

Part 70 Operating Permit Amendment

Permit Amendment No.: 4953-089-0299-V-02-2 **Effective Date:**

Facility Name: **Seminole Road Municipal Solid Waste Landfill**

Facility Address: 4203 Clevemont Road
Ellenwood, Georgia, 30294, DeKalb County

Mailing Address: 4203 Clevemont Road
Ellenwood, GA 30294

**Parent/Holding
Company:** DeKalb County

Facility AIRS Number: 04-13-089-00299

In accordance with the provisions of the Georgia Air Quality Act, O.C.G.A. Section 12-9-1, et seq and the Georgia Rules for Air Quality Control, Chapter 391-3-1, adopted pursuant to and in effect under the Act, the Permittee described above is issued a construction permit for:

Installation of an enclosed flare and a landfill gas-fired engine powered generator at the Green Energy Facility.

This Permit Amendment shall also serve as a final amendment to the Part 70 Permit unless objected to by the U.S. EPA or withdrawn by the Division. The Division will issue a letter when this Operating Permit amendment is finalized.

This Permit Amendment is conditioned upon compliance with all provisions of The Georgia Air Quality Act, O.C.G.A. Section 12-9-1, et seq, the Rules, Chapter 391-3-1, adopted and in effect under that Act, or any other condition of this Permit Amendment and Permit No. 4953-089-0299-V-02-0. Unless modified or revoked, this Permit Amendment expires upon issuance of the next Part 70 Permit for this source.

This Permit Amendment may be subject to revocation, suspension, modification or amendment by the Director for cause including evidence of noncompliance with any of the above; or for any misrepresentation made in Application No. TV-20544 dated June 27, 2011; any other applications upon which this Permit Amendment or Permit No. 4953-089-0299-V-02-0 are based; supporting data entered therein or attached thereto; or any subsequent submittal or supporting data; or for any alterations affecting the emissions from this source.

This Permit Amendment is further subject to and conditioned upon the terms, conditions, limitations, standards, or schedules contained in or specified on the attached 17 pages.

DRAFT

Director
Environmental Protection Division

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PART 1.0 FACILITY DESCRIPTION

1.3 Process Description of Modification

DeKalb County is proposing to add an enclosed flare (Source ID F2) and a landfill gas-fired internal combustion (IC) engine which is to power a generator (Source ID E3) to the Green Energy Facility. The flare is rated at 1250 scfm of landfill gas at 50% methane. Engine-generator E3 is expected to use approximately 550 scfm of landfill gas and be capable of generating 1.6 megawatts (MW) of electricity, similar to existing Engine-generators E1 and E2.

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PART 3.0 REQUIREMENTS FOR EMISSION UNITS

Note: Except where an applicable requirement specifically states otherwise, the averaging times of any of the Emissions Limitations or Standards included in this permit are tied to or based on the run time(s) specified for the applicable reference test method(s) or procedures required for demonstrating compliance.

3.1.1 Additional Emission Units

Emission Units		Specific Limitations/Requirements		Air Pollution Control Devices	
ID No.	Description	Applicable Requirements/Standards	Corresponding Permit Conditions	ID No.	Description
SRLF	Landfill	40 CFR 60 Subparts A and WWW 40 CFR 61 Subparts A and M 40 CFR 63 Subparts A and AAAA 391-3-1-.02(2)(n)	2.2.1 through 2.2.6, 3.3.1 through 3.3.5, 3.4.5, 3.4.6, 4.2.1, 4.2.2, 4.2.10, 5.2.1 through 5.2.9, 5.2.11, 5.2.12, 6.1.7, 6.2.1 through 6.2.14, 6.2.18 through 6.2.20, 6.2.27.	LGS TS1 TS2 F1 F2	Landfill Gas Collection and Control System (GCCS) Treatment System 1 Treatment System 2 Open Flare Enclosed Flare
GRIN1 GRIN2	Wood (Tub) Grinders	391-3-1-.02(2)(yy) 391-3-1-.02(2)(g) 391-3-1-.02(2)(b) 391-3-1-.02(6)(a)(4)	2.3.1, 3.2.1, 3.4.1 3.4.2, 3.4.3, 6.1.7, 6.2.15, 6.2.16, 6.2.17	None	None
E1 E2	Caterpillar G3520 Engines used to power a 1.6 MW generator	391-3-1-.02(2)(b) 391-3-1-.02(2)(g) 391-3-1-.02(2)(mmm) NSR Avoidance	3.4.1, 3.4.2, 3.4.4, 4.2.2, 4.2.3, 4.2.4, 5.2.1, 5.2.10, 6.1.7, 6.2.21	None	None
E3	Caterpillar G3520C Engine used to power a 1.6 MW generator.	391-3-1-.02(2)(b) 391-3-1-.02(2)(g) 391-3-1-.02(2)(mmm) 40 CFR 60 Subparts A and JJJJ 40 CFR 63 Subparts A and ZZZZ. NSR Avoidance	3.3.6 through 3.3.10, 3.4.1, 3.4.2, 3.4.4, 4.2.5 through 4.2.8, 5.2.1, 5.2.10, 6.1.7, 6.2.24 through 6.2.26.	None	None

* Generally applicable requirements contained in this permit may also apply to emission units listed above. The lists of applicable requirements/standards and corresponding permit conditions are intended as a compliance tool and may not be definitive.

3.3 Equipment Federal Rule Standards

3.3.5 The Permittee shall design, install and operate enclosed Flare F2 so that it will reduce the non-methane organic compound (NMOC) emissions in the landfill gas by 98 weight percent or reduce the outlet NMOC concentration to less than 20 ppmv dry basis as hexane at 3% oxygen.
[40 CFR 60.752(b)(2)(iii)(B)]

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- 3.3.6 The Permittee shall comply with all applicable provisions of the New Source Performance Standards (NSPS), as found in 40 CFR Part 60, Subpart JJJJ – “Standards of Performance for Stationary Spark Ignition Internal Combustion Engines,” for the operation of Engine E3.
[40 CFR 60 Subpart JJJJ]
- 3.3.7 The Permittee shall comply with all applicable NSPS General Provisions (40 CFR 60.1 through 60.19 of Subpart A), as stated in 40 CFR 60.4246, of the New Source Performance Standards (NSPS), as found in 40 CFR 60 Subpart JJJJ – “Standards of Performance for Stationary Spark Ignition Internal Combustion Engines,” as specified in Table 3 to this subpart for operation of Engine E3.
[40 CFR 60 Subpart A and 40 CFR 60.4246]
- 3.3.8 The Permittee shall not cause, let, suffer, permit or allow the rate of emissions from Engine E3 any gases, which contain emissions in total quantities exceeding the allowable rates indicated below:
- a. NO_x emissions in excess of 2.0 g/HP-hr or 150 ppmvd @ 15% Oxygen
 - b. CO emissions in excess of 5.0 g/HP-hr or 610 ppmvd @ 15% Oxygen
 - c. VOC (minus formaldehyde) emissions in excess of 1.0 g/HP-hr or 80 ppmvd @ 15% Oxygen
- The Permittee may choose to comply with the emission standards in units of either g/HP-hr or ppmvd at 15 percent O₂.
[40 CFR 60.4233(e)]
- 3.3.9 The Permittee shall keep a maintenance plan and records of conducted maintenance and must to the extent practicable, maintain and operate the engine in a manner consistent with good air pollution control practice for minimizing emissions from Engine E3.
[40 CFR 60.4243(b)(2)(ii)]
- 3.3.10 The Permittee shall comply with all applicable provisions of the National Emission Standards for Hazardous Air Pollutants (NESHAP) as found in 40 CFR Part 63, Subpart ZZZZ - “National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines,” and 40 CFR 63 Subpart A for the operation of Engine E3.
[40 CFR 63 Subpart ZZZZ]

3.4 Equipment SIP Rule Standards

- 3.4.1 The Permittee shall not combust, in Engines E1, E2 or E3; and in the diesel engines powering grinders (GRIN1 and GRIN2), any fuel that contains sulfur in amounts exceeding 2.5 percent by weight
[391-3-1-.02(2)(g)]
- 3.4.2 The Permittee shall not cause, let, suffer, permit or allow the emissions into the atmosphere from Engines E1, E2 or E3; and in the tub grinder diesel engines (GRIN1 and GRIN2), any gases the opacity of which is equal to or greater than forty (40) percent.
[391-3-1-.02(2)(b)]

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- 3.4.4 The Permittee shall not discharge or cause the discharge into the atmosphere from Engine E1, E2 or E3, any gases which contain nitrogen oxides (NO_x) in excess of 0.5 grams per bhp-hour.
[NAA NSR-Avoidance for NO_x Emissions and 391-3-1-.02(2)(mmm) (subsumed)]

PART 4.0 REQUIREMENTS FOR TESTING**4.1 General Testing Requirements**

- 4.1.3 Performance and compliance tests shall be conducted and data reduced in accordance with applicable procedures and methods specified in the Division's Procedures for Testing and Monitoring Sources of Air Pollutants. The methods for the determination of compliance with emission limits listed under Sections 3.2, 3.3, 3.4 and 3.5 are as follows:
- a. Method 2, 2A, 2C, or 2D, as appropriate, for determination of velocity and volumetric flow rate to the flare.
 - b. Method 3A for the determination of oxygen concentration.
 - c. Method 3B for the determination of the emissions rate correction factor or excess air. Method 3A may be used as an alternative to Method 3B.
 - d. Method 3C for the determination of nitrogen concentration.
 - e. Method 7E for the determination of nitrogen oxides concentration. The sampling time for each run shall be at least 60 minutes.
 - f. Method 9 and the procedures contained in Section 1.3 of the above reference document for the determination of opacity.
 - g. Method 10 for determination of carbon monoxide concentration.
 - h. Method 18 for the determination of organic component concentration in the gas stream to the flare.
 - i. Method 21 for the determination of surface methane concentration.
 - j. Method 22 for the determination of visible emissions from the flare. The observation period shall be 2 hours.
 - k. Method 25, 25A or 25C for determination of volatile organic compound concentration.
 - l. ASTM D1946 for the determination of hydrogen and carbon monoxide concentrations in the gas stream to an enclosed flare.
 - m. ASTM D2382 for the determination of the net heat of combustion of each component in the gas stream to an enclosed flare if published values are not available or cannot be calculated.

- n. The procedures contained in Section 2.120.2(b)(1) of the above reference document for the selection of sample points when determining compliance with the NO_x limit in Condition 3.4.4.

Minor changes in methodology may be specified or approved by the Director or his designee when necessitated by process variables, changes in facility design, or improvement or corrections that, in his opinion, render those methods or procedures, or portions thereof, more reliable.

[391-3-1-.02(3)(a)]

4.2 Specific Testing Requirements

4.2.5 The Permittee shall conduct performance testing of the Engine E3, as specified in 40 CFR 60.4243(b)(2), in order to demonstrate compliance with the emission limits in Condition 3.3.8, by following the procedures in 40 CFR 60.4244, which include the following:
[391-3-1-.02(6)(b)1(i) and 40 CFR 60.4244]

- a. Each performance test must be conducted according to the requirements in 40 CFR 60.8 and under the specific conditions that are specified by Table 2 of 40 CFR 60 Subpart JJJJ. Each of the three test run must last at least an hour.
- b. The performance tests must not be conducted during periods of startup, shutdown, or malfunction, as specified in 40 CFR 60.8(c). If the engine is non-operational, the engine need not be started up solely to conduct a performance test; however, the performance test must be conducted immediately upon startup of the engine.
- c. To determine compliance with the NO_x emission limitation, in units of mass per unit output, the concentration of NO_x in the engine exhaust must be converted using the following equation:

$$ER = \frac{C_d \times 1.912 \times 10^{-3} \times Q \times T}{HP - hr}$$

Where:

ER = Emission rate of NO_x in g/HP-hr.

C_d = Measured NO_x concentration in parts per million by volume (ppmv).

1.912×10⁻³ = Conversion constant for ppm NO_x to grams per standard cubic meter at 20 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meter per hour, dry basis.

T = Time of test run, in hours.

HP-hr = Brake work of the engine, horsepower-hour (HP-hr).

- d. To determine compliance with the CO emission limitation, in units of mass per unit output, the concentration of CO in the engine exhaust must be converted using the following equation:

$$ER = \frac{C_d \times 1.164 \times 10^{-3} \times Q \times T}{HP - hr}$$

Where:

ER = Emission rate of CO in g/HP-hr.

C_d = Measured CO concentration in ppmv.

1.164×10⁻³ = Conversion constant for ppm CO to grams per standard cubic meter at 20 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meters per hour, dry basis.

T = Time of test run, in hours.

HP-hr = Brake work of the engine, in HP-hr.

- e. For purposes of this permit, when calculating emissions of VOC, emissions of formaldehyde should not be included. To determine compliance with the VOC emission limitation, in terms of mass unit output, the concentration of VOC in the engine exhaust must be converted using the following equation:

$$ER = \frac{C_d \times 1.833 \times 10^{-3} \times Q \times T}{HP - hr}$$

Where:

ER = Emission rate of VOC in g/HP-hr.

C_d = VOC concentration measured as propane in ppmv.

1.833×10⁻³ = Conversion constant for ppm VOC measured as propane, to grams per standard cubic meter at 20 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meters per hour, dry basis.

T = Time of test run, in hours.

HP-hr = Brake work of the engine, in HP-hr.

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- 4.2.6 Within 60 days after initially achieving the maximum production rate at which an engine powering Generator E3 will be operated, but not later than 180 days after initial startup of that engine, the Permittee shall conduct initial performance testing to demonstrate compliance with the carbon monoxide (CO), nitrogen oxides (NOx), and volatile organic compound (VOC) emissions limits in Condition 3.3.8. Performance tests shall be conducted on the engine operating within 10% of the maximum (or the highest achievable) operating load point and at the within 10% of the minimum expected operating load point. Any time an engine is either rebuilt or swapped out, the engine must be retested within 120 days after startup. The Permittee shall use the equations in Condition 4.2.5 to convert the results obtained during testing in order to demonstrate compliance with the emission limits in Condition 3.3.8. During each test run the Permittee shall, using the devices required by Condition 5.2.1, measure and record the following engine operating parameters:
- Manifold temperature
 - Manifold pressure
 - Ignition timing
 - Engine load (generator output, megawatts).

Data for the engine parameters shall be recorded at least once every 10 minutes during each test run and all data shall be included in the test report.

[391-3-1-.02(6)(b)1(i), 40 CFR 60.4243(b)(2)(ii), 40 CFR 60.4244, and 40 CFR 70.6(a)(3)(i)]

- 4.2.7 Following any test required by Condition 4.2.6, the Permittee shall conduct subsequent performance testing on Engine E3 for NOx, CO and VOC every 8,760 operating hours or 3 calendar years, whichever comes first, to demonstrate compliance with emission limits in Condition 3.3.8.
- [391-3-1-.02(6)(b)1(i) and 40 CFR 60.4243(b)(2)(ii)]

- 4.2.8 The Permittee shall, using the engine operating data required to be obtained by Condition 4.2.6, establish the acceptable range (that which indicates compliance with the NOx emission limit in Condition 3.4.4) for each engine parameter for Engine E3. The range shall be included in the emissions test report and shall be used for reporting exceedances and excursions as specified in Condition 6.1.7 for engine powering Engine Generator E3.
- [391-3-1-.02(6)(b)1(i)]

- 4.2.9 Within 180 days after initial startup of the Flare F2, the Permittee shall conduct an initial performance test for NMOC destruction efficiency [or NMOC outlet concentration] of the enclosed flare. The following equation shall be used to calculate efficiency.
- [40 CFR 60.752(b)(2)(iii)(B) and 40 CFR 60.754(d)]

$$\text{Destruction efficiency} = (\text{NMOC}_{\text{in}} - \text{NMOC}_{\text{out}}) / (\text{NMOC}_{\text{in}})$$

where,

NMOC_{in} = mass of NMOC entering the control device

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$NMOC_{out}$ = mass of NMOC exiting the control device

- 4.2.10 During the NMOC destruction efficiency [or NMOC outlet concentration] performance test conducted on the Flare F2, the Permittee shall determine the average combustion temperature using the temperature measuring device required by Condition 5.2.1c. The average combustion temperature shall be included with the test results.
[40 CFR 60.758(c)(1)(i)]

PART 5.0 REQUIREMENTS FOR MONITORING (Related to Data Collection)**5.2 Specific Monitoring Requirements**

5.2.1 The Permittee shall install, calibrate, maintain, and operate monitoring devices for the measurement of the indicated parameters on the following equipment. Data shall be recorded at the frequency specified below. Where such performance specification(s) exist, each system shall meet the applicable performance specification(s) of the Division's monitoring requirements.

[391-3-1-.02(6)(b) 1, 40 CFR 70.6(a)(3)(i), and 40 CFR 60.756(c)]

- a. A heat sensing device, such as an ultraviolet beam sensor or thermocouple, at the pilot light or the flame itself, to indicate the continuous presence of a flame within the open flare(s). [Note: This system need not be operating when LFG or the off-gas is not flowing to the flare(s).]
- b. A device to measure the gas flow rates to the open flare(s) or enclosed flare(s) and the gas treatment systems, at least once every 15 minutes.
- c. A temperature monitoring device equipped with a continuous recorder and having a minimum accuracy of $\pm 1\%$ of the temperature being measured expressed in degrees Celsius or ± 0.5 degrees Celsius, whichever is greater, for monitoring the temperature in the combustion zone of the enclosed flare F2.
- d. A device, on each engine (E1, E2 and E3), to measure the manifold temperature. Data shall be recorded at the frequency specified in Condition 5.2.10.
- e. A device, on each engine (E1, E2 and E3), to measure the manifold pressure. Data shall be recorded at the frequency specified in Condition 5.2.10.
- f. A device, on each engine (E1, E2 and E3), to measure the ignition timing. Data shall be recorded at the frequency specified in Condition 5.2.10.
- g. A device, on each engine (E1, E2 and E3), to measure the engine load. Data shall be recorded at the frequency specified in Condition 5.2.10.
- h. A device to measure the landfill gas flow rate to each engine (E1, E2 and E3). Also on a daily basis, the consumption of LFG combusted in each engine shall also be measured and recorded.
[40 CFR 63.6625(c)]
- i. A non-resettable hour meter on each engine (E1, E2 and E3). Data shall also be recorded each month.
[40 CFR 60.4243(b)(2)(ii)]

5.2.10 Within 120 days after startup of any new engine that powers generator E1, E2 or E3, the Permittee shall, using the devices required by Condition 5.2.1, monitor their operation, according to the following plan:

[391-3-1-.02(6)(b)1 and 40 CFR 70.6(a)(3)(i)]

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- a. On a weekly basis, the manifold temperature, manifold pressure, ignition timing, and engine load of the engine shall be measured and recorded. The duration of the measurement period shall be a minimum of 15 minutes. Data for each parameter shall be recorded at one (1) minute intervals and an arithmetic average determined for each engine parameter.
 - b. Weekly measurements shall be continued on the engine until the average value for each engine parameter is within the range established for each parameter for three (3) consecutive weekly measurements, at which time the measurements may be conducted on a monthly basis. Measurement period duration, data recording frequency, and parametric average shall be as specified in a. of this condition.
 - c. Following any monthly measurement for an engine parameter, which is outside the range for the parameter, the Permittee shall conduct measurements on the engine according to the schedule described in b. of this condition.
- 5.2.11 The Permittee shall install, calibrate, maintain, and operate a monitoring device to measure the off-gas flow rates from the RNG plant to the flare(s) and the LFG flow rates to each gas treatment system (TS1 and TS2), at least once every 15 minutes.
[391-3-1-.02(6)(b) 1, 40 CFR 70.6(a)(3)(i), and 40 CFR 60.756(c)]
- 5.2.12 The Permittee shall operate Flare F2 within the parameter ranges established during the initial or most recent performance test. The combustion zone temperatures shall be no more than 28 °C below the performance test temperature.
[40 CFR 60.752(b)(2)(iii)(B)(2) and 60.758(c)(1)(i)]

PART 6.0 OTHER RECORD KEEPING AND REPORTING REQUIREMENTS**6.1 General Record Keeping and Reporting Requirements**

6.1.3 The Permittee shall submit written reports of any failure to meet an applicable emission limitation or standard contained in this permit and/or any failure to comply with or complete a work practice standard or requirement contained in this permit which are not otherwise reported in accordance with Conditions 6.1.4 or 6.1.2. Such failures shall be determined through observation, data from any monitoring protocol, or by any other monitoring which is required by this permit. The reports shall cover each semiannual period ending June 30 and December 31 of each year, shall be postmarked by August 29 and February 28, respectively following each reporting period, and shall contain the probable cause of the failure(s), duration of the failure(s), and any corrective actions or preventive measures taken.

[391-3-1-.03(10)(d)1.(i) and 40 CFR 70.6(a)(3)(iii)(B)]

6.1.4 The Permittee shall submit a written report containing any excess emissions, exceedances, and/or excursions as described in this permit and any monitor malfunctions for each semiannual period ending June 30 and December 31 of each year. All reports shall be postmarked by August 29 and February 28, respectively following each reporting period. In the event that there have not been any excess emissions, exceedances, excursions or malfunctions during a reporting period, the report should so state. Otherwise, the contents of each report shall be as specified by the Division's Procedures for Testing and Monitoring Sources of Air Pollutants and shall contain the following:

[391-3-1-.02(6)(b)1 and 40 CFR 70.6(a)(3)(iii)(A)]

6.1.7 For the purpose of reporting excess emissions, exceedances or excursions in the report required in Condition 6.1.4, the following excess emissions, exceedances, and excursions shall be reported:

[391-3-1-.02(6)(b)1, 40 CFR 70.6(a)(3)(i), 40 CFR 60.753(b), 40 CFR 60.753(c), 40 CFR 60.753(d), and 40 CFR 60.758(c)(1)(i)]

- a. Excess emissions: (means for the purpose of this Condition and Condition 6.1.4, any condition that is detected by monitoring or record keeping which is specifically defined, or stated to be, excess emissions by an applicable requirement)

None required to be reported in accordance with Condition 6.1.4.

- b. Exceedances: (means for the purpose of this Condition and Condition 6.1.4, any condition that is detected by monitoring or record keeping that provides data in terms of an emission limitation or standard and that indicates that emissions (or opacity) do not meet the applicable emission limitation or standard consistent with the averaging period specified for averaging the results of the monitoring)

i. On any gas collection well, any reading of gauge pressure that is not negative.

ii. On any gas collection well, any reading of temperature that exceeds 55 °C (131 °F).

- iii. On any gas collection well, any reading of nitrogen concentration that exceeds 20 percent or oxygen concentration that exceeds 5 percent.
 - iv. Any reading of surface methane concentration that exceeds 500 ppm above background concentration.
 - v. Total operational hours of wood grinders greater than 4,200 hours per 12 consecutive month period.
 - vi. Any failure to develop, implement, or maintain on site the Startup, Shutdown and Malfunction Plan required in Condition 6.2.11.
 - vii. Any 3-hour average combustion zone temperature in the Flare F2, during periods that landfill gas or off-gas from the RNG plant is routed to the enclosed flare, that is more than 28°C (50°F) below the temperature determined during the most recent performance test.
- c. Excursions: (means for the purpose of this Condition and Condition 6.1.4, any departure from an indicator range or value established for monitoring consistent with any averaging period specified for averaging the results of the monitoring)
- i. Use of any fuel oil in a diesel powered grinder whose sulfur content exceeds 0.5%.
 - ii. Any measurement of manifold temperature for any IC engine, which is outside the range established in accordance with the requirements of Conditions 4.2.3 and 4.2.6.
 - iii. Any measurement of manifold pressure for any IC engine, which is outside the range established in accordance with the requirements of Condition 4.2.3 and 4.2.6.
 - iv. Any measurement of ignition timing for any IC engine, which is outside the range established in accordance with the requirements of Condition 4.2.3 and 4.2.6.
 - v. Any measurement of engine load (generator output, megawatts) for any IC engine, which is outside the range established in accordance with the requirements of Condition 4.2.3 and 4.2.6.

6.2 Specific Record Keeping and Reporting Requirements

- 6.2.5 The Permittee shall submit a report of the following information for the semiannual periods ending June 30 and December 31 of each year. The report shall be postmarked by August 29 and February 28, respectively).
[391-3-1-.02(6)(b)1, 40 CFR 70.6(a)(3)(i), 40 CFR 70.6(a)(3)(iii)(A), and 40 CFR 60.757(f)]

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- a. Description and duration of all periods when the landfill gas stream is diverted from a control device (gas treatment systems or open or enclosed flare(s)) through a bypass line, as indicated by the flow rate measuring device or monthly inspection of bypass line valve, as applicable.
- b. Description and duration of all periods when no control device (gas treatment systems and/or open or enclosed flare(s)) was operating for a period exceeding 1 hour and the total length of time no control device was operating.
- c. All periods when the collection system was not operating in excess of 5 days.
- d. The location of each exceedance of the 500 parts per million methane concentration limit and the concentration recorded at each location for which an exceedance was recorded in the previous month.
- e. The date of installation and the location of each well or collection system expansion added pursuant to Conditions 5.2.4, 5.2.6 and 5.2.7.

6.2.24 The Permittee shall furnish the Division written notification as follows:

- a. The actual date of initial startup that the Engine E3 becomes operational, within 15 days after such date(s).
- b. Written operational and maintenance instructions provided by the manufacturer for engine E3. This information must be submitted along with information as required by paragraph a above.

For the purpose of this permit, “operational” means that the source has been properly installed and is capable of proper operation for the purpose intended.

[391-3-1-.02(6)(b)1, 40 CFR 70.6 (a)(3)(i) and 40 CFR 60.7]

6.2.25 The Permittee shall also furnish the Division written notification, reporting and record keeping as required by 40 CFR 60.4246 of Subpart JJJJ for Engine E3, which includes the following:

[391-3-1-.02(6)(b)1, 40 CFR 70.6 (a)(3)(i) and 40 CFR 60.4245]

- a. An initial notification within 30 days after the date of construction of Engine E3 as required in 40 CFR 60.7(a)(1). The notification must include the information as below:
 - i. Name and address of the owner or operator.
 - ii. Address where the engines are located.
 - iii. Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement.
 - iv. Emission control equipment.
 - v. Fuel used.

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- b. The following records shall be kept as indicated below:
 - i. All notifications submitted to comply with Subpart JJJJ and all documentation supporting any notification.
 - ii. Maintenance conducted on the engine.
 - iii. If the engine is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards and information as required in 40 CFR parts 90, 1048, 1054, and 1060, as applicable.
 - iv. If the engine is not a certified engine or is a certified engine operating in a non-certified manner and subject to 40 CFR 60.4243(a)(2), documentation that the engine meets the emission standards.
 - c. For performance testing of Engine E3, a copy of each performance test must be submitted per 40 CFR 60.4244 within 60 days after the test has been completed.
- 6.2.26 The Permittee shall keep up-to-date, readily accessible continuous records of the LFG flow rate and combustion temperature of the enclosed flare F2 as required by Condition No. 5.2.1.
[391-3-1-.02(6)(b)]

PART 8.0 GENERAL PROVISIONS**8.14 Compliance Requirements**

8.14.1 Compliance Certification

The Permittee shall provide written certification to the Division and to the EPA, at least annually, of compliance with the conditions of this Permit. The annual written certification shall be postmarked no later than February 28 of each year and shall be submitted to the Division and to the EPA. The certification shall include, but not be limited to, the following elements:

[391-3-1-.03(10)(d)3 and 40 CFR 70.6(c)(5)]

- a. The identification of each term or condition of the Permit that is the basis of the certification;
- b. The status of compliance with the terms and conditions of the permit for the period covered by the certification, including whether compliance during the period was continuous or intermittent, based on the method or means designated in paragraph c below. The certification shall identify each deviation and take it into account in the compliance certification. The certification shall also identify as possible exceptions to compliance any periods during which compliance is required and in which an excursion or exceedance as defined under 40 CFR Part 64 occurred;
- c. The identification of the method(s) or other means used by the owner or operator for determining the compliance status with each term and condition during the certification period;
- d. Any other information that must be included to comply with section 113(c)(2) of the Act, which prohibits knowingly making a false certification or omitting material information; and
- e. Any additional requirements specified by the Division.

Attachments

- A. List of Standard Abbreviations and List of Permit Specific Abbreviations
- B. Insignificant Activities Checklist, Insignificant Activities Based on Emission Levels and Generic Emission Groups
- C. List of References

Title V Permit Amendment

Seminole Road MSW Landfill

Permit No.: 4953-089-0299-V-02-2

ATTACHMENT B

NOTE: Attachment B contains information regarding insignificant emission units/activities and groups of generic emission units/activities in existence at the facility at the time of Permit issuance. Future modifications or additions of insignificant emission units/activities and equipment that are part of generic emissions groups may not necessarily cause this attachment to be updated.

INSIGNIFICANT ACTIVITIES CHECKLIST

Category	Description of Insignificant Activity/Unit	Quantity
Mobile Sources	1. Cleaning and sweeping of streets and paved surfaces	1
Combustion Equipment	1. Fire fighting and similar safety equipment used to train fire fighters or other emergency personnel.	
	2. Small incinerators that are not subject to any standard, limitation or other requirement under Section 111 or 112 (excluding 112(r)) of the Federal Act and are not considered a "designated facility" as specified in 40 CFR 60.32e of the Federal emissions guidelines for Hospital/Medical/Infectious Waste Incinerators, that are operating as follows: i) Less than 8 million BTU/hr heat input, firing types 0, 1, 2, and/or 3 waste. ii) Less than 8 million BTU/hr heat input with no more than 10% pathological (type 4) waste by weight combined with types 0, 1, 2, and/or 3 waste. iii) Less than 4 million BTU/hr heat input firing type 4 waste. (Refer to 391-3-1-.03(10)(g)2.(ii) for descriptions of waste types)	
	3. Open burning in compliance with Georgia Rule 391-3-1-.02 (5).	
	4. Stationary engines burning: i) Natural gas, LPG, gasoline, dual fuel, or diesel fuel which are used exclusively as emergency generators; ii) Natural gas, LPG, and/or diesel fueled generators used for emergency, peaking, and/or standby power generation, where the combined peaking and standby power generation do not exceed 200 hours per year. iii) Natural gas, LPG, and/or diesel fuel used for other purposes, provided that the output of each engine does not exceed 400 horsepower and that no individual engine operates for more than 2,000 hours per year. iv) Gasoline used for other purposes, provided that the output of each engine does not exceed 100 horsepower and that no individual engine operates for more than 500 hours per year.	
Trade Operations	1. Brazing, soldering, and welding equipment, and cutting torches related to manufacturing and construction activities whose emissions of hazardous air pollutants (HAPs) fall below 1,000 pounds per year.	1
Maintenance, Cleaning, and Housekeeping	1. Blast-cleaning equipment using a suspension of abrasive in water and any exhaust system (or collector) serving them exclusively.	
	2. Portable blast-cleaning equipment.	
	3. Non-Perchloroethylene Dry-cleaning equipment with a capacity of 100 pounds per hour or less of clothes.	
	4. Cold cleaners having an air/vapor interface of not more than 10 square feet and that do not use a halogenated solvent.	1
	5. Non-routine clean out of tanks and equipment for the purposes of worker entry or in preparation for maintenance or decommissioning.	
	6. Devices used exclusively for cleaning metal parts or surfaces by burning off residual amounts of paint, varnish, or other foreign material, provided that such devices are equipped with afterburners.	
	7. Cleaning operations: Alkaline phosphate cleaners and associated cleaners and burners.	

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INSIGNIFICANT ACTIVITIES CHECKLIST

Category	Description of Insignificant Activity/Unit	Quantity
Laboratories and Testing	1. Laboratory fume hoods and vents associated with bench-scale laboratory equipment used for physical or chemical analysis.	
	2. Research and development facilities, quality control testing facilities and/or small pilot projects, where combined daily emissions from all operations are not individually major or are support facilities not making significant contributions to the product of a collocated major manufacturing facility.	
Pollution Control	1. Sanitary wastewater collection and treatment systems, except incineration equipment or equipment subject to any standard, limitation or other requirement under Section 111 or 112 (excluding 112(r)) of the Federal Act.	
	2. On site soil or groundwater decontamination units that are not subject to any standard, limitation or other requirement under Section 111 or 112 (excluding 112(r)) of the Federal Act.	
	3. Bioremediation operations units that are not subject to any standard, limitation or other requirement under Section 111 or 112 (excluding 112(r)) of the Federal Act.	
	4. Landfills that are not subject to any standard, limitation or other requirement under Section 111 or 112 (excluding 112(r)) of the Federal Act.	
Industrial Operations	1. Concrete block and brick plants, concrete products plants, and ready mix concrete plants producing less than 125,000 tons per year.	
	2. Any of the following processes or process equipment which are electrically heated or which fire natural gas, LPG or distillate fuel oil at a maximum total heat input rate of not more than 5 million BTU's per hour: <ul style="list-style-type: none"> i) Furnaces for heat treating glass or metals, the use of which do not involve molten materials or oil-coated parts. ii) Porcelain enameling furnaces or porcelain enameling drying ovens. iii) Kilns for firing ceramic ware. iv) Crucible furnaces, pot furnaces, or induction melting and holding furnaces with a capacity of 1,000 pounds or less each, in which sweating or distilling is not conducted and in which fluxing is not conducted utilizing free chlorine, chloride or fluoride derivatives, or ammonium compounds. v) Bakery ovens and confection cookers. vi) Feed mill ovens. vii) Surface coating drying ovens 	
	3. Carving, cutting, routing, turning, drilling, machining, sawing, surface grinding, sanding, planing, buffing, shot blasting, shot peening, or polishing; ceramics, glass, leather, metals, plastics, rubber, concrete, paper stock or wood, also including roll grinding and ground wood pulping stone sharpening, provided that: <ul style="list-style-type: none"> i) Activity is performed indoors; & ii) No significant fugitive particulate emissions enter the environment; & iii) No visible emissions enter the outdoor atmosphere. 	
	4. Photographic process equipment by which an image is reproduced upon material sensitized to radiant energy (e.g., blueprint activity, photographic developing and microfiche).	
	5. Grain, food, or mineral extrusion processes	
	6. Equipment used exclusively for sintering of glass or metals, but not including equipment used for sintering metal-bearing ores, metal scale, clay, fly ash, or metal compounds.	
	7. Equipment for the mining and screening of uncrushed native sand and gravel.	
	8. Ozonization process or process equipment.	
	9. Electrostatic powder coating booths with an appropriately designed and operated particulate control system.	
	10. Activities involving the application of hot melt adhesives where VOC emissions are less than 5 tons per year and HAP emissions are less than 1,000 pounds per year.	
	11. Equipment used exclusively for the mixing and blending water-based adhesives and coatings at ambient temperatures.	
	12. Equipment used for compression, molding and injection of plastics where VOC emissions are less than 5 tons per year and HAP emissions are less than 1,000 pounds per year.	
	13. Ultraviolet curing processes where VOC emissions are less than 5 tons per year and HAP emissions are less than 1,000 pounds per year.	

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INSIGNIFICANT ACTIVITIES CHECKLIST

Category	Description of Insignificant Activity/Unit	Quantity
Storage Tanks and Equipment	1. All petroleum liquid storage tanks storing a liquid with a true vapor pressure of equal to or less than 0.50 psia as stored.	
	2. All petroleum liquid storage tanks with a capacity of less than 40,000 gallons storing a liquid with a true vapor pressure of equal to or less than 2.0 psia as stored that are not subject to any standard, limitation or other requirement under Section 111 or 112 (excluding 112(r)) of the Federal Act.	
	3. All petroleum liquid storage tanks with a capacity of less than 10,000 gallons storing a petroleum liquid.	3
	4. All pressurized vessels designed to operate in excess of 30 psig storing petroleum fuels that are not subject to any standard, limitation or other requirement under Section 111 or 112 (excluding 112(r)) of the Federal Act.	
	5. Gasoline storage and handling equipment at loading facilities handling less than 20,000 gallons per day or at vehicle dispensing facilities that are not subject to any standard, limitation or other requirement under Section 111 or 112 (excluding 112(r)) of the Federal Act.	
	6. Portable drums, barrels, and totes provided that the volume of each container does not exceed 550 gallons.	15
	7. All chemical storage tanks used to store a chemical with a true vapor pressure of less than or equal to 10 millimeters of mercury (0.19 psia).	

INSIGNIFICANT ACTIVITIES BASED ON EMISSION LEVELS

Description of Emission Units / Activities	Quantity
Landfill Working Face	1
Transfer Station Operations	1
LFG Condensate Collection System	1
Leachate Collection and Storage System	2
Landfill gas (LFG) to renewable natural gas (RNG) facility	1

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ATTACHMENT B (continued)

GENERIC EMISSION GROUPS

Emission units/activities appearing in the following table are subject only to one or more of Georgia Rules 391-3-1-.02 (2) (b), (e) &/or (n). Potential emissions of particulate matter, from these sources based on TSP, are less than 25 tons per year per process line or unit in each group. Any emissions unit subject to a NESHAP, NSPS, or any specific Air Quality Permit Condition(s) are not included in this table.

Description of Emissions Units / Activities	Number of Units (if appropriate)	Applicable Rules		
		Opacity Rule (b)	PM from Mfg Process Rule (e)	Fugitive Dust Rule (n)

The following table includes groups of fuel burning equipment subject only to Georgia Rules 391-3-1-.02 (2) (b) & (d). Any emissions unit subject to a NESHAP, NSPS, or any specific Air Quality Permit Condition(s) are not included in this table.

Description of Fuel Burning Equipment	Number of Units
Fuel burning equipment with a rated heat input capacity of less than 10 million BTU/hr burning only natural gas and/or LPG.	1
Fuel burning equipment with a rated heat input capacity of less than 5 million BTU/hr, burning only distillate fuel oil, natural gas and/or LPG.	0
Any fuel burning equipment with a rated heat input capacity of 1 million BTU/hr or less.	1

ATTACHMENT C**LIST OF REFERENCES**

1. The Georgia Rules for Air Quality Control Chapter 391-3-1. All Rules cited herein which begin with 391-3-1 are State Air Quality Rules.
2. Title 40 of the Code of Federal Regulations; specifically 40 CFR Parts 50, 51, 52, 60, 61, 63, 64, 68, 70, 72, 73, 75, 76 and 82. All rules cited with these parts are Federal Air Quality Rules.
3. *Georgia Department of Natural Resources, Environmental Protection Division, Air Protection Branch, Procedures for Testing and Monitoring Sources of Air Pollutants.*
4. *Georgia Department of Natural Resources, Environmental Protection Division, Air Protection Branch, Procedures for Calculating Air Permit Fees.*
5. Compilation of Air Pollutant Emission Factors, AP-42, Fifth Edition, Volume I: Stationary Point and Area Sources. This information may be obtained from EPA's TTN web site at www.epa.gov/ttn/chief/ap42/index.html.
6. The latest properly functioning version of EPA's **TANKS** emission estimation software. The software may be obtained from EPA's TTN web site at www.epa.gov/ttn/chief/software/tanks/index.html.
7. The Clean Air Act (42 U.S.C. 7401 et seq).
8. White Paper for Streamlined Development of Part 70 Permit Applications, July 10, 1995 (White Paper #1).
9. White Paper Number 2 for Improved Implementation of the Part 70 Operating Permits Program, March 5, 1996 (White Paper #2).