



North Carolina Department of Environment and Natural Resources

Dexter R. Matthews, Director

Division of Waste Management
Solid Waste Section

Michael F. Easley, Governor
William G. Ross Jr., Secretary

May 2, 2008

Mr. Stephen Cowie
Joyce Engineering, Inc.
2211 West Meadowview Road, Suite 101
Greensboro, NC 27407

Scanned by	Date	Doc ID #
<i>Ming Chen</i>	<i>05/02/08</i>	<i>4439</i>

Re: Comments on Application for Permit to Construct - Phase 3
Coble's Sandrock, Inc. Construction and Demolition Debris Landfill
Alamance County, North Carolina
Permit # 01-05
Doc ID No. 4439

Dear Mr. Cowie:

This letter constitutes a review of the Application for Permit to Construct - Phase 3 (the Application) at the above- referenced landfill. The Application was revised on March 18, 2008 to incorporate the responses to the Solid Waste Section (SWS) comments dated February 15, 2008 and revised on April 09, 2008 for modifying the proposed waste segregation. The SWS has completed a review of the Application, and your responses to the following comments will expedite the review of this application:

Section A – Facility Plan

- (On Page 1, Service Area) Please reference the Alamance County Franchise Agreement in Appendix VI to this subsection.
- (On Page 2, Segregation Management Procedures) Please reference the Material Reclamation Information in Appendix VII to this subsection.
- (On Page 3, Last Paragraph) The Section said the soil volume generated from Phase 3 base grading would be approximately 150,200 cubic yards (cy). The soil volume required for Phase 3 operation will be 150,726 cy - including 81,836 cy for weekly cover and 68,890 cy for final cover. The Permittee needs to address the shortage of approximately 500 cy soil required for Phase 3 operation.

Section E – Closure and Post-Closure Plan

- (On Page 22, Inspection Plan) Please reference the "Post Closure Inspection Forms" in Appendix IX to this subsection.

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Section F – Monitoring Plan

Comment 1:

- Please reference the “Waste Inspection Forms” in Appendix VIII to the subsection 4 - Waste Acceptability Program.

Appendix III Design Hydrologic Report

Comment 1:

- Please provide Figures H-0 to H-8 which may have been inadvertently left out of the Application.

Appendix VI Construction Specifications

Comment 1: (Section 13900 & Landfill Gas Probe Detail on Figure MP-01)

- i. There is discrepancy of the minimum diameter of the probe borehole; the Section 13900 specified the minimum borehole diameter is six (6) inches but the four (4) inch- diameter boring is shown on the Figure MP-01. Please clarify.
- ii. Please add the requirements for submittal of detailed boring & well logs (including, but not limited to, total boring & well depths, well construction details, the static groundwater level, the description of soil strata) to the Section 13900.

Comment 2: There is discrepancy of the requirement of perforated/slotted pipe between Section 13910 & Gas Vent Detail on Figure EP-06. Additionally, the Part 3.05 of the Section 13910 requires the refuse from well drilling operation to be disposed of at the on-site “transfer station.” Is there a transfer station at the landfill facility? Or the refuse will be disposed of by other proper approaches? Please clarify.

Comment 3: Regarding to burning wastes from site preparation (the item D of Part 3.04 in Section 02100), please refer to and comply with the Rule .0542(i)(2). Please revise the specification.

Comment 4: There are discrepancies of the permanent seeding requirements between Part 3.08 in Section 02936 & the notes on Figures EP-07 through EP-09. Please clarify.

Comment 5: There are discrepancies of the testing frequencies between Part 3.02G – In-Place Density by Drive Cylinder and Part 3.02I – Permeability Testing of the In-Place Test Pad of Section 02218 (Test Pad) and those shown on Table 1. Please clarify.

Comment 6: (Section 02224)

- i. What will be the finished thickness of the intermediate soil layer? The Part 3.01F indicates the minimum thickness of the layer is two (2) feet, but the minimum thickness is one (1) feet described in the Application (Page 4 of Section 3, Page 6 of Section B, & Figure EP-06). Please clarify.

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- ii. To meet the safety factor requirements of slope stability analysis described in Appendix I, the compacted soil used as landfill cap must have a unit weight greater than or equal to 120 pound per cubic feet and internal friction angle greater than or equal to 20 degree tested by ASTM method D4767. Please make necessary revision in Specification Part 3 of Section 02229 and Table 1.
- iii. Additionally, revise Table 1 by adding the test items and frequencies of in-place density and moisture content of compacted intermediate soil layer.
- iv. There must be a provision of how to repair the test holes and document the test locations. Please clarify.

Comment 7: (Section 02227)

- i. Revise Table 1 by adding the test items and frequencies of in-place density and moisture content of compacted intermediate soil layer.
- ii. There must be a provision of how to repair the test holes and document the test locations. Please clarify.

Comment 8: (Section 02228)

- i. To meet the safety factor requirements of bearing capacity and slope stability analysis of foundation soil, the compacted structural fill used as landfill subgrade must have a unit weight greater than or equal to 120 pound per cubic feet and internal friction angle greater than or equal to 20 degree tested by ASTM method D4767. Please make necessary revision in Specification Part 3 of Section 02228 and Table 1.
- ii. The Part 2.01B has to specify that the top TWO feet, Not the top foot, of fill material shall have a maximum size aggregate of two inches with no more than 25% retained on the No. 4 sieve.
- iii. There are discrepancies of the testing frequencies between Part 3.05 and those shown on Table 1. Please clarify.
- iv. Is there reason why the shear strength test ASTM D4767 is only applicable and specified on the structural fill for the embankment at the west end of the landfill but not on all structural fill? Please clarify.
- v. There must be a provision of how to repair the test holes. Please clarify.

Comment 9: (Section 02229)

- i. The Part 3.01A said that "subgrade shall consist of structural fill placed in accordance with Section 02228." This specification is contradicting to the proposed soil cap system described in the Application. Shall the subgrade for the low-permeability soil layer (or the infiltration layer) consist of a 12-inch thick intermediate soil layer specified in Section 02224? Please clarify.
- ii. To meet the safety factor requirements of slope stability analysis of cover system, the compacted soil used as landfill cap must have a unit weight greater than or equal to 120 pound per cubic feet and internal friction angle greater than or equal to 20 degree tested by ASTM method D4767. Please make necessary revision in Specification Part 3 of Section 02229 and Table 1.

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Appendix V Property Deed

- Please provide the “official” deed document to the Application. The “**unofficial**” document is not acceptable for the permit application.

Please incorporate requested information, document, revisions, and responses to a new submittal including a written hard copy and an electronic copy (including figures) of the revised Application for Permit to Construct. Should you have any questions of the comments please call me at (919) 508-8507.

Sincerely,



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

cc: Ed Mussler, SWS
Geoffrey Little, SWS
Central File

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