



North Carolina Department of Environment and Natural Resources

Division of Waste Management

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May 4, 2009

Mr. Frank Ralph
Director of Public Utilities
P. O. Box 70
Halifax, North Carolina 27839

Subject: Revised Corrective Action Plan
Halifax County C & D Landfill, Area 1
Permit 42-04
Doc ID 7051

Dear Mr. Ralph:

The Solid Waste Section (SWS) reviewed the revised Corrective Action Plan (CAP), received March 18, 2009 for the Halifax County Landfill, Area 1. Richardson Smith Gardner & Associates (RSG) prepared and submitted the CAP. Described in the CAP is Monitored Natural Attenuation (MNA) paired with a Landfill Gas Recovery system as remedies for groundwater contamination described in the Assessment of Corrective Measures prepared for *Halifax County Landfill* (ACM), dated August, 2007. Incorporated into the SWS review are the comments from RSG, listed in its letter, dated March 18, 2009 (Doc ID 6776). Some revision of the revised CAP is necessary, and more information about financial assurance is needed. Specified revisions are listed below. The numbers and titles correspond to sections in the CAP.

- 1.3 Include MW-6s and MW-6d in the description of “contaminant distribution”, since they are shown inside the contamination plume depicted on hydrogeologic cross sections.
- 1.4 Apply comment in section 1.3 to the penultimate paragraph of this section.
- 2.1 Regarding the plan for replacing deteriorating groundwater monitoring wells, include in this section the information stated in RSG’s response letter.
- 2.7 Correct the count of constituents from “7” to “8” to match what is stated in the sentence with what is actually listed..
- 4.1 Clarify what groundwater monitoring plan is proposed. Reference is made to a “revised” plan “to incorporate MNA”. Appendix B is where that plan is reportedly located. However, in Appendix B is a plan dated October 1996 that pre-dates MNA; whereas, submitted in the previous version of the CAP is a plan dated June 2008.
- 8.0 Two revisions are necessary. One, correct the statement regarding Appendix I in the C&D permit application. A demonstration of financial assurance is not in the Permit

to Construct application. Two, revise the cost estimate to include cost of surfacewater samples in addition to groundwater samples. More information about financial assurance is at the end of this letter.

Tables

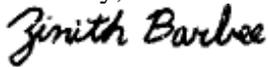
Table 4 List the groundwater quality standard for bis-(2-ethylhexyl) phthalate and alpha-BHC. These constituents are listed by their alternate names in the state groundwater quality standards. Respectively, in Regulation 15A NCAC 2L .0202 (g)(56) is the standard for di-(2-ethylhexyl) phthalate, and in Regulation 15A NCAC 2L .0202 (g)(81) is the standard for hexachlorocyclohexane.

Ground Water and Surface Water Monitoring Plan

Four revisions are necessary. One, see comment for Section 4.1. Two, include MW-6s, MW-6d, and MW-17 in an updated plan. MW-17 is not included in the “monitoring well network” identified in the previous CAP but described in this CAP to “indicate impact” by groundwater contamination. MW-6s and MW-6d are within the contamination plume depicted on hydrogeologic cross sections. Three, identify wells specifically used for the CAP. Understood is that several “on-site” wells exist, but all of them are not utilized for MNA. Four, specify that the wells will be sampled for Appendix II constituents.

The SWS received a letter from the Assistant County Manager of Financial Services, dated January 29, 2009, regarding the financial assurance mechanism. Costs for closure and post-closure had been submitted but not for corrective action. Pursuant to Regulation 15A NCAC 13B .1628 (d) financial assurance for corrective action is specified. Also, in Regulation 15A NCAC 13B .1628 (d)(1)(A) is the specification that the cost estimate be adjusted for inflation. A revised financial assurance mechanism including a cost estimate for the CAP should be sent to Ms. Shawn McKee in the SWS. She can be contacted at 919-508-8512 or at: shawn.mckee@ncdenr.gov.

The revised CAP should be submitted within 30 days of the receipt of this letter. If you have questions, please contact me at 919-508-8401 or at: zinith.barbee@ncdenr.gov.

Sincerely,

Zinith Barbee
Project Manager
Solid Waste Section

cc: Mark Poindexter	Field Operations Supervisor
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Central File	