equipment without performing the detailed requirements of a well integrity test. Please present the justification for requiring this level of testing, and the subsequent increase in staffing that will be required by industry and regulatory bodies to manage the additional testing and reporting.

Also, the term “operating well”, needs definition here. Does it mean a well currently producing gas? Also, this section does not call for a report while § 78.88(e) calls for an annual report to the Department. The wording of this section should clearly state that obtaining this information does not involve shutting in and entering the well.

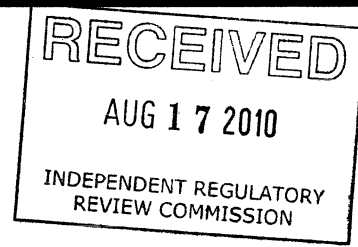
**§ 78.88(b)(4):** Change the sentence to read: “If there is above ground level visual evidence of progressive corrosion, rusting or other signs of equipment deterioration.”

**§ 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 & gas drilling and production. PADEP must consider this when developing regulations and evaluating alleged incidents. This provision could cause unintended consequences of excessive reporting of gas migration unrelated to oil & gas drilling and production, resulting in wasted industry and PADEP resources investigating such incidents. Clarification of roles and responsibilities in the investigation would be helpful, e.g., who will interview the complainant. Also, consideration should be given to potential measures to discourage malicious misuse of the complaint procedure.

**§ 78.122(a) and § 78.122(b):** These two sections call for individual reports. Is it possible to incorporate these into one report to streamline the process and eliminate some administrative burden?

**§ 78.122 (b)(6):** This section is about the stimulation record and includes a request for chemicals used. Shell supports Pennsylvania’s efforts to clarify existing regulations concerning chemical disclosure. We suggest that the issue of confidentiality be addressed in this section. For example through the following: **“Notwithstanding anything contained in these rules to the contrary, any “confidential proprietary information”, as defined by 65 Pa. Stat. § 67.102, and/or any “trade secret” information, as defined by 65 Pa. C.S.A. § 67.102, disclosed in accordance with these rules shall be maintained as confidential and shall be exempt from a request for disclosure under Pennsylvania’s “Right-to-Know Law as required by 65 Pa. C.S.A. § 67.708(b)(11). In addition, any party disclosing a trade secret pursuant to these rules shall be entitled to the protections and remedies of the Uniform Trade Secrets, as codified at 53 Pa. C.S.A. § 5301 et seq.”**

**From:** Stephen Rhoads [srhoads@eastresources.com]  
**Sent:** Monday, August 09, 2010 3:17 PM  
**To:** EP, RegComments  
**Subject:** Comments on Proposed Chapter 78 Rulemaking  
**Attachments:** Shell Comments to Proposed PA Chptr 78 Rules.pdf  
  
**Importance:** High



Attached are the written comments of Shell Exploration and Production on proposed regulations amending 25 Pennsylvania Code Chapter 78 (oil and gas wells).

Please reply to this message to confirm that you received our comments.

Thank you for the opportunity to comment.

Steve Rhoads

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