



Dee Freeman., Secretary

Solid Waste Section

January 15, 2009

Ms. Nancy Newell, P.E.
Department of Water Management, City of Durham
1600 Mist Lake Drive
Durham, NC 27704

Re: Comments on Solid Waste Permit Modification (Application) – Landfill Gas-to-Energy (LFGTE) System,
Durham Sanitary Landfill, Durham County, North Carolina
Permit No. 32-01, Document ID No. 6368

Dear Ms. Newell:

The Division of Waste Management (the Division) has received the above-referenced Application on December 5, 2008 and conducted a review of compliance with the Solid Waste Management Rule (Rules), 15A NCAC 13B .1600. The Solid Waste Section requests the following additional information:

General

1. Please provide the signed, sealed, & dated Engineer's Certification in the Application which states the proposed LFGTE system is designed, based on the engineers' best knowledge and information, and data collected and supplied, to meets the requirements in accordance with the Solid Waste Management Rule 15A NCAC 13B Section .1600. Additionally, drawings shall bear the seal of the project engineer who is registered in the State of North Carolina in accordance with the requirement stated in Rule .1603(b).

Section 1 – Introduction

2. (the first paragraph in Section 1.1) The Division knew that MP Durham LLC leased the property from the City of Durham for developing this LFGTE project but does not clearly understand which party will conduct the daily operation of the LFGTE system. Please clarify.
3. (the third paragraph in Section 1.1) The Application does not include an Operations Plan depicting the operation and maintenance the proposed LFGTE system. Please revise the Section 4 accordingly.

Section 2 – Landfill Gas-To-Energy System Design

4. In addition to describing the estimated methane gas volume, please also submit data of the estimated service life of the LFTGE project, the designed peak and average operation loads, and projected power outputs provided by the LFTGE system.
5. (Section 2.3) This Section proposes that “if the condensate tank operations fail, a high level alarm will result. Operation personnel will be automatically notified.” Will this proposal suggest that there will be a 24-hour and 7-day on-call operational personnel on duty at the closed landfill facility? Please clarify.
6. (Section 2.3) Are there any data and calculations to support the proposal that the existing 4000-gallon condensate tank has sufficient capacity to accommodate the additional condensate generated from the LFGTE processes? Please clarify.

7. (Sections 2.3 & 2.6 and Drawing Sheet 2 of 3) On Drawing Sheet 2 of 3 please provide the layout of the proposed condensate lines which convey condensate from the proposed LFGTE system to the existing underground condensate tank. The typical details of trenching and piping (LFG and condensate lines) and piping connections and fittings need to be present on drawing as well. Please revise the drawing accordingly.
8. What are the operation hours of the proposed LFTGE system? If the system is an automatic-un-manned-24-hours-per-day operation system, how will the operation staff be promptly notified to properly respond any potential incidents such as the condensate spill (in Section 2.3) and the malfunction of the LFGTE system (in Section 2.4), or a fire/ an explosion? Please clarify.
9. (Section 2.8) Is there a plan to address the fire safety training and prevention issues, fire fighting equipment readiness and routine inspection requirements, explosive gas monitoring and sampling plan, emergency communication systems– internal and external?
10. (Section 2.9) Where are the PLC and Master SCADA system located? If they are housed on-site, please note their locations on related drawings.
11. (Section 2.9) Will there be a back-up (off-site) data storage system and stand-by generators available for this project? In the event of power outage or a natural disaster (flood, fire, etc.), how will the metering and control system be functioning? Please clarify.
12. All records of operation, maintenance, inspection, and monitoring LFGTE system and data from the automated metering and control system must be properly retained at the facility or an alternative location near the facility in accordance with Rule .1626 (10). Please add this requirement to the section.
13. (Section 2.10) A copy of the Certificate of Public Convenience for this proposed LFGTE need to be included the Construction Document Report stated in Section 3.3.

Section 3 – Construction Quality Assurance/Quality Control (CQA/QC) Program

14. Please provide the specifications (including, but not limited to, material, equipment/device, machinery, construction procedures, QA/QC testing, etc.) of tasks mentioned in the Sections 2.5 through 2.9 and the activities described in the Sections 3.1 through 3.2 in the CQA/QC program.
15. (Section 3.2) Where and how are the excessive earthen material and construction wastes disposed of, if present, during the construction and after the entire LFGTE construction is completed? Please clarify.
16. (Section 3.2.3) Please provide the City Durham-approved erosion and sediment control plan and related drawings to show BMPs locations and details.
17. (Section 3.3) The meeting minutes, project-related correspondences, and QA/QC testing reports must be included in the Construction Document Report. Please add this requirement to the section.
18. (Section 3.3) Has the Startup, Shutdown, and Malfunction (SMM) Plan submitted to the Division of Air Quality for a review and approved? If so, please provide the approved plan in the Construction Document Report.
19. (Section 3.3) Upon completion of the project, the Operation and Maintenance Plan/Manual for the as-built LFGTE system components – gas conditioning and compression system, gas combustion and generator system, the metering and controls (PLC), the back-up blower/flare system, the electric and control (SCADA) system shall be placed in the operating records . Please add this requirement to this section.

20. (Sections 2.11, 3.3 & 4.2) To be consistent with the proposal stated in Sections 2.11 & 4.2, please add the approval document of zoning and inspection permit issued by the City of Durham, the “*Maintenance, Inspection, and Monitoring Plan*” and *Contingency and Response Plan* to the Construction Document Report.
21. (Section 3.3) Please provide a time frame for submitting the completed Construction Document Report with as-built drawings to the Division.

Section 4 – Maintenance, Inspection, and Monitoring Plans

22. A gas control and monitoring plan specifically designed for this LFGTE system needs to be prepared and submitted the Division for a review and approval. The gas control and monitoring plan stated in Appendix D is not adequate and applicable for this new LFGTE system during the operating period. Please refer the Rule .1626 for preparing the gas control and monitoring plan.
23. (Section 4.2) Please provide the qualification of the “trained personnel” to perform system monitoring and balancing.

Section 5 – Post- Closure Plan Addendum

(Section 5.1) The Application needs to discuss how to manage or decommission the proposed LFGTE system when the LFG reaches the end of the service life. Please also provide a cost estimate for decommission the system and restoration of site to the Division.

Appendix B – Air Construction Permit Application

24. Please provide the Division a copy of air quality permits – NSPS/EG, Title V, MACT, NSR or PSD which are applicable to this LFGTE project. The air quality permit for the existing landfill gas collection and control system (LFGCCS) expired on July 31, 2002.

Appendix D – Approved Post-Closure Plan

25. (Section 3.1) The post-closure contact for the landfill facility is out-of-date. Please provide the revised contact information.

Drawings

26. Please provide a site-wide drawing to show the locations of the 62 landfill gas wells (refer to Section 2.1), the existing landfill gas collection and control system (LFGCCS), and the facility existing conditions

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. 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: Dean R. Free, RMT North Carolina, Inc.
Ed Mussler, DWM

Leon LeBlanc, MP Durham, LLC
Donna Wilson, DWM

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Central Files

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