

**Meeting Minutes of the Water and Waste Management Committee of the  
North Carolina Mining and Energy Commission  
July 25, 2013**

**1. Preliminary Matters**

Committee Chairman Dr. Vik Rao called the meeting to order at 8:32 a.m. He read the ethics statement and asked Committee members whether or not they had conflicts of interest with respect to any action items on the agenda. None were expressed.

The following personnel were in attendance for all or part of the meeting:

**Committee Members**

Dr. Vik Rao (Chair)  
Ivan "Tex" Gilmore  
Charles Holbrook  
Charlotte Mitchell  
Dr. Kenneth Taylor  
Amy Pickle

**Attorney General's Office**

Jennie Hauser

**DENR Staff Members**

Trina Ozer, Office of the Secretary  
Layla Cummings, Office of the Secretary  
W.E. "Toby" Vinson, Division of Energy, Mineral and Land Resources (DEMLR)  
Walt Haven, DEMLR  
Katherine Marciniak, DEMLR  
Ryan Channell, DEMLR  
Rosalind Harris, DEMLR  
Debra Godwin, DEMLR  
Don Rayno, Division of Water Resources  
Ellen Lorscheider, Division of Waste Management  
Evan Kane, Division of Water Quality

**Others in Attendance**

Refer to the meeting sign in sheets (attached to these minutes).

## **2. Approval of Minutes from Last Meeting**

Dr. Taylor made a motion to adopt the minutes from the last meeting. The motion was seconded by Mr. Gilmore and passed by unanimous vote.

## **3. Stakeholder Group Feedback on the Draft Wastewater Rule Set-** Ms. Trina Ozer (see attached document)

Ms. Trina Ozer reviewed a list of stakeholder comments related to the draft wastewater rule set. Stakeholder concerns were then addressed by the Committee during the following wastewater rule discussion.

## **4. Draft Wastewater Rule Discussion** - Ms. Trina Ozer (See attached presentation)

The Committee discussed the current draft of the rule set and the comments and revisions that were presented from the stakeholder group. Some of the stakeholder group's recommendations were:

- The stakeholders wondered how "contamination" was defined for the purposes of the rule set. Dr. Taylor stated that naturally occurring drill cuttings are not inherently contaminated. However, if drilling is performed with oil-based fluids, it would be considered contaminated. Chairman Rao asked staff to further review this item and report back to the Committee at the September meeting.
- The stakeholders recommended that a professional engineer's certification should not be required for the Wastewater Management Plan.
- They suggested adding in specific requirements for the plan, similar to those required for the Water Management Plan.
- Regarding the requirement on lines 25 and 26 of page 6, for the operator to provide a berm around a pit to prevent stormwater flow from entering the pit, the stakeholder group wondered how a hurricane would affect the berm requirement. The group felt that the MEC should give consideration to whether or not these requirements would be sufficient in the case of a flood or hurricane, and if not, what are the plans for dealing with extreme weather events, particularly if you're in an area that is at a high risk of floods? What would happen in the case of a 500 year storm?
- The rule should more clearly prioritize reuse of water. Dr. Rao stated that he would also include this item in his report.
- More specificity of re-vegetation requirements for pit reclamation may be needed. The Committee recommended that equivalent rule language from the Mining Program and the Erosion and Sedimentation Control Program be used for this portion of the rule set.

The Committee also discussed the following topics:

- What regulations will be in place to properly maintain a pit that is to be left in place longer than allowed in the current version of the rule set (six months)? Ms. Marciniak stated that staff

would look into preparing some regulations to address this issue. Dr. Rao stated that, when writing the regulations, staff should consider how long a pit could be kept open safely and what other states are doing.

- The Committee discussed the use of water-based drilling fluids versus using oil-based fluids. Dr. Rao stated that he would like for the rule to specify the use of water-based drilling fluids only.
- Ms. Mitchell requested that the EPA's Spill Prevention, Control, and Countermeasure (SPCC) guidance be included to address spills.
- The Committee requested that staff add requirements for chain of custody to date and time to all areas requiring a signature for transportation and disposal of wastes.
- The Committee noted that most other states require fencing around open pits and agreed with an eight-foot fencing requirement.
- The Committee agreed that requirements for monitoring wells should be reconsidered, as the draft rules already require leak detection systems. Dr. Taylor stated that installing monitoring wells would also require specifics concerning the installation of the monitoring wells and suggested using similar standards as implemented by Division of Water Quality for landfills.
- The Committee agreed that the rules should have provisions for pits and tanks, as well as possibly requiring pits or closed-loop systems in certain areas, such as in areas near schools or other sensitive locations.
- Dr. Rao mentioned disallowing deep disposal or injection of waste fluids. He stated that the water should be re-used whenever practical and questioned how re-used water needing to be disposed of should be handled.
  - Dr. Rao asked Dr. Taylor to provide a short summary paper on the geological perspective of underground injection in North Carolina.
  - Dr. Taylor spoke about a treatment process that treats water and results in the production of steam and salts (plasma jet method). He stated that North Carolina already has an Underground Injection Control Program. He noted that under existing North Carolina law, all groundwater is considered a potential water supply source. Thus, underground injection into an aquifer should be avoided. Further, he stated that he does not recommend deep well injection into fractured bedrock in North Carolina due both to known areas of seismicity and to areas that are in need of further research.
- Ms. Pickle questioned (1) what treatment systems exist? (2) how do they work? (3) what residuals are left after treatment? She also noted that there are potential conflicts between draft waste management rules and the current NPDES requirements.
  - Dr. Rao stated that he would produce a paper regarding these questions. Further, he stated that the Committee should not disallow a given treatment technology until the remaining option was fully investigated. He informed the Committee that deep well injection of waste is "perfectly safe" if the host rock is suitable and if proper pre-treatment and other preparation occurs first.

- Ms. Pickle stated that rule language needed to be clarified regarding requirements for disposal to define “appropriate” standards in draft Rule Section 15A NCAC 05H .XXX6.
- Dr. Taylor advised the Committee that there are four classes of oil and gas emergencies under existing law: Level 4 requires a report to the County regarding the routine spill on private property; however, spills of hazardous materials also require a report to State Emergency Management. Level 3 requires a telephone call to State Emergency Management if the spill occurs on State, Municipal or private property. Level 2 requires a telephone call to State Emergency Management if there is loss of well control that results in spills, but flammable ignition has not occurred. Level 1 also requires a telephone call to State Emergency Management if there is loss of well control resulting in a fire on site. Further, Dr. Taylor volunteered to work with staff to clarify spill response requirements.

## **5. Public Speaker Comment**

Therese Vick with Blue Ridge Environmental Defense League addressed the Committee regarding her concern about allowing underground injection of waste fluids. She stated that allowing this procedure to occur would also encourage industry to transport fluid waste from other states and inject it in North Carolina. She recommended that such practices not be allowed.

Martha Girolami expressed her concern about wildlife exposure to open pits and that careful management should be required to protect them. She also explained that other industries hold waste fluids in closed tanks. Ms. Girolami stated her concern about the potential for cleaning products to be washed into holding pits.

George Mathis with River Guardian Foundation stated that DENR has already looked at a spill reporting standard for wastes of 25 gallons or more. He suggested looking at swine lagoon standards for drafting rule language related to oil and gas industry pits.

## **6. Concluding Remarks**

The Committee asked staff to update the current rule draft based on this meeting’s discussion and provide it for discussion in time for the September 5, 2013 meeting.

The next meeting was scheduled for September 5, 2013.

The meeting adjourned at 10:24 am.

**DENR Staff Contact for this Committee: Trina Ozer, Policy Analyst, Secretary’s Office**