

Meeting Minutes of the Administration of Oil and Gas Committee of the
North Carolina Mining and Energy Commission
April 4, 2013
10:30 am – 12:30 pm

1. Preliminary Matters - Chairman Charles Holbrook

Chairman Holbrook called the meeting of the Administration of Oil and Gas Committee to order at 10:35 am in the Ground Floor Hearing Room of the Archdale Building in Raleigh, NC. Chairman Holbrook read the relevant excerpt of the State Government Ethics Act, and asked Commission Members to consider whether or not they had conflicts of interest with respect to any items on the agenda. No conflicts were reported.

The following personnel were in attendance for all or part of the meeting:

Committee Members

Charles Holbrook (Chairman)
Dr. Vikram Rao
Dr. Kenneth Taylor
Tex Gilmore
Jane Raymond Lewis (via telephone)
Dr. Ray Covington (via telephone)

Attorney General's Office

Jennie Hauser (legal counsel)

DENR Staff Member

Trina Ozer, Department of Environment and Natural Resources (DENR) Secretary's Office
Mell Nevils, Division of Energy, Mineral and Land Resources (DEMLR)
Walt Haven, DEMLR
Katherine Marciniak, DEMLR
Ryan Channell, DEMLR

Others in Attendance

Refer to the attached meeting sign-in sheets.

2. Background and Introductions- Chairman Charles Holbrook

Chairman Holbrook introduced Mr. Walter Johnston, an engineer with 40 years of experience who will be assisting the Committee with developing standards for well pad and pit construction.

3. Review and approval of minutes from the March 7, 2013 meeting- Chairman Charles Holbrook

Chairman Holbrook asked the Committee to review the minutes from the March 7, 2013 meeting. Dr. Kenneth Taylor moved to approve the March 7, 2013 minutes and Mr. Tex Gilmore seconded the motion. The Committee voted to unanimously approve the minutes.

4. Pre-Drilling Exploration Activities – Ryan Channell

Mr. Channell presented rules and procedures from North Carolina, Colorado, Arkansas, Oklahoma, and North Dakota related to seismic and stratigraphic testing (coring). He stated that the rules and regulations in place for North Carolina and other states cover explosive operations only and there is limited or no information available regulating non-explosive operations.

- a. Current North Carolina rules (15A NCAC 05C) require the following:
 - i. Permit – valid for six months.
 - ii. Map of operation area.
 - iii. One week notification to department prior to commencement.
 - iv. Exploration crew will always be accompanied by seismic agent.
 - v. Explosive shots must be fired during daylight hours.
 - vi. Explosive charges cannot exceed 50 pounds.
 - vii. Set back distance of 300 feet from a fixed structure.
 - viii. All shot holes must be filled.
- b. The permit validation period from other states and permit application fees are variable, ranging from 6 to 12 months and \$100 to \$500, respectively.
- c. Performance bonding is required; ranging from \$25,000 to \$250,000. Completion reports and certain time periods are required before returning performance bonds.
- d. The permitting process requires a map outlining the operational area.
- e. The regulatory agency and surface owners must be notified prior to commencement of seismic operations or stratigraphic surveys.
- f. All shot holes must be filled, within 30 days or less, and the rules vary from filling holes with cuttings to using bentonite to seal the hole.
- g. Stratigraphic surveys (cored exploration holes) must be filled with a cement slurry or operators must follow State well construction standards.
- h. Mr. Channell recommended the following regulatory requirements to the Committee: a fee for the permit application, bonding requirements, notification system to surface owners, formal completion report to include a map of the operation area and a copy of the data collected, increase the current setback distance to 700 feet, plugging shot holes with bentonite, and plugging stratigraphic survey holes with a cement slurry.

Dr. Rao, Chairman Holbrook, and Dr. Taylor discussed the presentation. They explained to the members of the audience the two primary types of exploration activities employed: seismic (explosive and non-explosive) and drilling core test-holes. The Committee discussed the need to prevent communication of fluids from the surface to features at depth and the benefits of using bentonite to seal the shot holes. Dr. Taylor explained session law 176 and the impact this would have on companies conducting exploration activities in North Carolina. All data submitted to the North Carolina Geological Survey becomes a public record. The previous law allowed the Geological Survey to hold data in confidence for 2 years before becoming a public record. The Committee discussed recommending to the General Assembly a period of confidentiality for data submitted to the Geological Survey.

5. **Wellhead Configuration & Standards for Production Operations** – Walt Haven

Mr. Haven presented a comparison outlining wellhead configuration and standards to include the Christmas tree, pressure gauges, check valves, identification signs, fencing, and setback distances.

Mr. Haven recommended the wellhead or Christmas tree design conform to current and relevant American Petroleum Institute (API) standards such as API 6A. He also recommended the Committee retain current North Carolina 5D rule language requiring an operator to design a wellhead and use equipment capable of handling anticipated pressures. Pressure gauges should be installed on the production and tubing strings in order to record static conditions. Flow lines should have check valves installed to prevent backflow into the well.

Mr. Haven discussed standards for wellhead identification and site security to include fencing and locks:

- An operator sign posted at the access point during drilling.
- Sign posted on the wellhead 72 hours after completion of activities.
- Signs should be constructed from weather proof material and include the operators name, contact information, county, API number, and local emergency response in letters a minimum of 2 inches in height.
- Nine gauge chain link fencing eight feet in height with 3 strands of barbed wire on top.
- Fencing a minimum of ten feet from the wellhead and securely anchored in the ground.
- “Danger Keep Out”, “No Smoking”, and operator signs attached to each side of the fence and an operator sign at the access point.
- Fencing installed 30 days after completion of activities.
- Gates should be at least four feet in width and have the ability to be locked.
- Site security also includes maintaining vegetation inside the fenced area and keeping the site free of rubbish or debris at all times.

Mr. Haven, Dr. Rao, Mr. Womack, and Chairman Holbrook discussed the appropriate rule set to include tank standards, earthen pits/dikes, and setbacks specific to the area surrounding the wellhead. They decided that all setbacks should be determined by the Administration of Oil & Gas Committee. This particular rule set will include earthen pits and dikes surrounding tank batteries and setbacks specific to equipment on the drilling pad. The setbacks will address the appropriate distance between the wellhead, separators, and tanks.

6. **Research Status of Assigned Regulation Requirements** – Chairman Charles Holbrook and other Committee Members

Chairman Holbrook reviewed the regulations assigned to the Committee and asked each Commissioner to update the Committee on his or her progress. Dr. Kenneth Taylor discussed well abandonment and plugging regulations and procedures from other states. He completed a direct comparison of permanent versus temporary abandonment from 31 states.

- Abandonment ranged from 6 months to 20 years
- Well classification is important to define:
 - A well with conductor, surface, and intermediate casing installed and cemented to surface is not classified as a completed well.
 - Completed wells must penetrate the production zone.
 - A review of definitions is needed to classify a completed well and non-completed well.
 - Numerous wells could be completed but not connected to gathering lines, waiting for favorable economic conditions. This type of temporary abandonment needs to be defined.

Chairman Holbrook, Mr. Womack, and Dr. Rao discussed the update provided by Dr. Taylor. The Committee recognized the importance of terms of reference and the need to define the potential types of wells and associated time periods for each well classification. Well classifications used by industry include “temporary abandonment”, “plug and abandon”, “completed for production”, and “completed but shut-in.” The Committee discussed how North Carolina could experience a long time between well completions and installation of infrastructure and as a result the term “shut-in” was preferred over temporary abandonment. Dr. Taylor will submit a written report outlining his research to the Committee in two to three weeks. Mr. Haven said DENR staff will incorporate Dr. Taylor’s report into the rule writing process.

Mr. Gilmore explained the report he emailed to Trina Ozer for dissemination to the Committee. The report from the Center for Sustainable Shale Development outlines performance standards for unconventional exploration, development, and gathering activities.

Dr. Rao will be prepared to discuss his assignment during the June Committee meeting.

Chairman Holbrook discussed add on items for the Committee to include setbacks, flow lines, and permitting. The Committee asked staff to discuss permitting at the next meeting.

Dr. Taylor, Dr. Rao, Mr. Womack, Ms. Jane Lewis-Raymond, and Chairman Holbrook discussed midstream activities. They noted that the Local Government Regulation Study Group had identified a lack of midstream infrastructure in North Carolina, which needed to be resolved to encourage exploration and production activities. The Committee also recognized that the Mining and Energy Commission might have the authority to address these activities to include the transfer of product to a company such as Piedmont Natural Gas.

7. **Public Comment**- Chairman Charles Holbrook
No one from the audience signed up for the public comment period.

8. **The Committee adjourned at 12:25 pm.**
DEMLR Staff contact for this Committee: Walt Haven, Energy Program Supervisor – NCDENR.