

**Meeting Minutes of the Water & Waste Management Committee of the
North Carolina Mining and Energy Commission
May 31, 2013
8:30 am – 10:30 am**

I. Preliminary Matters

1. Call to Order and Notice of NCGS 138A-15

Committee Chairman Dr. Vikram Rao called the meeting to order at 8:30 am. 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. Chairman Rao invited members of the public who wished to formally address the Committee to sign their names to the “public speakers” sign-in sheet.

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

Committee Members Present

Dr. Vikram Rao, Chairman
Ms. Charlotte Mitchell, Vice Chair
Dr. Kenneth Taylor
Ms. Amy Pickle
Mr. Charles Holbrook

Committee Members Absent

Mr. Ivan “Tex” Gilmore

Attorney General’s Office

Mr. Frank Crawley

DENR Staff Members

Trina Ozer, Office of the Secretary
Tracy Davis, Division of Energy, Mineral and Land Resources (DEMLR)
Walt Haven, DEMLR
Katherine Marciniak, DEMLR
Ryan Channell, DEMLR
Rosalind Harris, DEMLR

Others in Attendance

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

2. Approval of Minutes from April 4, 2013 Meeting

Dr. Kenneth Taylor made a motion to approve the minutes for the April 4, 2013 meeting and Ms. Amy Pickle seconded. The motion passed.

II. Information Item

1. Wastewater Injection Considerations in North Carolina – Thomas Slusser, DWQ

(See attached document)

Mr. Slusser presented an overview of the Underground Injection Control (UIC) Program in North Carolina. The Committee discussed geologic and economic conditions needed to install and operate UIC wells in the coastal plain.

**Meeting Minutes of the Water & Waste Management Committee of the
North Carolina Mining and Energy Commission
May 31, 2013
8:30 am – 10:30 am**

III. Action Items

1. Description of Draft Exploration and Production Waste Management Rule Set – Katherine Marciniak, DEMLR

Ms. Marciniak presented the Chair's Mark of the Exploration and Production Waste Management rule set and facilitated Committee discussion.

The Committee discussed making the following changes to the document:

- A professional engineer should draft plans for all features constructed onsite to ensure pits and tanks are designed with adequate capacity;
- Clarify in section 4(b)(1) that a well operator must comply with all setback distances as a minimum requirement for site construction and should maximize distances from certain features within the site;
- Define "all polluttional substances" in section 4(b)(2) and incorporate volume of substances;
- Establish the origin for two feet of freeboard in pits;
- Research the need to determine and track freeboard violations and whether or not backup tanks or emergency pits should be required;
- Establish the origin for requiring the base of pit liners to be 20 inches above the seasonal high groundwater table;
- A professional engineer should be required to design closed-loop systems (section 4(e));
- Change "provide protection" to "functional equivalent" in section 5 (a) and throughout rest of document;
- Define water based drilling fluids and muds in the definition section;
- Add language to rule set describing that the processes outlined in section 6 (a)(1) through (4) occur after some level of treatment, followed by disposal;
- Remove section 7 from the rule set; and
- Add a placeholder for a rules/section addressing "Disposal of Flowback and Produced Water."

The following items were assigned to staff:

- Complete an economic analysis comparing the use of storage tanks versus storage pits to establish potential incentives for well operators to use tanks for retaining fluids on site;
- Determine how freeboard and tank issues are managed in other DENR Divisions;
- Incorporate the leak detection language, section 4 (6)(ii), into the Administration of Oil and Gas construction standards;
- Contact industry representatives to determine the preferred method of waste disposal between reuse and UIC wells;
- Determine the information needed to draft rules that address reuse and UIC wells;
- Determine disposal options once drilling is complete and reuse is no longer an option; and

**Meeting Minutes of the Water & Waste Management Committee of the
North Carolina Mining and Energy Commission
May 31, 2013
8:30 am – 10:30 am**

- Determine if municipal wastewater treatment plants can accept flowback and production water from oil and gas wells, and if so, determine requirements for pretreatment. In addition, determine whether existing wastewater facilities are designed to accommodate the increased wastewater volumes.

IV. Additional Information Item

1. Public Comment

No public comments were made.

V. Concluding Remarks

The Chairman discussed the “Place marker for a rule set regarding disposal” document and options requiring reuse in the rule set. He noted that he intended this simply as a document for staff to start thinking about this rule, and said that discussion of the draft rule will continue at the next meeting.

8. Adjournment

The Water & Waste Management Committee adjourned the meeting at 10:21 am.

DENR Staff Contact for this Committee: Trina Ozer