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December 22, 2008

A.A. Linero, P.E.
Program Administrator
Air Permitting South Section
Bob Martinez Center
2600 Blair Stone Road
Tallahassee, FL 32399-2400

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BUREAU OF AIR REGULATION

RE: Response to Comments, Florida Department of Environmental Protection Letter Dated December 11, 2008 for Okeechobee Landfill DEP file No. 0930104-014-AC, Application No. 1270-3

Dear Mr. Linero:

On December 11, 2008, Waste Management, Inc. of Florida received a request for information from the Florida Department of Environmental Protection (FDEP) in response to the permit application (DEP File Number 0930104-014-AC). Attached is the response to your request for information provided by Shaw Environmental, Inc. (Shaw).

The requests made by FDEP are detailed below along with our response.

Comment 1. The application states (page 11, Section 5.2 of the PSD report) that the best available control technology (BACT) section has not been revised. The Department acknowledges that there is no need to review the BACT analyses referring to the LoCat desulphurization system. However, the BACT for the new proposed turbines needs to be addressed. Appendix B of the application lists for the primary operating scenario potential emissions of nitrogen oxides (NO<sub>x</sub>) emissions in the order of 765.3 tons per year (TPY), sulfur dioxide (SO<sub>2</sub>) 574.8 TPY, and carbon monoxide emissions in the order of 5,0542 TPY. The individual emission rates for NO<sub>x</sub> are 72 parts per million, by volume (ppmv) for the Titan and 42 ppmv for the Centaur. CO is listed as 100 ppmv for the Titan and 250 ppmv for the Centaur.

The Department needs a description as to what system of continuous emissions reduction is planned and a best available control technology (BACT) proposal in accordance with Rule 62-210.200, Definitions, F.A.C and Rule 62-210.400(4)(c) Prevention of Significant Deterioration (PSD), F.A.C.

## Response 1.

The proposed Titan 130 and Centaur 40 turbines operate under the same principles of combustion of LFG as the earlier proposed Mars turbines; the difference is in capacity. Therefore, the BACT analysis for the new proposed turbines, Titan 130 and Centaur 40 manufactured by Solar, remains the same as presented in Appendix D of the application 1270-2 submitted on February 27, 2007. In summary, "good combustion practices" will be the BACT for NOx, CO, and PM for these turbines. The emission rates for the proposed turbines are different than the previously proposed Mars Turbines as mentioned in the above comment.

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Attachment 1 includes the revised BACT determination and the revised BACT emission rates for the proposed turbines. Please note that the BACT determination reflects our review of the RBLC database.

Comment 2. Section 2.4 of the addendum to the application states that for the modeling purposes, more recent and averaged  $H_2S$  data were used. Please provide the time period of the data used in the modeling. Also, please explain how the new data was averaged.

Response 2. In the October 2008 Addendum, there was no change in the H<sub>2</sub>S data from the February 2008 Air Quality Analysis report. The H<sub>2</sub>S value considered for the BACT scenarios is 400 ppmv based on the estimated performance of the Lo-Cat system. The H<sub>2</sub>S values for the interim scenarios are shown in the table below and were measured from July to November 2007. As shown in the table below, the H<sub>2</sub>S concentration data was averaged for the enclosed flares and for the odor control (open) flare. These averages were used for the interim modeling scenarios.

2007 Month	H2S Concentration (ppmv)	
	Enclosed Flares	Odor (Open Flare)
July	3600	3733
August	3133	3100
September	1017	4900
October	5467	7033
November	1733	6167
Average	2990	4986.6

Comment 3. Section 4.3.1 of the addendum to the application explains the receptor grid for the Ambient Air Quality Standard (AAQS) and Increment analyses. Please clarify or verify that a 50 km buffer was used for all analyses and that no further than 100 meter spacing of receptors were used where higher concentrations were found. Please also verify that a 50 km fence-line grid was used for the Significant Impact Analysis for PM<sub>10</sub>.

**Response 3.** The Significant Impact Analysis receptor grid for all pollutants extended to approximately 30 km from the fence-line. Shaw believes that this receptor grid is sufficient for capturing the location of the maximum impacts from the project sources. All maximum concentrations were close to the fence-line and the maximum radius of impact (ROI) was 3.2 km from the sources (for 24-hr SO<sub>2</sub>).

No further than 100 meter spacing of receptors were used where higher concentrations were found. Once the ROI was found for each pollutant, Shaw requested the off-property inventory for sources from FDEP that are located within the ROI plus 50 km (i.e. the 50 km buffer), which were then included in NAAQS and PSD increment compliance demonstration.

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Comment 4. With regards to Appendix B on disk, please explain why there are different inventories for scenario 2B and scenario 2. Also, please explain the following with regards to the excel spreadsheets: what do the terms "Deleted – Duplicate Entry" and "Deleted – No Emission Information" mean, why is the Berman Road Landfill on the NO<sub>x</sub> list for "Deleted – No Emission Information," why do the tables show blank cells in the column for whether the sources is within the Significant Impact Area, and why all of the sources inside the impact area are not shown whether or not they were modeled in the adjacent column.

**Response 4.** Shaw discussed this comment with Debbie Nelson on December 16, 2008. As previously discussed, there are two different inventories for scenario 2B and scenario 2 because the ROI is different for these scenarios.

Those sources in the off-property inventory provided by FDEP which had a blank for the emissions data were deleted and marked as "Deleted – No Emission Information." There were a few sources in the inventory that were duplicate entries, and were marked as "Deleted – Duplicate Entry." All Okeechobee Landfill, Inc. sources listed in the off-property inventory were deleted because these sources were already included in the model as on-site sources.

The tables show blank cells if the source is not within the criteria (ex. not within the area of impact). The final column in the spreadsheet is the final determination if the source should be included in the modeling. Appendix B was explained to and discussed with Debbie Nelson on December 16, 2008 with regards to these comments.

If there are further questions on the application, please contact the David Thorley at 713-328-7404.

Sincerely,

Kelly Fagan, P.E.

Project Manager

Seal

Kristin A. Alzheimer, P.E.

## Attachment

Cc: John Van Gessel, Waste Management, Inc. of Florida: jvangessel@wm.com Seth Nunes, Okeechobee Landfill, Inc. snunes1@wm.com Jim Christiansen, Okeechobee Landfill, Inc.: jchristi@wm.com David Thorley, Okeechobee Landfill, Inc.: dthorley@wm.com Arijit Pakrasi, Shaw Environmental: arijit.pakrasi@shawgrp.com Leah Blinn, Shaw Environmental: leah.blinn@shawgrp.com