



North Carolina Department of Environment and Natural Resources

Pat McCrory  
Governor

John E. Skvarla, III  
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: Dr. Vikram Rao  
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, 2015

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 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](mailto:Tracy.Davis@ncdenr.gov).

cc: Mitch Gillespie, Assistant Secretary for the Environment  
Tracy Davis, Director, Division of Energy, Mineral, and Land Resources  
Brad Atkinson, Energy Section Chief, Division of Energy, Mineral, and Land Resources  
Walt Haven, Oil and Gas Management Program Supervisor

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**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, 2015**

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 involved for that purpose. The Act 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 the Act (Section 2.(m)). This report satisfies both of these reporting requirements for the October through December 2014 timeframe.

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

The **Administration of Oil and Gas Committee** did not meet during this quarter due to its completion of initial rule assignments.

The **Water and Waste Management Committee** did not meet during this quarter due to its completion of initial rule assignments.

The **Rules Committee** did not meet during this quarter due to its completion of initial rule assignments.

The **Mining Committee** did not meet during this quarter.

The **Petition for Rulemaking Committee** met on October 17, 2014 to consider a petition from the Blue Ridge Environmental Defense League (BREDL) for the MEC to develop rules for air quality and monitoring. The Committee received presentations from BREDL, the Division of Air Quality (DAQ) and the Division of Energy, Mineral, and Land Resources (DEMLR).

The Petition for Rulemaking Committee met again on Dec. 4, 2014, reviewed information from BREDL, DAQ, and DEMLR, and developed the following recommendations for MEC action:

- a. Deny the BREDL petition due to a lack of statutory authority for the MEC to develop respective rules;
- b. Establish either a new standing committee or study group, or use an existing standing committee to evaluate the following matters on a recurring basis:
  1. Applicability of federal law to air emissions in NC, with specific consideration of wildcatter exemptions and potential exploitation of "legal loopholes" related to such exemptions by operators;
  2. Overlap of federal and state authority in other states regarding air emissions and monitoring;

3. Review of NC's existing air quality regulatory framework for a more detailed analysis as to how the framework applies to oil and gas operations;
4. Review of NC's regulatory framework for addressing both cumulative and episodic impacts to air quality resulting from oil or gas industry activities;
5. Assessment of air monitoring procedures to determine at what point in the development process monitoring should occur (i.e. before, during, or after oil and gas activities);
6. Innovative technologies to reduce air emissions;
7. DAQ's ambient air monitoring program and the sufficiency of the program;
8. Best practices for emission monitoring and control across the country, especially as related to fence line monitoring;
9. Incentive opportunities (i.e. shorter permit application process) for using Best Available Control Technologies and other procedures to reduce emissions;
10. Potential impacts of air emissions based on the source(s) of the emissions;
11. Current MEC rules and the impact of 15A NCAC 05H rule implementation on air emissions (i.e. piping water to reduce truck trips and respective emissions); and
12. Determination of rulemaking or other recommendations that should be provided to the EMC through the MEC.

The **Environmental Standards Committee** held an orientation meeting on December 19, 2014 and discussed the recommendations presented by the Petition for Rulemaking Committee, including strategies to research air quality and air emission concerns related to oil and gas exploration and development. The Committee plans to develop respective rulemaking recommendations for consideration by the Environmental Management Commission.

Activities for MEC Study Groups for this quarter are summarized below:

**The Midstream Infrastructure Study Group** was established on December 5, 2014 and conducted its first meeting on December 19, 2014. Members discussed research requirements under Session Law 2014-4, group organization, and strategies for study completion and reporting.

**The Landman Registry Study Group** was established on December 5, 2014, but did not meet during this quarter. However, DEMLR staff conducted independent research to support study efforts.

**Mining and Energy Commission** activities for this quarter are summarized below:

During the last quarter, Dr. Vikram Rao, Commission Chairman, designated Vice Chairwoman Amy Pickle, Dr. Kenneth Taylor, and Mr. James Womack as Hearing Officers to preside over the Commission's rulemaking public hearings held on August 20, 22, and 25, and September 12, 2014. During October, these Hearing Officers led by Vice Chairwoman Pickle developed responses to public comments and drafted the Commission's Hearing Officers' report.

The Mining and Energy Commission held four meetings during this quarter. During the November 6 and 7, 2014 meeting, the Commission received an update from the Petition for

Rulemaking Committee regarding its October 17, 2014 meeting. Additionally, the MEC reviewed the Hearing Officers' report, and developed draft rule amendments in response to public comments. DEMLR staff compiled proposed amendments into the text of the draft rules for presentation and review at the next meeting.

The Commission convened again on November 14, 2014 and completed its development of amendments, adopted the new "Oil and Gas Conservation" rules (15A NCAC 05H), and repealed the former rules (15A NCAC 05D). Through this action, the MEC met its statutory deadline to adopt rules as established in Session Law 2014-4, Part I, Section 1. DEMLR staff subsequently processed the new rule set and submitted it to the Office of Administrative Hearings (OAH) on November 21, 2014.

During its December 5, 2014 meeting, Commissioners accepted recommendations regarding the BREDL petition for rulemaking from the Petition for Rulemaking Committee. The MEC denied the BREDL petition, but agreed to reconstitute the Environmental Standards Committee to consider the Petition for Rulemaking Committee's recommendations as noted above. Commissioners also reviewed comments received from OAH staff regarding 15A NCAC 05H and discussed DEMLR staff plans for presentation of the rule set before the Rules Review Commission (RRC) on December 17 and 18, 2014. Additionally, the MEC discussed plans for completing a landman registry study and a midstream infrastructure study, in accordance with Session Laws 2013-365 and 2014-4, respectively. Chairman Rao established two new study groups and reorganized the Environmental Standards Committee as follows:

- a. Midstream Infrastructure Study Group membership:
  - 1. Mr. James Womack (co-director);
  - 2. Ms. Jane Lewis-Raymond (co-director);
  - 3. Dr. Kenneth Taylor;
  - 4. Dr. Matt Mathews;
  - 5. Dr. Ray Covington; and
  - 6. Non-MEC members, as invited by the director;
- b. Landman Registry Study Group membership:
  - 1. Dr. Ray Covington (director);
  - 2. Mr. James Womack;
  - 3. Mr. George Howard;
  - 4. Ms. Charlotte Mitchell;
  - 5. Mr. Charles Taylor; and
  - 6. Non-MEC members, as invited by the director;
- c. Environmental Standards Committee membership:
  - 1. Mr. E.O. Ferrell (chairman);
  - 2. Mr. George Howard;
  - 3. Dr. Matt Matthews;
  - 4. Ms. Charlotte Mitchell; and
  - 5. Ms. Amy Pickle.

The MEC held its final meeting on December 19, 2014 and received a briefing from DEMLR personnel regarding their December 17, 2014 presentation of the 15A NCAC 05H rule bundle to the RRC. Commissioners noted that the RRC had approved 107 of the oil and gas rules and that the remaining 13 rules are scheduled for RRC review on January 15, 2015.

Commissioners provided input to DEMLR staff on some of the remaining rules and directed staff to finalize the 13 rules, with Commissioner input as needed, by the deadline for submission to the RRC staff to be included on the RRC's January 15 meeting agenda.

The Commission also discussed schedules and strategies for completing study group work.

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, 2014: Dr. Kenneth Taylor provided the presentation, "Emergency to Oil and Gas Issues – a North Carolina Perspective" to the Guilford County/Greensboro Local Emergency Planning Committee in Greensboro, NC;
- October 10, 2014: Dr. Kenneth Taylor provided the presentation, "Shale Gas 101: Natural Gas Exploration / Development – A North Carolina Perspective" to the North Carolina Society of Surveyors in Raleigh, NC;
- October 11, 2014: Mr. James Womack participated in the Cumberland County Panel Forum on Shale Energy Development at the Cumberland County Library in Fayetteville, NC. He joined other panel members representing NC State University and Clean Water for North Carolina;
- October 23, 2014: MEC Chairman, Dr. Vikram Rao served as a panelist on the "State of Things with Frank Stasio" as part of the program "Fracking in North Carolina, a Balanced View;"
- October 28, 2014: Dr. Kenneth Taylor and the NC Geological Survey's Senior Geologist briefed the DENR leadership team on oil and gas potential in NC;
- December 2, 2014: Chairman Dr. Vikram Rao presented an update on Commission Activities to the Joint Legislative Commission on Energy Policy in Raleigh, NC; and
- December 3, 2014: MEC Chairman, Dr. Vikram Rao was interviewed by News 14 Carolina regarding "Fracking in North Carolina."

DEMLR staff also participated in local and regional education and outreach programs. On October 15, 2014, staff provided presentations on North Carolina geology, hydrocarbon resources, and the current progress of rule development during the Onsite Water Protection Conference in Raleigh, NC. A similar presentation was also provided on October 24, 2014 during the North Carolina Surveyors Workshop at Sandhills Community College in Pinehurst, NC.

DEMLR has maintained its support of the Mining and Energy Commission and has continued taking a leading role in drafting oil and gas rules, as well as providing logistical and organizational support to the MEC. Additionally, DEMLR staff received, organized, and processed over 217,000 public comments related to the Oil and Gas Conservation rules received during the July 15 through September 30, 2014 public comment period. Public comments on the draft rules may be accessed through this website:

<http://portal.ncdenr.org/web/mining-and-energy-commission/public-comments>.

DEMLR has also worked with OAH staff to ensure that 15A NCAC 05H complied with RRC standards, as well as with applicable statutes. Additionally, staff members presented the oil and gas rule bundle to the RRC on December 17, 2014. The RRC approved 107 of the oil and gas rules, and plans to review these remaining rules during its January 15, 2015 meeting:

- 15A NCAC 05H .0704, "Completeness and Request for Additional Information;"
- 15A NCAC 05H .1308, "Permit Conditions;"
- 15A NCAC 05H .1310, "Permit Modifications;"
- 15A NCAC 05H .1404, "Disturbed Land Bond;"
- 15A NCAC 05H .1405, "Environmental Damage Bond;"
- 15A NCAC 05H .1406, "Inspection and Approval of Reclamation for Bond Release or Forfeiture;"
- 15A NCAC 05H .1407, "Bond Forfeiture Proceedings;"
- 15A NCAC 05H .1603, "Variance for Setbacks;"
- 15A NCAC 05H .1613, "Well Stimulation Requirements;"
- 15A NCAC 05H .1804, "Request for Investigation of Water Supply;"
- 15A NCAC 05H .1902, "Surface Water Source Documentation;"
- 15A NCAC 05H .1903, "Groundwater Source Documentation;" and
- 15A NCAC 05H .2003, "Exploration and Production Waste Disposal."

DEMLR's Oil and Gas Program continues to assist the North Carolina Geological Survey (NCGS) in assessing hydrocarbon potential and has helped with rock sample processing, data compilation and plotting, and the technical review of professional conference posters. Additionally, staff teamed with NCGS to set up a booth to advertise North Carolina resources and to network with industry professionals during the North American Prospect Expo in Denver, CO from December 9-12, 2014. Oil and Gas Program personnel have also been working with the NC Geological Survey, the American Association of Petroleum Geologists, the American Petroleum Institute, and other professional organizations to receive cost-effective, in-house continuing education. This instruction has helped staff becoming more technically proficient and has covered topics such as shale lithology, thermal maturity of hydrocarbon-bearing rocks, hydrocarbon fluid migration, well site cementing calculations, and well site safety.

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 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.

<b>Committee</b>	<b>Chair/Vice Chair</b>	<b>Other Members</b>	<b>Primary DENR Staff</b>
<b>Mining</b>	Tex Gilmore	George Howard, Amy Pickle, Dr. Marva Price, E.O. Ferrell, Dr. Robert Mensah-Biney, Dr. Ray Covington	Janet Boyer
<b>Civil Penalty Remissions</b>	Charlotte Mitchell	Jane Lewis-Raymond, Jim Womack, Charles Taylor, Dr. Robert Mensah-Biney	Walt Haven
<b>Environmental Standards</b>	E.O. Ferrell	George Howard, Dr. Matt Matthews, Charlotte Mitchell, Amy Pickle	Walt Haven (Ryan Channell)
<b>Water &amp; Waste Management</b>	Dr. Vikram Rao, Charlotte Mitchell	Dr. Kenneth Taylor Amy Pickle Ivan "Tex" Gilmore	Katherine Marciniak
<b>Administration of Oil &amp; Gas</b>	Jane Lewis-Raymond	Dr. Vikram Rao, E.O. Ferrell, Dr. Ray Covington, Dr. Kenneth Taylor, Ivan "Tex" Gilmore	Ryan Channell (Walt Haven)
<b>Rules</b>	Amy Pickle	Charlotte Mitchell, George Howard, Dr. Vikram Rao, Jane Lewis-Raymond	Robert Josey (Walt Haven)
<b>Petition</b>	Amy Pickle	Jane Lewis-Raymond E.O. Ferrell	Robert Josey (Walt Haven)
<b>Study Group</b>	<b>Director</b>	<b>Other Members</b>	<b>Primary DENR Staff</b>
<b>Funding Levels &amp; Potential Funding Sources</b>	Jane Lewis-Raymond	Jim Womack, Dr. Vikram Rao, George Howard	Walt Haven (Katherine Marciniak)
<b>Local Government Regulation</b>	Charles Taylor, Dr. Marva Price	Jim Womack	Walt Haven
<b>Compulsory Pooling</b>	Dr. Ray Covington	Jim Womack, Charlotte Mitchell	Walt Haven
<b>Coordinated Permitting</b>	Dr. Kenneth Taylor	Jim Womack, Dr. Vikram Rao, Dr. Ray Covington, George Howard,	Walt Haven
<b>Protection of Trade Secrets &amp; Proprietary Information</b>	Jim Womack	Amy Pickle, Jane Lewis-Raymond	Ryan Channell
<b>Midstream Infrastructure</b>	Jim Womack, Jane Lewis-Raymond	Dr. Kenneth Taylor, Dr. Matt Matthews Dr. Ray Covington	Walt Haven
<b>Landman Registry</b>	Dr. Ray Covington	James Womack, George Howard, Charlotte Mitchell, Charles Taylor	Katherine Marciniak

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