



North Carolina Department of Environment and Natural Resources

Dexter R. Matthews, Director

Division of Waste Management

Beverly Eaves Perdue, Governor
Dee Freeman, Secretary

April 17, 2009

Mr. Tim Rogers
Solid Waste Director
Solid Waste Department
460 B S Landfill Road
Dudley, North Carolina 28333-5321

Subject: Revised Corrective Action Plan
Wayne County Landfill
Construction and Demolition Landfill Permit 96-01
Doc ID 7277

Dear Mr. Rogers:

The Solid Waste Section (SWS) reviewed the revised Corrective Action Plan (CAP), received February 25, 2009 for the Wayne County Landfill. The revised CAP had been prepared and submitted by Municipal Engineering Services Company, P.A. (MESCO). Described in the CAP is Monitored Natural Attenuation (MNA) paired with a Gas Collection and Control System (GCCS), which are remedies for groundwater contamination described in the *Assessment of Corrective Measures prepared for Wayne County Landfill* (ACM), dated August, 2007. Revision of the CAP is necessary, and more information about financial assurance is needed. Specified revisions are listed below. The numbers correspond to the numbered sections in the CAP.

- 1.1 Include here or elsewhere in the CAP information about water supply wells. An “old WS well” is shown on Plate 2 and, as reported in the ACM, is still utilized. According to its well construction record, the well is 80 feet deep. It penetrates both the uppermost aquifer and confining unit of the Black Creek Aquifer. In the ACM, the Black Creek Aquifer is reportedly 14 feet below ground. In Regulation 15A NCAC 2C .0107(2)(J) is the specification of a distance of 500 feet between landfills and water supply wells. In Regulation 15A NCAC 2C .0113 are specifications for well abandonment. Also, in Section 1.2.4 of the ACM, MESCO reported that no potable wells existed within 2000 feet of the facility, but in the same section reported “9 properties within 2000 feet of the facility” with water supply wells. Therefore, revisions should include a map of potable wells within 2000 feet of the facility and a well abandonment record for the “old WS well” shown on Plate 2.
- 1.4 Explain how the contamination plume has been determined. In the ACM, no field data appears to have been used to delineate it. Unclear is how its dimensions are measured and how its migration will be monitored.
- 2.1 Revise the list of constituents of concern (COC's) to include all the constituents specified in the ACM. Explicit in the ACM is what is *not* a COC. Therefore, it is

- implied in the ACM that all the constituents detected above “2L” and “statistically significant” are the targeted COC’s. Also, the one constituent that had been reportedly “not a constituent of concern”—mercury—is reportedly to be “the result of landfill disposal activities.” Therefore, it too should be included on the revised list of COC’s.
- 2.5.2 Match the reported history of constituents exceeding groundwater standards with the history reported in the ACM. Numerous constituents detected above “2L” are mentioned in sections 2.1.1 and 2.1.2 of the ACM that are not reflected in this section of the CAP.
- 2.5.3 Clarify whether surfacewater samples are still being obtained. Understood is that the sampling points were “dry since the February 1998 sampling event”. Between 1998 and 2002 the state experienced drought, which explains “dry” during the four years following the sampling event. However, unclear is whether the existing sampling points are still used or if new surfacewater sampling points should be established.
- 3.1.1 Specify which version of the model, BIOSCREEN, has been used to model the site.
- 3.1.2 Include more information about performance of the GCCS. Understood is that annual reports are submitted to the Division of Air Quality; however, unreported is how the GCCS has performed as the “safeguard measure” mentioned in Section 6.2.
- 8.0 Three revisions are necessary. One, correct the statement to reflect that financial assurance for corrective action had not been submitted. Financial assurance had been shown for closure and post-closure but not for corrective action. Pursuant to Regulation 15A NCAC 13B .1628 (d) financial assurance for corrective action is specified. Two, the cost estimate does not reflect operation of the existing gas collection and control system explained in Section 3.1.2., which is described to have a monthly cost. The final cost of this system should at least reflect the number of years it is paired with MNA. Three, the cost does not reflect surfacewater samples obtained in addition to groundwater samples. More information about financial assurance is at the end of this letter.

Plates

- Plate 2 Show all the wetlands at the site. Wetlands are denoted outside the site boundary but not inside the site boundary where map features show them to exist too.
- Plate 3 On this or other plates show location of the relevant point of compliance.
- Plate 5 Clarify depiction of detected volatile organic compounds (VOC’s). Unclear is the significance of numerals printed next to some wells and none at other wells, nor what units of measure they presumably represent. Also unclear is if the intent is to delineate the lateral extent of VOC’s or note their highest concentration.

Ground and Surface Water Sampling and Analysis Plan

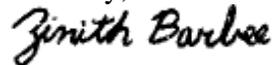
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Because of the number of constituents historically reported to be above groundwater standards and statistically significant, all the wells at the site should be sampled for Appendix II constituents. Pursuant to Regulation 15A NCAC 13B .1634 (a) assessment monitoring is required when violations of groundwater quality standards occur.

The SWS received a letter from the chief financial officer of Wayne County, dated January 28, 2009 regarding the financial assurance mechanism. Costs for closure and post-closure had been submitted but not for corrective action. Also, in Regulation 15A NCAC 13B .1628 (d)(1)(A) is the specification that the cost estimate be adjusted for inflation. Finally, not reflected in financial assurance for corrective action is cost of the gas collection and control system whose operation and maintenance is presumed to continue during the post-closure period. 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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