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May 21, 2012

Ms. Tracey Hiltunen
Georgia Department of Natural Resources
Environmental Protection Division, Air Protection Branch
Stationary Source Permitting Program
4244 International Parkway, Atlanta Tradeport – Suite 120
Atlanta, Georgia 30354

Re: Chambers R&B Landfill AIRS No. 011-00014
Waste Management Public Comments on Part 70 Air Quality Operating Permit and Prevention of
Significant Deterioration Permit No. 4953-011-0014-V-03-1

Dear Ms. Hiltunen:

On May 9, 2012, Waste Management (WM) published notification in the Banks County News to solicit public comments on a proposed revision to the facility's Part 70 (Title V) operating permit and the availability of certain information relating to the amendment. The revised permit will incorporate Prevention of Significant Deterioration (PSD) Permit Amendment No. 4953-011-0014-V-03-1, which will allow the construction of a 9.6 megawatt (MW) landfill gas-to-energy (LFGTE) facility at the existing Chambers R&B municipal solid waste (MSW) landfill (AIRS 011-00014). WM and Sage Environmental Consulting, L.P. have reviewed the proposed PSD permit in detail and have the following comments. As explained in detail below, the comments relate to: (1) monitoring requirements for stationary RICE that combusts landfill gas or digester gas; (2) performance testing requirements and frequency; and (3) minor revisions to certain recordkeeping and reporting requirements.

Landfill Gas Flow Monitoring for the RICE MACT

The six, 2,233 bhp kW Caterpillar G3520C internal combustion (IC) engines associated with the LFGTE facility are affected sources under the national emission standard for hazardous air pollutants (NESHAP) for reciprocating internal combustion engines (RICE) in Subpart ZZZZ of 40 CFR Part 63 (i.e., the RICE MACT). The IC engines will combust only landfill gas (LFG), be constructed after December 19, 2002 at major source of HAP emissions and have a site rating of greater than 500 hp. Therefore, the IC engines belong to a subcategory of stationary RICE subject to limited requirements under the rule – “new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis.” Please see 40 CFR 63.6590(b)(2). This subcategory of RICE is not required to meet the emission and operating limitations of the rule since the presence of siloxanes in landfill gas will cause fouling of an oxidation catalyst, rendering the control device inoperable within a short period of time. For these IC engines, owners and operators are only required to provide initial notification within 30 days of commencing construction, use separate fuel meters to monitor and record the amount of each fuel used daily, and make

an annual demonstration that the engine continues to be part of the subcategory (i.e., show through calculations that the landfill gas or digester gas makes up more than 10 percent of the annual heat input).

By way of background, the proposed RICE MACT (67 FR 77829) did not include the subcategory for landfill gas-fired engines as it is currently defined. Initially, the subcategory was for stationary RICE that "combust landfill gas or digester gas as their primary fuel," for which only initial notification was required. Please see to the exceptions proposed as 40 CFR 63.6590(b)(ii) at 67 FR 77861, December 19, 2002. At about the same time, EPA also proposed NESHAP Subpart YYYY which contained a similarly regulated subcategory of stationary combustion turbines constructed at major sources of HAP emissions. Please see the exceptions proposed as 40 CFR 63.6090(b)(iii) at 68 FR 1914, January 14, 2003. Comments received on the proposed NESHAP for combustion turbines stated that the subcategory for landfill and digester gas fired turbines should be for units with annual landfill and digester gas consumption 10 percent or more of the total fuel consumption on an annual basis, which is similar to the boiler new source performance standards (NSPS) in Subpart Db of 40 CFR Part 60. EPA therefore adopted language similar to the boiler NSPS upon finalizing the RICE MACT, reasoning that operation below the 10 percent cutoff would indicate that the affected source may not use landfill gas as the primary fuel, thereby raising concerns regarding circumvention of the emission standards applicable to new units in other subcategories.

EPA also added the following monitoring requirement at 40 CFR 63.6625(c) for IC engines that combust landfill gas as the primary fuel;

"If you are operating a new or reconstructed stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, you must monitor and record your fuel usage daily with separate fuel meters to measure the volumetric flow rate of each fuel."

Modified Condition 5.2.1.d of the draft PSD permit cites this as the regulatory basis for requiring WM to install "a device to continuously measure the landfill gas flow rate to each IC Engine." WM strongly believes that it was not the intent of EPA to have this regulatory language interpreted in such a manner so as to require each IC engine that to have a separate fuel meter when only a single fuel is combusted. First, the plain language of the rule only requires the measurement of the "volumetric flow rate of each fuel." Therefore, each fuel, and not each engine, are required to have separate fuel meters. The purpose of having separate fuel meters for each fuel combusted is to determine whether the affected source qualifies for a subcategory not subject to an emission standard under the rule. In the case of the proposed LFGTE facility, since the IC engines will combust only landfill gas that has been conditioned in the treatment system, determining the amount of LFG that makes up each unit's gross annual heat input, on a percentage basis, can be accomplished with a single metering device. In fact, it can be accomplished without any such device.

Additionally, based on the above brief regulatory history of the landfill and digester gas engine subcategory, WM believes that EPA intended to regulate the subcategory in a manner similar to NSPS Subpart Db. Under this standard, affected industrial, commercial and institutional (ICI) steam generating units are required to meet certain emission limitations based on the "annual capacity factor" for each fuel burned. This is analogous to the 10 percent cutoff used to determine whether an IC engine combusts landfill gas as the primary fuel for the purposes of the RICE MACT. Regarding NSPS Subpart Db, EPA has previously determined that when a facility is restricted to burning only a single fuel by a federally enforceable permit condition,

there is no need to calculate the annual capacity factor for the fuel combusted. Please refer to the attached EPA Applicability Determination Index memorandum, "Fuel Usage Monitoring Requirement", Control No. 0700014. Given the regulatory history and the relationship to NSPS Subpart Db, WM believes that this determination can be extended to fuel monitoring requirement landfill gas and digester gas fired IC engines in the RICE MACT.

Therefore, WM respectfully requests that the following changes be made to the permit:

- Add Condition 3.3.10 that establishes an operating limitation to combust only LFG in the IC engines;
- Revise Condition 5.2.1.d to read, "A device to continuously measure the landfill gas flow rate to the IC Engines. On a daily basis, the consumption of LFG combusted to the engines shall be measured and recorded"; and
- Add as an exceedance in Condition 6.1.7.b.v, "firing any fuel in the IC Engines not meeting the requirements of Condition 3.3.10."

WM believes that this clearly remains consistent with the goal to assure that the IC engines associated with the proposed LFGTE facility remain part of a subcategory and not circumvent any emission standard.

Performance Testing for PM₁₀, PM_{2.5} and SO₂

New Condition 4.2.2 requires performance testing to be conducted for emissions of PM₁₀, PM_{2.5} and SO₂ from each engine to demonstrate initial compliance with BACT with subsequent testing performed at 5-year intervals in accordance with Condition 4.2.5. As an alternative, one engine may be tested for PM₁₀, PM_{2.5} and SO₂ every year on a rotating basis. First, WM is requesting that GA EPD delete the reference to EPA Method 201A in Condition 4.1.3.k. This performance test method will not be applicable to the IC engines since the diameter and temperature of each exhaust stack will not support the 201A cyclone. WM will demonstrate compliance with BACT for PM₁₀ and PM_{2.5} by measuring total PM in the stack using Methods 5 and 202. Second, WM believes that the frequency for subsequent performance testing is too stringent. All IC engines associated with the LFGTE facility will essentially be identical and will combust fuel conditioned in the treatment system. Since particulate matter and SO₂ emissions from the combustion of LFG are a function of the quality of the LFG, and all engines will combust fuel from the same source, it is reasonable to assume that performance test results for one engine will be representative of all engines. Therefore, WM requests that Condition 4.2.5 be revised to read as follows:

- "Following the test required by Condition 4.2.2, the Permittee shall conduct subsequent performance testing for one engine every 3 years, on a rotating basis, to demonstrate compliance with the PM₁₀, PM_{2.5}, and SO₂ emission limits. The amount of time between performance tests for any given engine shall be less than 18 years."

Three years was chosen as the time interval for the subsequent testing since this will increase the likelihood of coordinating this testing with the BACT/NSPS testing required by Condition 4.2.4. Since all IC engines are required to be initially tested under Condition 4.2.2, GA EPD will have the opportunity to review the

emissions performance of each engine within 180 of startup. After review of the performance test results, GA EPD will be able to confirm whether testing for one engine will be considered representative of all engines. If GA EPD finds that this is not the case, the agency can use its authority under 391-3-1-.03(10)(e)6.(i)(IV) to reopen the permit for cause to revise the permit and assure compliance with BACT.

Specific Recordkeeping and Reporting Requirements

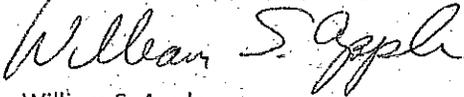
New Condition 6.2.20 requires WM to record the date and time when LFG is directed to the flare(s) or treatment system. In your April 24, 2012 letter, GA EPD states that "the purpose of this condition is to ensure that the landfill gas is either burned in the flare or sent to the treatment system for combustion in the IC engines." It would be more practical to document the dates and times LFG is not routed to either the flare(s) or treatment system since WM is required by Condition 3.3.2.f to operate the flares or treatment system at all times when the LFG is routed to the system. Therefore, WM is requesting that Condition 6.2.20 be revised to read as follows:

- "The Permittee shall record the date and time when landfill gas is not directed to either the flare(s) or the treatment system."

WM sincerely appreciates the opportunity to provide you with these comments. If you have any questions regarding this response, please contact Bill Apple at (678) 385-1329.

Sincerely,

Sage Environmental Consulting, L.P.



William S. Apple
Project Manager

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cc: Tim Bassett, Waste Management
Dave Thorley, Waste Management