

# **Georgia Department of Natural Resources**

**Environmental Protection Division • Air Protection Branch**

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**Mark Williams, Commissioner**

**Judson Turner, Director**

**JAN 12 2012**

Tim Bassett, Manager  
Waste Management, Inc.  
3001 South Pioneer Drive  
Smyrna, GA 30083

RE: Application No. 20161 – Chambers R&B Landfill, AIRS No: 011-00014  
Application for a Landfill Gas-To-Energy Facility  
BACT Application: dated January 7, 2011, with revisions dated May 19, 2011  
and July 25, 2011  
Air Toxics Impact Assessment Application: dated May 5, 2011  
Air Impact Assessment Application: received October 3, 2011

Dear Mr. Bassett:

Review of Application No. 20161-PSD Air Toxics and Air Impact Assessments has progressed. As a result, the Division has the following comments on the air toxic impact assessment:

1. Georgia EPD understands that the air toxic emissions from the use of the flares and the landfill were not included in the air toxic impact assessment of this project. The applicable air toxic emissions from the existing emission units need to be included in the air toxic impact assessment for this project. Please update the assessment to account for existing air toxic emissions or explain why this is not considered necessary.
2. Georgia EPD understands that the 15-minute maximum ground level concentration (MGLC) was derived by multiplying the 1-hour ISCST3 maximum concentration by a factor of 1.32.
  - a. The 15-minute concentrations for hydrochloric acid (HCl) and formaldehyde presented in Table 3 do not appear to be adjusted by a factor of 1.32. Please make any necessary corrections to Table 3 and resubmit to the Division. Be sure to provide a written explanation of the changes made to the applicable concentrations in Table 3.

The Division has the following comments on the air impact assessment:

1. Section 1.4.4: There is a typographical error in this section as it relates to the date of March 23, 2009. The correct date is March 23, 2010.
2. Section 3 – Site Location: The applicant presented a drawing (Figure 3-2) that illustrated the relative location of R&B to the nearby Class I areas. Georgia EPD reminds the applicant that Class I areas should be examined within a radius of 300 km from the proposed site. Georgia EPD found the Linville Gorge Wilderness Area located ~ about 230 km from the facility. Please update Section 3 to account for this additional Class I area.
3. Significant Impact Area (SIA): The radius of the significant impact area for the annual and 1-hour NO<sub>2</sub> and 24-hour and annual PM<sub>2.5</sub> were not reported in the application. Georgia EPD needs this information specified in the application in order to proceed with our review on the refined analysis. Please update the application to specify the radius of the SIA for each applicable NAAQS and averaging time.
4. Grid Resolution for Refined Analysis: The refined analysis for the annual NO<sub>2</sub>, annual PM<sub>2.5</sub> and 24-hour PM<sub>2.5</sub> should be conducted on all receptors within the circular significant impact area (SIA) according to the Draft New Source Review Workshop Manual (EPA, 1990), instead of significant receptors only (Figures B-4, E-1, E-2, and E-5). Please re-run the refined models for 24-hour and annual PM<sub>2.5</sub> and annual NO<sub>2</sub> using a grid resolution of 100 meters located outside the facility fence line(s) for the maximum PM<sub>2.5</sub> SIA and the annual NO<sub>2</sub> SIA analyses. Please submit an updated application describing these modeling scenarios.
5. Section 11 – Modeling Results and Submittals:
  - a. Georgia EPD was unable to locate the results of the pre-construction monitoring comparison. Please update the application to provide this information. Georgia EPD recommends the use of the tabular format presented below with the significant monitoring concentrations listed instead of the significant impact levels (SILs).
  - b. The applicant presented the summary tables for the significant analysis, NAAQS analysis, and PSD analysis in separate tables in the Appendices of the application. Please update the application to provide summary tables for the significant analysis, NAAQS analysis, and increment analysis in Section 11 of the application. Georgia EPD recommends the use of the following tabular format:

Criteria Pollutant	Averaging Period	Significance Level	Maximum Projected Concentration	Receptor UTM Zone 17		Model Met Data Period	Radius of SLA
		( $\mu\text{g}/\text{m}^3$ )	( $\mu\text{g}/\text{m}^3$ )	Meter East	Meter North	[yyymmddhh]	km
CO	8-hour	500					
	1-hour	2000					
NO <sub>2</sub>	Annual	1					
	1-hour	7.5					
PM10	Annual	1					
	1-hour	0.5					
PM2.5	Annual	0.3					
	24-hour	1.2					

6. Section 12-Additional Impacts Analyses: The applicant used values for Q and D which were different than those discussed in the modeling protocol. Georgia EPD calculated the sum of the applicable pollutants and derived a value for Q of 159.5 tons per year, and Georgia EPD used a value of 117 km for D (Cohutta Wilderness area). This yields a Q/D of 1.36, which is well below the FLM screening threshold of 10; therefore no AQRV analysis is needed. Please include a Q/D screening analysis in all future application submitted to Georgia EPD under the PSD program for applicable Class I areas.
7. Appendix A – General Supporting Information: The applicant presented incorrect emission data (tons per year) in table A-1. Please correct this table and resubmit to Georgia EPD.
8. Appendix B – Class II Modeling Information and Results for NO<sub>2</sub>:
  - a. The applicant presented a numerical value of 38.53 ( $\mu\text{g}/\text{m}^3$ ) (Modeled Design Concentration for NO<sub>2</sub>) in Table B-2 and Figure B-1; this concentration is not consistent with the concentration shown in Figure B-1.
  - b. The applicant presented a numerical value of 113.1 ( $\mu\text{g}/\text{m}^3$ ) (Total Concentration for NO<sub>2</sub>) in Table B-3 and Figure B-3 and this concentration is not consistent with the concentration shown in Figure B-3. Georgia EPD requests the applicant to provide SURFER figures showing the modeling receptors using the classed POST type of maps of modeled concentration. Please update the application accordingly.

9.6

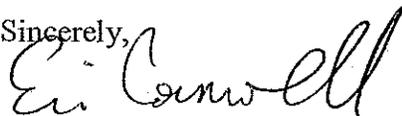
Appendix F – Modeling Results for Class I Area Impacts:

- a. Table F-3 is identified as pertaining to PM<sub>10</sub> yet the tabular entries refer to PM<sub>2.5</sub> as the pollutant. Which pollutant is correct? Please update this table accordingly.
- b. Table F-4 is identified as pertaining to PM<sub>2.5</sub> yet the tabular entries refer to PM<sub>10</sub> as the pollutant. Which pollutant is correct? Please update this table accordingly.

Please submit the updated air toxics impact assessment and PSD air impact assessment by February 29, 2012. Failure to provide the required and complete assessment by February 29 may result in Georgia EPD returning the application due to incompleteness.

If you have any questions or need more information, please contact Yan Huang at (404) 363-7072 or via email at [yan.huang@dnr.state.ga.us](mailto:yan.huang@dnr.state.ga.us).

Sincerely,



Eric Cornwell  
Manager  
Stationary Source Permitting Program

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