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8/2/2010

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

From: Andrew Augustine, 121 West River Street, Wilkes-Barre, PA 18702

Re: Public comment for proposed rulemaking 25 PA. CODE CHAPTER 78

78.1. Cement job log. The record should also include the air temperature during placement; water source, water quantity and water quality utilized.

78.83.(b) It is unclear why the proposed casing and cementing procedure only requires to "drill a hole so that the diameter is at least 1 inch greater than the outside diameter of the casing collar or centralizer band" (0.5 inch annular space)

The Pennsylvania Department of Environmental Title 25 Chapter 109 Safe Drinking Water 109.602.(c) Acceptable design states "The Department's Public Water Supply Manual sets forth design standards which the Department finds to be acceptable designs." The Department's Public Water Supply Manual 383-2125-108, page 45 General Well Construction 3h.Grouting "All permanent well casings shall be surrounded by a minimum of 1.5 inches of grout the entire length of casing," (this is a 1.5 inch annular space). Drinking water wells have 3 times the cement/grout than an oil/gas well. It is hard to believe that 0.5 inch of cement/grout between the casing and borehole can seal the aquifer from water and gas migration.

78.85.(a) Cement standards. The cement should use cleanest water available. Impurities can affect setting time and strength. Cement should be placed as per cement manufacturer's directions/specifications or at Department standards, whichever is more stringent.

78.85.(c)(1) It is my interpretation that the pressure should be released on the cement head, because this may allow a micro annulus to form after the cement hardens. If pressure is maintained in the casing during cement set up time, the casing could be expanding out into the annulus cement. When the cement is cured and pressure is released the casing could return to normal. This is where a microannulus could occur. It seems that it would be prudent that a check valve be equipped in all cementing jobs. It seems that pressure should be maintained on the cement head only if the check valve fails for that particular well.

78.122.(10) Well record and completion report. The driller's log should include more detailed geologic information than just the "name and depth of formations". Driller's log should include a lithologic description (i.e.: rock type, color, grain size, etc.) The Catskill Formation in Northeastern Pennsylvania, which is above the Marcellus Shale, is thousands of feet thick. According to the proposed regulations just the name of the formation and the depth is only required. Also, the depths of all fresh and brine water bearing zones should be described and logged better. According to the proposed regulations the depth of the first "singular" water level is required. In Pennsylvania there are many fresh water bearing zones in an aquifer. A detailed knowledge of the entire well bore hole would allow future individuals to understand the borehole for service and/or plugging/abandonment.