These notes combine actions of Committee meetings (Oct 24) and Mining & Energy Commission meeting (Oct 25, 2013)

Chair, James Womack (Lee County Commissioner)
All members present, including new appointee, Errell O. Ferrell III (former Senior VP of Electrical Distribution, Duke Power)

(1) No good choices for disposal of used frack fluids, maybe dump in ocean?; (2) How big is a drilling unit?; (3a) Setbacks from buildings, no "good" science; (3b) Law says 5,000-ft. presumptive liability for contamination of water wells and baseline testing protocols...should this be reduced to 1,000-ft. and what about monitoring wells? Rule passes; (4) Can't "legally" grant variances to rules; (5) Trade Secrets and Chemical disclosure remain hot topics

1. **Water and Waste Management Committee; Chair, Dr. Vikram Rao**.

After fracking is finished, how do you dispose of the leftover wastewater? Options are
(a) Class II deep well injection [illegal in NC and opposed by Committee];
(b) get an NPDES permit for dumping in ocean;
(c) clean up enough for release to municipal wastewater treatment (POTW) facilities, or
(d) land application of final sludge [Rao against sludge; no state allows and huge liability issue].

New section of waste management rule would require the operator to test the flowback waters prior to "sending" them anywhere for disposal. This test includes a long list of normal water test parameters, and many metals, radioactivity, chlorides and organics. These "left-over" waters/sludge could be transported to a permitted facility; or sent out of state; or disposed in accordance with G.S. 143.215.1, which gives EMC and DENR full authority over permits, pollution controls and release to state waters. That last citation places emphasis on DENR's waste management protocols, even though, as pointed out, *DENR doesn't actually deal with these types of industrial fluids*. Rao said final quantities would actually be small: about 15% of total flowback is leftover at very end of fracking process. Key unknown is EPA's rule set, expected in 2014, that will identify the components in areas of concern. Womack said industry should be "on board" with testing of these end-of-process waters/sludge...no other states require. Rao indicated that everyone should know what's in this waste. More discussion on this 20-page rule at November meeting. Public comment: Rule should prohibit spreading this toxic sludge or roads for winter de-icing.

2. <u>Oil and Gas Administration Committee;</u> Chair, Charles Holbrook.

Initial review of "Well Spacing and Drilling Unit Requirements" rule. First problem, defining "acreage" of a drilling unit. Ken Taylor said wells should be drilled on a tract *[a drilling unit]* containing a minimum of 640 acres of contiguous land, citing the efficiency argument enshrined in current state law. Holbrook said need a "variance" for a smaller acreage that might be squeezed around other drilling units. Holbrook said operators need to determine "their own" drilling unit acreage: For instance a 640-acre block will not be a square, and could, theoretically, be 1000-ft. wide and 5-1/4 miles in length. Vik Rao said the larger drilling unit acreage will likely result in **more compulsory pooling**. This rule is concerned with how "close" operators can be to each other. What is the measuring point the operator will use? The well head [could be multiple well heads marching in a line down a well pad]; or the well pad boundary, which can cover several acres. Agreement that no portion of a wellbore trajectory <u>may be less than 500 horizontal feet</u> from any drilling boundary line [OH is 500-ft.; CO is 600-ft.; PA is 330-ft. but 2,000-ft. from "producing gas" properties]. Rao said need to set a distance between vertical frack lines as well to insure that one drilling unit does not drain a neighboring drilling unit. DENR had suggested a 500-ft. drilling distance from diabase dikes, sills or faults...<u>Holbrook deleted this from rule</u>: diabase dikes not a concern to him. However, he retained another DENR addition that well spacing should not conflict with a spacing or "pooling" order. Began work on "permitting" rules drafted by staff.

3. <u>Environmental Standards Committee;</u> chair, George Howard.

(a) **Setback Distances** rule (measured from center of wellhead, and/or production facility, tank battery, or closest edge of pits):

500-ft. from occupied dwellings and high occupancy buildings *[dwelling owner can seek waiver to reduce distance, but not high-occupancy buildings]*

100-ft. from edge of public road, highway, utility or railroad track right-of-way; stream, river, watercourse, pond, lake, [floodplain?]

300-ft. from wetlands, trout streams

500-ft. from private water supply well

Discussion on adding 100-yr. floodplain to rule, and DENR suggested buffering the centerline of the floodway by another 100-ft. Womack: Just prohibit wellpads in floodplain; CO recent experience of flooding in 100-yr. storm. Jane Lewis-Raymond said the press magnified CO disaster; EPA says amount of gas/oil spilled was actually 40,000 gallons less than reported vs. huge amount of raw, untreated sewage that was dumped. Howard said should ask DENR to provide info on floodways to inform the addition of floodplain to the rule. Pickle also wanted to hear why DENR objected to stakeholder recommendations that asked for setbacks: (i) from structures occupied by animals, (ii) from property boundaries outside the leased drilling unit,

(iii) requirement to record a setback "waiver" (if granted) with Register of Deeds; (iv) whether local governments could allow larger setbacks for nursing homes, daycares, schools. Womack wants "health and safety" justification for set-backs...Howard said that language is not explicit in the statute, therefore not required. Others said few "specifics" on setback distances: there is no magic number with a weight of scientific evidence. Womack said might want to consider that set-backs provide protection for well blowout.

On granting waivers and variances. Pickle said rule needs to spell out specifics that would allow a "waiver" from 500-ft. to 250-ft. for dwelling, she will research. If MEC is granted variance authority by Legislature, operator could also apply for variances to reduce set-backs from stream, river, watercourse, pond, lake or other water bodies.
Public Comment: Variances a problem, what protects surface owners? Define the owner, if split estate? Why grant a variance on surface water protections? Should have 1,000-ft. setback from private water wells, not less. Air quality protection from emissions still not considered anywhere in these setbacks.
FACT: There are 9,000 acres in the Triassic basin, per State Geologist,
FACT: Lee County has now recorded 9,128 acres as split estates (different Mineral owner than Surface owner).

b) **Baseline and Subsequent Testing** rule.

Background: Holbrook has argued that MEC should ask the Legislature to change the law and reduce the current 5,000-ft. "presumptive liability" requirement to 1,500-ft....or less. This "presumptive liability" distance applies to all water wells within that radius that are subject to baseline testing protocols to test for any "future" contamination. Womack: This is a legal issue, not environmental issue. The Legislature "chose" 5,000-ft. because it is the length of a frack line. Howard is hesitant to ask Legislature to make this change. Holbrook says 5,000-ft. has no scientific or practical basis, and even with a 1,500-ft. "presumed liability" distance from a gas well, the geometry will involve multiple operators who intersect those same water wells. Womack said there is no evidence of "frack fluid percolating to surface;" the problem is surface spills. Womack got some feedback from a chemist and driller who agreed an alternative approach should be to require monitoring wells at groundwater depth around the wellpad, and test at greater frequency, which would also capture information on surface spills. Attorney Gen. officer, Jennie Hauser, said only new Legislation can reduce the 5,000-ft. requirement: It cannot be done by variance. Holbrook liked monitoring wells, and wants distance for private well water testing reduced to 1,000-ft. from gas well...too much expensive private water well testing is "onerous" to the industry. Howard said the Committee could add monitoring wells to the rule. Amy Pickle said the law requires 5,000-ft. for well testing as well as the "presumptive liability"...she said that legal standard should stay in place, and this testing regimen is part of the industry's business decision. Jane Lewis-Raymond said gas

industry best practices (whether or not regulated by a state) include baseline testing of water wells. She said to keep it, and write a second rule concerning Groundwater Monitoring wells. Womack wants an "out" from the 5,000-ft. testing requirement and prefers an either/or option to include monitoring wells. Pickle asked if the monitoring wells cover the same scope of tests (lots of chemicals and metals) that the committee has outlined in the rule; needs fuller understanding. Howard said wants to hear from the experts, perhaps a public hearing, and get DENR support on this. There are currently monitoring wells associated with limestone mining in NC, looking at draw-down impacts. Tracers: Cannot substitute tracers as an alternative to follow-up well-water testing, but if operator uses them, it can eliminate their liability if contamination occurs. The rule would include a section that allows use of DENR "approved" tracers. This addition was passed unanimously, even though Holbrook wants Womack to pursue a Legislative change to 5,000-ft. "presumptive liability."

MEC voted Oct. 25 to approve the ***Baseline and Subsequent Testing*** *rule set, as modified for Tracers, and return to staff.*

The 5,000-ft. "presumptive liability" stands unless/until changed by Legislation.

Staff to construct alternative rule for use of monitoring wells.

[*NOTE: Womack plans to take this request about reducing the 5,000-ft. regime to the December meeting of the Joint Legislative Committee on Energy].*

3. **Rules Committee; chair, Amy Pickle**.

   "Variance" is an issue appearing in many of the draft rules. MEC does NOT have "authority" to give a variance, must be granted by statute. And, if either MEC or DENR are given that "variance" authority, rules must contain the criteria for each instance. Attorney General's staff said if DENR is to be given authority for specific variances, it must be granted by statute...it is not *carte blanche* for all MEC rules. More discussion on whether "health and safety" conditions can be imposed since NOT specifically cited by statute...Womack's point of contention.

4. **Trade Secrets and Chemical Disclosure**.

   Womack is heading up the rewrite of "trade secrets" rule, hopefully by end of year Three issues: Get statutory authority to create panel and "remove" DENR from executive responsibility to "receive" Trade Secrets; timeframe; environmental concerns.

(a) Create quasi-judicial Trade Secret panel (subset of MEC) to allow non-disclosure. Womack: Industry presents its case and evidence for keeping something a Trade Secret, panel makes decision. Per Ken Taylor, must have subject matter experts, like chemists. Rao, need attorney who knows this industry. What qualifies MEC to vet this? Pickle says panel must include subset of MEC, plus advisors, and DEMLR (Division of DENR). Where would appeal go?

Womack says, NC Business Court. Attorney General staff said all MEC decision appeals will go to Administrative Hearings. Womack: Wants to limit abuse of Trade Secret provision, and give someone in State authority the power to review if new "additive" more environmentally sound. Trade Secret provisions would only apply if fluid is "new" or "proportions" change since drillers currently only get 30-40% efficient yields from fracking and they are trying find a recipe to raise that efficiency...their secret sauce. Howard: the rule was written to reveal proportions and everything but caste number...Womack wants Trade Secret to withhold concentration numbers. Howard: Could it also hide toxicity...that is how it will look to public. Womack: If someone presented toxic stuff, that would be an issue and depend on OSHA rules and DWR rules. Ken Taylor said Arkansas requires caste number.

(b) Timeframe. Give a Trade Secret exemption, then what happens? Write the Statute so the Company must maintain records for xx years, and provide a method for data recovery if/when company goes out of business. *[NC has experience with PCB contamination and polluting companies going out of business.]* Or establish an escrow, since DENR NOT want to handle any Trade Secrets. This escrow would function as an electronic lockbox, and could be made available to emergency authorities. Local landowners get no protection here.

(c) Environmental concerns. OSHA has their MDS standards and datasheets for chemical components. Womack: Once chemicals go into the mix with enormous volumes of water and proppants (sands) they are no longer in concentration and, therefore, not under EPA rules. However, surfactants return immediately to the surface in quantities and blobs. Womack: This stuff not a major hazard in future.
Amy Pickle: Two issues are Trade Secrets' claim adjudication, and where this information is kept in a physical space (DEMLR's office?). Womack wants the Panel and then escrow the records. She said contrary to DENR's contention, Trade Secrets should be available in-house, because of unknown future reasons when those documents are needed.
NOTE: Public Comment portion was midway through meeting, and BEFORE discussion of the actual rules. Womack said he would allow "some" public comment after Rules discussion...we will hold him to that.

Public Comment: Remember that this industry is LESS than 10-years old; Require monitoring wells around waste pits and well; Documented evidence shows that wellbores leak; 5,000-ft. testing baseline should be kept since contaminants have actually migrated over 3,000-ft.; the 500-ft setbacks are inadequate for air emissions of hydrocarbons, and short-term exposure impacts lungs; other airborne chemicals affect skin and nervous system; there will be radioactive waste from drilling, not just fracking fluid; NC has more coal ash ponds that any other state, and more spent nuclear fuel rods than any other state...just creating more toxic waste.

Diana Hales, retired