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Joyce Engineering, Inc.  
2211 W. Meadowview Rd., St. 101  
Greensboro, NC 27407

SOLID WASTE SECTION  
ASHEVILLE REGIONAL OFFICE

tel: 336/323-0092  
fax: 336/323-0093

www.JoyceEngineering.com

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October 21, 2011

Mr. Allen Gaither  
NCDENR, Solid Waste Section  
Asheville Regional Office  
2090 U.S. 70 Highway  
Swannanoa, NC 28778

**RE: Response to Comments on Permit to Construct (PTC) Application – Phase 4  
Wilkes County MSWLF at Roaring River – Phase 4  
Wilkes County, North Carolina  
Permit No. 97-04, Document ID No. (Doc ID) 13657  
JEI Project No. 356.1002.11, Task 02**

Dear Mr. Gaither:

Joyce Engineering, Inc. (JEI) is submitting this letter on behalf of the Wilkes County in response to the questions received from your technical review of the Permit to Construct Phase 4 of the Roaring River Landfill. For your reference, the questions are repeated below in italicized print, with the responses provided in bold font. JEI would also like to submit revisions to the Permit to Construct regarding the grading and capacity of Phase 4. The revisions can be found in the following sections:

- Facility Plan
  - Section 3.2 Landfill Capacity
  - Table 2: Projected Yearly Disposal Rates
  - Table 3: Soil Balance
  - Drawings FP-04 and FP-5
- Engineering Plan
  - Section 2.7 Landfill Gas Collection and Control System Design Plan
  - Drawings EP-03 and EP-04
- Operations Plan
  - Section 6.2 Landfill Gas
  - Section 3.5 Special Wastes
  - Section 4.6 Action Plan
  - Drawings OP-1 and 2.
- Closure and Post Closure Plan
  - Section 1.1.2 Area to be Capped
  - Appendix VI-5 Post Closure Cost Estimate

*1. The Operation Plan, in accordance with 15A NCAC 13B.1625(b)(1)(D), must contain operation drawings that illustrate leachate and stormwater controls for active and inactive subcells. The operation drawings do not include all required items.*

**Phase 4 is a vertical expansion, so leachate will be handled with the existing collection systems of Phases 1-3. Drawing OP-1 has been updated to include the existing leachate collection system components. Waste will be covered as required and described in Section 5 of the Operations Plan to prevent leachate from draining off the side slopes of the landfill. Phase 4 will not be divided into subcells. Stormwater will be controlled with existing perimeter ditches around Phases 1-3 that carry water to basins as shown on Drawing OP-1.**

*2. The Operation Plan, in accordance with 15A NCAC 13B.1625(b)(1)(E), must contain operation drawings that illustrate special waste areas within the MSWLF unit. Neither the operation drawings, nor the General Operating Conditions, make clear whether any special wastes, such as asbestos, will be placed in the disposal area.*

**Asbestos (in accordance with 40 CFR 61) may be placed in the landfill. Section 3.5 “Special Wastes” has been updated to include asbestos. The asbestos will be disposed of at the bottom of the working face and covered with soil. Locations where asbestos is disposed will be documented using a GPS device and kept on record. Notes concerning asbestos disposal have been added to Drawing OP-2.**

*3. The Operation Plan, in accordance with 15A NCAC 13B.1645(b)(1)(F), must contain operation drawings that illustrate buffer zones, noting restricted use. The operation drawings do not include all required items.*

**Operation Drawing OP-1 now includes the buffer zones restricting development of MSW landfill units to an area that does not come within: 300 feet of the property line, 500 feet of a private residence or well and 50 feet of any stream, rivers or lakes.**

*4. The Operation Plan, in accordance with 15A NCAC 13B.1645(b)(1)(G), must contain operation drawings that illustrate stockpile and borrow operations. The operation drawings do not include all required items.*

**Drawing OP-1 now illustrates the location of borrow and stockpiling operations. The borrow area is located to the west of the existing landfill footprint, where future Phase 6 is planned. Soil is stockpiled on the waste footprint in varying locations for convenient use.**

*5. Section 3.5, Special Wastes states C&D waste that is not appropriate for recycling or mulching is currently disposed in the lined landfill. It should be noted, C&D waste, including unpainted and untreated dimensional lumber, cannot be ground for mulch.*

**The wording has been changed to no longer include the possibility of grinding any C&D for mulch.**

6. *Bullet number three (3) of Section 4.6, Action Plan, lists sludges as an excluded waste although the facility is permitted to receive and co-dispose of wastewater treatment plant (WWTP) sludge. It should be noted, the facility must ensure the WWTP sludge received is analyzed and declared a non-hazardous waste as per (all parameters of) 40 CFR 261.24, "Toxicity Characteristic" and a non-liquid waste as per 40 CFR 264.314 and 265.314, "Paint Filter Liquids Test".*

**Sludges have been removed from the list in bullet number three (3) of Section 4.6 and added to section 3.5 "Special Wastes", including the above described characterization requirements.**

7. *The Closure and Post-closure Plan, in accordance with 15A NCAC 13B.1629(b)(1)(B), requires an estimate of the largest area of the MSWLF unit ever requiring the specified cap system. There is nothing in the Closure and Post-closure Plan to indicate the largest area of MSWLF unit for closure.*

**The largest area requiring the specified cap system will be 25.4 acres. This is clarified now in the Closure and Post-closure Plan and is used for the estimate of closure cost.**

8. *The Closure and Post-closure Plan contains cost estimates for closure and post-closure in accordance with 15A NCAC 13B.1629(b)(3) and (c)(4). However, per the attached memorandum, Financial Assurance cost estimates must also include the potential assessment and corrective action costs in the minimum amount of \$3,000,000 as required by NCGS 295.2(h). It should be noted, some post-closure costs can be moved under the potential assessment and corrective action costs umbrella (contact me for further clarification).*

**The additional \$3,000,000 is noted on a revised Post Closure Cost Estimate in Appendix VI-5. With the addition of this Corrective Action amount, the cost under the categories "Monitoring" and "Well Maintenance" have been removed from the annual Post Closure Costs because those costs are considered accounted for in the Corrective Action amount.**

On behalf of Wilkes County, we would like to thank you for your attention to, and assistance with, this Phase 4 Permit to Construct Application. Included with this response to comments letter is an electronic submittal of the entire updated Permit to Construct Application. If you have any questions, please feel free to contact me at (336)323-0092.

Sincerely,  
JOYCE ENGINEERING, INC.



Stephen Cowie, P.E.  
Sr. Project Consultant