

January 24, 2013, Raleigh: Four Committees met, Mining & Energy Commission.

NOTE: No one is signing up for Public Comment (the last item on each committee agenda).

Administration of Oil and Gas Committee; Chair, Charles Holbrook and Vice Chair, Jane Lewis-Raymond

- a. Holbrook had assigned rule-making areas of responsibility to these committee individuals, who were to draft rules as follows:

Holbrook & Jane Lewis Raymond (*presented partially drafted rules*)

- Predrilling exploration - Holbrook (*presented partially drafted rules*)
- Drilling operations (casing, completion and plugging, abandonment of wells) One-step Permitting; Standards & Specifications; Deliverables; Approved Vendors;
- Well integrity & control systems (conductor and production casings, production tubing, open hole completions, centralizers, cementing, logging, pressure testing
- Blowout prevention, methane monitoring & capture, earthen pit construction & lining standards, storage tank standards, well pad construction standards,
- **NOTE:** S820 requires separation of fluids and gases in hole from communication with near-surface waters; capture and approved disposal of all effluents.

James Womack (*absent, no report*)

- Notices, record keeping and reporting
- Unlawful well drilling without owner's permission, aggrieved owner must pay for surveys
- Filing of logs and drilling records (drill cuttings, core samples, results of pressure testings, fluid sample analyses, electronic records, etc.)

Vik Rao (*no draft to discuss, seeks more advice from a panel*)

- Regulate shooting, perforating & chemical treatment of wells
- Regulate secondary recovery methods...Rao commented that NO operators are doing this in US; therefore rules can be deferred.

Ray Covington (*no draft to discuss, wants to hear from gas experts, local government, public safety, effects on land value for surface owner*)

- Regulate spacing of wells and establishment of drilling units.
- Require operation of wells with efficient gas-oil ratios and to fix such ratios.
- Limit/prorate production of oil or gas from any pool or field for prevention of waste.

Charles Taylor (*absent, no report*)

- Measures to mitigate impacts on infrastructure, including roads

Dr. Kenneth Taylor (*see c. below*)

- Proper well closure, site reclamation, post-closure monitoring and financial assurance.

Tex Gilmore (*no draft to discuss*) - Says his assigned area overlaps two other committees.

- a. Discussion of obtaining “best practices” from industry, but American Petroleum Institute charges \$185 for their copyrighted book of “minimum” standards and DENR has no budget to purchase this book. Holbrook has a “borrowed” copy. Holbrook also said if well integrity and control system are done correctly, will not have any problems. Holbrook knows a colleague, a Raleigh engineer with 35 years experience, who can help with some research on standards and provide background information.
- b. Dr. Kenneth Taylor (well closure, site reclamation, etc.) discussed one of the few wells in Lee County, Butler #3, located at the shallow (north) end of the slate belt. It was vertically drilled in 1998, to depth of 3,000 feet. It was 350-ft to water, and well had a conductor casing to 60-ft, in a 17-1/2” hole with a 13-3/8” pipe in the center. Further down there was a surface casing surrounded with cement, then a production casing to depth. He showed diagrams of the casings. This well, on a severed estate (by deed), was not successful when they tried to frack it. It was plugged at 100-ft (current rules for vertical wells) and abandoned. He said current NC rules exceed API standards for vertical wells. Question about how to make a cement plug in horizontal well shaft. Taylor said there are NO abandoned well sites in PA, so there is no experience with plugging/abandonment. Also talked about Gregson #1 (1987) plug, in the southeast corner of basin, not productive. Taylor posed questions about the erosion/sedimentation plans (more than 1/2 acre disturbed...EMC rules) and would one permit cover the site from production through to abandonment since there are land disturbances in both phases. PA requires a single plan from pre-production to abandonment.
- c. No time for public input unless submit a “substantive” 2 page document in advance to Holbrook, and sign up to be heard at end of meeting, *maybe*.