



North Carolina Department of Environment and Natural Resources
Division of Waste Management

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Governor

Dexter R. Matthews
Director

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Secretary

Solid Waste Section

October 1, 2010

Mr. Tom Miller
Solid Waste Director
P.O. Box 3289
130 S. Queen Street
Kinston, North Carolina 28501

Re: Additional Comments on the revised Permit Application for Continued Operation (Application)
Lenoir County Construction and Demolition Debris Landfill (C&DLF)
Lenoir County, North Carolina
Permit No. 54-03, Document ID No. (Doc ID) 11691

Dear Mr. Miller:

On September 17, 2010, the Division of Waste Management (DWM), Solid Waste Section received the letter dated September 9, 2010 and the revised Application (Doc ID 11659), submitted by Municipal Engineering Services Co., Inc. (MESCO), on behalf of Lenoir County, to respond the DWM's comments (Doc ID 8843) dated October 30, 2009. A hydrogeologist with the Solid Waste Section will review the water quality monitoring plan and hydro-geologic data of the landfill facility; upon completion of the review, he or she may request any additional information in a separate letter. I conducted a review on the engineering portions of the revised Application. Based on the technical review, additional comments on the new submittal are stated below, and your responses to the following comments will expedite the review of the Application:

Section 1 – Operation Plan

1. (Section 1.1) Please address the following concerns:
 - i. The descriptions of the facility history are incomplete. The DWM records indicated that the unlined MSWLF (Unit 2) received wastes after October 1991. Please provide the completed descriptions of the site history.
 - ii. Provide the in-place MSW waste volume or tonnage from 1982 to the closure date.
2. (Section 1.2.1) Please address the following concerns:
 - i. Change “Greene County” to “Lenoir County” throughout the subsection.
 - ii. Please change “except” to “accept” in Subparagraph (f) of Section 1.2.1.
3. The Division has significant concerns regarding the responses to Comments 5, 6, & 12 dated September 9, 2010. Lenoir County must describe the waste streams that can be accepted in the Yard Waste Area for processing and treatment but not for disposal and in the LCID Area for disposal. Please add the following requirements to the Subparagraph (i) of Section 1.2.1 (on page 7) and address the concerns as described below:

- i. Please add the following requirements to the Subparagraph (i) of Section 1.2.1: Yard trash as defined in NCGS 130A-290, shall not be disposed in the landfill area. However, yard trash, along with land-clearing debris and wooden pallets, may be accepted for processing in the “Yard Waste Area.”
 - ii. Please show the location of Yard Waste Area on all related drawings.
 - iii. Please define the yard waste (type) facility according to Rule .1402. Lenoir County proposes to store waste up to 50 tons per month in the facility. Please also describe the facility size (how many acres) and the maximum volume in cubic yard at any time. If this facility is defined as “Small Type 1” facility, please address that the facility meets the requirements stated in Rule .1402(g)(3).
 - iv. Yard Waste Area shall follow the operation requirements stated in Rule .1406. Please pay special attention to the time and temperature requirements dependent on the type of the facility (Such as for Type 1 facility, the waste compost process shall be maintained at or above 55 degrees Celsius [131 degrees F] for 3 days and aerated to maintained elevated temperatures).
 - v. Provide the classification and distribution of the final products according to Rule .1407.
 - vi. The LCID Area that encompasses area more than 2 acres as shown on the drawing FP-1, but there is no description of this waste unit at all. Please provide the information of this waste unit including, but not limit to, the size (acreage) of the facility, the total gross capacity, daily and annual waste disposal rates, acceptable waste streams, siting requirements [Rules .0564 & .0565], the Facility Plan to describe the incremental fill sequences and phased development, the Operations Plan [Rule .0566].
 - vii. The maximum volume or weights of scrap or used tires that can be stored on site at any give date (for example, one or two trailers). Will the tired be stored in the trailers or on the ground? If tires stockpiled on ground, Lenoir County must address the BMPs for prevention surface water/ runoff from contacting wastes.
 - viii. Please add the following requirement to the Subparagraph (i) of Section 1.2.1: “*White goods collection area shall provide for the proper removal of chlorofluorocarbon refrigerants by well-trained personnel.*”
 - ix. The white goods must be separately stored from other scrap metals. Please add this requirement to Subparagraph (i) of Section 1.2.1.
 - x. The information of the companies that have contacted to Lenoir County to haul and distribute/recycle the yard waste, white goods, scrap tires must be placed in the operating record.
4. (Section 1.2.2) Please propose the cover thickness when the condition described in Subparagraph (b) is encountered.
5. (Section 1.2.5) For approval of open burning, please add the following new requirement (in italic format) to the end of second sentence in Subparagraph (b) “Prior to any burning, a request...for review and approval. In addition, the Division of Air Quality and local fire department must approve the activity prior to burning.”
6. (Section 1.2.6) The Paragraph 6.d needs to describe water sources – on-site water wells or sediment basins. Please clarify.
7. (Section 1.3) Please address the following concerns:
 - i. (2nd Paragraph, on Page 11) Pursuant to Rules .1633 through .1637, Lenoir County is currently implementing the groundwater corrective action program approved by the DWM on October 2, 2009; therefore, the designated groundwater monitoring wells shall be sampled and tested for

the constituents listed in 40 CFR 258 Appendix II and MNA parameters. Wells that are not designated as assessment wells but as compliance wells for the routine “Detection Monitoring Program” shall be sampled and tested for the constituents listed in 40 CFR 258 Appendix I. Please revise the subsection accordingly.

- ii. (4th Paragraph, on Page 11) There are eleven (11) groundwater monitoring wells are shown on Operations Plan drawings and Facility Plan drawings, but this subsection only describes the status of the selected seven (7) wells. What are the status of the rest wells – MW-2, MW-5, MW-8, & MW-10? Have they been properly abandoned? If so, make a statement in the subsection and noted to the related drawings. If they are properly maintained, what the functions or roles are these wells involving the site-wide Water Quality Monitoring Plan - Detection Monitoring Program. Please clarify.
- iii. Please add the constituent tetrahydrofuran (THF) to the constituents lists. A memorandum was sent out on June 15, 2010 from the NC Solid Waste Section to every C&D landfill owner and operator in North Carolina requiring groundwater and surface water samples collected after January 1, 2011 to be analyzed for THF.
- iv. The proposed Water Quality Monitoring Plan must discuss the monitoring program requirements after the approved corrective action program is completed and complied with Rules .1637(f) & (g) and landfill facility is actively operating or in the post-closure period (e.g. County may request DWM via a permit modification to grant an approval of changing the monitoring status from corrective/assessment monitoring back to detection monitoring).

Section 2 – Closure Plan

8. (Section 2.6) The CQA report must be certified, signed, dated, and sealed by a professional engineer registered in the State of North Carolina. Please add this requirement to this subsection.
9. The “*Report of Geotechnical Engineering Service*” that is dated June 15, 2010 concluded “in order to obtain a factor of safety of at least 1.5 for the static condition, the final side slopes should be constructed at 3.25 horizontal to 1 vertical or flatter.” However, the enclosed drawings (Facility Plan, Operations Plan and Closure Plan) have shown the final side slopes at 3 horizontal to 1 vertical. Please correct the drawings accordingly. Additionally, if the total gross capacity for each phase development in the Facility Plan is based on the 3 horizontal to 1 vertical side slope, the gross capacity must be rectified as well. Or, County can keep the 3 to 1 slope but re-run the slope stability analysis based on the revised final grade elevations and the rectified total gross capacity and demonstrate that the minimum factor of safety of 1.5 can be obtained.

Section 3 – Post-Closure Plan

10. (Section 3.2, 1st Paragraph) The areas subjected to post-closure care are **47** acres, not 18 acres. Please correct this typographic error.

Appendix B – Plan Figures

11. Please address the following concerns:
 - i. (Drawing No. F1, Sheet 3 of 11) The figure scale is incorrect, please make necessary correction.
 - ii. (Drawing No. F1, Sheet 3 of 11) Please add the permit number (54-08T) next to the Transfer Station, and add the Municipal Solid Waste Landfill (54-09) to the MSWLF units.
 - iii. Please rectify the final side slope to 3.25 (horizontal) to 1 (vertical) on all related drawings in Facility Plan, Operations Plan and Closure Plans (see Comment 8).
 - iv. Add the status of monitoring wells MW-2, MW-5, MW-8, & MW-10 to the drawings associated with Facility Plan, Operations Plan and Closure Plans (see Comment 7. ii)
 - v. Add Yard Waste Area to the related figures (see Comment 3. ii).

Appendix E – Facility Plan

12. The Solid Waste Section can't approve the proposed Facility Plan for the following reasons:
- i. County can't provide the incremental phase development after the proposed Phase 9 (e.g. what is the Phase 10⁺ ?) for the approximately service life of **118 years** of the C&DLF.
 - ii. The landfill facility is currently subjected to groundwater corrective action program according to the approved Corrective Action Plan (CAP). In the CAP, the source control measures are determined as the crucial factors to ensure that the selected remedy – MNA can restore the groundwater quality underneath the landfill facility. The proposed Facility Plan will allow several millions cubic-yard wastes adding to the closed unlined MSWLF, which constitutes a long-term contaminant source and violate the purposes of the source control measures for the landfill facility. Therefore, if County intends to request the approval of the proposed Facility Plan, this office will request County to demonstrate if the existing CAP can absolutely prevent the on-site groundwater from the potential long-term contaminant sources from the C&D wastes.
 - iii. The proposed “trash to soil ratio” does not consider the intermediated cover and closure criteria stated in the Rules .0542(f)(2) & .0543(c)(5) in the courses of incremental phased development (see Comment 4).
 - iv. The total gross capacity is calculated based on the final side slopes of 3 (horizontal) to 1 (vertical) which does not follow the conclusions and recommendations made in the slope stability analysis report (see Comment 8).
 - v. The thickness of the protective/erosive layer is inconsistent with that described in the Closure Plan.

It is advised that a verbal agreement was made in the July 29 2010 meeting between the representatives from the Solid Waste Section, County, and MESCO that the C&DLF on top of the closed unlined MSWLF might be developed according to the Facility Plan in the permit application document titled “Construction and Demolition Landfill” dated December 1, 1997 and approved by the Solid Waste Section on December 30, 1997. If County agrees to honor the agreement please revise the Facility Plan and related plan drawings accordingly.

Please timely respond the above-referenced comments and submit the Solid Waste Section a revised portions of the Application (one hard copy and an electronic copy), which incorporates the requested information. The Solid Waste Section appreciates your efforts and cooperation in this matter. If you have any permitting questions, please contact myself at (919) 508- 8507.

Sincerely,



Ming-Tai Chao, P.E.
Environmental Engineer II
Permitting Branch, Solid Waste Section

cc:

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