



## NORTH CAROLINA DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES

Division of Waste Management  
Dexter R. Matthews  
Director  
Solid Waste Section

Beverly Eaves Perdue  
Governor

Dee Freeman  
Secretary

August 24, 2009

Mr. Edward Mann, Public Works Director  
Dare County  
P.O. Box 1000  
Manteo, NC 27954

**Subject:** Comments on Cell No. 4 Construction and Demolition Debris Landfill (C&DLF) Permit To Construct Application, Dare County C&DLF Dare County, North Carolina Permit No. 28-03, Document ID No. 8455

Dear Mr. Mann:

On July 30, 2009 the Division of Waste Management (DWM), Solid Waste Section received the responses to DWM comments dated 6 March 2009 which have been incorporated to the above-referenced permit application for Dare County C&DLF revised in July 2009 (DIN 8271). The responses and revised permit application was prepared and submitted by Camp Dresser & McKee (CDM) on behalf of Dare County. This letter is a review of the engineering related portions of the permit application in compliance with the Solid Waste Management Rule (Rule), 15A NCAC 13B .0500, and the Solid Waste Section needs the following additional information:

### **Section One – Facility Plan**

1. (Section 1.3.2.1) The last sentence stated “The gross capacity of Cells 1 through 5 is approximately 1,571,800 *million* cubic yards.” Please delete “million,” likely a typographic error, from the sentence.
2. (Section 1.3.2.4) The 2-feet thick final cover system is likely a typographic error? Please verify.

### **Section Three - Construction Quality Control Plan (CQA Plan)**

3. Regarding the response to the Comment 30 dated March 6, 2009, is this vegetative cover stated in Section 5 same as the erosion layer described in Section 1.3.3.1.1 (Facility Plan) and Section 1.1.1 (Closure Plan)? If so, the minimum thickness of the constructed layer specified in Section 5.3.A shall be 18-inches overlain the low permeability soil liner. Additionally, to meet the safety factor requirements of slope stability analysis described in the Attachment B-4, the soil used for the erosion layer must have a unit weight greater than or equal to 120 pound per cubic feet and internal friction angle greater than or equal to 30 degree tested by an acceptable ASTM method. Please revise Section 5 by specifying the testing methods and frequencies to ensure the as-built erosion layer has the adequate strength which meet the above-mentioned design criteria.
4. (Section 6.1) Please specify the soil types and as-built thickness for the base pad of Cell 4 which must meet the criteria stated in the Rule .0540(2) and consistent with the Section 1.1 of the Engineering Plan, the Grading Plan C-3 and drawing Sheet D-2.
5. (Sections 4.4.1 & 6.4.1) Please confirm the testing frequency for final liner thickness. It is likely the frequency of 4/acre/lift is a typographic error.

6. (Section 6.4.1.B) The test holes in the subgrade/base pad can be filled with bentonite or soil/benotitte mixture. Sandy material without cohesion is not acceptable. Please revise this section.

#### **Section Four - Operations Plan**

7. (Sections 2.2 & 7.7) Rule 15A NCAN 13B .1105(f) prohibits whole scrap tires to be disposed in a C&DLF. Therefore, please remove the scrap tires from the list of acceptable wastes to be disposed of in the C&DLF. However, the existing rules encourage a C&D landfill facility providing a designated area, as a temporary storage unit within the landfill property boundaries, to collect scrap tires from the approved service areas for properly recycling or final disposal. To manage scrap tire, the section 7.7 of the Operations Plan must be prepared in accordance with Solid Waste Management Rule – Section 1100. The plan needs to describe, but not limited, the brief description of collection/storage area (shown the location on the existing facility plan map) such as structure, size, physical features, etc., the maximum amount of tires to be allowably stored at any time at the facility, the estimated tire amount per month, fire prevention measures and notification procedures, the contact information of a contractor or recycler to handle off-site transportation [the qualification/ certification of a tire transporter], and the frequency or schedule to remove the waste off-site.
8. (Section 7.7) Regarding the responses to the Comment 34 dated March 6, 2009, the special wastes including white goods are listed as recyclable wastes at the C&DLF. Therefore, the Operations Plan needs to address provisions to manage white goods in accordance with North Carolina General Statutes Part 2D - Management of Discarded White Goods (130A-309.80 -.87). The plan needs to describe furthermore, but not limited, by including the following information: the maximum tonnage allow to be stored at any time at the facility, the estimated tonnage per month, the procedures of removal and storage chlorofluorocarbon refrigerants, the contact information of a contractor or recycler to handle, off-site transportation, and the frequency or schedule to remove the waste off-site. Please revise the Section 7.7 of the Operations Plan accordingly.
9. (Section 7.7) Will areas stockpiled the recyclable waste in the C&DLF be used to store the same type wastes collected and removed from the adjacent solid waste transfer facility (Permit # 28-05T)? If so, please include the waste management practices to this section.
10. (Section 9) For Comment 36 dated March 6, 2009, the reviewer inadvertently cited Rule .0542(I)(5); the correct one shall be .0542(i)(5). Please provide provisions in the Operations Plan to ensure the operating the C&DLF units will not to violate the requirements stated in Rule .0542(i)(5).

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 permit application. The Solid Waste Section appreciates your efforts and cooperation in this matter. If you have any questions or would like to schedule a meeting to discuss this matter further, please contact me at (919) 508- 8507.

Sincerely,



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

cc: W. Michael Brinckek, P.E., CDM  
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