



North Carolina Department of Environment and Natural Resources

Pat McCrory
Governor

Donald R. van der Vaart
Secretary

MEMORANDUM

TO: ENVIRONMENTAL REVIEW COMMISSION
The Honorable Brent Jackson, 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: April 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.

cc: Tom Reeder, 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

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
April 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 January through March 2015 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.

The **Water and Waste Management Committee** did not meet during this quarter.

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

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

The **Petition for Rulemaking Committee** did not meet during this quarter.

The **Environmental Standards Committee** met on January 16, 2015 and received presentations from DENR's Division of Air Quality (DAQ) regarding federal air quality regulations, current North Carolina air quality rules, and comparisons of equivalent rules from other states.

The Environmental Standards Committee met again on March 26, 2015 and received additional DAQ presentations about air monitoring procedures and ambient air monitoring requirements. The Committee will continue evaluating the information it has received as it develops its findings for the MEC to consider and, if approved, recommend to the Environmental Management Commission for new air monitoring rules.

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

The **Midstream Infrastructure Study Group** met on January 12 and 26, as well as on February 9 and 23, 2015 and completed its report for transmission to the Legislature. The Study Group developed the following recommendations:

- a. Upstream development activity should be legislatively promoted by:
 1. Passing the MEC's rules for oil and gas development;

2. Providing modest funding to support core drilling and rock sampling in targeted areas of the state for which there is evidence of hydrocarbon deposits;
 3. Ensuring industry interest in exploring for oil and gas in North Carolina is vigorously assisted.
- b. The Department of Commerce and its regional economic development partners should gather relevant project information from midstream companies in the Marcellus, Utica, and Fayetteville shale regions of the country for future project planning purposes;
 - c. State government should strategize where processing and fractionation facilities might best be sited and begin recruiting for that purpose, independent of the ongoing exploration and development efforts;
 - d. The state should help plan and facilitate the integration of gathering systems and processing facilities into planned future transmission and distribution pipelines; and
 - e. NC should postpone legislation or rule development to extend or modify current pipeline safety rules to account for gathering lines, until the Pipeline and Hazardous Materials Safety Administration (PHMSA) has completed its latest round of respective rulemaking.

The Landman Registry Study Group met on February 9 and March 20, 2015 and completed its report for submission to the Legislature. The Study Group developed the following findings and recommendations:

1. The current landman registry contains no standards for registration, and anyone can register as a landman in North Carolina. As a result, the current registry may provide a false sense of security to landowners of the landman's qualifications and expertise, as well as the landman's authority to solicit leases in North Carolina;
2. A disclaimer should be added to the Department's registry webpage to inform the public that the registry is not a verified/vetted/endorsed registry;
3. The definition of "landman" should be modified based on the definition in Pennsylvania, which has been recommended by AAPL, so as to most accurately describe the responsibilities and services of landmen. PA has defined the term as follows, "...the term "landman" means a land professional who has been engaged primarily in (i) negotiating the acquisition or divestiture of mineral rights, (ii) negotiating business agreements that provide for the exploration for or development of minerals, (iii) determining ownership of minerals through research of public and private records, (iv) reviewing the status of title, curing title defects, and otherwise reducing title risk associated with ownership of minerals, (v) managing rights or obligations derived from ownership of interests and minerals, or (vi) activities to secure the unitization or pooling of interests in minerals;"
4. The Landman Registry should be removed from DENR and placed under the authority of the North Carolina Real Estate Commission. The Real Estate Commission is the regulatory agency for the State of North Carolina that is charged with licensing and regulating real estate brokers and has experience in regulating land and lease transactions which is not within the expertise of DENR;
5. A provision should be added to the existing landman statute, G.S. 113-425, to make it clear that a material violation of the statute, including but not limited to the false representation that one is a registered landman, or the engaging in any fraud, deception, material misrepresentation, or knowing omission certification of

material facts related to oil or gas interests by a landman may constitute an unfair and deceptive practice in violation of G.S. 75-1.1, which may be enforced by the Attorney General. While existing statutory law under Chapter 75 provides for this authority, the addition of this statutory provision would make clear the Attorney General's authority to obtain injunctive relief and other remedies in instances of material violations by landmen;

6. The Real Estate Commission authority should include the ability to remove an individual from the registry;
7. There should be a landman application and an annual renewal fee required. The fee should be appropriate depending on the level of oversight provided by the Real Estate Commission;
8. The Real Estate Commission should require that a landman disclose his or her credentials at time of leasing/negotiations and identify to the landowner where he or she may inquire in case of questions or complaints on the landman;
9. Require a landman to obtain and maintain a certain level of an independent and nationally recognized membership in a landman organization that requires continuing education for its members. The Real Estate Commission should have the authority to approve the organization and their educational requirements;
10. Allow the Real Estate Commission to waive registration requirements and approve a landman based on other registrations, licensure, or equivalent education or experience he or she may have; and
12. It would be beneficial for model lease documents to be made available to landowners. To that end, the legislature may want to consider directing the Consumer Protection Division of the Attorney General's Office to explore, in conjunction with the NC Cooperative Extension Service, and other interested parties, whether model lease documents can and should publicly be made available to landowners.

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

The Mining and Energy Commission held three meetings during this quarter. During the January 16, 2015 meeting, the Commission received Committee and Study Group updates, along with an informational presentation from DEMLR staff regarding the Rules Review Commission's approval of the 15A NCAC 05H rules.

The Mining and Energy Commission met again on February 25, 2015 and reviewed the Midstream Infrastructure Study Group Report, as well as recommendations developed by the Landman Registry Study Group. The Commission also made plans to discuss and develop a list of rule changes and new statutory recommendations during upcoming meetings.

The Mining and Energy Commission held its final meeting of the quarter on March 26, 2015 and received an update from the Environmental Standards Committee on its research of air quality concerns and recommendations for respective rule development for consideration by the Environmental Management Commission. The Commission also reviewed the final Landman Registry Study Group report and discussed regulatory matters related to the above ground storage of wastewater at oil and gas sites. Commissioners discussed possibilities of future oil and gas rule development, as well as suggestions for statutory changes, which included:

- a. Possible statutory change for GS 114-423(f) to require reporting of testing results within 30 days of receiving analytical results;
- b. Need for statutory clarity regarding the terms, timing, and extent of the environmental damage bond (GS 113-421(a3)(2));
- c. Statutory clarity to allow DENR to issue a “stop work” order;
- d. Changing GS 114-421(a2) to require that bonds related to surface reclamation run to NCDENR, not to a surface owner; and
- e. Changing GS 113-423(f) to require an operator to identify the location of water supplies before baseline sampling occurs.

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:

- January 28, 2015: Dr. Vikram Rao gave a Distinguished Lecture at Baker Hughes, Inc, in Houston, TX on *Innovating During a Downturn*;
- January 30, 2015: Dr. Kenneth Taylor provided a presentation on NC geology and hydrocarbon resources to students and faculty at Appalachian State University;
- February 5, 2015: Ms. Jane Lewis-Raymond spoke to Leadership North Carolina regarding shale development, and provided a general overview of Commission activities and respective rule development;
- February 5, 2015: Dr. Kenneth Taylor and Mr. James Womack participated as panel members to discuss natural gas exploration and development with the North Carolina Association of City and County Managers;
- March 2, 2015: Dr. Vikram Rao gave a lecture in a course at the University of Houston, TX on *Shale Oil and Gas: Process, Risks and Rewards*;
- March 3, 2015: Dr. Kenneth Taylor provided a presentation on NC geology and hydrocarbon resources to the NC Association of Soil and Water Conservation Districts in Fletcher, NC;
- March 4, 2015: Dr. Kenneth Taylor provided a presentation on NC geology and hydrocarbon resources to the NC Association of Soil and Water Conservation Districts in Mocksville, NC;
- March 5, 2015: Dr. Vikram Rao moderated a panel at The Indus Entrepreneurs (TiE) in Houston, TX, on *Innovating During a Downturn*;
- March 25, 2015: Dr. Vikram Rao, moderator/panelist on a panel *Using Data to Change Behavior* in the conference Data4Decisions in Raleigh, NC;
- March 27, 2015: Dr. Kenneth Taylor provided a presentation on NC geology and hydrocarbon resources to students and faculty at Sanford Community College.

DEMLR Oil and Gas Program staff also participated in local and regional education and outreach programs. On January 15 and February 20, 2015, staff provided presentations on North Carolina geology, hydrocarbon resources, and the potential for onshore and offshore exploration and development to U.S. Coast Guard officials in Morehead City and in Wilmington, NC, respectively. Additionally, staff provided a briefing to the North Carolina Sedimentation Control Commission on February 5, 2015 regarding the 15A NCAC 05H rules and Program organization. Program personnel also provided a presentation on NC oil and gas rules at Sanford Community College on March 27, 2015.

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.

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 the NCGS to set up an informational booth to provide scientific information on North Carolina resources and to network with industry professionals during the North American Prospect Expo (NAPE) in Houston, TX from February 10-13, 2015 and during the Annual Property and Prospect Expo (APPEX) in London, UK from March 2-5, 2015. Various oil and gas company representatives attending NAPE and APPEX expressed serious interest in developing a consortium with the State of North Carolina to further evaluate the state's hydrocarbon resources. The development of a joint state-industry partnership is consistent with the Governor's proposed budget for fiscal year 2016.

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. These instructional sessions have helped staff to become more technically proficient and have covered topics such as shale lithology, thermal maturity of hydrocarbon-bearing rocks, hydrocarbon fluid migration, well site cementing calculations, and well site safety. Additionally, Oil and Gas personnel received formal training through DEMLR and the Water Resources Research Institute of the University of North Carolina System (WRRRI) on sedimentation and erosion control practices and rules on February 11-12 and again on March 10, 2015.

Finally, DEMLR's Oil and Gas Program hired Mr. Chandler Warner, EI to fill the role of Program Engineer. Mr. Warner is successfully working toward PE licensure and has prior experience with construction site management and with DENR's Public Water Supply Section.

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.

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

Figure 1. Commissioner responsibility and primary staff assignments.