



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: January 1, 2014

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: Neal Robbins, Director of Legislative Affairs
Toby Vinson, Acting Land Quality Section Chief
Walt Haven, Oil and Gas Management Program Supervisor

**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
January 1, 2014**

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 October through December 2013 timeframe.

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

The **Administration of Oil and Gas Committee** convened on October 24, 2013 and deliberated the draft well spacing and drilling unit requirements rules, which define drilling unit characteristics, drilling unit sizes, and horizontal separation distances related to well spacing and unit boundaries. Staff updated the rule set in accordance with Committee input for further deliberation during the November meeting. The Committee also deliberated the draft oil and gas well permitting rules, which will establish standards for permit application requirements. This rule set is continuing to be developed based on staff research, as well as input provided by the MEC's Coordinated Permitting Study Group.

The Administration of Oil and Gas Committee also met on November 21, 2013 and received a staff presentation regarding proposed well site construction standards. The Committee assigned staff to develop a respective rule set which would address requirements for well pads, road construction, erosion control, and other site-specific environmental impacts resulting from well site activities. Additionally, the Committee continued deliberation of the draft well spacing and drilling unit requirements rule set and developed edits for staff to incorporate for the December meeting.

The last meeting of the Administration of Oil and Gas Committee occurred on December 5, 2013, wherein the Committee approved the draft well spacing and drilling unit requirements rule set and formally passed the rule set to the Rules Committee. Additionally, deliberation of the draft well permitting rule set continued and Commissioners provided edits to staff. The Committee also discussed possible requests for legislative changes to oil and gas statutes, in addition to prioritizing the development of future rule sets.

The **Environmental Standards Committee** convened on October 24, 2013 and deliberated the draft setback rule set, which establishes horizontal separation distances between oil or gas wells and other features, such as occupied dwellings, schools, roads, water supply wells, streams, lakes, etc. Proposed standards also define setbacks for holding tanks and storage pits. The Committee provided feedback which staff used to edit the rule set for further Committee consideration during the November meeting.

The last meeting of the Environmental Standards Committee occurred on November 28, 2013, wherein Commissioners approved the draft setback rule set and formally passed the rule set to the Rules Committee.

The **Water and Waste Management Committee** convened on October 24, 2013 and deliberated 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 for unintentional releases of waste material to the environment. Staff used Committee feedback to modify the draft rule set in preparation for the next Water and Waste Management Committee meeting.

The Water and Waste Management Committee also met on November 21, 2013 and continued deliberation of the draft waste management rule set. Additional edits were developed which staff used to update the rule set for presentation during the December meeting.

The last meeting of the Water and Waste Management Committee occurred on December 05, 2013, wherein the Committee approved the draft waste management rule set and formally passed the rule set to the Rules Committee.

The **Rules Committee** convened on October 24, 2013 and deliberated the draft well closure rule set, which delineates requirements for permanent and temporary well abandonment. The Committee provided feedback which staff used to edit the rule set for further Committee consideration during the November meeting. Committee members also discussed variance authority and the potential use of variances as part of overall rule implementation.

The Rules Committee also met on November 21, 2013 and approved the draft well closure rule set and formally passed the rule set to the Mining and Energy Commission.

The last meeting of the Rules Committee occurred on December 5, 2013, wherein Commissioners approved the draft setback rule set and formally passed the rule set to the Mining and Energy Commission.

The **Mining Committee** convened on October 22, 2013 at PCS Phosphate's Aurora Fossil Museum and received presentations from staff related to North Carolina mining statistics, mining enforcement measures, and pending appeals. Additionally, staff provided information regarding changes to DEMLR's organizational structure and pending legislative action. The Committee completed its meeting by receiving a tour of the PCS Phosphate mine and museum.

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** Director, Dr. Ray Covington, formally presented his Study Group's report to the Joint Legislative Commission on Energy Policy (JLCEP) on October 1, 2013. Study Group members had analyzed pooling laws and applications in other areas of the nation, in addition to researching mineral rights, property rights, recording of deeds, and indemnification. Final Study Group recommendations for updating existing compulsory pooling statutes and for implementation of compulsory pooling actions are summarized as follows:

- 1) Compulsory pooling should 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) Establish a requirement that applicants for a compulsory pooling order show that they have made fair and reasonable offers to owners;
- 3) Establish a prohibition on surface disturbances without the consent of the mineral interest owner;
- 4) Establish a requirement for a surface use agreement to be in place prior to filing an application for a pooling order;
- 5) Mandate additional notice requirements to subsurface owners prior to the commencement of subsurface operations;
- 6) Establish additional reporting of production requirements for operators to owners in the drilling unit, including the right to audit;
- 7) Establish time limitations on the pooling order;
- 8) Conduct further study on the issue of amending current dormant mineral statutes regarding extinguishment and other consumer protection issues related to split estates;
- 9) Repeal the current free ride provision of the Oil and Gas Conservation Act, G.S. 113-393(a), and adopt a cost sharing statute that allows the compelled owner to elect from various cost sharing options;
- 10) Establish cost sharing options to 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) Cap the risk penalty at a maximum of 200 percent of costs;
- 12) Establish 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) Implement compulsory pooling such that 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) Provide tort immunity to unleased oil and gas interest owners who are compelled into a pool and do not share in production as participating owners and require 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 **Funding Levels and Potential Funding Sources Study Group** Director, Ms. Jane Lewis-Raymond, formally presented her Study Group's report to the JLCEP on October 1, 2013. The Study Group had 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 and well abandonment. Final Study Group recommendations are summarized as follows:

- 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 regulatory program costs for DENR and DOT after an initial year or two of industry ramp-up.

The **Local Government Regulations Study Group** Director, Mr. Charles Taylor, formally presented his Study Group's report to the JLCEP on October 1, 2013. The Study Group had been working to identify specific regulatory areas of local authority related to oil and gas operations. Research 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 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 **Coordinated Permitting Study Group** convened on October 25, November 22, and December 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 continues to research 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. Group members have received presentations from other permitting agencies within DENR and are also researching permitting processes in other states to analyze how those programs might apply to North Carolina.

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

- 1) 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;
- 2) The coordinated permitting process should involve a coordinated environmental review by various DENR agencies and DOT, with one comprehensive environmental permit being issued; and
- 3) 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 working in coordination with the Administration of Oil and Gas Committee to develop the draft permitting rules. Additionally, the Study Group is planning to submit its draft report to the MEC in January of 2014.

The **Protection of Trade Secrets and Proprietary Information Study Group** convened on October 25 and November 21, 2013. The Study Group includes MEC Commissioners 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.

Additionally, the Study Group is exploring the possibility of establishing a special trade secret review panel, operating under DENR or MEC authority. This panel would be composed of selected DENR Staff, MEC Commissioners, as well as subject matter experts and intellectual property attorneys to assess trade secret claims as requested by industry. The study group is developing its recommendations presuming that the details of the trade secret information would not be possessed or retained by either DENR or the MEC following the panel hearing. The study group is also investigating how trade secret information might be stored using an escrow account or a third party “electronic lockbox” system. Although statutory authority would be needed to implement these concepts, the Study Group believes that doing so would serve to protect industry secrets, while maintaining public trust.

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 October 25, 2013 meeting, the Commission deliberated the draft chemical disclosure rule set and discussed the possibility of implementing a trade secret review panel, as being researched by the Protection of Trade Secrets and Proprietary Information Study Group. Additionally, the MEC passed the draft baseline testing rule set and assigned it for internal completion of remaining edits by staff.

At its November 22, 2013 meeting, the Commission accepted, deliberated, and passed the draft well closure rule set and assigned it for internal completion of remaining edits by staff.

Commissioners continued deliberation and editing of the draft chemical disclosure rule set in preparation for additional discussion during the December meeting.

The last meeting of the Mining and Energy Commission occurred on December 6, 2013, wherein Commissioners continued discussion of a conceptual trade secret review panel and third party database storage for trade secret information. Additionally, the MEC deliberated and edited the chemical disclosure rule set in preparation for final deliberation which is planned for the January 2014 meeting.

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. A meeting was held on November 12, 2013, during which staff presented the well spacing and drilling unit requirements rule set, as well as an updated version of the draft wastewater management rule set. The group generated suggested changes to these draft rule sets, which were provided to the Administration of Oil and Gas Committee and the Water and Waste Management Committee, respectively.

MEC Commissioners continue to participate in local and regional education and outreach programs, in addition to providing information briefings to the Legislature. Specific activities for this quarter included:

- October 1, 2013: Provided the inaugural update on the work of the Mining & Energy Commission for the JLCEP in the Legislative Office Building, Raleigh, NC. Participants included Chairman James Womack, Vice Chairman Dr. Ray Covington, Dr. Kenneth Taylor, Councilman Charles Taylor, and Dr. Vik Rao;
- October 7, 2013: Chairman Womack provided a comprehensive update on MEC milestones and the future anticipated timeline for oil and gas exploration activities in the Sanford Sub-basin to the Sanford area Chamber of Commerce;
- October 9-11, 2013: Chairman Womack traveled to Santa Fe, New Mexico to collaborate with elected officials, representing oil and gas producing counties all across the country, in a symposium on Shale Energy sponsored by the National Association of Counties (NACO). Chairman Womack, the Vice-Chairman of the NACO Energy/Renewables Subcommittee, directed one panel review providing the perspective of an emerging energy-producing county and discussed state rulemaking best practices in another session;
- October 30, 2013: Chairman Womack participated in a WFAE Radio panel discussion on Shale Energy development along with Dr. Robert Jackson, Professor from Duke's Nicholas School;
- October 31, 2013, Commissioner Dr. Taylor (State Geologist) provided an informational presentation regarding North Carolina geology and hydrocarbon potential to the NC Water Resources Congress;
- November 8-10, 2013: Chairman Womack traveled to Bradford County, PA to tour oil field operations, visit with industry representatives, and collaborate with elected officials on rulemaking;
- November 13, 2013: Chairman Womack, Vice Chairman Dr. Covington, and Commissioner Charles Taylor provided a comprehensive update on the work of the MEC and its future milestones for the Environmental Review Commission in the Legislative Office Building; and
- November 21, 2013: Chairman Womack participated in a Moore County League of Women Voters panel discussion on Shale Energy development along with former Senator Ellie Kinnaird, James Robinson from RAFI, and Dr. Ted Feitsans from NC State University. Approximately 200 people attended from all across the region.

DEMLR staff personnel also participated in local and regional education and outreach programs. On October 5, 2013, staff provided presentations on North Carolina geology, hydrocarbon resources, and the current progress of rule development to NC State University's "Encore" continuing education program group. Staff also gave similar presentations on October 8 at the annual NC On-Site Wastewater Conference, as well as on October 31 at the NC Water Resources Congress meeting.

DEMLR's Oil and Gas Management Program continues to support DENR's "Recruiting Exceptional Achievers for Career Horizons" (REACH) internship initiative. Presently, the Program is benefiting from the services of one volunteer intern, who earned a degree in Geology and Biology from UNC- Chapel Hill and is assisting staff with research and rule development.

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.

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

Figure 1. Commissioner responsibility and primary staff assignments.