

**Stakeholder Group on Oil and Gas Management
Recommendations from the April 18, 2013 Meeting**

At the April 18, 2013 meeting of the Stakeholder Group on Oil and Gas Management, the following members of the stakeholder group were present:

- Tom Alexander, ANGA/Southwestern Energy
- Brandon Jones, N.C. DOT
- Terrell Jones, Lee County Health Director
- David Kelly, EDF
- Benny Lee, Chatham County Landowner
- Ward Lenz, State Energy Office (via phone)
- John Monaghan, Piedmont Natural Gas (via phone)
- Kevin O'Barr, N.C. Department of Labor
- Trina Ozer, DENR
- Terry Pierce, N.C. Department of Health and Human Services
- John Seymour, DENR, Stakeholder Group Facilitator
- Paul Sherman, N.C. Farm Bureau
- Vann Stancil, Wildlife Resources Commission
- Hope Taylor, Clean Water for North Carolina
- Steve Townsend, retired oil and gas industry engineer

The following staff of the Division of Energy, Mineral and Land Resources was available to answer questions about the proposal for rule components and the considerations that had gone into developing the rule components:

- Walt Haven, Energy Program Supervisor
- Ryan Channell, Hydrogeologist

At the meeting, the stakeholder group discussed a draft rule on well construction. The stakeholder group reviewed the components of the rule and discussed various parts of the rule. As part of this discussion, the group made the following recommendations for the Administration of Oil and Gas Committee of the N.C. Mining and Energy Commission to consider in the course of its deliberations.

1. Annulus pressure must be monitored for all casing strings for any indications of pressure build-up which may require remediation.
2. The group recommended that for production casing, cementing should not always be required all the way to the surface, because you may want to allow some annular space for the operator to correct any problems in the casing that may arise. Instead, the group recommends that cement should either be brought to surface or be required to overlap at least 200 feet inside the previous casing. In addition, cementing should always be required at least 600 feet above the top perforation, a potential corrosive zone, an oil and gas bearing zone, or a potential water supply that should be protected.

3. The group recommended that when intermediate casing is used to isolate freshwater, cement should be required all the way to the surface for the intermediate casing. If intermediate casing is being used to isolate a corrosive zone, an oil and gas bearing zone, or other hazard, cement should be required to overlap inside the next larger casing by at least 200 feet.
4. The group recommended that cement be brought back into the previous casing by at least 200 feet to protect the casing shoe. However, if this requirement is adopted, the group recommended that there be a provision for a variance from this requirement in some cases.
5. The group recommended that the regulations should not always require a cement bond log on the surface casing, but instead, the regulations should require the following procedures in order:
 - a. Cement to the surface or bring cement to surface by performing a top job in the annulus;
 - b. Conduct a pressure test;
 - c. Conduct a FIT test.

If any of the above tests fail or if cement returns to surface significantly earlier than expected (indicating channeling), then a CBL should be required.

6. Require that a certified or state approved cementer be used for cementing operations.
7. The group recommends that the Department be given notice at least 48 hours (rather than 24 hours as currently required) in advance of the operator setting any casing or liner string and before commencing any casing cementing operation (see 15A NCAC 05D .0XX8 (b)).
8. The group recommends that the Department be given notice at least 48 hours (rather than 24 hours as currently required) in advance of the operator performing BOP testing (see 15A NCAC 05D .0XX12 (e)).
9. The stakeholder group recommends that the Mining and Energy Commission work with DENR and the General Assembly to ensure that a DENR staff inspector or a DENR approved contractor be on site during surface casing cementing for every well.
10. For the requirements regarding centralizing the annulus and centralizing the horizontal section of the well, the stakeholder group recommends that the rules require operators to meet a BMP established by a third party organization. Two stakeholders, Tom Alexander with Southwestern Energy and David Kelly with Environmental Defense Fund, offered to send staff suggestions for these types of BMPs. One stakeholder recommended that all casings should be centralized in nearby critical zones to provide at least 70% standoff to foster zone isolation. Another stakeholder recommended that centralizer placement should be consistent with API Recommended Practice 10D-2 (Petroleum and Natural Gas Industries, Equipment for Well Cementing, Part 2, Centralizer Placement and Stop Collar Testing).
11. The stakeholder group recommended that because the collar varies in thickness, the rules should refer to the "pipe body" in place of the "collar."
12. The group recommends that the regulations stipulate that an operator who is certified for well control and BOP management be on site 24 hours a day, seven days a week.
13. As with requirements for other pieces of equipment in the regulations, the stakeholder group recommends that there be a requirement that the operator ensures the diverter system and the mud or air system remains functional at all times.

14. The stakeholder group felt that the section on well abandonment (15A NCAC 05D .0XX17) was not as well developed as the other sections and that several items they might have recommended were missing from this section. The group felt additional work was needed in this section before they could make recommendations.
15. Currently the draft rules require wireline logging of open holes in all cases. The stakeholder group recommended that the rules should not always require this. One stakeholder suggested that some of these requirements could be moved to the permit. Others suggested that because operators have many tools available to them for geophysical analysis, open hole logs could be required only as needed to understand the geology in an area, but that this should be left to the discretion of the operator.