

December 16, 2010

Ellen Lorscheider
DENR Division of Waste Management
Solid Waste Section
1646 Mail Service Center
Raleigh, NC, 27699

RE: Proposed Rule Changes

Dear Mrs. Lorscheider:

This letter presents the comments from the technical group meeting held on December 2, 2010 with representatives of the North Carolina Division of Solid Waste regarding the proposed changes to the groundwater monitoring section of the North Carolina Solid Waste Management Rules .1632-1635 and .1637. The following individuals participated in the meeting: Mark Poindexter, Ervin Lane, Donald Herndon, and Ellen Lorscheider with the North Carolina Division of Waste Management; Kathryn Jolly with Rowan County; Joan Smyth with RSG; Van Burbach with JEI; Charles Hiner and Rachel Kirkman with Golder; and Seth Ramaley with Waste Management.

The following are comments to the specific rule changes as discussed in the meeting:

- A. **13B. 1632 (e):** The group recommended that this paragraph be used to clarify that the Department would approve background levels for a site established using statistical analyses that are described in sections (f) through (j). The proposed text removal is to clarify that the use of intrawell statistics to determine background levels that would be well-specific and not a function of upgradient or background wells is an acceptable option. Upgradient or background wells are part of the interwell statistical method. By referencing sections (f) through (h), the text accounts for both intrawell and interwell statistics to derive background values. Added reference to Rule .1631(a)(1) is added because it discusses establishing background utilizing wells that have not been affected by the landfill unit.

Recommendation: The following text is proposed: “The owner or operator shall establish *Division approved* background groundwater quality *in accordance with Rule .1631(a)(1) and Rule .1632(f) through (h)* ~~in hydraulically upgradient or background wells~~ for each of the monitoring parameters or constituents required in the particular groundwater monitoring program that applies to the MSWLF unit.”

- B. **13B. 1632(f) though (h):** The group discussed this change in the meeting and requested that these sections be retained so that there is clear guidance on which statistical methods are acceptable.

Recommendation: The group requested that the regulations remain as written, except as discussed below.

- C. **13B. 1632(g):** The group discussed whether statistics should be required or optional to evaluate groundwater monitoring data. The proposed text is to clarify that that statistics are optional to evaluate groundwater monitoring data but required for determining background.

Recommendation: The group proposed the following text, “~~The owner or operator~~ *Should the owner/operator choose to perform statistical analysis of groundwater quality data, whether for purposes of establishing background concentrations or to determine if there is an exceedance of the groundwater protection standard as defined in Paragraph (g) and (h) of Rule.1634, the* owner or operator shall select one of the following statistical methods to be used in evaluating ground water monitoring data for each hazardous constituent. The statistical test chosen shall be conducted separately for each hazardous constituent in each well.

- D. **13B. 1632(i):** The group discussed language to use to enforce that statistical analyses are optional (e.g., in determining an exceedance at the point of compliance).

Recommendation: The group proposed the following text, “The owner or operator ~~shall~~ *may* determine whether or not there is a statistically significant increase over background values for each parameter or constituent required in the particular ground water monitoring program that applies to the MSWLF unit. (1) ~~If in~~ determining whether or not a statistically significant increase has occurred, the owner or operator shall compare the ground water quality of each parameter or constituent at each monitoring well designated to monitor the quality of ground water passing the relative point of compliance to the background value of that constituent, according to the statistical procedures and performance standards specified in this Rule.” (2) Request to delete.

- E. **13B. 1632(j):** The group discussed language to use to enforce that statistical analyses are optional (e.g., in determining an exceedance at the point of compliance).

Recommendation: The group proposed the following text, “~~Within 14 days of completing the statistical analysis for the analytical data from ground water samples,~~ *Within a reasonable period of time not to exceed 120 days from the date of sampling or as specified in the facility permit,* the owner or operator shall submit to the Division a report that includes all of the information from the sampling event; including field observations relating to the condition of the monitoring wells, field data, laboratory data, statistical analyses (*if utilized*), sampling methodologies, quality assurance and quality control data, information on ground water flow direction, calculations of ground water flow rate, for each well any constituents that exceed ground water standards as defined in 13B.1634.g-h ~~or show a statistically significant increase over background levels,~~ and any other pertinent information related to the sampling event.”

- F. **13B.1634 (old f):** The group discussed this proposed deletion at length and agreed to keep this section out.

Recommendation: The group requested that the proposed deletion remain.

- G. **13B.1634 (f)(2):** The group discussed this section and requested a text change regarding the approval of an ASD and return to detection monitoring. This proposed change deletes the last part of the 5th sentence of this section.

Recommendation: The group proposed the following text, “...If a successful demonstration is made and approval is given by the Division, the owner or operator ~~my~~ discontinue assessment monitoring and return to detection monitoring. *if the Appendix II constituents are at or below background.*”

- H. **13B.1634 (g):** The group discussed text changes for this paragraph to clarify how a background concentration that is above the MCL or water quality standard is utilized within the groundwater monitoring program.

Recommendation: The following text change is proposed, “The owner or operator shall obtain a determination from the Division on establishing a groundwater protection standard for each Appendix II constituent detected in groundwater. The groundwater protection standard *shall be the most protective of subparts (1) through (4), or subpart (5) if the Division approved background water quality standard is higher than concentrations listed in subparts (1) through (3).*”

- I. **13B.1634 (g)(4):** The group discussed text changes for this paragraph to clarify how background concentrations are used as the groundwater protection standard where there is not a published state or federal standard. The proposed text adds a reference to statistics section because statistics are required to establish background values.

Recommendation: The following text change is proposed, “For constituents for which MCLs or water quality standards have not been promulgated, the background concentration for the constituent established from wells in accordance with Rule .1631(a)(1) *and Rule .1632* of this section.

- J. **13B.1634 (g)(5):** The group discussed text changes for this paragraph to clarify how background concentrations are used as the groundwater protection standard where the background level is above the most protective standard listed in subparts 1 through 3. The proposed text adds a reference to statistics section because statistics are required to establish background values. The deleted text clears up confusion referencing MCL and water quality standard in the same sentence.

Recommendation: The following text change is proposed, “For constituents for which the *Division approved* background level *established in accordance with Rule .1631(a)(1) and Rule .1632* is higher than the ~~MCL or water quality standard~~ most protective concentration in Rule .1632(g)(1) through Rule .1632(g)(4) or health based levels identified under Paragraph (h) of this Rule, the background concentration.”

- K. **13B.1635 (a):** The group discussed the proposed new timeframe of 90 days within this section and the difficulty associated with meeting the timeframe at all sites because of the multitude of issues that can arise to delay the ACM process. The group proposed revised text for this rule to allow the division to establish an alternate schedule

Recommendation: The following text change is proposed, “Within 90 days of the finding that any of the constituents listed in Appendix II exceeded the groundwater protection standards, the owner or operator shall initiate assessment of corrective action measures. Such an assessment must be completed *within 120 days of the finding or an alternative schedule approved by the Division.*”

We appreciate your consideration of the above recommendations and look forward to reviewing the proposed amended changes and continuing this discussion. Please contact any of us using the contact information provided at the meeting if we can provide any clarifications of the above comments.