



North Carolina Department of Environment and Natural Resources  
Division of Energy, Mineral, and Land Resources

Tracy E. Davis, PE, CPM  
Director

Pat McCrory, Governor  
John Skvarla, Secretary

**MEMORANDUM**

**TO:** ENVIRONMENTAL REVIEW COMMISSION  
The Honorable Brent Jackson, Chairman  
The Honorable Ruth Samuelson, Co-Chairman  
The Honorable Mike Hager, Co-Chairman  
  
JOINT LEGISLATIVE COMMISSION ON ENERGY POLICY  
The Honorable Bob Rucho, Co-Chairman  
The Honorable Mike Hager, Co-Chairman

**FROM:** Jim Womack  
Chairman of the North Carolina Mining and Energy Commission  
  
Tracy Davis  
Director of the Division of Energy, Mineral, and Land Resources

**SUBJECT:** Quarterly Report on Activities Conducted Pursuant to S.L. 2012-143

**DATE:** October 1, 2013

Pursuant to Session Law 2012-143, the North Carolina Mining and Energy Commission and the Division of Energy, Mineral, and Land Resources shall submit to the Environmental Review Commission and the Joint Legislative Commission on Energy Policy a report on activities conducted and progress made pursuant to Session Law 2012-143 on a quarterly basis. Please consider the Quarterly Report on Activities Conducted Pursuant to S.L. 2012-143 attached as the formal submission of this report.

If you have any questions or need additional information, please contact me by phone at (919) 707-9201 or via e-mail at Tracy.Davis@ncdenr.gov.

cc: Mitch Gillespie, Assistant Secretary for Environment  
Neal Robbins, Director of Legislative Affairs  
Fred F. Steen, Office of the Governor  
Jennifer Hoffman, Fiscal Research  
Toby Vinson, Acting Land Quality Section Chief  
Walt Haven, Energy Program Supervisor  
Trina Ozer, Policy Analyst, Office of the Secretary

**N.C. Mining and Energy Commission**  
**And Department of Environment and Natural Resources**  
**Quarterly Report on Activities Conducted Pursuant to S.L. 2012-143**  
**To the Joint Legislative Commission on Energy Policy**  
**And the Environmental Review Commission**  
**October 1, 2013**

Session Law 2012-143, the Clean Energy and Economic Security Act, was ratified on July 2, 2012 and reconstituted the North Carolina Mining Commission as the North Carolina Mining and Energy Commission. The Act directs the Mining and Energy Commission (MEC) to establish a modern regulatory program for the management of oil and gas exploration and development in the State and the use of horizontal drilling and hydraulic fracturing treatments for that purpose. The Act also directs the Commission to submit quarterly written reports on the Commission's operation, activities, programs, and progress to the Joint Legislative Commission on Energy Policy and the Environmental Review Commission (Section 1.(h)). The Department is also required to report on the progress in developing and adopting the rules required to be adopted by S.L. 2012-143. The quarterly reports shall include recommendations on changes required to existing rules and statutes and any other findings or recommendations necessary for the implementation of this Act (Section 2.(m)). This report satisfies both of these reporting requirements for the July through September 2013 timeframe.

This report was written during mid-September to ensure timely completion, review, and submission by the October 01, 2013 deadline. As of this writing, the meetings on September 26 and 27, 2013 are planned but have not yet occurred.

**Committees of the Mining and Energy Commission**

Activities for each of the MEC Committees for this quarter are summarized below:

The **Administration of Oil and Gas Committee** convened on July 25, 2013 and heard presentations from staff related to proposed wellhead, well construction, and setback standards. Although Committee members decided to relinquish setback rule development to the Environmental Standards Committee, they did provide suggestions for wellhead and well site rule development. Staff personnel have used this feedback to draft rules for wellhead standards, which establish regulations for the upper-most portion of the well, along with requirements for fencing, signage, and security at the well site.

The Administration of Oil and Gas Committee also met on September 5, 2013. The Committee received information from State Geologist, Dr. Kenneth Taylor, and Energy Program staff members regarding plans for well permitting requirements and an overall coordinated permitting process. Research concerning permitting procedures continues, as the Committee will oversee the drafting of permitting rules based on recommendations from the Coordinated Permitting Study Group and from staff. The Administration of Oil and Gas Committee also heard a presentation from Dr. Taylor regarding diabase dikes within North Carolina's Triassic Basins and concluded that special rule sets to address these intrusive bodies would not be needed, but that a white paper on diabase dikes should be prepared and provided as a resource to the public in understanding the characteristics of these geologic features. Finally, the Committee deliberated the draft well closure rules as presented by staff and provided feedback and suggestions for editing.

The next meeting of the Administration of Oil and Gas Committee has been scheduled for September 26, 2013. The Committee plans to continue its review of the draft well closure rules to prepare them for Rules Committee deliberation.

The **Environmental Standards Committee** convened on July 25, 2013 and received information from staff regarding setback standards in other states, as well as those from other regulatory programs in North Carolina. The Committee provided feedback which staff has used to develop a draft rule set, which will establish horizontal separation distances between oil or gas wells and other features, such as occupied dwellings, schools, roads, water supply wells, streams, lakes, etc. These standards will also define setbacks for holding tanks and storage pits. The Committee also heard a presentation about noise, light and odors from oil and gas operations.

The Environmental Standards Committee met on September 5, 2013 and heard a staff presentation on the draft rule set for setback standards. The Committee provided feedback and asked the staff to research the criteria used by other states to establish their various setback distances. Staff will use the research it has gathered and feedback received from DENR's Stakeholder Group on Oil and Gas Management to update the rule set and the Committee at its next meeting.

The next meeting of the Environmental Standards Committee has been scheduled for September 26, 2013. The Committee plans to review information provided by staff regarding justifications for specified setback distances. Members will also receive and discuss recommendations for changes to the draft rules provided by the DENR Stakeholder Group on Oil and Gas Management. Additionally, the Committee plans to continue deliberation of the draft setback rules to prepare them for the Rules Committee.

The **Water and Waste Management Committee** convened on July 25, 2013 and received a staff presentation on stakeholder comments related to the draft waste management rule set. This rule set addresses the management, storage and disposal of oil and gas waste products, such as drilling fluids, well cuttings, and wastewater. These rules also establish standards for storage ponds and pits, and will address response actions in the case of an unintentional release of waste material to the environment. The Committee discussed stakeholder remarks and developed recommendations for implementing those considerations into the draft rule set. Staff used this feedback to modify the draft rules in preparation for the next Water and Waste Management Committee meeting.

The Water and Waste Management Committee also met on September 5, 2013 and heard presentations from representatives of Southwestern Energy and the Environmental Defense Fund regarding the management and treatment of wastewater resulting from oil and gas operations. The Committee continued deliberating the draft waste management rule set and provided feedback, which staff used to modify the rule set in preparation for the next meeting.

The next meeting of the Water and Waste Management Committee is scheduled for September 26, 2013. The Committee plans to continue its review of the draft waste management rule set to prepare it for Rules Committee deliberation.

The **Rules Committee** convened on July 25, 2013 and continued working on the draft well construction rule set, which delineates regulatory requirements for oil and gas well construction and installation. After developing edits, the Committee voted to approve this draft rule for consideration by the Mining and Energy Commission.

The Rules Committee also met on September 5, 2013 and formally received the draft rule set on baseline and subsequent testing requirements, which defines industry standards for sampling and testing water supplies within a 5,000 foot radius of an oil or gas wellhead. After

developing edits, the Rules Committee voted in favor of approving the draft rule and sending it to the Mining and Energy Commission. The Committee also began deliberation of the draft wellhead standards rule set and provided feedback to staff for edits.

The next meeting of the Rules Committee is scheduled for September 26, 2013. The Committee plans to continue its review of the draft wellhead standards rules to prepare them for Commission deliberation. The Rules Committee will also discuss the standardization of defined terms, which are to be used throughout the comprehensive oil and gas rule set.

The **Mining Committee** convened on July 26, 2013 and received information from staff of DENR's Division of Energy, Mineral and Land Resources (DEMLR) staff related to North Carolina mining statistics, mining enforcement measures, and pending appeals. Additionally, Dr. Taylor detailed current N.C. Geological Survey research regarding potential diamondiferous deposits in the western part of the State.

### **Study Groups of the Mining and Energy Commission**

Activities for each of the MEC Study Groups for this quarter are summarized below:

The **Compulsory Pooling Study Group** convened on August 28, 2013. The Study Group is developing recommendations related to compulsory pooling requirements for North Carolina. The Study Group studied and made recommendations on legal and landowner protection issues relevant to compulsory pooling in the context of oil and gas exploration, including matters of landowner protection, the extinguishment of dormant mineral estates, cost sharing, and compensation for damages related to oil and gas operations. The Study Group is preparing a report to share with the Department. The Department will then review the report recommendations, make any revisions Department management deems necessary, and submit a revised report to the General Assembly by October 1, 2013.

The following summarizes the final recommendations made by the Study Group:

- 1) Compulsory pooling be allowed where 90 percent of the owners of the surface acreage of a drilling unit have voluntarily leased or consented to developing their oil and gas rights;
- 2) A requirement that applicants for a compulsory pooling order show that they have made fair and reasonable offers to owners;
- 3) A prohibition on surface disturbances without the consent of the mineral interest owner;
- 4) A requirement for a surface use agreement to be in place prior to filing an application for a pooling order;
- 5) Additional notice requirements to subsurface owners prior to the commencement of subsurface operations;
- 6) Additional reporting of production requirements for operators to owners in the drilling unit, including the right to audit;
- 7) Time limitations on the pooling order;
- 8) Further study on the issue of amending current dormant mineral statutes regarding extinguishment and other consumer protection issues related to split estates;
- 9) Repealing the current free ride provision of the Oil and Gas Conservation Act, G.S. 113-393(a), and adopting a cost sharing statute that allows the compelled owner to elect from various cost sharing options;

- 10) Cost sharing options would include: (1) sharing in cost as a participating owner; (2) surrender of the working interest for reasonable consideration; and (3) carrying the compelled owner for costs and assessing the owner a risk penalty out of production.
- 11) The risk penalty should be capped at a maximum of 200 percent of costs;
- 12) Establishing an acreage threshold requirement, which would require the Commission to consider assessing no risk penalty to landowners who own less than 10 acres within a drilling unit;
- 13) The costs and risk penalty for the unleased owner should be paid from seven-eighths of the carried owner's share of production, while that owner would receive one-eighth of his or her share from the start of production; and
- 14) Providing tort immunity to unleased oil and gas interest owners that are compelled into a pool and do not share in production as participating owners and requiring operators to indemnify such oil and gas interest owners from any property, personal and economic injuries the owners incur as a result of the operators' activities.

The Study Group intends to have its report completed and submitted to the Department for its consideration so that the Department can submit its report to the General Assembly by the October 1, 2013 statutory deadline. In addition, this study group plans to remain intact to consider issues related to consumer protection.

The **Funding Levels and Potential Funding Sources Study Group** convened on July 8, July 30, August 30, and September 12, 2013. The Study Group has been researching financial impacts incurred by other states from oil and gas operations. Potential costs for North Carolina would include infrastructure degradation (i.e. road damage caused by truck traffic), increased costs to emergency management and local law enforcement, and potential safety risks to citizens due to vehicle traffic or other oil and gas activities. The Study Group has also analyzed strategies to offset these costs. Specifically, members and DEMLR staff have studied fee and tax structures currently applied in North Carolina as well as in other states. The Study Group examined ad valorem taxes for local governments and the distribution of severance taxes for produced oil and gas, permitting fees, and financial assurances for proper well closure, well abandonment, site reclamation, surface owner protection, and road repairs.

The Funding Levels and Potential Funding Sources Study Group has developed the following recommendations:

- 1) Establish an impact fee for each oil or gas well, along with an additional fee for each hydraulic fracturing stage for each well. However, the fracturing stage fee could be reduced for liquid-free fracturing activities;
- 2) Set a well permit fee, as defined in Session Law 2012-143;
- 3) Establish bonding requirements for geophysical exploration activities involving the use of explosives, and require bonding to cover well plugging and abandonment and site reclamation;
- 4) Use assignment of savings account, surety bonds, bank guaranty, or cash deposits as bonding instruments for oil and gas pads and wells; and
- 5) Establish a severance tax which would be sufficient to recover oil and gas related costs for DENR and DOT after an initial year or two of industry ramp-up.

The Study Group will submit its final report to the General Assembly by the October 1, 2013 statutory deadline.

The **Local Government Regulations Study Group** convened on July 19, 2013. The Study Group has been working to identify specific regulatory areas of local authority related to oil and gas operations. Their research has focused on extra-territorial jurisdiction, impacts to local infrastructure (i.e. road degradation), local government regulations in other states, establishing setback distances, noise and light restrictions, zoning, ad valorem taxation, local erosion control, water quality, property rights, mineral rights, easements, and land use management.

The list below summarizes some of the recommendations developed by the Local Government Regulations Study Group:

- 1) Local authority should be maintained where appropriate, but should not be exercised to exclusively prohibit oil or gas operations;
- 2) Local governments should retain their existing zoning and land use authorities and be able to apply these ordinances to the oil and gas industry;
- 3) Local emergency response organizations should consider establishing a regional response team to address oil and gas related emergencies. Additionally, this team should consist of members trained specifically to contain and limit emergency situations, until specialized industry response personnel arrive at the scene;
- 4) Local governments should continue addressing odor, noise, and light-related issues under their current police power authority. However, an operator could request a time-limited variance to exceed local odor, noise, and light ordinances. Additionally, oil and gas companies should provide local liaisons to coordinate efforts with local government officials; and
- 5) The Mining and Energy Commission should establish setbacks for oil and gas operations. Additionally, these setbacks should be used only for environmental, health and safety purposes.

The Study Group will submit its report to the General Assembly by the October 1, 2013 statutory deadline.

The **Coordinated Permitting Study Group** convened on July 26 and September 6, 2013. The Study Group includes not only voting members of the MEC, but also non-voting members from DEMLR, the Division of Water Resources, the Division of Waste Management, and the Division of Air Quality, as well as the Department of Transportation. This Study Group has been researching the permitting procedures currently implemented by DEMLR's mining program, which requires efficient inter-agency routing and approval to address environmental impacts and mitigation measures related to mining activities. The Study Group has noted that the mining program permitting process may serve as an example for oil and gas permitting. The Study Group has heard presentations from several permitting agencies within DENR and is also researching oil and gas permitting processes in other states to analyze how those programs might apply to North Carolina. Dr. Taylor, the Director of this Study Group, and DENR staff members have compiled an exhaustive set of documentation from other states that reflect organizational and geological similarities to North Carolina and who have some form of coordinated permitting in place today.

The following list summarizes some of the recommendations developed by the Coordinated Permitting Study Group:

- a. Coordinated permitting should be implemented to address all environmental activities associated with site development, well construction and well completion up to the point the well is put into production;

- b. The coordinated permitting process should involve a coordinated environmental review by various DENR agencies and DOT, with one comprehensive environmental permit being issued; and
- c. Applications and permitting information should be received by DEMLR, routed for agency and public review, and maintained via electronic data methods.

The Study Group is nearing completion of its report and plans to meet again on September 26, 2013 to continue its work.

The **Protection of Trade Secrets and Proprietary Information Study Group** convened on August 6 and September 6, 2013. The Study Group includes MEC members and members of the Office of the Attorney General for North Carolina, the University of North Carolina School of Government, and other legal and policy specialists. This Study Group has been researching the application of trade secret and proprietary information laws from other states and from the Code of Federal Regulations. Members are continuing to research current North Carolina statutes, case law, pending state legislation and industry practices relevant to trade secrets and proprietary information. The Study Group is identifying inadequacies in current North Carolina statutes and making recommendations for statutory adjustments where appropriate. This Study Group is also developing a set of recommendations to be used in cross referencing any MEC rules that may require trade secret exceptions to public disclosure.

### **The Mining and Energy Commission**

The **Mining and Energy Commission** held three meetings during this quarter and received Committee and Study Group updates during each. During their July 26, 2013 meeting, the Commission accepted and began deliberations on the well construction rule set. Additionally, Commissioners re-elected Jim Womack to another year-long term as Chairman of the Mining and Energy Commission and elected Dr. Ray Covington to serve as Vice Chairman of the Mining and Energy Commission.

At its September 6, 2013 meeting, the Commission continued deliberations on the draft well construction rule set. Members voted to approve this draft rule set and assigned it for internal completion of remaining edits by staff. Additionally, the Commission accepted the draft baseline sampling rule set as received from the Rules Committee. After deliberation, the Commission provided edits to staff for rule updating and further discussion for the next meeting. Commissioners also discussed statutory language within Session Law 2012-143 (General Statute 113-423(f)) as related to baseline sampling. The Commission requested an informal opinion from the Attorney General's Office to determine if the statute would allow an oil or gas operator to use pre-existing water supply sampling results as part of its baseline sampling reporting requirements.

The Mining and Energy Commission has scheduled its final meeting for the quarter on September 27, 2013 and plans to continue deliberations of the draft baseline sampling rule set. Commissioners will also discuss potential requests for statutory changes, as well as the overall progress of rule development.

DENR is continuing to manage the **Stakeholder Group on Oil and Gas Management**, which is composed of representatives from industry, non-profit organizations, individuals, and local and state governments. Meetings were held on July 11 and September 13, 2013. During these meetings, staff presented the draft wastewater management rule set and the draft setback rule set. The group generated suggested changes to these draft rule sets, which were provided to

the Water and Waste Management Committee and the Environmental Standards Committee, respectively.

MEC Commissioners and DEMLR staff personnel continue to participate in local and regional education and outreach activities. On August 14, staff provided a presentation about North Carolina geology, hydrocarbon resources, and the current progress of rule development to the Chatham County Health Department. On August 15, Energy Program personnel met with a representative from the Wake County Environmental Health and Safety office to discuss possible impacts of oil and gas operations within the area of Wake County that overlaps with the Triassic Basin. On August 22, Chairman Womack presented a shale gas update at the North Carolina Association of County Commissioners annual meeting during a forum entitled, "Unearthing Economic Development Opportunities through Natural Resources." On September 20, DEMLR staff provided presentations regarding oil and gas rule development to the Wake County Public Health Committee. Finally, DEMLR staff provided presentations on the MEC's rulemaking progress and updates on draft rules for water reuse and disposal to the Professional Engineers of North Carolina during its Regional Seminar in Wilmington on September 24.

DEMLR's Energy Program continues to support DENR's "Recruiting Exceptional Achievers for Career Horizons" (REACH) internship program. Two interns recently completed their service during this quarter. A third intern arrived during the latter part of August and should remain with the Energy Program through the upcoming quarter. She is pursuing a Master of Science degree in Geology from UNC Chapel Hill and will be assisting staff in conducting research on setbacks and other pending issues before the MEC.

Additional information about the MEC, including agendas, meeting minutes and audio recordings of meetings, can be found at the Commission's website:

<http://portal.ncdenr.org/web/mining-and-energy-commission/>. The Department continues to manage this website and to share information about the activities of the MEC with the public. The website lists meeting agendas, meeting minutes, PowerPoint presentations from meetings, contact information for MEC members, and other information. A listserv is also available for individuals who would like to receive updates on the MEC and changes to the website. To sign up for the listserv, visit <http://lists.ncmail.net/mailman/listinfo/denr.shale.gas>.

Figure 1 reflects current committee and study group members, as well as primary staff contacts for each committee and study group.

Recommendations for further rulemaking and potential statutory amendments will be provided in the three Study Group reports submitted separately to the General Assembly by the October 1, 2013 deadline.



| <b>Committee</b>   | <b>Chair/Vice Chair</b>                | <b>Other Members</b>  | <b>Primary DENR Staff</b>                       |
|--|--|---|---|
| <b>Mining</b>  | Tex Gilmore                            | George Howard<br>Amy Pickle<br>Dr. Marva Price<br>Dr. Robert Mensah-Biney<br>Dr. Ray Covington    | Janet Boyer                                     |
| <b>Civil Penalty Remissions</b>  | Charlotte Mitchell                     | Jane Lewis-Raymond<br>Jim Womack<br>Dr. Robert Mensah-Biney<br>Charles Taylor                     | Walt Haven                                      |
| <b>Environmental Standards</b>   | George Howard<br>Dr. Ray Covington     | Dr. Kenneth Taylor<br>Charlotte Mitchell<br>Amy Pickle<br>Dr. Marva Price<br>Dr. Vikram Rao       | Walt Haven<br>(Ryan Channell)                   |
| <b>Water &amp; Waste Management</b>  | Dr. Vikram Rao<br>Charlotte Mitchell   | Dr. Kenneth Taylor<br>Charles Holbrook<br>Ivan "Tex" Gilmore                                      | Trina Matta<br>(Katherine Marciniak)            |
| <b>Administration of Oil &amp; Gas</b>                                     | Charles Holbrook<br>Jane Lewis-Raymond | Dr. Vikram Rao<br>Charles Taylor<br>Dr. Ray Covington<br>Ivan "Tex" Gilmore<br>Dr. Kenneth Taylor | Ryan Channell<br>(Walt Haven)                   |
| <b>Rules</b>   | Amy Pickle                             | Charlotte Mitchell<br>George Howard<br>Charles Holbrook   | Walt Haven<br>(Tracy Davis)                     |
| <b>Study Group</b>   | <b>Director</b>                        | <b>Other Members</b>  | <b>Primary DENR Staff</b>                       |
| <b>Funding Levels and Potential Funding Sources</b>                        | Jane Lewis-Raymond                     | Jim Womack<br>Dr. Vikram Rao<br>George Howard   | Walt Haven<br>(Katherine Marciniak)             |
| <b>Local Government Regulation</b>   | Charles Taylor<br>Dr. Marva Price      | Jim Womack<br>Charles Holbrook  | Toby Vinson<br>(Walt Haven)                     |
| <b>Compulsory Pooling</b>  | Dr. Ray Covington                      | Jim Womack<br>Charles Holbrook<br>Charlotte Mitchell  | Layla Cummings<br>(Trina Matta)<br>(Walt Haven) |
| <b>Coordinated Permitting Study Group</b>                                  | Dr. Kenneth Taylor                     | Jim Womack<br>Dr. Ray Covington<br>Dr. Vikram Rao<br>Charles Holbrook<br>George Howard            | Walt Haven                                      |
| <b>Protection of Trade Secrets and Proprietary Information Study Group</b> | Jim Womack                             | Amy Pickle<br>Jane Lewis-Raymond  | Ryan Channell<br>(Trina Matta)                  |

**Figure 1. Commissioner responsibility and primary staff assignments.**