

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
NOTICE OF FINAL PERMIT

In the Matter of an
Application for Permit

Mr. Scott Salisbury, Managing Member
Brevard Energy, LLC
29261 Wall Street
Wixom, Michigan 48393

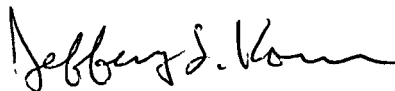
DEP File No. 0090069-004-AC
PSD-FL-378

Enclosed is the FINAL Permit Number PSD-FL-378 for the installation of six (6) lean burn Caterpillar Model G3520C landfill gas fueled internal combustion engines at the Brevard County Solid Waste Management Central Disposal Facility in Cocoa, Brevard County. This permit is issued pursuant to Chapter 403, Florida Statutes (F.S.) and Rule 62-212.400, Florida Administrative Code (F.A.C.) for the Prevention of Significant Deterioration (PSD) of Air Quality.

Any party to this order (permit) has the right to seek judicial review of the permit pursuant to Section 120.68, F.S., by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Legal Office; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 (thirty) days from the date this Order is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.

FO5



Trina L. Vielhauer, Chief
Bureau of Air Regulation

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF FINAL PERMIT (including the FINAL permit) and all copies were sent electronically (with Received Receipt) before the close of business on 3/6/07 to the person(s) listed:

Scott Salisbury, Trail Ridge Energy, LLC (scott.salisbury@landfillenergy.com)

Euripides Rodriguez, Director, SWMD (dgregory@seminolecountyfl.gov)

Gregg Worley, EPA (worley.gregg@epa.gov)

Dee Morse, NPS (dee_morse@nps.gov)

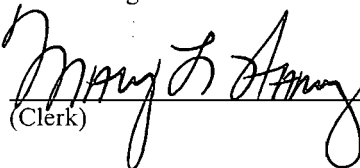
Len Kozlov, DEP-CD (leonard.kozlov@dep.state.fl.us)

Jeff Pope, P.E., Clayton Group Services, Inc. (jeff.pope@us.bureauveritas.com)

David Derenzo, Derenzo & Associates, Inc. (dderenzo@derenzo.com)

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to §120.52, Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.



(Clerk)

3/6/07
(Date)

Florida Department of
Environmental Protection

Memorandum

TO: Joseph Kahn

THRU: Trina Vielhauer
Jeff Koerner 

FROM: Syed Arif SA 2/28

DATE: February 28, 2007

SUBJECT: Brevard Energy, LLC
DEP File No. 0090069-004-AC; PSD-FL-378

Attached for your approval and signature is the final construction permit for Brevard Energy, LLC to install six (6) lean burn Caterpillar Model G3520C landfill gas fueled internal combustion engines at Brevard County Solid Waste Management Central Disposal Facility located in Cocoa, Brevard County. A Best Available Control Technology (BACT) determination was required for nitrogen oxide (NO_x), carbon monoxide (CO) and particulate matter less than or equal to 10 microns (PM₁₀) pursuant to Rule 62-212.400, F.A.C.

Brevard Energy, LLC applied on June 5, 2006 (complete on November 6, 2006) to install the six engines for generating electricity by combusting landfill gas that is currently being flared at the Brevard County Solid Waste Management Central Disposal Facility. Due to this modification; potential emissions of CO will be greater than 250 tons per year (TPY) making the facility a Major Stationary Source for PSD review. The increases in emissions of NO_x and PM₁₀ will exceed the significant emission rates. The total annual increases due to the proposed project are approximately 356 TPY of CO, 78 TPY of NO_x and 31 TPY of PM₁₀. CO and NO_x emissions will be controlled through combustor design (lean burn engine) and good combustion practices (air to fuel ratio control). PM₁₀ emissions will be minimized through the pretreatment of the landfill gas prior to combustion and proper equipment maintenance of the engines.

The Public Notice was published on January 25, 2007 in the Florida Today. No comments were received from the applicant, public, EPA Region IV or the National Park Service.

We recommend your approval and signature.

JK/sa

Attachments

FINAL DETERMINATION

Brevard Energy, LLC

Permit No. 0090069-004-AC; PSD-FL-378

Brevard County Solid Waste Management Central Disposal Facility

An Intent to Issue air construction permit to Brevard Energy, LLC for the installation of six landfill gas-fired engines at Brevard County Solid Waste Management Central Disposal Facility, Brevard County, was distributed on January 19, 2007. The Notice of Intent was published in the Florida Today on January 25, 2007. Copies of the draft construction permit were available for public inspection at the Department offices in Orlando and Tallahassee.

No comments were received from the applicant, public, EPA Region IV or the National Park Service.

The final action of the Department is to issue the permit as proposed.

SECTION I – FACILITY INFORMATION

FACILITY DESCRIPTION

Brevard County Solid Waste Management Central Disposal Facility (Central Disposal Facility) operates a municipal solid waste (MSW) landfill in Cocoa, Brevard County which is allocated for Class I MSW. Methane-rich landfill gas produced from the decomposition of disposed waste materials is being collected by a gas recovery system. The collected gas is currently being diverted to the flaring system for control. Brevard Energy, LLC plans to construct and operate an electrical generation plant at the Central Disposal Facility. In order to reduce the amount of landfill gas (LFG) wasted by flaring, all available LFG from the landfill will be supplied to Brevard Energy, LLC for use as fuel to power the proposed internal combustion (IC) engine electrical generation plant. As a result of these changes, significant emission increases will occur for carbon monoxide (CO), particulate matter with an aerodynamic diameter of 10 microns or less (PM₁₀) and nitrogen oxides (NO_x).

REGULATORY CLASSIFICATION

The Central Disposal Facility is classified as a Major or Title V Source of air pollution because emissions of at least one regulated air pollutant, such as particulate matter (PM/PM₁₀), sulfur dioxide (SO₂), NO_x, CO, or volatile organic compounds (VOC) exceed 100 tons per year (TPY). The landfill facility is also classified as a Title V source since the design capacity of the landfill is greater than 2.5 million cubic meters and megagrams.

The facility is subject to the following Code of Federal Regulations (CFR):

- 40 CFR 60, Subpart A, General Provisions;
- Subpart WWW, Standards of Performance for Municipal Solid Waste Landfills;
- 40 CFR 63, Subpart A, General Provisions;
- 40 CFR 63, Subpart AAAAA, National Emission Standards for Hazardous Air Pollutants (NESHAP) for Municipal Solid Waste Landfills; and
- 40 CFR 63, Subpart ZZZZ, NESHAP for Stationary Reciprocating Internal Combustion Engines.

The proposed landfill gas-fueled IC engine electrical generation plant will be subject to Prevention of Significant Deterioration (PSD) review with respect to Rule 62-210.200(164)(a)2, F.A.C. due to its potential CO emissions being greater than 250 TPY. Best Available Control Technology (BACT) determinations are required for each pollutant emitted in excess of the Significant Emission Rates listed in Rule 62-210.200(242), F.A.C. For this project, the permit specifies BACT emissions standards for CO, NO_x and PM₁₀ emissions.

RELEVANT DOCUMENTS:

The documents listed below are specifically related to this permitting action and form the basis of the permit. They are on file with the Department:

- Application received 06-05-2006
- Department letters dated 07-03-2006 and 07-31-2006
- Applicant's letters received 07-26-2006 and 08-15-2006
- Modeling information received 11-06-2006
- Technical Evaluation and Preliminary Determination dated 01-16-2007
- Best Available Control Technology determination (issued concurrently with permit)

SECTION II – EMISSION UNIT(S) ADMINISTRATIVE REQUIREMENTS

1. **Regulating Agencies:** All documents related to applications for permits to operate, reports, tests, minor modifications and notifications shall be submitted to the Department's Central District Office, 3319 Maguire Boulevard, Suite 232, Orlando, Florida 32803-3767. All applications for permits to construct or modify emissions unit(s) subject to the PSD or Nonattainment (NA) review requirements should be submitted to the Florida Department of Environmental Protection (FDEP), Bureau of Air Regulation (BAR), 2600 Blair Stone Road, MS 5505, Tallahassee, Florida 32399-2400 (phone number 850/488-0114).
2. **General Conditions:** The owner and operator are subject to and shall operate under the attached General Permit Conditions G.1 through G.15 listed in Appendix GC of this permit. General Permit Conditions are binding and enforceable pursuant to Chapter 403 of the Florida Statutes. [Rule 62-4.160, F.A.C.]
3. **Terminology:** The terms used in this permit have specific meanings as defined in the corresponding chapters of the F.A.C.
4. **Applicable Regulations, Forms and Application Procedures:** Unless otherwise indicated in this permit, the construction and operation of the subject emissions unit shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of Chapter 403, F.S. and F.A.C. Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296, 62-297 and CFR Title 40, Parts 60 and 63, adopted by reference in the F.A.C. regulations. The permittee shall use the applicable forms listed in Rule 62-210.900, F.A.C. and follow the application procedures in Chapter 62-4, F.A.C. Issuance of this permit does not relieve the facility owner or operator from compliance with any applicable federal, state, or local permitting or regulations. [Rules 62-204.800, 62-210.300 and 62-210.900, F.A.C.]
5. **Expiration:** The permittee may, for good cause, request that this construction permit be extended. Such a request shall be submitted to the BAR prior to 60 days before the expiration of the permit. However, the permittee shall promptly notify the Department's Central District Office of any delays in completion of the project which would affect the startup day by more than 90 days. [Rule 62-4.090, F.A.C.]
6. **Application for Title V Permit:** This permit authorizes construction of the permitted emissions units and initial operation to determine compliance with Department rules. A Title V operation permit is required for regular operation of the permitted emissions unit. The permittee shall apply for a Title V operation permit at least 90 days prior to expiration, but no later than 180 days after commencing operation. To apply for a Title V operation permit, the applicant shall submit the appropriate application form, compliance test results, and such additional information as the Department may by law require. The application shall be submitted to the appropriate Permitting Authority with copies to the Compliance Authority. [Rules 62-4.030, 62-4.050, 62-4.220, and Chapter 62-213.420, F.A.C.]
7. **Source Obligation:** Authorization to construct shall expire if construction is not commenced within 18 months after receipt of the permit, if construction is discontinued for a period of 18 months or more, or if construction is not completed within a reasonable time. This provision does not apply to the time period between constructions of the approved phases of a phased construction project except that each phase must commence construction within 18 months of the commencement date established by the Department in the permit. [Rule 62-212.400(12)(a), F.A.C.].
8. **BACT Determination:** For phased construction projects, the determination of best available control technology shall be reviewed and modified as appropriate at the latest reasonable time which occurs no later than 18 months prior to commencement of construction of each independent phase of the project. At such time, the owner or operator of the applicable stationary source may be required to demonstrate the adequacy of any previous determination of best available control technology for the source. [40 CFR 52.21(j)(4)]
9. **Annual Reports:** Pursuant to Rule 62-210.370(2), F.A.C., Annual Operation Reports, the permittee is required to submit annual reports on the actual operating rates and emissions from this facility. Annual operating reports using DEP Form 62-210.900(4) shall be sent to the DEP's Central District office by March

SECTION II – EMISSION UNIT(S) ADMINISTRATIVE REQUIREMENTS

1st of each year.

10. Stack Testing Facilities: Stack sampling facilities shall be installed in accordance with Rule 62-297.310(6), F.A.C.
11. New or Additional Conditions: For good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time. [Rule 62-4.080, F.A.C.]

SECTION III – EMISSION UNIT(S) SPECIFIC CONDITIONS

SUBSECTION A. SPECIFIC CONDITIONS

The Specific Conditions listed in this section apply to the following emission units:

EMISSION UNIT NO.	EMISSION UNIT DESCRIPTION
004 - 009	Six Caterpillar Model G3520C landfill gas-fueled internal combustion engines and electrical generators. Each engine has a power generation rating of 2,233 brake horsepower at 100 percent load. The generator has a power output rating of 1,600 kilowatt. The engines will be fueled exclusively with LFG generated by and received from the Central Disposal Facility. The landfill gas will go through a gas treatment system prior to combustion in the engines.

A. FUEL SPECIFICATIONS AND WORK PRACTICES

1. This permit authorizes the installation and operation of six (6) Caterpillar, Model G3520C, 2,233 brake-horsepower landfill gas-fired engines for the generation of up to a total of 9.6 megawatts (nominal rating) of electricity. The maximum power generation rating of each engine shall be 2,233 brake horsepower (bhp). Authorization to construct shall expire if construction is not commenced within 18 months after receipt of the permit, if construction is discontinued for a period of 18 months or more, or if construction is not completed within a reasonable time. **[Rule 62-212.400, F.A.C.]**
{Permitting Note: The power generation rating of 2,233 bhp is based on a minimum fuel heating value requirement of 467 British thermal units per standard cubic foot (BTU//scf) and landfill gas usage of 580 standard cubic feet per minute (scfm) per engine.}
2. This permit authorizes the installation of a LFG Treatment System including gas compression (via blowers), liquids removal (via knock-out and chilling), and particulate removal (via 1 micron primary and polishing filters). The gas treatment system shall not be equipped with atmospheric vents. **[Rule 62-212.400, F.A.C., 40 CFR 60.752 and Appendix J of the application]**
3. Emissions Units Nos. 004-009 are subject to 40 CFR 60 Subpart WWW and certain sections of 40 CFR 63 Subparts AAAA and ZZZZ adopted by the Department at Rule 62-204.800(8)(b) and 62-204.800(11)(b), F.A.C. **[Rules 62-204.800 and 62-210.300, F.A.C.]**
4. Unless otherwise indicated, the modification/construction and operation of the Caterpillar internal combustion engines shall be in accordance with the capacities and specifications stated in the application. **[Rule 62-210.300, F.A.C.]**
5. No person shall cause, suffer, allow, or permit the discharge of air pollutants which cause or contribute to an objectionable odor. **[Rule 62-296.320, F.A.C.]**
6. No person shall circumvent any air pollution control device, or allow the emission of air pollutants without the applicable air pollution control device operating properly. **[Rule 62-210.650, F.A.C.]**
7. Fuel fired in the engines is limited to LFG. The use of any other fuel will require an amendment to this permit. **[Rule 62-212.400, F.A.C.]**
8. The permittee shall operate each engine at the air-to-fuel ratio that the tested engine demonstrated compliance during the performance test required by Specific Condition C.2 or the most recent performance test if a subsequent performance test is conducted. **[Rule 62-212.400, F.A.C.]**
9. The permittee shall operate each engine within 0.5% of the Oxygen (O₂) content in the exhaust gas at the air-to-fuel ratio that the tested engine demonstrated compliance during the performance test required by Specific

SECTION III – EMISSION UNIT(S) SPECIFIC CONDITIONS

Condition C.2 or the most recent performance test if a subsequent performance test is conducted. **[Rule 62-212.400, F.A.C. and Appendix F of the application]**

10. The permittee shall install and maintain an automatic fail-safe block valve on each engine. The fail-safe block valve must stop the flow of LFG in the event of an engine failure. **[Rule 62-4.070, F.A.C.]**
11. Excess LFG not used as fuel in an engine must be flared in accordance with the requirements of 40 CFR 60 Subpart WWW. **[Rule 62-4.070, F.A.C.]**
12. Each engine/generator set may operate up to 8,760 hours per year. **[Rule 62-210.200(232), F.A.C.]**
13. The emissions units shall be subject to the following:
 - a. Excess emissions resulting from startup, shutdown or malfunction of any source shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. **[Rule 62-210.700, F.A.C.]**
 - b. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown, or malfunction shall be prohibited. **[Rule 62-210.700, F.A.C.]**
 - c. In case of excess emissions resulting from malfunctions, each source shall notify the Department in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department. **[Rule 62-210.700, F.A.C.]**

B: EMISSION AND PERFORMANCE REQUIREMENTS

1. **Nitrogen oxides (NO_x):** The emission rate of NO_x from each engine/generator set exhaust shall not exceed 0.60 gram per brake horsepower hour (g/bhp-hr) and a maximum of 2.95 pounds per hour (lb/hr) and 12.94 TPY. **[Rule 62-212.400(12), F.A.C.]**
2. **Carbon Monoxide (CO):** The emission rate of CO from each engine/generator set exhaust shall not exceed 2.75 g/bhp-hr and a maximum of 13.54 lb/hr and 59.30 TPY. **[Rule 62-212.400(12), F.A.C.]**
3. **Particulate Matter less than 10 microns (PM₁₀):** The emission rate of PM₁₀ from each engine/generator set exhaust shall not exceed 0.24 g/bhp-hr and a maximum of 1.18 lb/hr and 5.17 TPY. **[Rule 62-212.400(12), F.A.C.]**
4. **Volatile Organic Compound (VOC):** The emission rate of total VOC from each engine/generator set exhaust shall not exceed 0.28 g/bhp-hr and a maximum of 1.37 lb/hr and 5.99 TPY. **[Rule 62-212.400(12), F.A.C.]**

{Permitting Note: Project avoids PSD review for VOC based on emission limits.}

5. **Hydrogen Chloride (HCl):** The emission rate of HCl from each engine/generator set shall not exceed 10.9 lb/MMscf and 1.66 TPY. **[Rule 62-210.200(184), F.A.C.]**

{Permitting Note: Facility remains a minor source of HAP's emissions based on permit limits.}

6. **Sulfur Dioxide (SO₂):** The emission rate of SO₂ from each engine/generator set shall not exceed 27.5 pound per million standard cubic feet (lb/MMscf). **[Rule 62-212.400(12), F.A.C.]**

{Permitting Note: Project avoids PSD review based on permit limits.}

SECTION III – EMISSION UNIT(S) SPECIFIC CONDITIONS

7. Visible emissions from each engine/generator set exhaust shall not exceed 10% opacity. **[Rule 62-212.400, F.A.C.]**

C. TEST METHODS AND PROCEDURES
1. Sampling Facilities

The permittee shall design the internal combustion engine stack to accommodate adequate testing and sampling locations in order to determine compliance with the applicable emission limits specified by this permit. **[Rule 62-297.310(6), F.A.C.]**

2. Performance Test Methods

Initial (I), Annual (A) and permit renewal (R) compliance tests shall be performed in accordance with the following reference methods as described in 40 CFR 60, Appendix A and 40 CFR 51 Appendix M, adopted by reference in Chapter 62-204.800, F.A.C. Initial, annual and renewal compliance tests shall be conducted on only one of the six engines. A different engine shall be tested each year such that all engines are tested during the six-year cycle.

- (a) EPA Method 7 or 7E – Determination of NO_x Emissions from Stationary Sources (I,A);
- (b) EPA Method 9 – Visual Determination of the Opacity of Emissions from Stationary Sources (I,A);
- (c) EPA Method 10 – Determination of CO Emissions from Stationary Sources (I,A);
- (d) EPA Method 18, 25, 25A or 25C – Measurement of Gaseous Organic Compounds Emissions (I,R);
- (e) EPA Method 26 or 26A – Determination of Hydrogen Chloride (HCl) Emissions from Stationary Sources (I,A);
- (f) EPA Method 201 – Determinations of PM₁₀ Emissions (I,A)

EPA Methods 1 through 4 shall be used as necessary to support other test methods. No other test methods may be used for compliance testing unless prior DEP approval is received, in writing, from the Department. **[Rule 62-297.310(7), F.A.C.]**

3. The permittee shall comply with the following requirements to monitor the sulfur and chlorine content of the landfill gas:
- a. At least 180 days prior to commercial startup of the engines, the permittee shall sample and analyze the landfill gas for sulfur and chlorine content. The gas sample collected for the analyses shall be a composite sample and collected under normal operating conditions (i.e., with valves open for all operating cells). The gas sample collection and analyses for sulfur and chlorine content shall be done semi-annually. Based on the sampling results and Rule 62-297.310(7)(b), F.A.C., the Department may request additional gas sampling and analyses. Results shall be reported as SO₂ and HCl emission factors in terms of lb/MMscf of landfill gas.
 - b. During each required compliance test conducted for HCl, the permittee shall sample and analyze the landfill gas for the chlorine content. Results for the compliance test shall be reported in terms of HCl emissions in lb/hr and the sample analysis result shall be reported as HCl emission factor in terms of lb/MMscf of landfill gas.

SECTION III – EMISSION UNIT(S) SPECIFIC CONDITIONS

- c. Analysis of the chlorine content shall be used to track changes in the landfill gas. Based on the analysis, the Compliance Authority may require additional stack testing for HCl emissions to determine compliance with the emissions standard.
- d. Compliance with the fuel sulfur specification shall be determined based on each analysis for the sulfur content of the landfill gas.

[Rules 62-210.200(184), 62-210.200(232) and 62-212.400(12), F.A.C.]

- 4. Within 60 days of achieving the permitted capacity, but no later than 180 days after initial startup, and annually, the subject emissions units as described in Specific Condition C.2 shall be tested for compliance with the applicable emission limits. For the duration of all tests the emission units shall be operating at permitted capacity. Permitted capacity is defined as 90-100 percent of the maximum operating rate allowed by the permit. If it is impracticable to test at permitted capacity, then the emission unit may be tested at less than permitted capacity (i.e., 90% of the maximum operating rate allowed by the permit); in this case, subsequent emission unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emission unit is so limited, then operation at higher capacities is allowed for no more than 15 consecutive days for the purposes of additional compliance testing to regain the permitted capacity in the permit. **[Rule 62-297.310, F.A.C.]**

D. RECORDKEEPING, REPORTING AND MONITORING REQUIREMENTS

- 1. Total landfill gas flow to the engines shall be continuously measured and recorded. **[Rule 62-210.200 (232), F.A.C.]**
- 2. Gross electrical power generation (kw-hrs) shall be continuously measured and recorded for each engine individually and for the six engines combined. **[Rule 62-210.200(232), F.A.C.]**
- 3. Each engine/generator set shall be equipped with a non-resetable elapsed time meter to indicate, in cumulative hours, the elapsed engine operating time. **[Rule 62-210.200(232), F.A.C.]**
- 4. The permittee shall maintain the following records on a monthly basis:
 - a. The hours of operation of each engine/generator set, including any start-up, shutdown or malfunction in the operations of the engine/generator set.
 - b. The total landfill gas flow to each engine.
 - c. Gross electrical power generation in kw-hr for each engine and the six engines combined.**[Rule 62-210.200(232), F.A.C.]**
- 5. The permittee shall submit the results and the corresponding data of the site-specific HCl emission factor and the SO₂ emission factor within 45 days of gas sampling to BAR. The results shall also be submitted to the Central District Office. **[Rules 62-210.200(232) and 62-210.200(264), F.A.C.]**

APPENDIX BD
BEST AVAILABLE CONTROL TECHNOLOGY DETERMINATION (BACT)

Brevard Energy, LLC
Brevard County Solid Waste Management Central Disposal Facility
PSD-FL-378/0090069-004-AC
Cocoa, Brevard County

Brevard Energy, LLC has applied to modify Brevard County Solid Waste Management Central Disposal Facility (Central Disposal Facility) by installing six (6) lean-burn internal combustion (IC) Caterpillar (CAT) Model G3520C engines and electrical generators. The electrical generation plant will also consist of landfill gas (LFG) treatment equipment (gas dewatering, filtration and compression equipment and processes) and ancillary equipment that supports the electrical generation operations (e.g., engine oil storage tanks and LFG temperature and moisture conditioning equipment).

The six lean-burn IC engines will be connected to individual electrical generators. Each gas IC engine will be connected to a 1,600 kilowatt electrical generator. The plant will have the potential to generate 9.6 megawatts of electricity under base load operating conditions and will be interconnected to the Florida Power & Light distribution network through a nearby power line.

The LFG-fueled IC engines will be housed in a single building constructed near the existing LFG collection system header and control system flare. A gas transmission line will be connected to the header of the existing LFG collection system and a dedicated gas blower/compressor will be used to draw methane-rich gas (fuel) from the existing LFG collection system to the proposed electrical generation plant.

The Central Disposal Facility is a major source of air pollution or a Title V source based on Rule 62-210.200(184), Florida Administrative Code (F.A.C.). Additionally, based on this modification, potential emissions of carbon monoxide (CO) will be greater than 250 tons per year (TPY) making the facility a Major Stationary Source for Prevention of Significant Deterioration (PSD) review with respect to Rule 62-210.200(185)(a)2., F.A.C. The increases in emissions of CO, nitrogen oxide (NO_x) and particulate matter less than or equal to 10 microns (PM₁₀) will exceed the significant emission rates listed in Rule 62-210.200(264), F.A.C. A Best Available Control Technology (BACT) determination is part of the review required for CO, NO_x and PM₁₀ by Rule 62-210.200(39), F.A.C.

Descriptions of the process, project, BACT determination, air quality effects, and rule applicability are given in the Technical Evaluation and Preliminary Determination, accompanying the Department's Intent to Issue.

The Department specifies the following as BACT for each engine:

POLLUTANT	EMISSION LIMIT	CONTROL TECHNOLOGY
CO	2.75 g/bhp-hr and 13.54 lb/hr and 59.30 TPY	Combustor design and good combustion practices
NO _x	0.60 g/bhp-hr and 2.95 lb/hr and 12.94 TPY	Combustor design and good combustion practices
PM ₁₀	0.24 g/bhp-hr and 1.18 lb/hr and 5.17 TPY	Pretreatment of landfill gas and proper engine maintenance

Brevard Energy, LLC
Central Disposal Facility

DEP File No. 0090069-004-AC
Permit No. PSD-FL-378

APPENDIX BD
BEST AVAILABLE CONTROL TECHNOLOGY DETERMINATION (BACT)

Compliance with the emission limits shall be in accordance with the following EPA Reference Methods as contained in 40 CFR 60, Appendix A or as otherwise approved by the Department:

EMISSION UNIT	POLLUTANT	EPA REFERENCE METHOD
Six (6) Caterpillar Model G 3520C LFG-fueled Internal Combustion Engines	PM ₁₀	201
	NO _x	7 or 7E
	CO	10
	VE	9

APPENDIX GC

GENERAL PERMIT CONDITIONS [Florida Administrative Code (F.A.C.) 62-4.160]

- G.1 The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes (F.S.). The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
- G.2 This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings or exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
- G.3 As provided in Subsections 403.087(6) and 403.722(5), F.S., the issuance of this permit does not convey and vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.
- G.4 This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
- G.5 This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of F.S. and Department rules, unless specifically authorized by an order from the Department.
- G.6 The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
- G.7 The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:
- a) Have access to and copy and records that must be kept under the conditions of the permit;
 - b) Inspect the facility, equipment, practices, or operations regulated or required under this permit, and,
 - c) Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.
- Reasonable time may depend on the nature of the concern being investigated.
- G.8 If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:
- a) A description of and cause of non-compliance; and
 - b) The period of non-compliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance. The permittee shall be responsible for any and all damages, which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

APPENDIX GC

GENERAL PERMIT CONDITIONS [Florida Administrative Code (F.A.C.) 62-4.160]

- G.9 In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the F.S. or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.
- G.10 The permittee agrees to comply with changes in Department rules and F.S. after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by F.S. or Department rules.
- G.11 This permit is transferable only upon Department approval in accordance with Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.
- G.12 This permit or a copy thereof shall be kept at the work site of the permitted activity.
- G.13 This permit also constitutes:
- a) Determination of Best Available Control Technology (X)
 - b) Determination of Prevention of Significant Deterioration (X);
 - c) Compliance with New Source Performance Standards (X). Subpart WWW requirements and
 - d) Compliance with National Emission Standards for Hazardous Air Pollutants (X). Subpart AAAA and ZZZZ requirements
- G.14 The permittee shall comply with the following:
- a) Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
 - b) The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application or this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
 - c) Records of monitoring information shall include:
 1. The date, exact place, and time of sampling or measurements;
 2. The person responsible for performing the sampling or measurements;
 3. The dates analyses were performed;
 4. The person responsible for performing the analyses;
 5. The analytical techniques or methods used; and
 6. The results of such analyses.
- G.15 When requested by the Department, the permittee shall within a reasonable time furnish any information required by law, which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

Friday, Barbara

To: scott.salisbury@landfillenergy.com; euripides.rodriquez@brevardcounty.us;
worley.gregg@epa.gov; John_Bunyak@nps.gov; Kozlov, Leonard;
jeff.pope@us.bureauveritas.com; dderenzo@derenzo.com

Cc: Koerner, Jeff

Subject: DRAFT AC Permit No.: 0090069-004-AC(PSD-FL-378)

Attachments: 0090069004ACIntentToIssue.pdf; BACT378.pdf; PERM378.pdf; PN378.pdf; TEPD378.pdf;
378gc.pdf

Dear Sir/Madam:

Please send a "reply" message verifying receipt of the attached document(s); this may be done by selecting "Reply" on the menu bar of your e-mail software and then selecting "Send". We must receive verification of receipt and your reply will preclude subsequent e-mail transmissions to verify receipt of the document(s).

The document(s) may require immediate action within a specified time frame. Please open and review the document(s) as soon as possible.

The document is in Adobe Portable Document Format (pdf). Adobe Acrobat Reader can be downloaded for free at the following internet site: <http://www.adobe.com/products/acrobat/readstep.html>.

The Bureau of Air Regulation is issuing electronic documents for permits, notices and other correspondence in lieu of hard copies through the United States Postal System, to provide greater service to the applicant and the engineering community. Please advise this office of any changes to your e-mail address or that of the Engineer-of-Record.

Thank you,

DEP, Bureau of Air Regulation

1/19/2007

Friday, Barbara

From: System Administrator
To: Kozlov, Leonard
Sent: Friday, January 19, 2007 1:40 PM
Subject: Delivered:DRAFT AC Permit No.: 0090069-004-AC(PSD-FL-378)

Your message

To: 'scott.salisbury@landfillenergy.com'; 'euripides.rodriguez@brevardcounty.us'; 'worley.gregg@epa.gov'; 'John_Bunyak@nps.gov'; Kozlov, Leonard; 'jeff.pope@us.bureauveritas.com'; 'dderenzo@derenzo.com'
Cc: Koerner, Jeff
Subject: DRAFT AC Permit No.: 0090069-004-AC(PSD-FL-378)
Sent: 1/19/2007 1:40 PM

was delivered to the following recipient(s):

Kozlov, Leonard on 1/19/2007 1:40 PM

Friday, Barbara

From: Exchange Administrator
Sent: Friday, January 19, 2007 1:41 PM
To: Friday, Barbara
Subject: Delivery Status Notification (Relay)

Attachments: ATT154703.txt; DRAFT AC Permit No.: 0090069-004-AC(PSD-FL-378)



ATT154703.txt
(287 B)

DRAFT AC Permit
No.: 0090069-...

This is an automatically generated Delivery Status Notification.

Your message has been successfully relayed to the following recipients, but the requested delivery status notifications may not be generated by the destination.

dderenzo@derenzo.com

Friday, Barbara

From: Exchange Administrator
Sent: Friday, January 19, 2007 1:41 PM
To: Friday, Barbara
Subject: Delivery Status Notification (Relay)

Attachments: ATT154705.txt; DRAFT AC Permit No.: 0090069-004-AC(PSD-FL-378)



ATT154705.txt
(286 B)

DRAFT AC Permit
No.: 0090069-...

This is an automatically generated Delivery Status Notification.

Your message has been successfully relayed to the following recipients, but the requested delivery status notifications may not be generated by the destination.

John_Bunyak@nps.gov

Friday, Barbara

From: Exchange Administrator
Sent: Friday, January 19, 2007 1:42 PM
To: Friday, Barbara
Subject: Delivery Status Notification (Relay)

Attachments: ATT154708.txt; DRAFT AC Permit No.: 0090069-004-AC(PSD-FL-378)



ATT154708.txt DRAFT AC Permit
(303 B) No.: 0090069-...

This is an automatically generated Delivery Status Notification.

Your message has been successfully relayed to the following recipients, but the requested delivery status notifications may not be generated by the destination.

euripides.rodriquez@brevardcounty.us

Friday, Barbara

From: EPA Postmaster automated message [postmaster@epamail.epa.gov]
Sent: Friday, January 19, 2007 1:42 PM
To: Friday, Barbara
Subject: Delivery Notification: Message successfully forwarded

Attachments: ATT154716.txt; ATT154716.txt



ATT154716.txt (626 B) ATT154716.txt (2 KB)

This report relates to a message you sent with the following header fields:

Message-id: <5280B20498F24C46A51A87E86A0C8F972638E8@tlhexsmb5.floridadep.net>
Date: Fri, 19 Jan 2007 13:39:48 -0500
From: "Friday, Barbara" <Barbara.Friday@dep.state.fl.us>
To: scott.salisbury@landfillenergy.com, euripides.rodriquez@brevardcounty.us, worley.gregg@epamail.epa.gov, John_Bunyak@nps.gov, "Kozlov, Leonard" <Leonard.Kozlov@dep.state.fl.us>, jeff.pope@us.bureauveritas.com, dderenzo@derenzo.com
Subject: DRAFT AC Permit No.: 0090069-004-AC(PSD-FL-378)

Your message has been successfully relayed to the recipients

Recipient address: worley.gregg@mseive.epa.gov
Original address: worley.gregg@epa.gov
Reason: Message successfully relayed to a system that does not support receipts
Diagnostic code: dns;mseive01.rtp.epa.gov (TCP|134.67.208.33|3779|134.67.221.149|25) (mseive01.rtp.epa.gov ESMTP Postfix) smtp;250 Ok
Remote system: dns;mseive01.rtp.epa.gov (TCP|134.67.208.33|3779|134.67.221.149|25) (mseive01.rtp.epa.gov ESMTP Postfix)

on a remote system that does not support the generation of successful delivery receipts. This does NOT mean that your message has actually been placed in the recipients' mailboxes; merely that it has passed through a part of the message transport infrastructure. In the event of a nondelivery you should expect to receive a nondelivery notification; in the event of successful delivery, however, you are unlikely to receive a positive confirmation of delivery.

Friday, Barbara

From: jeff.pope@us.bureauveritas.com
Sent: Friday, January 19, 2007 1:41 PM
To: Friday, Barbara
Subject: Re: DRAFT AC Permit No.: 0090069-004-AC(PSD-FL-378)

Thanks,

Jeffery L. Pope, P.E.
Vice President - Director of Remediation Engineering

Clayton Group Services
A Bureau Veritas Company
3140 Finley Road
Downers Grove, IL 60515
Direct: 630-795-3211
Fax: 630-795-1102
Cell: 630-803-0274
jeff.pope@us.bureauveritas.com
www.us.bureauveritas.com

This e-mail along with any and all attached files is intended for the use of the individual or entity to which it is addressed and may contain information that is privileged, confidential and exempt from disclosure under applicable law. If the reader of this message is not the intended recipient or the employee or agent responsible for delivering this message to the intended recipient, you are hereby notified that any dissemination, distribution or copying of this communication is strictly prohibited. If you have received this communication in error, please notify Bureau Veritas immediately by telephone at (630) 795-3200 and return the original message via the U.S. Postal Service. Thank you.

1/19/2007

Friday, Barbara

From: David Derenzo [dderenzo@derenzo.com]
Sent: Friday, January 19, 2007 1:46 PM
To: Friday, Barbara
Subject: Read: DRAFT AC Permit No.: 0090069-004-AC(PSD-FL-378)
Attachments: Read_ DRAFT AC Permit No._ 0090069-004-AC(PSD-FL-378).txt

Friday, Barbara

From: System Administrator
To: Scott Salisbury
Sent: Friday, January 19, 2007 1:58 PM
Subject: Delivered:DRAFT AC Permit No.: 0090069-004-AC(PSD-FL-378)

Your message

To: scott.salisbury@landfillenergy.com; euripides.rodriguez@brevardcounty.us; worley.gregg@epa.gov; John_Bunyak@nps.gov; Kozlov, Leonard; jeff.pope@us.bureauveritas.com; dderenzo@derenzo.com
Cc: Koerner, Jeff
Subject: DRAFT AC Permit No.: 0090069-004-AC(PSD-FL-378)
Sent: 1/19/2007 1:40 PM

was delivered to the following recipient(s):

Scott Salisbury on 1/19/2007 1:38 PM

Adams, Patty

From: Harvey, Mary
Sent: Thursday, March 08, 2007 11:04 AM
To: Adams, Patty
Subject: FW: Brevard Energy, LLC - Facility #0090069-004-AC - FINAL

From: David Derenzo [mailto:dderenzo@derenzo.com]
Sent: Thursday, March 08, 2007 10:35 AM
To: Harvey, Mary
Subject: RE: Brevard Energy, LLC - Facility #0090069-004-AC - FINAL

I have received the Brevard Energy final permit documents.

From: Harvey, Mary [mailto:Mary.Harvey@dep.state.fl.us]
Sent: Tuesday, March 06, 2007 1:19 PM
To: scott.salisbury@landfillenergy.com; dgregory@seminolecountyfl.gov; dee_morse@nps.gov; jeff.pope@us.bureauveritas.com; dderenzo@derenzo.com
Cc: Arif, Syed; Adams, Patty; Gibson, Victoria
Subject: Brevard Energy, LLC - Facility #0090069-004-AC - FINAL

Dear Sir/Madam:

Please send a "reply" message verifying receipt of the attached document(s); this may be done by selecting "Reply" on the menu bar of your e-mail software and then selecting "Send". We must receive verification of receipt and your reply will preclude subsequent e-mail transmissions to verify receipt of the document(s).

The document(s) may require immediate action within a specified time frame. Please open and review the document(s) as soon as possible.

The document is in Adobe Portable Document Format (pdf). Adobe Acrobat Reader can be downloaded for free at the following internet site: <http://www.adobe.com/products/acrobat/readstep.html>.

The Bureau of Air Regulation is issuing electronic documents for permits, notices and other correspondence in lieu of hard copies through the United States Postal System, to provide greater service to the applicant and the engineering community. Please advise this office of any changes to your e-mail address or that of the Engineer-of-Record.

Thank you,

DEP, Bureau of Air Regulation

5/29/2007

Adams, Patty

From: Harvey, Mary
Sent: Thursday, March 08, 2007 8:52 AM
To: Adams, Patty
Subject: FW: Brevard Energy, LLC - Facility #0090069-004-AC - FINAL

-----Original Message-----

From: Little.James@epamail.epa.gov [mailto:Little.James@epamail.epa.gov]
Sent: Wednesday, March 07, 2007 4:49 PM
To: Harvey, Mary
Subject: Fw: Brevard Energy, LLC - Facility #0090069-004-AC - FINAL

We received. Thank you.

Jim Little - EPA Region 4
(404) 562-9118

----- Forwarded by James Little/R4/USEPA/US on 03/07/2007 04:47 PM -----

Gregg
Worley/R4/USEPA/
US

03/06/2007 01:40
PM

To
James Little/R4/USEPA/US@EPA,
Kathleen Forney/R4/USEPA/US@EPA,
Gracy Danois/R4/USEPA/US@EPA

cc

Subject

Fw: Brevard Energy, LLC -
Facility #0090069-004-AC - FINAL

Gregg M. Worley
Chief, Air Permits Section
U.S. EPA Region 4
(404) 562-9141
fax (404) 562-9019

CONFIDENTIALITY NOTICE:

This electronic message, including attachments, may contain information that is proprietary, privileged, or confidential and exempt from disclosure. If you are not the intended recipient of this message, you may not disclose, forward, distribute, copy, or use this message or its contents. If you have received this communication in error, please notify the sender immediately by electronic mail and delete the original message and all copies of this message from your system. Thank you.

----- Forwarded by Gregg Worley/R4/USEPA/US on 03/06/2007 01:40 PM -----

"Harvey, Mary"
<Mary.Harvey@dep
.state.fl.us>

03/06/2007 01:34
PM

To
Gregg Worley/R4/USEPA/US@EPA

cc

"Arif, Syed"

Adams, Patty

From: Harvey, Mary
Sent: Wednesday, March 07, 2007 10:05 AM
To: Adams, Patty
Subject: FW: Brevard Energy, LLC - Facility #0090069-004-AC - FINAL

-----Original Message-----

From: Dee_Morse@nps.gov [mailto:Dee_Morse@nps.gov]
Sent: Tuesday, March 06, 2007 3:01 PM
To: Harvey, Mary
Subject: Brevard Energy, LLC - Facility #0090069-004-AC - FINAL

Return Receipt

Your Brevard Energy, LLC - Facility #0090069-004-AC - FINAL
document:

was Dee Morse/DENVER/NPS
received
by:

at: 03/06/2007 01:01:14 PM MST

Adams, Patty

From: Harvey, Mary
Sent: Wednesday, March 07, 2007 10:05 AM
To: Adams, Patty
Subject: FW: Brevard Energy, LLC - Facility #0090069-004-AC - FINAL

From: Rodríguez, Euripides [<mailto:Euripides.Rodriguez@brevardcounty.us>]
Sent: Tuesday, March 06, 2007 3:03 PM
To: undisclosed-recipients
Subject: Read: Brevard Energy, LLC - Facility #0090069-004-AC - FINAL

Your message

To: Euripides.Rodriguez@brevardcounty.us
Subject:

was read on 3/6/2007 3:03 PM.

Adams, Patty

From: Harvey, Mary
Sent: Wednesday, March 07, 2007 10:04 AM
To: Adams, Patty
Subject: FW: Brevard Energy, LLC - Facility #0090069-004-AC - FINAL

From: Kozlov, Leonard
Sent: Tuesday, March 06, 2007 3:58 PM
To: Harvey, Mary
Subject: Read: FW: Brevard Energy, LLC - Facility #0090069-004-AC - FINAL

Your message

To: 'euripides.rodriguez@brevardcounty.us'; Kozlov, Leonard
Cc: Arif, Syed
Subject: FW: Brevard Energy, LLC - Facility #0090069-004-AC - FINAL
Sent: 3/6/2007 2:15 PM

was read on 3/6/2007 3:58 PM.

Adams, Patty

From: Harvey, Mary
Sent: Tuesday, March 06, 2007 2:04 PM
To: Adams, Patty
Cc: Arif, Syed
Subject: FW: Brevard Energy, LLC - Facility #0090069-004-AC - FINAL

From: Gregory, David [<mailto:dgregory@seminolecountyfl.gov>]
Sent: Tuesday, March 06, 2007 1:34 PM
To: undisclosed-recipients
Subject: Read: Brevard Energy, LLC - Facility #0090069-004-AC - FINAL

Your message

To: dgregory@seminolecountyfl.gov
Subject:

was read on 3/6/2007 1:34 PM.

Adams, Patty

From: Harvey, Mary
Sent: Tuesday, March 06, 2007 1:34 PM
To: 'worley.gregg@epa.gov'
Cc: Arif, Syed; Adams, Patty
Subject: FW: Brevard Energy, LLC - Facility #0090069-004-AC - FINAL
Attachments: 378FD - Facility #0090069-004-AC-FINAL.PDF; 378fnot - Facility #0090069-004-AC-FINAL.PDF; 378gc - Facility #0090069-004-AC-FINAL.PDF; BACT378 - Facility #0090069-004-AC-FINAL.PDF; PERM378 - Facility #0090069-004-AC-FINAL.PDF; Signed Document for Facility ID #0090069-004-AC-FINAL.pdf

From: Harvey, Mary
Sent: Tuesday, March 06, 2007 1:19 PM
To: 'scott.salisbury@landfillenergy.com'; 'dgregory@seminolecountyfl.gov'; 'dee_morse@nps.gov'; 'jeff.pope@us.bureauveritas.com'; 'dderenzo@derenzo.com'
Cc: Arif, Syed; Adams, Patty; Gibson, Victoria
Subject: Brevard Energy, LLC - Facility #0090069-004-AC - FINAL

Dear Sir/Madam:

Please send a "reply" message verifying receipt of the attached document(s); this may be done by selecting "Reply" on the menu bar of your e-mail software and then selecting "Send". We must receive verification of receipt and your reply will preclude subsequent e-mail transmissions to verify receipt of the document(s).

The document(s) may require immediate action within a specified time frame. Please open and review the document(s) as soon as possible.

The document is in Adobe Portable Document Format (pdf). Adobe Acrobat Reader can be downloaded for free at the following internet site: <http://www.adobe.com/products/acrobat/readstep.html>.

The Bureau of Air Regulation is issuing electronic documents for permits, notices and other correspondence in lieu of hard copies through the United States Postal System, to provide greater service to the applicant and the engineering community. Please advise this office of any changes to your e-mail address or that of the Engineer-of-Record.

Thank you,

DEP, Bureau of Air Regulation

Adams, Patty

From: Harvey, Mary
Sent: Tuesday, March 06, 2007 1:19 PM
To: 'scott.salisbury@landfillenergy.com'; 'dgregory@seminolecountyfl.gov'; 'dee_morse@nps.gov'; 'jeff.pope@us.bureauveritas.com'; 'dderenzo@derenzo.com'
Cc: Arif, Syed; Adams, Patty; Gibson, Victoria
Subject: Brevard Energy, LLC - Facility #0090069-004-AC - FINAL
Attachments: 0090069.004.AC.F_pdf.zip

Dear Sir/Madam:

Please send a "reply" message verifying receipt of the attached document(s); this may be done by selecting "Reply" on the menu bar of your e-mail software and then selecting "Send". We must receive verification of receipt and your reply will preclude subsequent e-mail transmissions to verify receipt of the document(s).

The document(s) may require immediate action within a specified time frame. Please open and review the document(s) as soon as possible.

The document is in Adobe Portable Document Format (pdf). Adobe Acrobat Reader can be downloaded for free at the following internet site: <http://www.adobe.com/products/acrobat/readstep.html>.

The Bureau of Air Regulation is issuing electronic documents for permits, notices and other correspondence in lieu of hard copies through the United States Postal System, to provide greater service to the applicant and the engineering community. Please advise this office of any changes to your e-mail address or that of the Engineer-of-Record.

Thank you,

DEP, Bureau of Air Regulation



Florida Department of Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Charlie Crist
Governor

Jeff Kottkamp
Lt. Governor

Michael W. Sole
Secretary

PERMITTEE:

Brevard Energy, LLC
29261 Wall Street
Wixom, Michigan 48393

File No.	0090069-004-AC
Permit No.	PSD-FL-378
SIC No.	4953
Project:	Brevard County Solid Waste Management Central Disposal Facility Modification – Landfill Gas Engines
Expires:	October 1, 2008

Secondary Responsible Official (Energy Section):

Mr. Scott Salisbury, Managing Member

Primary Responsible Official (Brevard County Solid Waste Management Central Disposal Facility):

Mr. Euripides Rodriguez, Director
Solid Waste Management Department – Brevard County

PROJECT AND LOCATION:

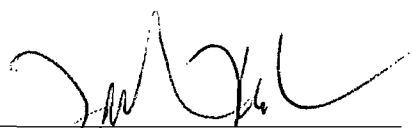
This permit covers the installation and operation of six (6) Caterpillar, Model G3520C, 2,233 brake-horsepower landfill gas-fired engines for the generation of up to a total of 9.6 megawatts (nominal rating) of electricity. The project is located at the Brevard County Solid Waste Management Central Disposal Facility at 2250 Adamson Road, Cocoa, Brevard County. UTM coordinates are Zone 17; 516.75 km E; 3140.57 km N.

STATEMENT OF BASIS:

This construction permit is issued under the provisions of Chapter 403 of the Florida Statutes (F.S.), and the Florida Administrative Code (F.A.C.) Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297. The above named permittee is authorized to modify the facility in accordance with the conditions of this permit and as described in the application, approved drawings, plans, and other documents on file with the Department of Environmental Protection (Department).

ATTACHMENTS MADE A PART OF THIS PERMIT:

Appendix BD	BACT Determination
Appendix GC	Construction Permit General Conditions



Joseph Kahn, Director
Division of Air Resource Management

Florida Department of
Environmental Protection

Memorandum

TO: Trina Vielhauer
THRU: Jeff Koerner *JK*
FROM: Syed Arif *Syed Arif 1/17*
DATE: January 17, 2007
SUBJECT: Brevard Energy, LLC – Brevard County Solid Waste Management Central
Disposal Facility
DEP File No. 0090069-004-AC, PSD-FL-378

Attached is the Public Notice package for Brevard Energy, LLC to install six (6) lean burn Caterpillar Model G3520C landfill gas fueled internal combustion engines at the Brevard County Solid Waste Management Central Disposal Facility (Central Disposal Facility) located in Cocoa. A Best Available Control Technology (BACT) determination was required for nitrogen oxide (NO_x), carbon monoxide (CO) and particulate matter less than or equal to 10 microns (PM₁₀) pursuant to Rule 62-212.400, F.A.C.

Brevard Energy, LLC applied on June 5, 2006 (application complete on November 6, 2006) to install the six engines for generating electricity by combusting landfill gas that is currently being flared at the Central Disposal Facility. Due to this modification, the potential emission of CO will be greater than 250 tons per year (TPY) making the facility a Major Stationary Source for PSD review. The increases in emissions of CO, NO_x and PM₁₀ will exceed the significant emission rates. The total annual increases due to the proposed project are approximately 356 TPY of CO, 78 TPY of NO_x and 31 TPY of PM₁₀. CO and NO_x emissions will be controlled through combustor design (lean-burn engine) and good combustion practices (air-to-fuel ratio control). PM₁₀ emissions will be minimized through the pretreatment of the landfill gas prior to combustion and proper equipment maintenance of the engines.

We recommend your approval and signature.

JFK/sa

Attachments



Florida Department of Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Charlie Crist
Governor

Jeff Kottkamp
Lt. Governor

Michael W. Sole
Secretary-Designee

P.E. Certification Statement

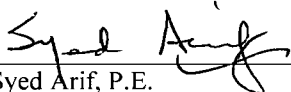
Permittee:
Brevard Energy, LLC
Brevard County Solid Waste Management Central Disposal Facility

DEP File No. 0090069-004-AC
Permit No. PSD-FL-378

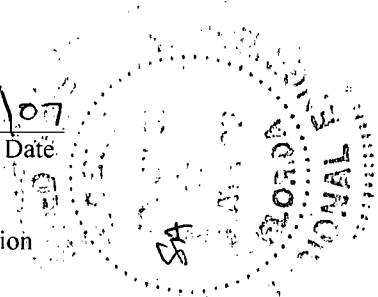
Project type: Brevard Energy, LLC will install six (6) lean-burn Caterpillar Model G3520C landfill gas fueled internal combustion engines at the Brevard County Solid Waste Management Central Disposal Facility (Central Disposal Facility) located in Cocoa. The facility is located at 2250 Adamson Road, Cocoa, Brevard County, Florida. A Best Available Control Technology (BACT) determination was required for nitrogen oxide (NO_x), carbon monoxide (CO) and particulate matter less than or equal to 10 microns (PM₁₀) pursuant to Rule 62-212.400, F.A.C. The applicant's name and address are Brevard Energy, LLC, 29261 Wall Street, Wixom, Michigan 48393.

Brevard Energy, LLC applied on June 5, 2006 (application complete on November 6, 2006) to install the six engines for generating electricity by combusting landfill gas that is currently being flared at the Central Disposal Facility. Due to this modification, the potential emission of CO will be greater than 250 tons per year (TPY) making the facility a Major Stationary Source for PSD review. The increases in emissions of CO, NO_x and PM₁₀ will exceed the significant emission rates. The total annual increases due to the proposed project are approximately 356 TPY of CO, 78 TPY of NO_x and 31 TPY of PM₁₀. CO and NO_x emissions will be controlled through combustor design (lean-burn engine) and good combustion practices (air-to-fuel ratio control). PM₁₀ emissions will be minimized through the pretreatment of the landfill gas prior to combustion and proper equipment maintenance of the engines.

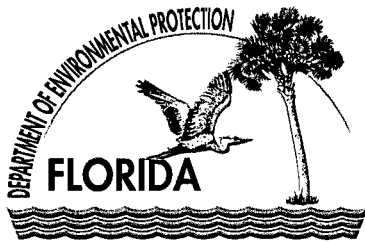
I HEREBY CERTIFY that the engineering features described in the above referenced application and subject to the proposed permit conditions provide reasonable assurance of compliance with applicable provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 62-4 and 62-204 through 62-297. However, I have not evaluated and I do not certify aspects of the proposal outside of my area of expertise (including but not limited to the electrical, mechanical, structural, hydrological, meteorological and geological features).


Syed Arif, P.E.
Registration Number: 51861

1/17/07
Date



Department of Environmental Protection
Bureau of Air Regulation
111 South Magnolia Drive, Suite 4
Tallahassee, Florida 32301
Phone (850) 488-0114
Fax (850) 922-6979



Florida Department of Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Charlie Crist
Governor

Jeff Kottkamp
Lt. Governor

Michael W. Sole
Secretary-Designee

January 17, 2007

ELECTRONIC MAIL - RECEIVED RECEIPT REQUESTED

Mr. Scott Salisbury, Managing Member
Brevard Energy, LLC
29261 Wall Street
Wixom, Michigan 48393

Re: DRAFT Permit No. 0090069-004-AC (PSD-FL-378)
Brevard County Solid Waste Management Central Disposal Facility

Dear Mr. Salisbury:

Enclosed is one copy of the Draft Air Construction Permit for modification of the Brevard County Solid Waste Management Central Disposal Facility, located at 2250 Adamson Road, Cocoa, Brevard County, Florida. The Technical Evaluation and Preliminary Determination, Best Available Control Technology Determination, the Department's Intent to Issue Air Construction Permit and the "PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT" are also included.

The "PUBLIC NOTICE" must be published one time only, as soon as possible, in the legal advertisement section of a newspaper of general circulation in the area affected, pursuant to the requirements of Chapter 50, Florida Statutes. Proof of publication, i.e., newspaper affidavit, must be provided to the Department's Bureau of Air Regulation office within seven days of publication. Failure to publish the notice and provide proof of publication may result in the denial of the permit.

Please submit any written comments you wish to have considered concerning the Department's proposed action to Jeff Koerner, P.E., Permitting Administrator, North Section, at the above letterhead address. If you have any other questions, please contact Syed Arif at 850/921-9528.

Sincerely,

Trina L. Vielhauer, Chief
Bureau of Air Regulation

TLV/sa

Enclosures

In the Matter of an
Application for Permit by:

Mr. Scott Salisbury, Managing Member
Brevard Energy, LLC
29261 Wall Street
Wixom, Michigan 48393

DEP File No. 0090069-004-AC
Draft Permit No. PSD-FL-378
Central Disposal Facility
Brevard County

INTENT TO ISSUE PSD AIR CONSTRUCTION PERMIT

The Department of Environmental Protection (Department) gives notice of its intent to issue a Prevention of Significant Deterioration (PSD) air construction permit (copy of DRAFT Permit attached) for the proposed project, detailed in the application specified above and in the attached Technical Evaluation and Preliminary Determination, for the reasons stated below.

The applicant, Brevard Energy, LLC submitted an application on June 5, 2006 (application complete on November 6, 2006) to the Department for a PSD permit to install six (6) lean-burn Caterpillar Model G3520C landfill gas-fueled internal combustion engines at the Brevard County Solid Waste Management Central Disposal Facility (Central Disposal Facility) located at 2250 Adamson Road, Cocoa, Brevard County, Florida.

Brevard Energy, LLC will install the engines to generate electricity from the landfill gas that is currently being flared at the Central Disposal Facility. The Central Disposal Facility is a Title V source. Additionally, based on this modification, potential emission of carbon monoxide (CO) will be greater than 250 tons per year making the facility a Major Stationary Source for PSD review. The increases in emissions of CO, nitrogen oxide (NO_x) and particulate matter less than or equal to 10 microns (PM₁₀) will exceed the significant emission rates. CO and NO_x emissions will be controlled through combustor design (lean-burn engine) and good combustion practices (air-to-fuel ratio control). PM₁₀ emissions will be minimized through the pretreatment of the landfill gas prior to combustion and proper equipment maintenance of the engines.

The Department has permitting jurisdiction under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, and 62-212. The above actions are not exempt from permitting procedures. As described in the attached Technical Evaluation and Preliminary Determination, the Department has determined that a review for Prevention of Significant Deterioration (PSD), a determination of Best Available Control Technology (BACT) and a PSD permit are required for the proposed work.

The Department intends to issue this PSD Air Construction Permit based on the belief that reasonable assurances have been provided to indicate that operation of these emission units will not adversely impact air quality, and the emission units will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297, F.A.C.

Pursuant to Section 403.815, F.S., and Rule 62-110.106(7)(a)1., F.A.C., you (the applicant) are required to publish at your own expense the enclosed "PUBLIC NOTICE OF INTENT TO ISSUE PSD AIR CONSTRUCTION PERMIT." The notice shall be published one time only in the legal advertisement section of a newspaper of general circulation in the area affected. Rule 62-110.106(7)(b), F.A.C., requires that the applicant cause the notice to be published as soon as possible after notification by the Department of its intended action. For the purpose of these rules, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. If you are uncertain that a newspaper meets these requirements, please contact the Department at the address or telephone number listed below. The applicant shall provide proof of publication to the Department's Bureau of Air Regulation, at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400 (Telephone: 850/488-0114; Fax 850/ 922-6979). You must provide proof of publication within seven days of publication, pursuant to Rule 62-110.106(5), F.A.C. No permitting action for which published notice is required shall be granted until proof of publication of notice is made by furnishing a uniform affidavit in substantially the form prescribed in section 50.051, F.S. to the office of the Department issuing the permit. Failure to publish the notice and provide proof of publication may result in the denial of the permit pursuant to Rules 62-110.106(9) & (11), F.A.C.

The Department will issue the Final PSD Permit in accordance with the conditions of the attached Draft PSD permit unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments and requests for a public meeting concerning the proposed permit issuance action for a period of 30 (thirty) days from the date of publication of PUBLIC NOTICE OF INTENT TO ISSUE PSD AIR CONSTRUCTION PERMIT. Written comments should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the Draft PSD Permit, the permitting authority shall issue a Revised Draft PSD Permit and require, if applicable, another Public Notice.

The Department will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to sections 120.569 and 120.57 F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below.

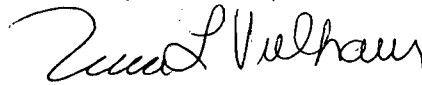
A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under sections 120.569 and 120.57 of the Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida, 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under section 120.60(3) of the Florida Statutes must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. Under section 120.60(3), however, any person who asked the Department for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under sections 120.569 and 120.57 F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205 of the Florida Administrative Code.

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above. Mediation is not available in this proceeding.

Executed in Tallahassee, Florida.



Trina L. Vielhauer, Chief
Bureau of Air Regulation

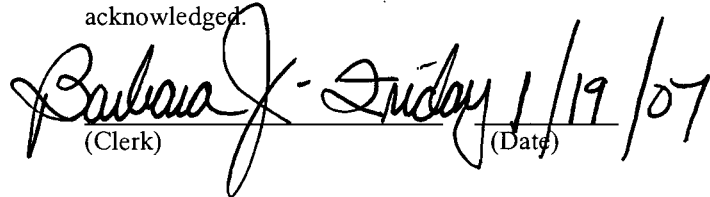
CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this INTENT TO ISSUE PSD AIR CONSTRUCTION PERMIT (including the PUBLIC NOTICE, Technical Evaluation and Preliminary Determination, Draft BACT Determination, and the DRAFT permit) and all copies were sent electronically (with Received Receipt) before the close of business on 1/19/07 to the person(s) listed:

Scott Salisbury, Brevard Energy, LLC* (scott.salisbury@landfillenergy.com)
Euripides Rodriguez, Director, SWMD (euripides.rodriguez@brevardcounty.us)
Gregg Worley, EPA (worley.gregg@epa.gov)
John Bunyak, NPS (john_bunyak@nps.gov)
Len Kozlov, DEP-CD (leonard.kozlov@dep.state.fl.us)
Jeff Pope, P.E., Clayton Group Services, Inc. (jeff.pope@us.bureauveritas.com)
David Derenzo, Derenzo & Associates, Inc. (dderenzo@derenzo.com)

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to §120.52, Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.


(Clerk) _____ (Date) 1/19/07

PUBLIC NOTICE OF INTENT TO ISSUE PSD AIR CONSTRUCTION PERMIT

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
DEP File No. 0090069-004-AC (PSD-FL-378)
Brevard County Solid Waste Management Central Disposal Facility
Brevard Energy, LLC
Brevard County

The Department of Environmental Protection (Department) gives notice of its intent to issue a Prevention of Significant Deterioration (PSD) air construction permit to Brevard Energy, LLC for installation of six (6) lean-burn Caterpillar Model G3520C landfill gas-fueled internal combustion engines at Brevard County Solid Waste Management Central Disposal Facility (Central Disposal Facility) located at 2250 Adamson Road, Cocoa, Brevard County, Florida. A Best Available Control Technology (BACT) determination was required for nitrogen oxide (NO_x), carbon monoxide (CO) and particulate matter less than or equal to 10 microns (PM₁₀) pursuant to Rule 62-212.400, F.A.C. The applicant's name and address are Brevard Energy, LLC, 29261 Wall Street, Wixom, Michigan 48393. The authorized representative is Mr. Scott Salisbury, Managing Member.

Brevard Energy, LLC applied on June 5, 2006 to install six engines for generating electricity by combusting landfill gas that is currently being flared at the Central Disposal Facility. Each lean-burn engine will be connected to an individual 1,600 kilowatt electrical generator. The plant will have the potential to generate 9.6 megawatts of electricity under base load operating conditions and will be interconnected to the Florida Power & Light distribution network through a nearby power line.

The project results in potential CO emissions of greater than 250 tons per year (TPY) making the facility a Major Stationary Source for PSD review. The increases in emissions of CO, NO_x and PM₁₀ will exceed the significant emission rates. The total annual increases due to the proposed project are approximately 356 TPY of CO, 78 TPY of NO_x and 31 TPY of PM₁₀. CO and NO_x emissions will be controlled through combustor design (lean-burn engine) and good combustion practices (air-to-fuel ratio control). PM₁₀ emissions will be minimized through the pretreatment of the landfill gas prior to combustion and proper equipment maintenance of the engines.

An air quality impact analysis was conducted. Emissions from the facility will not significantly contribute to or cause a violation of any state or federal ambient air quality standards. Maximum predicted air quality impacts due to emissions from the proposed new project are less than the applicable PSD Class II significant impact levels. Therefore, multi-source modeling in the vicinity of the project and PSD Class II increment consumption was not required. No PSD Class I analysis was required due to the distance of the project from the Chassahowitzka National Wilderness Area and the level of emissions associated with the project.

The permitting authority has determined that a PSD Air Construction Permit is required. The Department will issue the Final PSD Air Construction Permit in accordance with the conditions of the Draft PSD Air Construction Permit unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments and requests for a public meeting concerning the proposed permit issuance action for a period of 30 (thirty) days from the date of publication of "PUBLIC NOTICE OF INTENT TO ISSUE PSD AIR CONSTRUCTION PERMIT." Written comments should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection.

NOTICE TO BE PUBLISHED IN THE NEWSPAPER

If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit and require, if applicable, another Public Notice.

The Department will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to sections 120.569 and 120.57 F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below. Mediation is not available in this proceeding.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under sections 120.569 and 120.57 of the Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida, 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under section 120.60(3) of the Florida Statutes must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. Under section 120.60(3), however, any person who asked the Department for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under sections 120.569 and 120.57 F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205 of the Florida Administrative Code.

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

A complete project file is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

NOTICE TO BE PUBLISHED IN THE NEWSPAPER

Dept. of Environmental Protection
Bureau of Air Regulation
111 S. Magnolia Drive, Suite 4
Tallahassee, Florida, 32301
Telephone: 850/488-0114
Fax: 850/922-6979

Dept. of Environmental Protection
Central District
3319 Maguire Boulevard, Suite 232
Orlando, Florida. 32803-3767
Telephone: 407/894-7555
Fax: 407/897-5963

The complete project file includes the application, technical evaluations, Draft Permit, and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Administrator of the Permitting North Section at 850/488-0114 for additional information.

NOTICE TO BE PUBLISHED IN THE NEWSPAPER

**TECHNICAL EVALUATION
AND
PRELIMINARY DETERMINATION**

BREVARD ENERGY, LLC

**Brevard County Solid Waste Management Central Disposal Facility
Brevard County, Florida**

Facility Modification – Landfill Gas Engines

**DEP File No. 0090069-004-AC
PSD-FL-378**

**Florida Department of Environmental Protection
Division of Air Resource Management
Bureau of Air Regulation**

January 16, 2007

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

I. APPLICATION INFORMATION

A. Applicant

Brevard Energy, LLC
29261 Wall Street
Wixom, Michigan 48393

Secondary Responsible Official: Mr. Scott Salisbury, Managing Member

B. Facility

Brevard County Solid Waste Management Central Disposal Facility
2250 Adamson Road
Cocoa, Florida 32926

Primary Responsible Official: Mr. Euripides Rodriguez, Director, Solid Waste Management Department,
Brevard County

C. Reviewing and Process Schedule

06-05-2006:	Date of receipt of Application
07-03-2006:	DEP's 1 st Completeness Request
07-26-2006:	Applicant's response to DEP's 1 st Completeness Request
07-31-2006:	DEP's 2 nd Completeness Request
08-15-2006:	Applicant's response to DEP's 2 nd Completeness Request
11-06-2006:	Date of receipt of modeling information. Application Complete

D. Facility Location

This facility is located at 2250 Adamson Road, Cocoa, Brevard County, Florida. Latitude and Longitude are 28° 23' 35'' and 80° 49' 43'' respectively. UTM coordinates of the site are: Zone 17, 516.75 km E and 3140.57 km N. This location is over 100 km from the nearest Class I area, the Chassahowitzka Wilderness Area.

Standard Industrial Classification Code (SIC):

Major Group No. 49, Industry Group No. 4953.

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION



Figure 1- Location of Facility



Figure 2- Regional Location

E. Facility Description

Brevard County Solid Waste Management Central Disposal Facility (Central Disposal Facility) is a Municipal Solid Waste (MSW) Landfill which is allocated for Class I MSW. The Non-Methane Organic Compound (NMOC) control device (gas collection and control system) is installed in accordance with the requirements of 40 CFR 60, Subpart WWW. Methane-rich landfill gas (LFG) produced from the decomposition of disposed waste materials at both active and capped cells is being collected by a gas recovery system. A blower station connected to the gas recovery system moves the collected LFG to a central location. LFG is directed to an enclosed flare where methane, NMOC and HAPs contained in the gas are destroyed at high temperatures.

In order to reduce the amount of LFG wasted by flaring, all available LFG from the landfill will be supplied to Brevard Energy, LLC for use as fuel to power the proposed electrical generation plant. While the Brevard Energy, LLC electrical generation plant will be located on leased land at the Central Disposal Facility, the electrical generation equipment and processes will be owned and operated by Brevard Energy and not directly under the control of the Central Disposal Facility.

Nevertheless, the Department presumes one facility located within another facility establishes a “control” relationship. Since Brevard Energy, LLC will be fueled exclusively with methane-rich gas generated by the landfill and under contract with Central Disposal Facility, the Department concludes that the landfill has control over the electrical generation operations of the proposed plant. Therefore, Brevard Energy, LLC is part of the Central Disposal Facility, and its approved Air Construction Permit will be incorporated into the Central Disposal Facility Title V Operating Permit. The Title V Operating Permit will have two different sections (one for the landfill operations and one for the electrical generation operations) with a secondary responsible official for each section. A primary responsible official will be designated for the entire facility that will be responsible for all appropriate reporting and compliance certifications of both sections of the facility. The primary responsible official will be the Director of the Solid Waste Management Department for Brevard County.

The facility is classified as a Major or Title V Source of air pollution because emissions of at least one regulated air pollutant, such as particulate matter (PM/PM₁₀), sulfur dioxide (SO₂), nitrogen oxides (NO_x), carbon

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

monoxide (CO), or volatile organic compounds (VOC) exceed 100 tons per year (TPY). The facility is a Title V source since the design capacity of the landfill is greater than 2.5 million cubic meters and megagrams. The provisions of 40 CFR 60, Subpart A, General Provisions; Subpart WWW, Standards of Performance for Municipal Solid Waste Landfills; 40 CFR 63, Subpart A, General Provisions; and 40 CFR 63, Subpart AAAA, [National Emission Standards for Hazardous Air Pollutants] Municipal Solid Waste Landfills applies to the designated facility.

The proposed LFG-fueled electrical generation plant will be subject to Prevention of Significant Deterioration (PSD) review with respect to Rule 62-210.200(185)(a)3, F.A.C. because potential CO emissions are greater than 250 TPY. Best Available Control Technology (BACT) determinations are required for each pollutant emitted in excess of the Significant Emission Rates listed in Rule 62-210.200(264), F.A.C. These values are 40 TPY for NO_x, 100 TPY for CO and 15 TPY for PM₁₀.

II. PROJECT DESCRIPTION

The proposed project will consist of Caterpillar (CAT) Model G3520C LFG-fueled internal combustion (IC) engines and electricity generators. The electricity generation plant will consist of:

1. LFG treatment equipment (gas dewatering, filtration and compression equipment and processes).
2. Six (6) lean-burn IC engines that will be connected to individual electricity generators. Each engine will be connected to a 1,600 kilowatt electrical generator. The plant will have the potential to generate 9.6 megawatts of electricity under base load operating conditions and will be interconnected to the Florida Power & Light distribution network through a nearby power line.
3. Ancillary equipment that supports the electrical generation operations (e.g., engine oil storage tanks and LFG temperature and moisture conditioning equipment).

The LFG-fueled engines will be housed in a single building constructed near the existing LFG collection system header and control system flare. A gas transmission line will be connected to the header of the existing LFG collection system and a dedicated gas blower/compressor will be used to draw methane-rich gas (fuel) from the existing LFG collection system to the proposed electrical generation plant.

A. Treatment of Landfill Gas

The equipment and processes used to treat (dewater, filter and compress) the LFG received from the Landfill (prior to its combustion as fuel in the proposed engines) will consist of:

1. Initial two-stage inlet gas dewatering/filter vessels (the bottom chambers are used for moisture knock-out, top chambers are equipped with coalescing filter media to remove gas particles having diameters of 1-micron and larger).
2. A gas compressor/blower.
3. Air-to-gas coolers (chillers), which will be used to reduce the elevated temperatures of LFG received from compressor to approximately 10°F above ambient temperatures.
4. Final two-stage gas dewatering/filter vessels (the bottom chambers are used for moisture knock-out, top chambers are equipped with coalescing filter media to remove gas particles having diameters of 1-micron or larger).

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

Components of the specified gas treatment system will not be equipped with atmospheric vents. Therefore, all of the LFG received by the system will be directed to the IC engines for use as a fuel.

B. Engine/Generator Specifications

Six identical lean-burn engines, CAT Model G3520C engines will be used to power electrical generators. Each engine:

1. is designed to fire low-pressure, lean fuel mixtures and produce low combustion by-product emissions. Each engine is equipped with an air-to-fuel ratio controller that monitors engine performance parameters and automatically adjusts the air-to-fuel ratio and ignition timing to maintain efficient fuel combustion, which minimizes air pollutant emissions.
2. Will be fueled exclusively with LFG generated by and received from the Central Disposal Facility. Natural gas will not be used to fuel the engine operations under any conditions.
3. Have a power generation rating of 2,233 brake horsepower (bhp).
4. Will be connected to a 1,600 kW electrical generator.

The proposed facility will have a total electricity generation capacity of 9,600 kW (9.6 MW). Emissions produced by the combustion of LFG fuel in the six gas engines will be released into the ambient air through individual stacks connected to the engine exhaust manifolds. A noise muffler will be installed on each engine exhaust stack. The fuel combustion system exhausts and noise mufflers will be located on the roof of the single building that houses the engines.

C. LFG Fuel Requirement/Availability

The operation of the six gas IC engines under base load conditions (100% capacity) and with fuel that has a minimum lower heating value (LHV) of 420 Btu/scf (higher heating value (HHV) of 467 Btu/scf) will result in maximum LFG fuel utilization rates of approximately 3,480 scfm and 5.01 million standard cubic feet per day (MMscf/day).

Approximately 2,200 scfm of LFG is currently being generated by the Central Disposal Facility, which has a LHV of approximately 397 Btu/scf that is expected to be at least 450 Btu/scf at the time full fuel demand is required by the proposed engines. The specified gas generation rate is adequate to fuel and power three (3) of the six (6) internal combustion (IC) engine generators proposed for installation at the facility. However, new gas extraction wells are being installed and increased fuel quality is expected to exist at the Central Disposal Facility at levels that will support the operation of all six (6) IC engine generators at the time the Brevard Energy, LLC will commence operation.

The existing LFG flaring system will periodically operate during periods of equipment downtime and maintenance, and continually operated when future LFG collection and extraction rates (from new waste placement) exceed the fuel supply requirement of the installed and operated engines.

D. Ancillary Equipment

Each of the proposed IC engines will be equipped with a stand-alone fan-cooled radiator. Engine coolant for the radiators will be stored on-site in drum quantities.

Engine lube oil (new and used) will be stored in separate above ground holding tanks positioned on the premises of the proposed LFG-fueled electrical generation plant. The new lube oil storage tank will have a capacity of approximately 2,000-gallons. The waste oil storage tank will have a capacity of approximately 1,000-gallons.

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

III. AIR POLLUTANT EMISSIONS

A. Criteria Air Pollutants

The CAT G3520C gas IC engines will have the following maximum NO_x, CO, VOC and PM₁₀ emission rates:

- 2.75 grams of CO per brake-horsepower hour (g/bhp-hr);
13.54 lbs/hr and 59.30 TPY (one engine)
355.8 TPY (six engines)
- 0.60 g/bhp-hr NO_x;
4.95 lb/hr and 12.94 TPY (one engine)
77.6 TPY (six engines)
- 0.28 g/bhp-hr of total VOC;
1.37 lb/hr and 5.99 TPY (one engine)
36.0 TPY (six engines)
- 0.24 g/bhp-hr for PM₁₀.
1.18 lb/hr and 5.17 TPY (one engine)
31.0 TPY (six engines)

The 2.75 g/bhp-hr CO value is based on the results of Best Available Control Technology (BACT) analyses.

The 0.60 g/bhp-hr NO_x value is based on the results of BACT analyses.

The 0.28 g/bhp-hr VOC value is based on a voluntary limitation that is 90% of the 40 TPY significant emission thresholds listed in Rule 62-210.200(264), F.A.C.

The 0.24 g/bhp-hr PM₁₀ value is based on the results of BACT analyses.

Sulfur oxide (SO_x) emissions have the potential to be produced during the combustion of LFG since it contains sulfur-bearing compounds that are oxidized at normal engine operating temperatures. Site-specific sulfur content analyses have not been performed on the LFG generated by the Landfill. Compilation of Air Pollutant Emission Factors, AP-42, Fifth Edition, Volume I, Section 2.4 data was used to estimate the total potential sulfur content of the LFG to be used as engine fuel. The AP-42 data specify a hydrogen sulfide (H₂S) default LFG concentration of 35.5 parts per million by volume (ppmv). However, based on their experience, the applicant determined that H₂S is typically observed at concentrations greater than 35.5 ppmv but less than 150 ppmv. Therefore, the AP-42 H₂S default LFG concentration of 35.5 ppmv was replaced with 150 ppmv value. The results of this analysis indicate that the total sulfur content of the LFG to be used as engine fuel is estimated to be less than 164.2 ppmv as H₂S. The additional sulfur content was due to other compounds like carbon disulfide, methyl mercaptan, etc., that is converted to SO₂. The operation of the six engines at this specified sulfur content will result in maximum potential emissions of 25.32 TPY of SO₂. This is less than the significant emission rate for SO₂ of 40 TPY and doesn't trigger PSD/BACT review.

B. Hazardous Air Pollutants

Hazardous Air Pollutants (HAP) as specified in Rule 62-210.200(133), F.A.C are produced during the combustion of LFG to be used as fuel by the IC engines since:

1. HAP compounds are present in the gas generated by the Central Disposal Facility and the fuel combustion process is not 100% complete (i.e., a small portion of the HAPs pass through the fuel combustion system).

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

2. Chlorinated compounds that are present in LFG have the potential to form hydrogen chloride (HCl, a regulated HAP) when they are combusted.

Site-specific HAP content analyses have not been performed on the LFG generated by the Landfill. Therefore, data developed by EPA in AP-42, Section 2.4 were used to estimate the total potential HAP content of the LFG to be used as engine fuel.

Table 2.4-3 of AP-42 provides control efficiencies for LFG constituents and specifies engines typically reduce (control) halogenated species by 93 percent and non-halogenated species by 86.1 percent. These LFG constituent control efficiencies were considered in the HAP potential emission determinations.

The contribution of HCL to the HAP potential emissions of the engines was estimated based on a conversion of the individual chlorinated compound measurements presented in the AP-42 default list of LFG constituents to HCL as a result of the high temperature combustion environment and exhaust processes. The results of this analysis indicate that the HCL exhaust rate of the proposed engines is equivalent to an annual potential emission of 10.9 TPY under base load conditions. The major source threshold for any single HAP is 10 TPY. The applicant will restrict the allowable HCL emissions from the proposed engine operations to less than 10 TPY through appropriate permit limits.

The operation of six engines under base load conditions will result in maximum potential total HAP emissions that are less than 12.6 TPY and is well under the 25 TPY thresholds.

The reciprocating IC engine National Emission Standards for Hazardous Air Pollutants (RICE NESHAP, 40 CFR Part 63 Subpart ZZZZ) applies to major sources of HAPs that operate RICE rated for 500 bhp or greater. Major is defined as a facility that has the potential to emit in excess of 25 TPY of any combination of HAP compounds or 10 TPY of any single HAP.

The proposed electricity generation facility individual RICE will have power ratings that exceed 500 bhp. However, the maximum HAP emissions will be limited to less than the major facility thresholds. Therefore, the proposed facility is not subject to the emission limitations and operating limitations but will be subject to the initial notification, reporting and recordkeeping requirement of the subpart.

IV. RULE APPLICABILITY

A. Prevention of Significant Deterioration

The proposed project was reviewed under Rules 62-212.400 and 62-210.200(185)(a)3, F.A.C., New Source Review (NSR) for Prevention of Significant Deterioration (PSD), because it will be a major modification to a minor stationary source resulting in a significant increase in NO_x, PM/PM₁₀, and CO emissions. This review consisted of a determination of Best Available Control Technology (BACT) and an analysis of the air quality impact of the increased emissions. The review also includes an analysis of the project's impacts on soils, vegetation and visibility, along with air quality impacts resulting from associated commercial, residential and industrial growth.

The emission units affected by this PSD permit shall comply with all applicable provisions of the Florida Administrative Code; specifically, the following Chapters and Rules:

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

Chapter 62-4	Permits
Rule 62-204.220	Ambient Air Quality Protection
Rule 62-204.240	Ambient Air Quality Standards
Rule 62-204.260	Prevention of Significant Deterioration Increments
Rule 62-204.360	Designation of Prevention of Significant Deterioration Areas
Rule 62-204.800	Federal Regulations Adopted By Reference
Rule 62-210.200	Definitions
Rule 62-210.300	Permits Required
Rule 62-210.350	Public Notice and Comments
Rule 62-210.370	Reports
Rule 62-210.550	Stack Height Policy
Rule 62-210.650	Circumvention
Rule 62-210.700	Excess Emissions
Rule 62-210.900	Forms and Instructions
Rule 62-212.300	General Preconstruction Review Requirements
Rule 62-212.400	Prevention of Significant Deterioration
Chapter 62-213	Operation Permits for Major Sources of Air Pollution
Rule 62-296.320	General Pollutant Emission Limiting Standards
Rule 62-296.403	Phosphate Processing
Rule 62-297.310	General Compliance Test Requirements
Rule 62-297.401	Compliance Test Methods

B. Federal and State Emission Standards

The proposed project is subject to the applicable provisions of Chapter 403, Florida Statutes, Chapters 62-212, Chapters 62-210 and 62-4, Florida Administrative Code (F.A.C.), and 40 CFR 60. The facility is located in an area designated attainment or maintenance for all criteria pollutants in accordance with Rule 62-204.340, F.A.C.

The facility is classified as a Major or Title V Source of air pollution because emissions of at least one regulated air pollutant, such as PM/PM₁₀, SO₂, NO_x, CO or VOC exceed 100 TPY. The landfill facility is also classified as a Title V source since the design capacity of the landfill is greater than 2.5 million cubic meters and megagrams. The provisions of 40 CFR 60, Subpart A, General Provisions; Subpart WWW, Standards of Performance for Municipal Solid Waste Landfills; 40 CFR 63, Subpart A, General Provisions; 40 CFR 63, Subpart AAAA, NESHAP for Municipal Solid Waste Landfills; and 40 CFR 63, Subpart ZZZZ, NESHAP for Stationary Reciprocating Internal Combustion Engines applies to the six internal combustion engines.

V. BEST AVAILABLE CONTROL TECHNOLOGY DETERMINATION

A. BACT Determination Procedure:

In accordance with Chapter 62-210.200(38), F.A.C., a BACT determination is based on the maximum degree of reduction of each pollutant emitted which the Department of Environmental Protection (Department), on a case by case basis, taking into account energy, environmental and economic impacts, and other costs, determines is achievable through application of production processes and available methods, systems, and techniques. In

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

addition, the regulations state that, in making the BACT determination, the Department shall give consideration to:

- Any Environmental Protection Agency determination of BACT pursuant to Section 169, and any emission limitation contained in 40 CFR Part 60 - Standards of Performance for New Stationary Sources or 40 CFR Part 61 - National Emission Standards for Hazardous Air Pollutants.
- All scientific, engineering, and technical material and other information available to the Department.
- The emission limiting standards or BACT determination of any other state.
- The social and economic impact of the application of such technology.

The EPA currently stresses that BACT should be determined using the "top-down" approach. The first step in this approach is to determine, for the emission unit in question, the most stringent control available for a similar or identical emission unit or emission unit category. If it is shown that this level of control is technically or economically unfeasible for the emission unit in question, then the next most stringent level of control is determined and similarly evaluated. This process continues until the BACT level under consideration cannot be eliminated by any substantial or unique technical, environmental, or economic objections.

The air pollutant emissions from this facility for which a BACT determination is required can be grouped into categories based upon the control equipment and techniques that are available to control emissions from these emission units. Using this approach, the emissions can be classified as indicated below:

- **Particulate Matter less than or equal to 10 microns (PM₁₀/Visible Emissions (VE))**. Controlled generally by wet scrubbing or filtration.
- **Combustion Products (CO and NO_x)**. CO and NO_x controlled generally by good combustion of clean fuels.

Grouping the pollutants in this manner facilitates the BACT analysis because it enables the pollutant control equipment and the corresponding energy, economic, and environmental impacts to be examined on a common basis. Although all of the pollutants addressed in the BACT analysis may be subject to a specific emission limiting standard as a result of PSD review, the control of "non-regulated" air pollutants is considered in imposing a more stringent BACT limit on a "regulated" pollutant (i.e., PM₁₀, CO, NO_x, etc.), if a reduction in "non-regulated" air pollutants can be directly attributed to the control device selected as BACT for the abatement of the "regulated" pollutants.

In the case of the proposed project at Central Disposal Facility, annual emissions of CO, NO_x and PM₁₀ are above significant emission rates triggering review for these pollutants. Therefore, since the proposed project involves physical modification of the facility, the BACT analysis will address emissions of CO, NO_x and PM₁₀.

B. BACT Analysis

Add-on Emission Controls (General)

EPA in the preamble to the Standards of Performance for Stationary Spark Ignition IC Engines and National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines dated June 12, 2006 states that chemicals in landfill and digester gas fuels called siloxanes (organic compounds composed of silicon, oxygen and methyl groups) poison the catalyst in add-on control technologies such as Selective Catalytic Reduction (SCR), Non-Selective Catalytic Reduction (NSCR), and oxidation catalysts, rendering them ineffective in very short periods of time.

NSCR uses a three-way catalyst to remove NO_x and CO from IC engine exhausts.

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

SCR uses the injection of a solution (urea or ammonia) into the engine exhaust to react with its NO_x content. The combustion exhaust gases produced by the engines are subsequently passed through a catalyst in order to achieve NO_x reductions.

Oxidation catalysts use energy in the presence of an appropriately selected metal catalyst to transform CO into carbon dioxide (i.e., the combustion exhaust gases produced by the engine are passed through a catalyst in order to complete the oxidation of CO to carbon dioxide).

The California Air Resource Board (CARB) has developed and published Guidance for the Permitting of Electrical Generation Technologies in July 2002, to assist companies and organizations in the permitting of electrical generating equipment. This CARB guidance document:

- Recognizes the benefits of generating electricity from waste gases (landfill and digester gas) and provides BACT determinations from reciprocating IC engines fueled with these materials.
- Indicates that waste gases “contain impurities that, if combusted will likely poison catalyst-based post combustion control systems.”
- Determines that additional fuel treatment and post combustion controls have limited success and/or have not been proven to be cost effective in reducing air pollutant emissions from waste combustion applications.

Other state regulatory agencies (FL, TX, RI, and NJ) have made similar determinations with the issuance of permits that specify BACT for LFG-fueled IC engines that do not include the use of add-on emission controls.

Emission standards requiring aftertreatment controls from such engines have typically not been required due to poisoning of the catalyst leading to poor reduction efficiencies and eventually destroying the add-on control device. For this reason, EPA did not consider add-on control for landfill and digester gas applications. The technology that is the basis for the proposed standards for landfill and digester gas engines is the level achieved by new lean-burn engines. EPA has been told that lean-burn engines are the preferred choice for landfill and digester gas applications because these engines have the lowest NO_x emissions without add-on control. Information EPA gathered during the proposal also shows that the majority of landfill applications use lean-burn engines.

Documented BACT/LAER Determinations

The USEPA Office of Air Quality Planning and Standards RACT/BACT/LEAR Clearinghouse (RBLC) emission and control technology data indicate that no add-on emission controls have been established as BACT or LAER for LFG-fueled IC engines.

The Department has issued a final PSD permit (PSD-FL-374) to Trail Ridge Energy, LLC on December 11, 2006 for the installation of six (6) LFG-fueled IC engines. No add-on emission controls were required for this project. The same Caterpillar engines as those proposed for Brevard Energy will be installed at Trail Ridge Energy. The Department has also issued a draft PSD permit (PSD-FL-376) to Seminole Energy, LLC on November 28, 2006 for the installation of six (6) LFG-fueled IC engines. No add-on emission controls were required for this project.

The State of Texas issued PSD permit (PSD-TX-1034) to Bio Energy Texas, LLC on July 23, 2004 for the installation of eight (8) LFG-fueled IC engines. No add-on emission controls were required for this project. The same Caterpillar engines as those proposed for Seminole Energy were installed at Bio Energy Texas.

The State of New Jersey has completed its review of an ozone (NO_x) non-attainment area new source review and PSD permit (CO) which will be issued to Ocean Energy Corporation, Inc. (a Landfill Energy Systems Company)

Brevard Energy, LLC
Central Disposal Facility

DEP File No. 0090069-004-AC
Permit No. PSD-FL-378

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

in 2006 for the installation of six (6) LFG-fueled IC engines as the ones proposed for Trail Ridge Landfill. No add-on emission controls were required for this project.

CAT G3520C IC engines (the same engines as those proposed for use by Brevard Energy):

1. Will be installed at Trail Ridge Energy, LLC (final permit issued last month);
2. Will be installed at Seminole Energy, LLC (draft permit issued in November 2006);
3. Have been installed and are operating at Ridgewood Power Management (final permit issued in approximately early 2005);
4. Have been installed and are operating at New England Waste Services (final permit issued in approximately late 2004);
5. Have been installed and are operating at Bio Energy Texas (final air permit issued in July 2004); and
6. Are planned for installation at Ocean Energy Corp. with final permit issuance in 2006.

All the above projects did not require any add-on emission controls. The maximum allowable emissions that were permitted for these sources are as follows:

FACILITY (STATE)	ENGINE SIZE		CO (g/bhp-hr)	NOx (g/bhp-hr)	PM ₁₀ (g/bhp-hr)
	(kW)	(hp)			
Trail Ridge Energy, LLC (FL)	1600	2233	2.75	0.60	0.24
Ridgewood Power Management (RI)	—	2229	2.75	0.50	0.1
New England Waste Services (VT)	1600	2221	2.75	0.50	—
Bio Energy Texas, LLC (TX)	—	2172	2.8	0.60	0.148
Ocean Energy Corp. (NJ)	1600	2233	2.75	0.60	0.24

BACT Emission Limits Proposed By Applicant

POLLUTANT	EMISSION LIMIT	CONTROL TECHNOLOGY
CO	2.75 g/bhp-hr and 13.54 lb/hr	Lean-burn engine with air-to-fuel ratio control
NOx	0.60 g/bhp-hr and 2.95 lb/hr	Lean-burn engine with air-to-fuel ratio control
PM ₁₀	0.24 g/bhp-hr and 1.18 lb/hr	Treatment of LFG fuel

C. Pollutant Analysis

Brevard Energy, LLC
Central Disposal Facility

DEP File No. 0090069-004-AC
Permit No. PSD-FL-378

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

Carbon Monoxide (CO)

It is the Department's position that there is no practicably feasible and cost effective post combustion treatment technology for reducing CO emissions from LFG-fueled IC engines. LFG fuel contains impurities (such as siloxanes and other chemicals) that, when combusted, have been shown to poison catalyst based post-combustion treatment technologies such as an oxidation catalyst and NSCR.

Technical data issued by Caterpillar, Inc. for the CAT 3520C IC engine specifies that CO emissions for the first 100 hours of operations will be equal to or less than 2.5 g/bhp-hr and maximum CO emissions will not exceed 4.2 g/bhp-hr. Operational experience obtained by users of the equipment indicates that CO emissions for LFG-fueled IC engines tend to increase with time. Increasing CO emissions occur as a result of the combustion of siloxanes that exist in the LFG used to fuel the engines. The combustion of LFG siloxanes produces particulate silica that acts as an abrasive material and increases normal wear on the moving components of the engine. With increasing engine operating hours, increasing amount of silica deposits are typically found on the fixed and moving parts in the engine combustion cylinder and in the lubricating oil reservoir. The specified increased engine wear affects the combustion process resulting in a gradual increase in CO emissions over the number of operating hours.

Data in the USEPA RBLC were reviewed to identify control technology determinations for the operation of IC engines on LFG fuel. The results indicate that BACT for CO emissions from IC engines with power ratings greater 2,000 and less than 4,000 bhp range from 2.75 to 3.0 g/bhp-hr (CAT G3520C gas IC engine has a power rating of 2,233 bhp). The corresponding NOx LAER values range from approximately 0.5 to 0.6 g/bhp-hr. The database presents CO BACT values as low as 2.3 g/bhp-hr. However, these CO BACT determinations generally correspond to NOx emission rates that exceed 1.0 g/bhp-hr. The specified NOx LAER and CO BACT determinations are applicable to the operation of lean-burn engines with air-to-fuel ratio control or simply specified as 'clean-burn engine'. The following table summarizes the Departments findings:

TABLE 1

FACILITY	ENGINE SIZE	DATE	TYPE	CO g/bhp-hr	NOx g/bhp-hr
Trail Ridge Energy, LLC	2233 HP	10/2006	BACT	2.75	0.6
Ocean Energy Corp. (NJ)	2233 HP	2006	BACT/LAER	2.75	0.6
New England Waste Svcs. (VT)	2221 HP	12/21/2005	BACT/LAER	2.75	0.5
Ridgewood Power Mgmt. (RI)	2229 HP	06/24/2005	BACT/LAER	2.75	0.5
Bio Energy Texas, LLC (TX)	2172 HP	07/23/2004	BACT/LAER	2.8	0.6
Northwest Regional Landfill (AZ)	1410 HP	10/27/2003	BACT	2.5	0.6
Bio-Energy, LLC (OH) (Loraine County Landfill)	1877 HP	04/22/2003	BACT	2.4	1.4
Bio-Energy, LLC (OH) (Carbon Limestone LFG)	1877 HP	04/10/2003	BACT	2.3	1.2
MM San Bernardino Energy (CA)	1850 HP	05/16/2002	BACT	2.5	0.6
Northern Tier Landfill (PA)	815 kW	01/29/2002	BACT	3.0	2.0
Reliant Associates (TX)	2343 HP	01/24/2002	BACT	3.0	0.6
Sumpter Energy Associates (MI)	1138 HP	12/20/2001	BACT	2.9	2.0
Bio-Energy (Azusa) LLC (CA)	1850 HP	02/22/2000	LAER	2.0	0.6
Kiefer Landfill (CA)	4230 HP	01/18/2000	LAER	2.7	0.55
MM Hackensack Energy (NJ)	1340 HP	04/09/1998	LAER	2.0	1.0

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

Based on vendor guarantees the applicant has proposed that the emission limitation that represents BACT for CO is 2.75 g/bhp-hr. The proposed CO emission limitation appears consistent with the reported data as the first five entries in Table 1 represents the same manufacturer, model and size of the engines to be used at Brevard Energy.

BACT for CO is therefore represented by combustor design (lean-burn engine) and good combustion practices (air-to-fuel ratio control) to minimize CO emissions. The emission limit chosen to represent BACT for CO is:

2.75 g/bhp-hr

Nitrogen Oxides (NO_x)

Data in the USEPA RBLC (and that specified for Bio Energy Texas and Ocean Energy Corp.) were reviewed to identify control technology determinations issued for the operation of IC engines on LFG fuel. The results of this review indicate that LAER for NO_x emissions from IC engines with power ratings greater than 2,000 and less than 4,000 bhp range from 0.5 to 0.6 g/bhp-hr (the CAT G3520C gas IC engine has a power rating of 2,233 hp). The specified USEPA RBLC NO_x LAER determinations are applicable to the operation of lean-burn engines with air-to-fuel ratio control or simply specified as 'clean-burn engine'.

Table 1 provides USEPA RBLC NO_x LAER/BACT determination data and supporting information for LFG-fueled IC engine operations.

Due to the presence of siloxanes (and other chemicals) in the LFG fuel, the utilization of NSCR and SCR equipment to control NO_x in the exhausts of LFG-fueled IC engines is not feasible.

NO_x emissions from the LFG-fueled CAT 3520C engines are expected to be relatively constant with respect to the number of operating hours and can be maintained at the proposed levels throughout the operating life of the equipment.

Table 1 indicates that most of the NO_x emissions limits that were less than 0.6 g/bhp-hr were all LAER determinations. The lowest BACT emission limit proposed for NO_x has been 0.6 g/bhp-hr.

Based on vendor guarantees the applicant has proposed that the emission limitation that represents BACT for NO_x is 0.6 g/bhp-hr. This will be achieved through the use of air-to-fuel ratio control technology which minimizes the amount of NO_x emissions produced during the LFG combustion process and results in the maximum emissions of 0.60 g/bhp-hr.

BACT for NO_x is therefore represented by combustor design (lean-burn engine) and good combustion practices (air-to-fuel ratio control) to minimize NO_x emissions. The emission limit chosen to represent BACT for NO_x is:

0.60 g/bhp-hr

Particulate Matter less than or equal to 10 microns (PM₁₀)

Operational experience obtained by Caterpillar, Inc. and users of its LFG-fueled engines indicates that PM₁₀ emissions for LFG-fueled IC engines are dependent on engine operating hours. While PM₁₀ emissions from the operation of new LFG-fueled IC engines have been initially tested to be very low (i.e., <0.1 g/bhp-hr) subsequent measurements on the same equipment that are representative of increased engine operating hours indicate the presence of higher emission levels. The increased PM₁₀ emissions (from new engine operating conditions) has

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

been attributed to particulate contributions from crankcase lubrication oil aerosols, which is the result of normal wear on piston rings and seals (i.e., not additional particulate contributions from the source of the LFG fuel).

Data presented in the USEPA RBLC for IC engines operated on LFG fuel indicate that:

- Permits issued LFG-fueled IC engines have limited their PM₁₀ emissions to rates that range from 0.04 to 0.34 g/bhp-hr.
- LFG (fuel) pretreatment to remove condensate and particulate matter without the use of add-on control equipment has been specified as BACT.

The Department has required the applicant to use 1 micron primary and polishing filters to remove particulate matter from the LFG fuel pretreatment process. EPA in the New Source Performance Standards for Landfill (40 CFR 60, Subpart WWW) requires removal of particulate matter down to only 10 microns. This additional requirement by the Department to remove particulate matter down to 1 micron will enable the applicant to meet the PM₁₀ BACT limit of 0.24 g/bhp-hr.

Catch and burn technologies are typically used for post combustion particulate control. It uses structured catalysts (a monolithic catalyst with bored chambers) that oxidate unburned hydrocarbons and aerosols (condensable particulates) as the exhaust gas diffuses through the wall of the catalyst chambers. Other post combustion particulate control technologies will not be cost-effective for this project. Due to the presence of siloxanes (and other chemicals) in the LFG, the utilization of catch and burn equipment to control particulates in the exhaust of LFG-fueled IC engines is not feasible.

Based on the preceding information, BACT for the control of PM₁₀ emissions from the proposed IC engine operations is treatment of the LFG fuel down to 1 micron and proper equipment maintenance that minimizes the amount of particulate emissions produced during the LFG combustion process and results in maximum PM₁₀ emissions of

0.24 g/bhp-hr.

In addition, an opacity standard of 10% will be established as BACT.

D. Compliance Procedures

Compliance with the emission limits shall be in accordance with the following EPA Reference Methods as contained in 40 CFR 60, Appendix A or as otherwise approved by the Department:

EMISSION UNIT	POLLUTANT	EPA REFERENCE METHOD
Six (6) Caterpillar Model G 3520C Landfill gas fueled Internal Combustion Engines	PM ₁₀	201
	NOx	7 or 7E
	CO	10
	VE	9

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

VI. Air Quality Impact Analysis

A. Introduction

The proposed project will increase PM₁₀, NO_x and CO emissions at levels in excess of PSD significant amounts. PM₁₀ and NO_x are criteria pollutants and have national and state ambient air quality standards (AAQS), PSD increments, significant impact levels, and significant monitoring concentrations (de minimis concentrations) defined for them. CO is a criteria pollutant and has only AAQS, significant impact levels and a de minimis concentration defined for it.

The air quality impact analyses required by the Department regulations for this project include:

- An analysis of existing air quality for PM₁₀, NO_x and CO;
- A significant impact analysis for PM₁₀, NO_x and CO;
- A PSD increment analysis for PM₁₀ and NO₂, if necessary;
- An Ambient Air Quality Standards (AAQS) analysis for PM₁₀ and NO₂, if necessary;
- An analysis of impacts on soils, vegetation, and visibility and growth-related impacts to air quality.

The analysis of existing air quality generally relies on preconstruction monitoring data collected with EPA-approved methods. The significant impact, PSD increment, and AAQS analyses depend on air quality dispersion modeling carried out in accordance with EPA and department guidelines.

Based on the required analyses, the Department has reasonable assurance that the proposed project, as described in this report and subject to the conditions of approval proposed herein, will not cause or significantly contribute to a violation of any AAQS or PSD increment.

B. Analysis of Existing Air Quality

Preconstruction ambient air quality monitoring is required for all pollutants subject to PSD review unless otherwise exempted or satisfied. This monitoring requirement may be satisfied by using previously existing representative monitoring data, if available. An exemption to the monitoring requirement shall be granted by rule if either of the following conditions is met: the maximum predicted air quality impact resulting from the projected emissions increase, as determined by air quality modeling, is less than a pollutant-specific de minimis ambient concentration; or the existing ambient concentrations are less than a pollutant-specific de minimis ambient concentration.

The table below shows maximum predicted project air quality impacts for comparison to these de minimis levels. As shown in the table, predicted maximum PM₁₀, CO and NO₂ impacts from the project are less than the applicable de minimis concentrations; therefore, no further monitoring was required for these pollutants.

MAXIMUM PREDICTED PROJECT AIR QUALITY IMPACTS FOR COMPARISON TO THE DE MINIMIS CONCENTRATIONS				
Pollutant	Averaging Time	Maximum Predicted Impact (µg/m ³)	Impact Greater than De Minimis? (Yes/No)	De Minimis Concentration (µg/m ³)
PM ₁₀	24-hr	4.6	NO	10
CO	8-hr	83	NO	575
NO ₂	Annual	0.6	NO	14

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

C. Models and Meteorological Data Used in Significant Impact, PSD Increment and AAQS Analyses

PSD Class II Area Model

The EPA-approved American Meteorological Society and EPA Regulatory Model (AERMOD) dispersion model was used to evaluate the pollutant emissions from the proposed project and other existing major facilities. In November, 2005, the EPA promulgated AERMOD as the preferred regulatory model for predicting pollutant concentrations within 50 km from a source. AERMOD is a replacement for the Industrial Source Complex Short-Term Model (ISCST3).

The AERMOD model calculates hourly concentrations based on hourly meteorological data. For evaluating plume behavior within the building wake of structures, the AERMOD model incorporates the Plume Rise Enhancement (PRIME) downwash algorithm developed by the Electric Power Research Institute (EPRI). AERMOD can predict pollutant concentrations for annual, 24, 8, 3 and 1-hour. A series of specific model features, recommended by the EPA, are referred to as the regulatory options. The applicant used the EPA recommended regulatory options in each modeling scenario, and building downwash effects were evaluated for stacks below the good engineering practice (GEP) stack heights. The stack associated with this project satisfied the good engineering practice (GEP) stack height criteria.

Meteorological data used in the AERMOD model consisted of a concurrent 5-year period of hourly surface weather observations and twice-daily upper air soundings from the Orlando and Tampa International Airports, respectively. The 5-year period of meteorological data was from 1999 through 2003. These stations were selected for use in the evaluation because they are the closest primary weather stations to the project area and are most representative of the project site.

Because five years of data are used in AERMOD, the highest-second-high (HSH) short-term predicted concentrations were compared with the appropriate AAQS or PSD increments. For the annual averages, the highest predicted yearly average was compared with the standards. For determining the project's significant impact area in the vicinity of the facility, and for determining if there are significant impacts occur from the project on any PSD Class I area, both the highest short-term predicted concentrations and the highest predicted yearly averages were compared to their respective significant impact levels.

In reviewing this permit application, the Department has determined that the application complies with the applicable provisions of the stack height regulations as revised by EPA on July 8, 1985 (50 FR 27892). Portions of the regulations have been remanded by a panel of the U.S. Court of Appeals for the D.C. Circuit in *NRDC v. Thomas*, 838 F. 2d 1224 (D.C. Cir. 1988). Consequently, this permit may be subject to modification if and when EPA revises the regulation in response to the court decision. This may result in revised emission limitations or may affect other actions taken by the source owners or operators.

PSD Class I Area Model

The proposed project will be located 175 km from the closest portion of the nearest PSD Class I area, the Chassahowitzka NWA. Based on the department's consultation with the federal land manager and the applicant, no long range transport modeling was required for determining PSD Class I increment or regional haze impacts because of the distance to the nearest Class I area and the level of emissions.

D. Significant Impact Analysis

Preliminary modeling is conducted using only the proposed project's worst-case emission scenario for each pollutant and applicable averaging time. Over 400 receptors were placed along the facility's restricted property line and out to 1.6 km from the facility, which is located in a PSD Class II area.

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

For each pollutant subject to PSD and also subject to PSD increment and/or AAQS analyses, this modeling compares maximum predicted impacts due to the project with PSD significant impact levels to determine whether significant impacts due to the project were predicted in a PSD Class II area in the vicinity of the facility or in any PSD Class I area. In the event that the maximum predicted impact of a proposed project is less than the appropriate significant impact level, a full impact analysis for that pollutant is not required.

Full impact modeling is modeling that considers not only the impact of the project but also other major sources, including background concentrations, located within the vicinity of the project to determine whether all applicable AAQS or PSD increments are predicted to be met for that pollutant. Consequently, a preliminary modeling analysis, which shows an insignificant impact, is accepted as the required air quality analysis (AAQS and PSD increments) for that pollutant and no further modeling for comparison to the AAQS and PSD increments is required for that pollutant. The tables below show the results of this modeling.

MAXIMUM PREDICTED PROJECT AIR QUALITY IMPACTS FOR COMPARISON TO THE PSD CLASS II SIGNIFICANT IMPACT LEVELS IN THE VICINITY OF THE FACILITY				
Pollutant	Averaging Time	Maximum Predicted Impact ($\mu\text{g}/\text{m}^3$)	Significant Impact Level ($\mu\text{g}/\text{m}^3$)	Significant Impact?
PM ₁₀	Annual	0.3	1	NO
	24-hr	4.6	5	NO
CO	8-hr	84	500	NO
	1-hr	143	2,000	NO
NO ₂	Annual	0.6	1	NO

No Significant impacts were predicted in the Class II area of the project for PM₁₀, CO and NO₂. Therefore, further PM₁₀, CO and NO₂ AAQS and PSD increment analyses were not required for this project.

E. Additional Impacts Analysis

Impacts on Soils, Vegetation, Wildlife, and Visibility

According to the modeling results, the maximum air quality impacts due to the Brevard facility emitting at its maximum rate are predicted to be below Class II significant impact levels and in turn the applicable Class II PSD increments and AAQS. AAQS are designed to protect both the public health and welfare. As such, it is reasonable to assume the impacts on soils, vegetation, and wildlife will be minimal or insignificant.

Growth-Related Air Quality Impacts

The proposed modification will not significantly change employment, population, housing or commercial/industrial development in the area to the extent that a significant air quality impact will result.

VII. CONCLUSION

Based on the foregoing technical evaluation of the application and additional information submitted by Brevard Energy, LLC the Department has made a preliminary determination that the proposed project will comply with all

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

applicable state air pollution regulations provided that the Department's Best Available Control Technology Determination is implemented and certain conditions are met. The General and Specific Conditions are listed in the attached draft conditions of approval.

Permit Engineer: Syed Arif, P.E.
Meteorologist: Cleve Holladay

PERMITTEE:

Brevard Energy, LLC
29261 Wall Street
Wixom, Michigan 48393

File No.	0090069-004-AC
Permit No.	PSD-FL-378
SIC No.	4953
Project:	Brevard County Solid Waste Management Central Disposal Facility Modification – Landfill Gas Engines
Expires:	October 1, 2008

Secondary Responsible Official (Energy Section):

Mr. Scott Salisbury, Managing Member

Primary Responsible Official (Brevard County Solid Waste Management Central Disposal Facility):

Mr. Euripides Rodriguez, Director
Solid Waste Management Department – Brevard County

PROJECT AND LOCATION:

This permit covers the installation and operation of six (6) Caterpillar, Model G3520C, 2,233 brake-horsepower landfill gas-fired engines for the generation of up to a total of 9.6 megawatts (nominal rating) of electricity. The project is located at the Brevard County Solid Waste Management Central Disposal Facility at 2250 Adamson Road, Cocoa, Brevard County. UTM coordinates are Zone 17; 516.75 km E; 3140.57 km N.

STATEMENT OF BASIS:

This construction permit is issued under the provisions of Chapter 403 of the Florida Statutes (F.S.), and the Florida Administrative Code (F.A.C.) Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297. The above named permittee is authorized to modify the facility in accordance with the conditions of this permit and as described in the application, approved drawings, plans, and other documents on file with the Department of Environmental Protection (Department).

ATTACHMENTS MADE A PART OF THIS PERMIT:

Appendix BD BACT Determination
Appendix GC Construction Permit General Conditions

Joseph Kahn, Director
Division of Air Resource Management

SECTION I – FACILITY INFORMATION

FACILITY DESCRIPTION

Brevard County Solid Waste Management Central Disposal Facility (Central Disposal Facility) operates a municipal solid waste (MSW) landfill in Cocoa, Brevard County which is allocated for Class I MSW. Methane-rich landfill gas produced from the decomposition of disposed waste materials is being collected by a gas recovery system. The collected gas is currently being diverted to the flaring system for control. Brevard Energy, LLC plans to construct and operate an electrical generation plant at the Central Disposal Facility. In order to reduce the amount of landfill gas (LFG) wasted by flaring, all available LFG from the landfill will be supplied to Brevard Energy, LLC for use as fuel to power the proposed internal combustion (IC) engine electrical generation plant. As a result of these changes, significant emission increases will occur for carbon monoxide (CO), particulate matter with an aerodynamic diameter of 10 microns or less (PM₁₀) and nitrogen oxides (NOx).

REGULATORY CLASSIFICATION

The Central Disposal Facility is classified as a Major or Title V Source of air pollution because emissions of at least one regulated air pollutant, such as particulate matter (PM/PM₁₀), sulfur dioxide (SO₂), nitrogen oxides (NOx), carbon monoxide (CO), or volatile organic compounds (VOC) exceed 100 tons per year (TPY). The landfill facility is also classified as a Title V source since the design capacity of the landfill is greater than 2.5 million cubic meters and megagrams.

The facility is subject to the following regulations:

- 40 CFR 60, Subpart A, General Provisions;
- Subpart WWW, Standards of Performance for Municipal Solid Waste Landfills;
- 40 CFR 63, Subpart A, General Provisions;
- 40 CFR 63, Subpart AAAAA, National Emission Standards for Hazardous Air Pollutants (NESHAP) for Municipal Solid Waste Landfills; and
- 40 CFR 63, Subpart ZZZZ, NESHAP for Stationary Reciprocating Internal Combustion Engines.

The proposed landfill gas-fueled IC engine electrical generation plant will be subject to Prevention of Significant Deterioration (PSD) review with respect to Rule 62-210.200(164)(a)2, F.A.C. due to its potential CO emissions being greater than 250 TPY. Best Available Control Technology (BACT) determinations are required for each pollutant emitted in excess of the Significant Emission Rates listed in Rule 62-210.200(242), F.A.C. For this project, the permit specifies BACT emissions standards for CO, NOx and PM₁₀ emissions.

RELEVANT DOCUMENTS:

The documents listed below are specifically related to this permitting action and form the basis of the permit. They are on file with the Department:

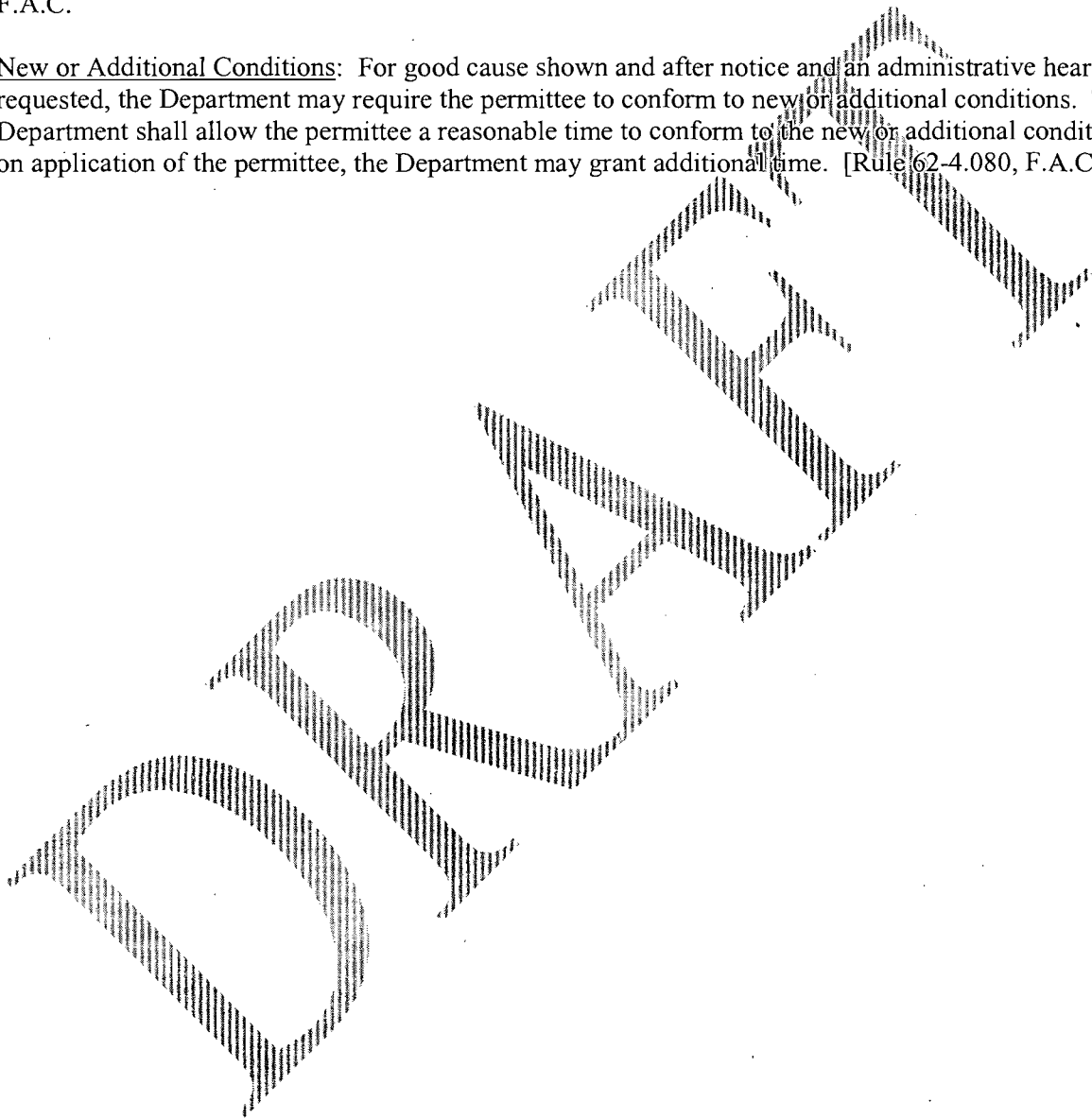
- Application received 06-05-2006
- Department letters dated 07-03-2006 and 07-31-2006
- Applicant's letters received 07-26-2006 and 08-15-2006
- Modeling information received 11-06-2006
- Technical Evaluation and Preliminary Determination dated 01-16-2007
- Best Available Control Technology determination (issued concurrently with permit)

SECTION II – EMISSION UNIT(S) ADMINISTRATIVE REQUIREMENTS

1. Regulating Agencies: All documents related to applications for permits to operate, reports, tests, minor modifications and notifications shall be submitted to the Department’s Central District Office, 3319 Maguire Boulevard, Suite 232, Orlando, Florida 32803-3767. All applications for permits to construct or modify emissions unit(s) subject to the Prevention of Significant Deterioration or Nonattainment (NA) review requirements should be submitted to the Bureau of Air Regulation (BAR), Florida Department of Environmental Protection (FDEP), 2600 Blair Stone Road, MS 5505, Tallahassee, Florida 32399-2400 (phone number 850/488-0114).
2. General Conditions: The owner and operator are subject to and shall operate under the attached General Permit Conditions G.1 through G.15 listed in Appendix GC of this permit. General Permit Conditions are binding and enforceable pursuant to Chapter 403 of the Florida Statutes. [Rule 62-4.160, F.A.C.]
3. Terminology: The terms used in this permit have specific meanings as defined in the corresponding chapters of the Florida Administrative Code.
4. Applicable Regulations, Forms and Application Procedures: Unless otherwise indicated in this permit, the construction and operation of the subject emissions unit shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of Chapter 403, F.S. and Florida Administrative Code Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296, 62-297 and the Code of Federal Regulations Title 40, Parts 60 and 63, adopted by reference in the Florida Administrative Code (F.A.C.) regulations. The permittee shall use the applicable forms listed in Rule 62-210.900, F.A.C. and follow the application procedures in Chapter 62-4, F.A.C. Issuance of this permit does not relieve the facility owner or operator from compliance with any applicable federal, state, or local permitting or regulations. [Rules 62-204.800, 62-210.300 and 62-210.900, F.A.C.]
5. Expiration: The permittee may, for good cause, request that this construction permit be extended. Such a request shall be submitted to the Bureau of Air Regulation prior to 60 days before the expiration of the permit. However, the permittee shall promptly notify the Department’s Central District Office of any delays in completion of the project which would affect the startup day by more than 90 days. [Rule 62-4.090, F.A.C.]
6. Application for Title V Permit: This permit authorizes construction of the permitted emissions units and initial operation to determine compliance with Department rules. A Title V operation permit is required for regular operation of the permitted emissions unit. The permittee shall apply for a Title V operation permit at least 90 days prior to expiration, but no later than 180 days after commencing operation. To apply for a Title V operation permit, the applicant shall submit the appropriate application form, compliance test results, and such additional information as the Department may by law require. The application shall be submitted to the appropriate Permitting Authority, with copies to the Compliance Authority. [Rules 62-4.030, 62-4.050, 62-4.220, and Chapter 62-213.420, F.A.C.]
7. Source Obligation: Authorization to construct shall expire if construction is not commenced within 18 months after receipt of the permit, if construction is discontinued for a period of 18 months or more, or if construction is not completed within a reasonable time. This provision does not apply to the time period between constructions of the approved phases of a phased construction project except that each phase must commence construction within 18 months of the commencement date established by the Department in the permit. [Rule 62-212.400(12)(a), F.A.C.].
8. BACT Determination: For phased construction projects, the determination of best available control technology shall be reviewed and modified as appropriate at the latest reasonable time which occurs no later than 18 months prior to commencement of construction of each independent phase of the project. At such time, the owner or operator of the applicable stationary source may be required to demonstrate the adequacy of any previous determination of best available control technology for the source. [40 CFR 52.21(j)(4)]

SECTION II – EMISSION UNIT(S) ADMINISTRATIVE REQUIREMENTS

9. Annual Reports: Pursuant to Rule 62-210.370(2), F.A.C., Annual Operation Reports, the permittee is required to submit annual reports on the actual operating rates and emissions from this facility. Annual operating reports using DEP Form 62-210.900(4) shall be sent to the DEP's Central District office by March 1st of each year.
10. Stack Testing Facilities: Stack sampling facilities shall be installed in accordance with Rule 62-297.310(6), F.A.C.
11. New or Additional Conditions: For good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time. [Rule 62-4.080, F.A.C.]



SECTION III – EMISSION UNIT(S) SPECIFIC CONDITIONS

SUBSECTION A. SPECIFIC CONDITIONS

The Specific Conditions listed in this section apply to the following emission units:

EMISSION UNIT NO.	EMISSION UNIT DESCRIPTION
004 - 009	Six Caterpillar Model G3520C landfill gas-fueled internal combustion engines and electrical generators. Each engine has a power generation rating of 2,233 brake horsepower at 100 percent load. The generator has a power output rating of 1,600 kilowatt. The engines will be fueled exclusively with landfill gas (LFG) generated by and received from the Central Disposal Facility. The landfill gas will go through a gas treatment system prior to combustion in the engines.

A. FUEL SPECIFICATIONS AND WORK PRACTICES

1. This permit authorizes the installation and operation of six (6) Caterpillar, Model G3520C, 2,233 brake-horsepower landfill gas-fired engines for the generation of up to a total of 9.6 megawatts (nominal rating) of electricity. The maximum power generation rating of each engine shall be 2,233 brake horsepower (bhp). Authorization to construct shall expire if construction is not commenced within 18 months after receipt of the permit, if construction is discontinued for a period of 18 months or more, or if construction is not completed within a reasonable time. **[Rule 62-212.400, F.A.C.]**
{Permitting Note: The power generation rating of 2,233 bhp is based on a minimum fuel heating value requirement of 467 BTU/scf and landfill gas usage of 580 scfm per engine.}
2. This permit authorizes the installation of a LFG Treatment System including gas compression (via blowers), liquids removal (via knock-out and chilling), and particulate removal (via 1 micron primary and polishing filters). The gas treatment system shall not be equipped with atmospheric vents. **[Rule 62-212.400, F.A.C., 40 CFR 60.752 and Appendix J of the application]**
3. Emissions Units Nos. 004-009 are subject to 40 CFR 60 Subpart WWW and certain sections of 40 CFR 63 Subparts AAAA and ZZZZ adopted by the Department at Rule 62-204.800(8)(b) and 62-204.800(11)(b), F.A.C. **[Rules 62-204.800 and 62-210.300, F.A.C.]**
4. Unless otherwise indicated, the modification/construction and operation of the Caterpillar internal combustion engines shall be in accordance with the capacities and specifications stated in the application. **[Rule 62-210.300, F.A.C.]**
5. No person shall cause, suffer, allow, or permit the discharge of air pollutants which cause or contribute to an objectionable odor. **[Rule 62-296.320, F.A.C.]**
6. No person shall circumvent any air pollution control device, or allow the emission of air pollutants without the applicable air pollution control device operating properly. **[Rule 62-210.650, F.A.C.]**
7. Fuel fired in the engines is limited to LFG. The use of any other fuel will require an amendment to this permit. **[Rule 62-212.400, F.A.C.]**
8. The permittee shall operate each engine at the air-to-fuel ratio that the tested engine demonstrated compliance during the performance test required by Specific Condition C.2 or the most recent performance test if a subsequent performance test is conducted. **[Rule 62-212.400, F.A.C.]**
9. The permittee shall operate each engine within 0.5% of the O₂ content in the exhaust gas at the air-to-fuel ratio that the tested engine demonstrated compliance during the performance test required by Specific

SECTION III – EMISSION UNIT(S) SPECIFIC CONDITIONS

Condition C.2 or the most recent performance test if a subsequent performance test is conducted. [Rule 62-212.400, F.A.C. and Appendix F of the application]

10. The permittee shall install and maintain an automatic fail-safe block valve on each engine. The fail-safe block valve must stop the flow of LFG in the event of an engine failure. [Rule 62-4.070, F.A.C.]
11. Excess LFG not used as fuel in an engine must be flared in accordance with the requirements of 40 CFR 60 Subpart WWW. [Rule 62-4.070, F.A.C.]
12. Each engine/generator set may operate up to 8,760 hours per year. [Rule 62-210.200(232), F.A.C.]
13. The emissions units shall be subject to the following:
 - a. Excess emissions resulting from startup, shutdown or malfunction of any source shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700, F.A.C.]
 - b. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown, or malfunction shall be prohibited. [Rule 62-210.700, F.A.C.]
 - c. In case of excess emissions resulting from malfunctions, each source shall notify the Department in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department. [Rule 62-210.700, F.A.C.]

B. EMISSION AND PERFORMANCE REQUIREMENTS

1. **Nitrogen oxides (NO_x):** The emission rate of NO_x from each engine/generator set exhaust shall not exceed 0.60 gram per brake horsepower hour (g/bhp-hr) and a maximum of 2.95 pounds per hour (lb/hr) and 12.94 tons per year (TPY). [Rule 62-212.400(12), F.A.C.]
2. **Carbon Monoxide (CO):** The emission rate of CO from each engine/generator set exhaust shall not exceed 2.75 g/bhp-hr and a maximum of 13.54 lb/hr and 59.30 TPY. [Rule 62-212.400(12), F.A.C.]
3. **Particulate Matter less than 10 microns (PM₁₀):** The emission rate of PM₁₀ from each engine/generator set exhaust shall not exceed 0.24 g/bhp-hr and a maximum of 1.18 lb/hr and 5.17 TPY. [Rule 62-212.400(12), F.A.C.]
4. **Volatile Organic Compounds (VOC):** The emission rate of total VOC from each engine/generator set exhaust shall not exceed 0.28 g/bhp-hr and a maximum of 1.37 lb/hr and 5.99 TPY. [Rule 62-212.400(12), F.A.C.]
 {Permitting Note: Project avoids PSD review for VOC based on emission limits.}
5. **Hydrogen Chloride (HCl):** The emission rate of HCl from each engine/generator set shall not exceed 10.9 lb/MMscf and 1.66 TPY. [Rule 62-210.200(184), F.A.C.]
 {Permitting Note: Facility remains a minor source of HAP emissions based on permit limits.}
6. **Sulfur Dioxide (SO₂):** The emission rate of SO₂ from each engine/generator set shall not exceed 27.5 lb/MMscf. [Rule 62-212.400(12), F.A.C.]
 {Permitting Note: Project avoids PSD review based on permit limits.}

SECTION III – EMISSION UNIT(S) SPECIFIC CONDITIONS

7. Visible emissions from each engine/generator set exhaust shall not exceed 10% opacity. **[Rule 62-212.400, F.A.C.]**

C. TEST METHODS AND PROCEDURES

1. Sampling Facilities

The permittee shall design the internal combustion engine stack to accommodate adequate testing and sampling locations in order to determine compliance with the applicable emission limits specified by this permit. **[Rule 62-297.310(6), F.A.C.]**

2. Performance Test Methods

Initial (I), Annual (A) and permit renewal (R) compliance tests shall be performed in accordance with the following reference methods as described in 40 CFR 60, Appendix A and 40 CFR 51 Appendix M, adopted by reference in Chapter 62-204.800, F.A.C. Initial, annual, and renewal compliance tests shall be conducted on only one of the six engines. A different engine shall be tested each year such that all engines are tested during the six-year cycle.

- (a) EPA Method 7 or 7E – Determination of NO_x Emissions from Stationary Sources (I,A);
- (b) EPA Method 9 – Visual Determination of the Opacity of Emissions from Stationary Sources (I,A);
- (c) EPA Method 10 – Determination of CO Emissions from Stationary Sources (I,A);
- (d) EPA Method 18, 25, 25A or 25C – Measurement of Gaseous Organic Compounds Emissions (I,R);
- (e) EPA Method 26 or 26A – Determination of HCl Emissions from Stationary Sources (I,A);
- (f) EPA Method 201 – Determinations of PM₁₀ Emissions (I,A)

EPA Methods 1 through 4 shall be used as necessary to support other test methods. No other test methods may be used for compliance testing unless prior DEP approval is received, in writing, from the Department. **[Rule 62-297.310(7), F.A.C.]**

3. The permittee shall comply with the following requirements to monitor the sulfur and chlorine content of the landfill gas:
- a. At least 180 days prior to commercial startup of the engines, the permittee shall sample and analyze the landfill gas for sulfur and chlorine content. The gas sample collected for the analyses shall be a composite sample and collected under normal operating conditions (i.e., with valves open for all operating cells). The gas sample collection and analyses for sulfur and chlorine content shall be done semi-annually. Based on the sampling results and Rule 62-297.310(7)(b), F.A.C., the Department may request additional gas sampling and analyses. Results shall be reported as SO₂ and HCl emission factors in terms of lb/MMscf of landfill gas.
 - b. During each required compliance test conducted for HCl, the permittee shall sample and analyze the landfill gas for the chlorine content. Results for the compliance test shall be reported in terms of HCl emissions in lb/hr and the sample analysis result shall be reported as HCl emission factor in terms of lb/MMscf of landfill gas.

SECTION III – EMISSION UNIT(S) SPECIFIC CONDITIONS

- c. Analysis of the chlorine content shall be used to track changes in the landfill gas. Based on the analysis, the Compliance Authority may require additional stack testing for HCl emissions to determine compliance with the emissions standard.
- d. Compliance with the fuel sulfur specification shall be determined based on each analysis for the sulfur content of the landfill gas.

[Rules 62-210.200(184), 62-210.200(232) and 62-212.400(12), F.A.C.]

- 4. Within 60 days of achieving the permitted capacity, but no later than 180 days after initial startup, and annually, the subject emissions units as described in Specific Condition C2 shall be tested for compliance with the applicable emission limits. For the duration of all tests the emission units shall be operating at permitted capacity. Permitted capacity is defined as 90-100 percent of the maximum operating rate allowed by the permit. If it is impracticable to test at permitted capacity, then the emission unit may be tested at less than permitted capacity (i.e., 90% of the maximum operating rate allowed by the permit); in this case, subsequent emission unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emission unit is so limited, then operation at higher capacities is allowed for no more than 15 consecutive days for the purposes of additional compliance testing to regain the permitted capacity in the permit. **[Rule 62-297.310, F.A.C.]**

D. RECORDKEEPING, REPORTING AND MONITORING REQUIREMENTS

- 1. Total landfill gas flow to the engines shall be continuously measured and recorded. **[Rule 62-210.200 (232), F.A.C.]**
- 2. Gross electrical power generation (kw-hrs) shall be continuously measured and recorded for each engine individually and for the six engines combined. **[Rule 62-210.200(232), F.A.C.]**
- 3. Each engine/generator set shall be equipped with a non-resettable elapsed time meter to indicate, in cumulative hours, the elapsed engine operating time. **[Rule 62-210.200(232), F.A.C.]**
- 4. The permittee shall maintain the following records on a monthly basis:
 - a. The hours of operation of each engine/generator set, including any start-up, shutdown or malfunction in the operations of the engine/generator set.
 - b. The total landfill gas flow to each engine.
 - c. Gross electrical power generation in kw-hr for each engine and the six engines combined.**[Rule 62-210.200(232), F.A.C.]**
- 5. The permittee shall submit the results and the corresponding data of the site-specific HCl emission factor and the SO₂ emission factor within 45 days of gas sampling to the Bureau of Air Regulation. The results shall also be submitted to the Central District Office. **[Rules 62-210.200(232) and 62-210.200(264), F.A.C.]**

APPENDIX BD
BEST AVAILABLE CONTROL TECHNOLOGY DETERMINATION (BACT)

Brevard Energy, LLC
Brevard County Solid Waste Management Central Disposal Facility
PSD-FL-378/0090069-004-AC
Cocoa, Brevard County

Brevard Energy, LLC has applied to modify Brevard County Solid Waste Management Central Disposal Facility (Central Disposal Facility) by installing six (6) lean-burn internal combustion (IC) Caterpillar (CAT) Model G3520C engines and electrical generators. The electrical generation plant will also consist of landfill gas (LFG) treatment equipment (gas dewatering, filtration and compression equipment and processes) and ancillary equipment that supports the electrical generation operations (e.g., engine oil storage tanks and LFG temperature and moisture conditioning equipment).

The six lean-burn IC engines will be connected to individual electrical generators. Each gas IC engine will be connected to a 1,600 kilowatt electrical generator. The plant will have the potential to generate 9.6 megawatts of electricity under base load operating conditions and will be interconnected to the Florida Power & Light distribution network through a nearby power line.

The LFG-fueled IC engines will be housed in a single building constructed near the existing LFG collection system header and control system flare. A gas transmission line will be connected to the header of the existing LFG collection system and a dedicated gas blower/compressor will be used to draw methane-rich gas (fuel) from the existing LFG collection system to the proposed electrical generation plant.

The Central Disposal Facility is a major source of air pollution or a Title V source based on Rule 62-210.200(184), Florida Administrative Code (F.A.C.). Additionally, based on this modification, potential emissions of carbon monoxide (CO) will be greater than 250 tons per year (TPY) making the facility a Major Stationary Source for Prevention of Significant Deterioration (PSD) review with respect to Rule 62-210.200(185)(a)2., F.A.C. The increases in emissions of CO, nitrogen oxide (NOx) and particulate matter less than or equal to 10 microns (PM₁₀) will exceed the significant emission rates listed in Rule 62-210.200(264), F.A.C. A Best Available Control Technology (BACT) determination is part of the review required for CO, NOx and PM₁₀ by Rule 62-210.200(39), F.A.C.

Descriptions of the process, project, BACT determination, air quality effects, and rule applicability are given in the Technical Evaluation and Preliminary Determination, accompanying the Department's Intent to Issue.

The Department specifies the following as BACT for each engine:

POLLUTANT	EMISSION LIMIT	CONTROL TECHNOLOGY
CO	2.75 g/bhp-hr and 13.54 lb/hr and 59.30 TPY	Combustor design and good combustion practices
NOx	0.60 g/bhp-hr and 2.95 lb/hr and 12.94 TPY	Combustor design and good combustion practices
PM ₁₀	0.24 g/bhp-hr and 1.18 lb/hr and 5.17 TPY	Pretreatment of landfill gas and proper engine maintenance

Brevard Energy, LLC
Central Disposal Facility

DEP File No. 0090069-004-AC
Permit No. PSD-FL-378

APPENDIX BD
BEST AVAILABLE CONTROL TECHNOLOGY DETERMINATION (BACT)

Compliance with the emission limits shall be in accordance with the following EPA Reference Methods as contained in 40 CFR 60, Appendix A or as otherwise approved by the Department:

EMISSION UNIT	POLLUTANT	EPA REFERENCE METHOD
Six (6) Caterpillar Model G 3520C LFG-fueled Internal Combustion Engines	PM ₁₀	201
	NO _x	7 or 7E
	CO	10
	VE	9

APPENDIX GC
GENERAL PERMIT CONDITIONS [F.A.C. 62-4.160]

- G.1 The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
- G.2 This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings or exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
- G.3 As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey and vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.
- G.4 This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
- G.5 This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
- G.6 The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
- G.7 The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:
- a) Have access to and copy and records that must be kept under the conditions of the permit;
 - b) Inspect the facility, equipment, practices, or operations regulated or required under this permit, and,
 - c) Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.
- Reasonable time may depend on the nature of the concern being investigated.
- G.8 If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:
- a) A description of and cause of non-compliance; and
 - b) The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance. The permittee shall be responsible for any and all damages, which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

APPENDIX GC
GENERAL PERMIT CONDITIONS [F.A.C. 62-4.160]

- G.9 In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.
- G.10 The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.
- G.11 This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.
- G.12 This permit or a copy thereof shall be kept at the work site of the permitted activity.
- G.13 This permit also constitutes:
- a) Determination of Best Available Control Technology (X)
 - b) Determination of Prevention of Significant Deterioration (X);
 - c) Compliance with New Source Performance Standards (X). Subpart WWW requirements and
 - d) Compliance with National Emission Standards for Hazardous Air Pollutants (X). Subpart AAAA and ZZZZ requirements
- G.14 The permittee shall comply with the following:
- a) Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
 - b) The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application or this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
 - c) Records of monitoring information shall include:
 - 1. The date, exact place, and time of sampling or measurements;
 - 2. The person responsible for performing the sampling or measurements;
 - 3. The dates analyses were performed;
 - 4. The person responsible for performing the analyses;
 - 5. The analytical techniques or methods used; and
 - 6. The results of such analyses.
- G.15 When requested by the Department, the permittee shall within a reasonable time furnish any information required by law, which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

4APT-ATMB

OCT 19 2006

RECEIVED

OCT 23 2006

BUREAU OF AIR REGULATION

Joseph Kahn, Acting Director
Division of Air Resource Management
FL Department of Environmental Protection
Mail Station 5500
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Dear Mr. Kahn:

The purpose for this letter is to provide you with a determination regarding emission limit applicability and monitoring requirements for landfill gas that will be combusted in internal combustion engines to produce electricity at the following landfills located in Florida:

Trail Ridge Landfill (Baldwin, Florida)

Brevard County Landfill (Cocoa, Florida)

Seminole County Landfill (Geneva, Florida)

These landfills are subject to 40 CFR Part 60, Subpart W (Standards of Performance for Municipal Solid Waste Landfills), and a consultant (Derenzo and Associates, Inc.) representing the owners of all three sites submitted applicability determination requests to the U.S. Environmental Protection Agency (EPA) Region 4 and to your agency. The primary question posed in these requests is whether the landfill gas processing operations at these sites constitute "treatment" as this term is defined under Subpart W. Based upon our review of the information provided with the applicability determination request, we concluded that the gas processing conducted at the three landfills in question does constitute treatment under Subpart W. Therefore, the gas leaving the treatment systems at these landfills is no longer subject to the control and monitoring requirements in Subpart W. Details regarding the gas processing systems at these sites and the basis for our determination are provided in the remainder of this letter.

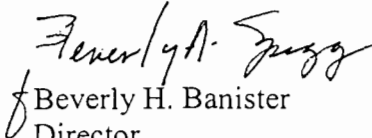
Derenzo and Associates requested a determination regarding whether the gas processing at the three landfills in Florida constitutes treatment because gas that has been treated is no longer subject to the control requirements in Subpart W. Under provisions in 40 CFR §60.752(b)(2)(iii), gas collected from landfills subject to Subpart W must be routed to either a flare, a control system that reduces nonmethane organic compound (NMOC) emissions by 98 weight-percent, an enclosed combustor, or a

treatment system that processes the gas for subsequent sale or use. If an enclosed combustor is used, NMOC emissions must be reduced by either 98 weight-percent or to a concentration of less than 20 parts per million as hexane, corrected to three percent oxygen. Although landfill gas is no longer subject to the control requirements in Subpart WWW after it has been processed for subsequent sale or use, emissions from any atmospheric vents in the treatment system must be sent to a control system (flare, enclosed combustor, etc.) that complies with the removal efficiency standards in the rule.

According to the process description that Derenzo and Associates provided with its applicability determination requests, gas collected at the three landfills in question is filtered to remove particles larger than one micron, dewatered, and compressed. According to several previous U.S. Environmental Protection Agency (EPA) determinations, a landfill gas processing operation that includes filtration to ten microns or less, dewatering, and compression constitutes treatment in accordance with provisions in 40 CFR §60.752(b)(2)(iii)(C). Since the gas processing operations at the three landfills in question include all of the steps cited in EPA's previous determinations, they constitute treatment systems for Subpart WWW purposes, and the treated gas leaving these systems will no longer be subject to control or monitoring requirements under the rule.

If you have any questions about the determination provided in this letter, please contact Mr. David McNeal of the EPA Region 4 staff at (404) 562-9102.

Sincerely,


Beverly H. Banister
Director
Air, Pesticides and Toxics
Management Division

cc: Syed Arif
Division of Air Resource Management
FL Department of Environmental Protection
Mail Station 5500
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Derenzo and Associates, Inc.

Environmental Consultants

September 8, 2006

Mr. Doug Neeley
Chief Air Toxics and Monitoring Branch, Region 4
U.S. ENVIRONMENTAL PROTECTION AGENCY
Atlanta Federal Center
61 Forsyth Street, SW
Atlanta, GA 30303-3104

RECEIVED

SEP 14 2006

BUREAU OF AIR REGULATION

Subject: Brevard Energy, L.L.C.
Cocoa, Florida
Gas Treatment System Monitoring and SSM Plan

Dear Mr. Neeley:

Derenzo and Associates, Inc. is submitting to USEPA Region 4 on behalf of Brevard Energy, L.L.C. (Brevard Energy) a Gas Treatment System Monitoring and SSM Plan for its landfill gas (treated gas) electricity generation facility that will be located in Cocoa, Brevard County, Florida.

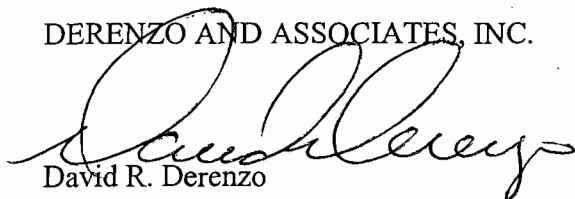
The FDEP is reviewing a PSD permit application for the construction of a landfill gas fueled electricity generation facility (Brevard Energy at the Brevard County Solid Waste Management Central Disposal Facility) and requested that the Gas Treatment System Monitoring and SSM Plan for the Brevard Energy operations be submitted to USEPA Region 4 for its review and approval.

40 CFR §60.765(d) of the MSW Landfill NSPS specifies that if a device other than an open flare or an enclosed combustor is used as the control system for landfill gas emissions, then information is to be prepared describing the operation of the control device, the operating parameters that indicate proper performance and appropriate monitoring procedures. The MSW Landfill NESHAP requires owners of affected facilities to document standard procedures for equipment startup and shutdown and develop procedures for responding to equipment malfunctions.

Please contact me if you have questions of require additional details.

Sincerely,

DERENZO AND ASSOCIATES, INC.



David R. Derenzo
Services Director

c: Bill Owen, Brevard Energy
Syed Arif, FDEP

Municipal Solid Waste Landfill Gas Collection and Control System

Gas Treatment System Monitoring And Startup, Shutdown, and Malfunction Plan

Prepared in accordance with the:

**National Emission Standards for Hazardous Air Pollutants
40 C.F.R. §63.6(e)(3)**

Prepared for:

Facility: Brevard Energy, L.L.C.

Address: Brevard Energy, L.L.C.
2250 Adamson Road
Cocoa Florida 32926

Date: September 7, 2006

This document identifies the procedures for conducting startups, shutdowns or addressing malfunctions of the landfill gas treatment system associated with the Brevard Energy, L.L.C. landfill gas to energy facility subject to this plan in a timely and safe manner.

Revision: 0
Revision Date: _____
Issuance Date: _____
Revised By: _____

1.0 Purpose

The purpose of the Gas Treatment System Monitoring and Startup, Shutdown and Malfunction (SSM) Plan that is presented in this document is to establish appropriate monitoring, operating and malfunction response procedures for the landfill gas treatment system that is operated at Brevard Energy, L.L.C. (Brevard Energy), which is located at the Brevard County Solid Waste Management Central Disposal Facility (Central Disposal Facility) in Cocoa, Brevard County, Florida.

This plan has been developed in accordance with provisions of the Municipal Solid Waste (MSW) Landfill New Source Performance Standards (NSPS, 40 CFR Part 60, Subpart WWW) and the MSW Landfill National Emissions Standards for Hazardous Air Pollutants (NESHAP, 40 CFR Part 63, Subpart AAAA).

40 CFR §60.765(d) of the MSW Landfill NSPS specifies that if a device other than an open flare or an enclosed combustor is used as the control system for landfill gas emissions, then information is to be prepared describing the operation of the control device, the operating parameters that indicate proper performance and appropriate monitoring procedures. The MSW Landfill NESHAP requires owners of affected facilities to document standard procedures for equipment startup and shutdown and develop procedures for responding to equipment malfunctions.

A copy of the up-to-date Gas Treatment System Monitoring and Startup, SSM Plan (original and subsequent revisions/addendums) will be kept on file at Brevard Energy for the entire length of time the facility is in operation.

2.0 Facility and General Process Information

Landfill gas generated at the Central Disposal Facility, which is the source of the fuel used by Brevard Energy, is collected using a system of wells, gas headers and blowers, which have been installed and are operated by the landfill owner Brevard County (Facility Identification Number (I.D. No.) 0090069. The Central Disposal Facility has been issued Title V Air Operation Permit Renewal No. 0090069-003-AV by the Florida Department of Environmental Protection, Department of Air Resource Management (FDEP-DARM), which has an expiration date of September 30, 2007.

Brevard Energy has a contract with Brevard County (Central Disposal Facility) to use the collected landfill gas for use as fuel to power six identical reciprocating internal combustion (IC) engine and electricity generator sets. The electricity that is generated by Brevard Energy is sold to Florida Power & Light under a power purchase agreement for distribution to the local grid.

The landfill gas produced by the Central Disposal Facility is treated prior to being used as

fuel in the Brevard Energy electricity generation processes. The United States Environmental Protection Agency (USEPA) has issued regulatory clarifications that define treated landfill gas as “landfill gas processed in a treatment system that filters, de-waters, and compresses the gas.”

The gas received from the Central Disposal Facility is initially de-watered in knockout tanks that are located upstream of the Brevard Energy landfill gas treatment system where portions of the condensate in the landfill gas are removed.

After the initial knockout tank de-watering, the landfill gas is treated in equipment and processes operated by Brevard Energy that consists of:

1. A primary filter vessel that contains a coalescing filter, which is designed to remove particles in the gas stream that are 1.0 micron (μm) and larger. Condensate collected by this coalescing filter falls to the bottom of the vessel where it is immediately transferred by gravity feed to a sump that transfers the liquid back to the landfill for processing.
2. Gas blowers (four separate blowers) for compression of the de-watered landfill gas.
3. An air-to-gas cooler to reduce the temperature of the gas (which is heated by the blower during gas compression).
4. A polishing filter vessel that contains a coalescing filter, which is designed to remove particles that are 1.0 μm and larger. Condensate collected by this coalescing filter falls to the bottom of the vessel where it is immediately transferred by gravity feed to the sump that transfers the liquid back to the landfill for processing.

3.0 Gas Treatment System Monitoring

Based on the design of the Brevard Energy landfill gas treatment system, the following equipment and process components will be continuously monitored and manually recorded daily to verify that the system is operating properly:

- **Primary filter vessel differential pressure:** The pressure drop across the primary coalescing filter (inlet and outlet of the gas flow through the vessel) is continuously monitored with a pressure differential switch. The existence of large differential pressures (dP) indicates that the filter is wet, loaded with particulate matter or significant accumulation of condensate is present in the vessel. The dP at the primary coalescing filter (vacuum side of blower) should be equal to or less than 2 pounds per square inch differential (psid).

The primary filter typically operates without any noticeable condensate accumulation

(no water is typically present in the vessel).

If the pressure drop across the primary coalescing filter is observed to be greater than 2 psid, the filter will be replaced and/or investigations will be performed to evaluate potential malfunctions of upstream landfill gas de-watering equipment.

- **Polishing filter vessel differential pressure:** The pressure drop across the polishing coalescing filter (inlet and outlet of the gas flow through the vessel) is continuously monitored with a pressure differential switch. Large differential pressures (dP) indicate that the filter is wet or loaded with particulate matter and should be replaced. The dP at the polishing filter (pressure side of blowers and downstream of the gas cooler) should be equal to or less than 3 psid.

If the pressure drop across the polishing coalescing filter is greater than 3 psid, the filter will be replaced.

Replacement coalescing filter specifications

The replacement filters will be of comparable design for critical air or gas service applications where high-efficiency removal of oil or water droplets and particulate solids is required. Brevard Energy uses LG Liquid and Gas Coalescing Cartridges that are rated for 50 psid and 30 inches in length and 3.25 inches in diameter. The filters are rated for particulate matter removal to 1.0 μm and the nominal filter area is approximately 9.6 ft^2 .

- **Blower discharge pressure (gas compression):** The pressure of the gas in the treatment system is continuously monitored with a pressure switch that is located after (downstream) of the polishing filter vessel. The landfill gas treatment system (blowers) should be operated so that the minimum pressure observed at the specified monitoring location is at least 0.5 pounds per square inch gauge (0.5 psig). Pressures measured after the polishing filter vessel that are less than 0.5 psig are an indication of problems with the gas compression system.

If the pressure of the gas in the treatment system monitored after the polishing filter vessel is less than 0.5 psig, an investigation of the equipment will be performed and corrective actions implemented.

- **Air-to-gas cooler outlet temperature:** The temperature of the gas in the treatment system is continuously monitored with a temperature switch that is located after (downstream) of the polishing filter vessel. The landfill gas treatment system (air-to-gas cooler) should be operated so that the maximum temperature observed at the specified monitoring location is equal to or less than 130°F. Gas temperatures

measured after the polishing filter vessel that are greater than 130°F are an indication of problems with the operation of the air-to-gas cooler.

If the temperature of the gas in the treatment system monitored after the polishing filter vessel is greater than 130°F, an investigation of the air-to-gas cooler will be performed and corrective actions implemented.

- **Gas Treatment System monitoring and recordkeeping:**

Monitoring

The pressure drop across the primary and polishing coalescing filters are each continuously monitored with separate pressure differential switches.

The pressure of the gas in the treatment system is continuously monitored with a pressure switch located after the polishing filter vessel.

The temperature of the gas in the treatment system is continuously monitored with a temperature switch located after the polishing filter vessel.

If the set points (as specified in the previous text) of any of the pressure drop, pressure or temperature switches are reached, an automated system sounds an in-plant alarm (to notify on-site plant operators) and initiates a phone system that calls the on-duty operator (the plant has 24 hours per day, seven day per week coverage) during periods when an operator is not on-site.

Recordkeeping

The in-charge plant operator is required to maintain daily records of appropriate system operations and will manually record the times that any of the specified alarms are observed or phone call notifications of alarms are received and all appropriate gas treatment system corrective actions.

4.0 Startup Standard Operating Procedure

“Startup means the setting in operation of an affected source or portion of an affected source for any purpose.” (40 CFR §63.2)

The standard operating procedure for the startup of the landfill gas treatment system is to:

1. Ensure that no unsafe conditions are present.
2. Contact, prior to startup, the Brevard Energy in charge Plant Operator.

3. Ensure that the system is ready to start by one or more of the following:
 - a. Valves are positioned in their proper operating locations.
 - b. Appropriate gas and fluid levels, pressures and temperatures are within the values of their normal starting range.
 - c. Alarms are cleared.
 - d. Power is on, and available to the control panel and to energized equipment.
 - e. Emergency Stop is de-energized.
4. Initiate the proper equipment, process and system start sequences.
5. Observe that the system achieves normal operating ranges for appropriate gas and fluid levels, pressures and temperatures (see 3.0 Gas Treatment System Monitoring).
6. Appropriate SSM reporting forms and documents will be completed (examples are provided in Appendix A).
7. Refer to Operations and Maintenance Manuals as determined to be necessary.

5.0 Shutdown Standard Operating Procedures

“Shutdown means the cessation of an affected source or portion of an affected source or portion of an affected source for any purpose.” (40 CFR §63.2).

The standard operating procedure for shutdown of the landfill gas treatment system is to:

1. Ensure that no unsafe conditions are present.
2. Contact, prior to shutdown, the Brevard Energy in charge Plant Operator and notify appropriate Central Disposal Facility representatives that the landfill gas treatment and electricity generation processes will be shutdown.

Extended shutdowns of the specified equipment will require startup of the Central Disposal Facility gas flaring processes.

3. Initiate the proper equipment, process and system shutdown sequence by one or more of the following:
 - a. Press Emergency Stop as determined to be necessary.
 - b. Close On / Off switch(es) or Push On / Off button(s).
 - c. Close adjacent valves as determined to be necessary.
4. Observe that system achieves normal shutdown ranges for appropriate gas and

fluid levels, pressures and temperatures.

5. Complete the appropriate SSM reporting forms and documents (examples are provided in Appendix A).
6. Refer to Operations and Maintenance Manuals as determined to be necessary.

6.0 Malfunction Standard Operating Procedures

“Malfunction means any sudden, infrequent, and not reasonably preventable failure of air pollution control and monitoring equipment, process equipment, or a process to operate in a normal or usual manner which causes, or has the potential to cause, the emission limitations in an applicable standard to be exceeded. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.” (40 CFR §63.2).

1. If landfill gas is determined to be venting from the gas treatment system, the equipment and processes will be immediately isolated from the Central Disposal Facility gas collection system.

Appropriate Central Disposal Facility representatives will be contacted to inform them that the gas treatment and electricity generation processes are off-line.

2. An investigation of the equipment that caused the malfunction will be performed and corrective actions implemented.
3. After the cause of the malfunction has been identified and corrective actions implemented, the fuel use and electricity generation processes will be restarted using the procedures specified in this document (Section 4.0 Startup Operating Procedures).
4. The appropriate SSM reporting forms and documents will be completed (examples are provided in Appendix A).

Duration is the time it takes from discovery of the malfunction to Step 3 specified in the preceding text (unless continuous monitoring records indicate the malfunction started earlier).

5. Refer to Operations and Maintenance Manuals as determined to be necessary.

7.0 Recordkeeping

The following information will be maintained to verify proper operation of the Brevard Energy gas treatment system and that proper procedures were implemented in response to equipment startup, shutdown and malfunction requirements:

1. Daily records of the equipment monitoring parameters that are presented in this document (Section 3.0 Gas Treatment System Monitoring).
2. Equipment maintenance and/or modification records that affect the operation of the gas treatment system.
3. Startup, shutdown and/or malfunction occurrence records with details on the duration of each event (appropriate SSM reporting forms and documents are provided in Appendix A).
4. Startup, shutdown and/or malfunction records that document the actions taken during these events, when such actions are different from those specified in this document (Section 4.0 Startup Operating Procedures, Section 5.0 Shutdown Operating Procedures, Section 6.0 Malfunction Operating Procedures).

A deviation report will be completed when startup, shutdown and/or malfunction actions occur that are different than those specified in this document (an example is provided in Appendix B).

8:0 Plan Revisions

This Gas Treatment System Monitoring and SSM Plan will be:

1. Amended or modified if equipment or processes are added that are not covered under the Plan; or
2. Revised within 45 days of a nonconforming event if the procedures described in the document do not adequately address any startup, shutdown and/or malfunction event that occur at the facility.

Plan revisions will be documented using the revision history log (an example is provided in Appendix C).

9:0 Appendices

The following documents and materials are included as part of the Gas Treatment System Monitoring and SSM Plan:

Appendix A: Startup / Shutdown / Malfunction Report Form

Appendix B: Startup / Shutdown / Malfunction Plan Deviation Report

Appendix C: Gas Treatment System Monitoring and SSM Plan Revision History

APPENDIX A

Startup / Shutdown / Malfunction Report Forms and Documents

Startup/Shutdown/Malfunction Report Form

Section I - All Events

List all affected piece(s) of equipment: _____						
Type of Event	Military Time		Duration (hours)	Event Code (see back of form)	SOP* Followed?	
	Date/Time Start	Date/Time End			Yes	No**
<input type="checkbox"/> Startup						
<input type="checkbox"/> Shutdown						
<input type="checkbox"/> Malfunction					Complete Section 2 Below	

* Standard Operating Procedure (SOP) for Flare Startups (Manual & Automatic) and Shutdowns are provided in SSM Plan

**If SOP in SSM Plan was not followed, notify personnel on contact list immediately.

Section 2 - Malfunction Events Only

Step	Corrective Action Procedures for All Malfunctions	☑ Check one of the following for each step:	
		Procedure completed	Procedure Not Applicable
1.	Determine if landfill gas is being released to the air (can you smell landfill gas, or measure/detect gas flow?).	<input type="checkbox"/>	
2.	If landfill gas is being released to the air, notify personnel on "Contact List".	<input type="checkbox"/>	<input type="checkbox"/>
3.	Determine if the malfunction is causing an unsafe operating condition (air entering landfill or piping, smoking, vibration, or other problem), which may harm people, the environment or the landfill gas control equipment.	<input type="checkbox"/>	
4.	If unsafe operating condition exists, or landfill gas is being released to the air, stop (if possible) landfill gas flow.	<input type="checkbox"/>	<input type="checkbox"/>
5.	If Control device or other system component is shutdown due to Step 4, follow Shutdown SOP and Complete Section I - "Shutdown".	<input type="checkbox"/>	<input type="checkbox"/>
6.	Determine if other personnel/resource (qualified technician, electrician, consultant or other) are needed for malfunction diagnosis.	<input type="checkbox"/>	
7.	If additional personnel needed, notify qualified personnel: ? Record Contact Name: ? Record Contact Date: ? Record Contact Time: ? Contact site representative with information recorded here.	<input type="checkbox"/>	<input type="checkbox"/>
8.	Start malfunction diagnosis.	<input type="checkbox"/>	
9.	Determine if other resources are needed to fix the malfunction (qualified technician, electrician, contractor, on-site resources, manufacturer's representative, or other).	<input type="checkbox"/>	
10.	If additional resources needed, contact qualified resource: ? Record Contact Name: ? Record Contact Date: ? Record Contact Time: ? Contact site representative with information recorded here.	<input type="checkbox"/>	<input type="checkbox"/>
11.	Fix the malfunction.	<input type="checkbox"/>	
12.	Once the malfunction is fixed, re-start the system per SOP if it had been shut down, and record start-up times and dates in Section I of this form.	<input type="checkbox"/>	<input type="checkbox"/>
13.	Record date that malfunction occurred, date that malfunction was repaired, and total time that system was out of service in Section I of this form.	<input type="checkbox"/>	
14.	Sign this form and place it in the Start-up, Shutdown, Malfunction file.	<input type="checkbox"/>	
15.	If the procedures listed above were not followed, notify personnel on contact list immediately.	<input type="checkbox"/>	<input type="checkbox"/>

Date Form Filled Out: _____ Signature: _____

Event Codes

For Start-ups and Shutdowns

Startup: The setting in operation of an affected source or portion of an affected source for any purpose.

Shutdown: The cessation of operation of an affected source or portion of any source for any purpose.

<u>Code</u>	<u>Event</u>
1	Maintenance
2	Suspected Collection System Malfunction
3	Suspected Control Device Malfunction
4	Suspected Continuous Monitoring System Malfunction (Temperature/Flow/Other)
5	Training
6	Gas System Construction/Expansion
7	Normal Backup Operation
99	Other(Describe) _____

For Malfunctions

Malfunction : Any sudden, infrequent and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused in part by poor maintenance or carelss operation are not malfunctions.

<u>Code</u>	<u>Event</u>
10	Automatic shutdown of control device by designed protective systems
11	Autodialer Callout
12	Shutdown alarms that result in the device not shutting down
13	Unalarmed shutdown
14	Control Device Smoking
15	Inspection identified malfunction
16	Loss of power - utility down
17	Loss of power - unknown
18	Damaged Well, Header or Lateral Piping
19	Leaks at wellheads, valves, flanges, test ports, seals, couplings, etc.
20	Condensate Knock-out Problems
21	Collection Piping Blockages
22	Problems due to Settlement
23	Loss of phase
24	Blower overload condition
25	Blower bearing failure
26	Broken belts (if belt-drive) or broken coupling (if direct-drive) in blower
27	Continuous Monitoring System Malfunction - Thermocouple
28	Continuous Monitoring System Malfunction - UV Scanner
29	Continuous Monitoring System Malfunction - Flow Monitor
30	Continuous Monitoring System Malfunction - Flow Recorder
31	Continuous Monitoring System Malfunction - Temperature Recorder
32	Act of God (i.e., lightning, wind, etc.)
99	Other(Describe) _____

APPENDIX B

Startup / Shutdown / Malfunction Plan Deviation Report

Startup, Shutdown, and Malfunction Plan Deviation Report

Facility: _____ Date Form Completed: _____

Unit ID: _____

Event: *check the appropriate box.*

Startup Shutdown Malfunction

Date: _____ Time: _____

Duration: _____

Provide detailed explanation of the circumstance of the startup, shutdown, malfunction:

Provide description of corrective action:

Describe the reasons the Startup, Shutdown, Malfunction Plan was not adequate:

Describe proposed revisions to the Startup, Shutdown, Malfunction Plan:

Were any excess emissions and/ or parameter monitoring exceedances believed to have occurred during the event?
 check the appropriate box.

Yes No

Name: _____

Title: _____

Signature: _____

Brevard Energy

Startup, Shutdown, and Malfunction Plan

**Sample Semiannual Report Letter
(All SSM Events in Compliance with the SSM Plan)**

Brevard Energy

Startup, Shutdown, and Malfunction Plan

Date

Air Agency Address

RE: Semiannual Startup, Shutdown, Malfunction (SSM) Plan Report
XXXXXX Landfill
Facility Title V Operating Permit No.
Reporting Period: _____ to _____

Dear _____:

The XXXXXX Landfill is subject to the National Emissions Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills (Landfill NESHAP – 40 CFR 63 Subpart AAAAA). The NESHAP requires that a report be submitted on a semiannual basis, a report be submitted to the Administrator discussing the facility's compliance with the procedures in their SSM Plan, during SSM events (40 CFR 63.10(d)(5)).

The actions taken at the facility during all SSM events, for the reporting period listed above, were consistent with the procedures listed in the SSM Plan at the facility.

During the reporting period listed above, there (were/were not any) revisions made to the SSM Plan at the facility. (If changes were made, state why – revised to reflect new equipment, new contact numbers, etc.).

If you have any questions regarding this Semiannual SSM Plan Report, please contact me at (List Phone Number).

Sincerely,

XXXXXXXXXXXXXXXXXXXX
(NAME OF COMPANY/TITLE HERE)

Brevard Energy

Startup, Shutdown, and Malfunction Plan

Sample Semiannual Report Letter
(One or more SSM Events NOT in Compliance with the SSM Plan)

Brevard Energy

Startup, Shutdown, and Malfunction Plan

Date

Air Agency Address

RE: Semiannual Startup, Shutdown, Malfunction (SSM) Plan Report
XXXXXXXXXX Landfill
Facility Title V Operating Permit No.
Reporting Period: _____ to _____

Dear _____:

The Facility Name Landfill is subject to the National Emissions Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills (Landfill NESHAP – 40 CFR 63 Subpart AAAA). The NESHAP requires that a report be submitted on a semiannual basis, a report be submitted to the Administrator discussing the facility's compliance with the procedures in their SSM Plan, during SSM events (40 CFR 63.10(d)(5)).

The actions taken at the facility during one or more SSM events, for the reporting period listed above, were not consistent with the procedures listed in the SSM Plan at the facility. However, the source did not exceed any of the emissions limitations in the Landfill NESHAP during these events. The attached table lists the information that must be submitted in the Semiannual SSM Plan Report in this instance.

During the reporting period listed above, there were ____ revisions made to the SSM Plan at the facility. (If changes were made, state why – revised to reflect new procedures to address non conforming event (mandatory), new equipment, new contact numbers, etc.).

If you have any questions regarding this Semiannual SSM Plan Report, please contact me at (List Phone Number).

Sincerely,

XXXXXXXXXX
(NAME OF COMPANY/TITLE HERE)

Attachment: Description of all Malfunction Events

Brevard Energy

Startup, Shutdown, and Malfunction Plan

**Attachment 1:
Description of all Malfunction Events
For the Reporting Period _____ to _____**

Total Number of Malfunctions: _____

Date of Malfunction	Total Duration (hours)	Equipment Affected*	Description of Malfunction	Were SSM Plan Procedures Followed (Y/N)	Date of SSM Plan Revision to Address Event**

* Control Device, Continuous Monitoring System, or Collection System
 **Not Applicable if SSM Plan Procedures were followed during the Malfunction Event

Brevard Energy

Startup, Shutdown, and Malfunction Plan

**Sample Immediate Notification Letter
(SSM Events NOT in Compliance with the SSM Plan, and Facility Experienced
Excess Emissions)**

Brevard Energy

Startup, Shutdown, and Malfunction Plan

Date

Air Agency Address

RE: XXXXXXXX Landfill
Facility Title V Operating Permit No.
40 CFR 63 Subpart AAAA – Landfill NESHAP
Immediate Notification Report: Non-conforming SSM Event

Dear _____:

The XXXXXXXX Landfill is subject to the National Emissions Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills (Landfill NESHAP – 40 CFR 63 Subpart AAAA). 40 CFR 63.10(d)(5) of the NESHAP requires that if actions taken at the facility during a startup, shutdown or malfunction (SSM) event are not consistent with the facility's SSM Plan, and the event results in excess emissions, the Agency must be notified verbally within 2 working days after the actions are taken. A letter must be written within 7 days of the event.

Please consider this letter as the required written report for the SSM event that occurred at the facility on (list date). As required by the NESHAP, a verbal notification was made to (give name of agency, person talked to) on (list date).

In accordance with the NESHAP, the following information is required in the letter report for this event:

Record the actions taken for the event: Describe what occurred, what was done, and how it differed from the SSM plan actions.

Describe excess emissions: Discuss the type of emission, and where it came from

Revise the SSM plan within 45 days of the non-conforming event:

Give a date by which the SSM plan will be revised.

If you have any questions regarding this Immediate Notification Report, please contact me at (List Phone Number).

Sincerely,

XXXXXXXXXX
(NAME OF COMPANY HERE)

APPENDIX C

**Gas Treatment System Monitoring
And
SSM Plan Revision History**

Brevard Energy

Startup, Shutdown, and Malfunction Plan

SSM Plan Revision History

This SSM Plan will be amended if equipment or processes are added that are not covered under the plan or will be revised within 45 days of non-conforming events if the procedures described herein do not adequately address any malfunction or start-up/shutdown events that occur at the facility. A copy of the original plan and all revisions/addendums will be kept on file at the facility for at least five (5) years.

Date of Revision	Reason For Revision

Derenzo and Associates, Inc.

Environmental Consultants

August 15, 2006

Mr. Syed Arif, P.E.
Bureau of Air Regulation
Division of Air Resource Management
Department of Environmental Protection
STATE OF FLORIDA
2600 Blair Stone Road, MS 5505
Tallahassee, FL 32399-2400

Subject: Brevard Energy, L.L.C.
DEP File No. 090069-004-AC (PSD-FL-378)
Response to July 31, 2006 request for information

Dear Mr. Arif:

Derenzo and Associates, Inc. (Derenzo and Associates), on behalf of Brevard Energy, L.L.C. (Brevard Energy), is submitting to the Florida Department of Environmental Protection, Division of Air Resource Management (FDEP-DARM) information that was requested by the regulatory agency on July 31, 2006.

Attachment A provides for reference the July 31, 2006 FDEP-DARM communication.

Item 1 – Coalescing Filter Specification

Landfill Energy Systems, the parent company of Brevard Energy, has been developing landfill gas to electricity projects for over 15 years and designed (and utilizes) a gas treatment system based on its extensive operating experience that works best (in its opinion) with the proposed IC engines.

Brevard Energy has specified in documents submitted to the FDEP-DARM that BACT for the control of PM10 emissions from the proposed CAT 3520 IC engine operations is treatment of the landfill gas fuel (compression, dewatering, and filtering the landfill gas down to at least 10 microns) and proper equipment maintenance that minimizes the amount of particulate emissions produced during the landfill gas combustion process.

Brevard Energy plans to utilize coalescing filters (primary and polishing) that are rated at 1 micron. Its July 25 communication to the FDEP-DARM indicated that the ... *gas treatment system will have a specification that is significantly less than 10 microns.* The 1 micron size specification has not been selected as a means for reducing solid particulates that may be present in the gas extracted from the landfill and used as engine fuel. This size specification

RECEIVED
AUG 21 2006
BUREAU OF AIR REGULATION

Derenzo and Associates, Inc.

Mr. Syed Arif, P.E.
FDEP-DARM

Page 2
July 31, 2006

works best (based on Landfill Energy Systems experience) for the collection and removal of water vapor aerosols that are readily present in the moisture rich gas stream.

Landfill Energy Systems is not aware of any data (nor the results of its extensive landfill fueled IC engine operating experience or knowledge of the waste gas fuel recovery industry) that indicate a lower aerosol/solid particulate size rating on a coalescing filter results in lower particulate emissions from the combustion of the filtered landfill gas in IC engines. If the Bio Energy Texas LFG fueled electricity generation facility has specified that a 1 micron size coalescing filter is necessary to reduce CAT 3520 IC engine PM10 emissions (to achieve a 0.148 g/bhp-hr exhaust emission), this information is misleading. Information previously submitted to the FDEP-DARM indicates that the fuel is not the major source of the particulates present in the engine exhaust.

The information presented in this communication indicates that Brevard Energy plans to utilize coalescing filters (primary and polishing) that are rated at 1 micron (which is equivalent to that specified for Bio Energy Texas). However, it is the perspective of Brevard Energy and Landfill Energy Systems that the coalescing filter specification (aerosol/solid particulate removal size) has no bearing on the PM10 BACT determination.

Brevard Energy appreciates the consideration of the FDEP-DARM of the information that is presented in this document.

Please contact us if you have questions or require additional information.

Sincerely,

DERENZO AND ASSOCIATES, INC.



David R. Derenzo
Services Director

c: Bill Owen, Landfill Energy Systems
Scott Salisbury, Landfill Energy Systems

V. Nelson
J. Kozlowski, CD
J. Bengard, NPS
G. Worley, EPA

Derenzo and Associates, Inc.

ATTACHMENT A

July 31, 2006 FDEP-DARM Communication



Jeb Bush
Governor

BEST AVAILABLE COPY
Department of
Environmental Protection

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

July 31, 2006

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Scott Salisbury
Brevard Energy, L.L.C.
29261 Wall Street
Wixom, Michigan 48393

Re: DEP File No. 0090069-004-AC (PSD-FL-378)

Brevard Energy – Installation of six (6) reciprocating internal combustion engines

Dear Mr. Salisbury:

The Department has received the response on July 26, 2006, for our initial request for additional information regarding construction and operation of an electric generation facility at the Brevard County Solid Waste Management Central Disposal Facility (Central Disposal Facility) in Brevard County. Based on our review of the response, we have determined that additional information is needed in order to continue processing this application package.

The Department does not concur with the applicant's response of the Department not having any regulatory basis for specifying a performance value that is less than 10 micron threshold approved in the USEPA determinations. This was in response to the Department's query of using a 1 micron filter in place of a 3 micron filter for the final knock-out chamber for pre-treatment of landfill gas prior to the combustion as fuel in the proposed IC engines. The Department's regulatory authority comes from the Prevention of Significant Deterioration rules as follows:

- Rule 62-212.400(4)(c) states that the owner or operator of a proposed source or modification shall submit all information necessary to perform any analysis or make any determination required under this section. Such information shall include a proposed best available control technology (BACT).
- Rule 62-210.200(38) defines BACT as an emission limitation, including a visible emissions standard, based on the maximum degree of reduction of each pollutant emitted which the Department, on a case by case basis, taking into account:
 1. Energy, environmental and economic impacts and other costs;
 2. All scientific, engineering and technical material and other information available to the Department; and
 3. The emission limiting standards or BACT determinations of Florida and any other state; determines is achievable through application of production processes and available methods, systems and techniques (including fuel cleaning or treatment or innovative fuel combustion techniques) for control of each such pollutant.

The rule further states that in no event shall application of BACT result in emissions of any pollutant which would exceed the emissions allowed by any applicable standard under 40 CFR Parts 60, 61 and 63.

"More Protection, Less Process"

Printed on recycled paper.

BEST AVAILABLE COPY

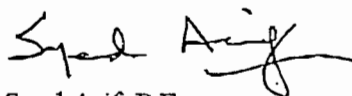
Mr. Scott Salisbury
Page 2 of 2
July 31, 2006

The Department through the application of BACT can set standards more stringent than required by EPA. Based on the above rule authority, please provide the Department with cost effectiveness data of using 10 micron filter in the final knock-out chamber as a baseline for PM₁₀ emissions. Provide the cost effectiveness (\$/ton of PM₁₀ removed) of installing 3 micron filters and calculate the cost effectiveness of using 1 micron filter and associated PM₁₀ emissions. This requested information must be certified by a professional engineer registered in the State of Florida. This issue of setting PM₁₀ BACT emission limit by the Department is applicable to all three projects, namely, Trail Ridge Energy, Seminole Energy and Brevard Energy.

The Department will resume processing this application after receipt of the requested information. Rule 62-4.050(3), F.A.C. requires that all applications for a Department permit must be certified by a professional engineer registered in the State of Florida. This requirement also applies to responses to Department requests for additional information of an engineering nature. A new certification statement by the authorized representative or responsible official must accompany any material changes to the application. Rule 62-4.055(1), F.A.C. now requires applicants to respond to requests for information within 90 days.

We will be happy to meet and discuss the details with you and your staff. If you have any questions, I can be contacted at 850/921-9528.

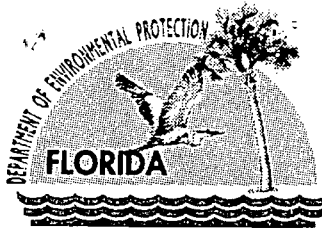
Sincerely,



Syed Arif, P.E.
Bureau of Air Regulation

/sa

cc: Len Kozlov, DEP-CD
Jeff Pope, P.E., Clayton Group Services, Inc.
Gregg Worley, EPA Region 4
John Bunyak, NPS



Jeb Bush
Governor

Department of Environmental Protection

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Colleen M. Castille
Secretary

July 31, 2006

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Scott Salisbury
Brevard Energy, L.L.C.
29261 Wall Street
Wixom, Michigan 48393

Re: DEP File No. 0090069-004-AC (PSD-FL-378)
Brevard Energy – Installation of six (6) reciprocating internal combustion engines

Dear Mr. Salisbury:

The Department has received the response on July 26, 2006, for our initial request for additional information regarding construction and operation of an electric generation facility at the Brevard County Solid Waste Management Central Disposal Facility (Central Disposal Facility) in Brevard County. Based on our review of the response, we have determined that additional information is needed in order to continue processing this application package.

The Department does not concur with the applicant's response of the Department not having any regulatory basis for specifying a performance value that is less than 10 micron threshold approved in the USEPA determinations. This was in response to the Department's query of using a 1 micron filter in place of a 3 micron filter for the final knock-out chamber for pre-treatment of landfill gas prior to the combustion as fuel in the proposed IC engines. The Department's regulatory authority comes from the Prevention of Significant Deterioration rules as follows:

- Rule 62-212.400(4)(c) states that the owner or operator of a proposed source or modification shall submit all information necessary to perform any analysis or make any determination required under this section. Such information shall include a proposed best available control technology (BACT).
- Rule 62-210.200(38) defines BACT as an emission limitation, including a visible emissions standard, based on the maximum degree of reduction of each pollutant emitted which the Department, on a case by case basis, taking into account:
 1. Energy, environmental and economic impacts and other costs;
 2. All scientific, engineering and technical material and other information available to the Department; and
 3. The emission limiting standards or BACT determinations of Florida and any other state; determines is achievable through application of production processes and available methods, systems and techniques (including fuel cleaning or treatment or innovative fuel combustion techniques) for control of each such pollutant.

The rule further states that in no event shall application of BACT result in emissions of any pollutant which would exceed the emissions allowed by any applicable standard under 40 CFR Parts 60,61 and 63.

"More Protection, Less Process"

Printed on recycled paper.

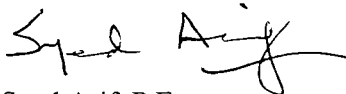
Mr. Scott Salisbury
Page 2 of 2
July 31, 2006

The Department through the application of BACT can set standards more stringent than required by EPA. Based on the above rule authority, please provide the Department with cost effectiveness data of using 10 micron filter in the final knock-out chamber as a baseline for PM₁₀ emissions. Provide the cost effectiveness (\$/ton of PM₁₀ removed) of installing 3 micron filters and calculate the cost effectiveness of using 1 micron filter and associated PM₁₀ emissions. This requested information must be certified by a professional engineer registered in the State of Florida. This issue of setting PM₁₀ BACT emission limit by the Department is applicable to all three projects, namely, Trail Ridge Energy, Seminole Energy and Brevard Energy.

The Department will resume processing this application after receipt of the requested information. Rule 62-4.050(3), F.A.C. requires that all applications for a Department permit must be certified by a professional engineer registered in the State of Florida. This requirement also applies to responses to Department requests for additional information of an engineering nature. A new certification statement by the authorized representative or responsible official must accompany any material changes to the application. Rule 62-4.055(1), F.A.C. now requires applicants to respond to requests for information within 90 days.

We will be happy to meet and discuss the details with you and your staff. If you have any questions, I can be contacted at 850/921-9528.

Sincerely,



Syed Arif, P.E.
Bureau of Air Regulation

/sa

cc: Len Kozlov, DEP-CD
Jeff Pope, P.E., Clayton Group Services, Inc.
Gregg Worley, EPA Region 4
John Bunyak, NPS

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
<ul style="list-style-type: none"> ■ Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired. ■ Print your name and address on the reverse so that we can return the card to you. ■ Attach this card to the back of the mailpiece, or on the front if space permits. 	<p>A. Signature <input checked="" type="checkbox"/> <i>M. Salisbury</i> <input type="checkbox"/> Agent <input type="checkbox"/> Addressee</p> <p>B. Received by (Printed Name) C. Date of Delivery 28-4-06</p>
<p>1. Article Addressed to:</p> <p style="text-align: center;">Mr. Scott Salisbury Trail Ridge Energy, L.L.C. 29261 Wall Street Wixom, Michigan 48393</p>	<p>D. Is delivery address different from item 1? <input type="checkbox"/> Yes If YES, enter delivery address below: <input type="checkbox"/> No</p> <p>3. Service Type <input checked="" type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail <input type="checkbox"/> Registered <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D.</p> <p>4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes</p>
<p>2. Article Number (Transfer from service label) 7000 1670 0013 3110 0963</p>	

U.S. Postal Service
CERTIFIED MAIL RECEIPT
(Domestic Mail Only; No Insurance Coverage Provided)

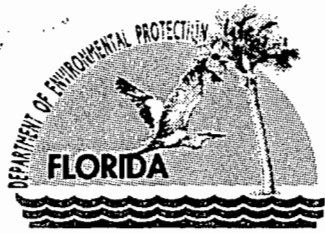
OFFICIAL USE

Postage	\$	Postmark Here
Certified Fee		
Return Receipt Fee <small>(Endorsement Required)</small>		
Restricted Delivery Fee <small>(Endorsement Required)</small>		

7000 1670 0013 3110 0963

\$
(for instructions)

Mr. Scott Salisbury
Trail Ridge Energy, L.L.C.
29261 Wall Street
Wixom, Michigan 48393



Jeb Bush
Governor

Department of Environmental Protection

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Colleen M. Castille
Secretary

July 3, 2006

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Scott Salisbury
Brevard Energy, L.L.C.
29261 Wall Street
Wixom, Michigan 48393

Re: DEP File No. 0090069-004-AC (PSD-FL-378)

Brevard Energy – Installation of six (6) reciprocating internal combustion engines

Dear Mr. Salisbury:

The Department has received the application on June 5, 2006, to allow Brevard Energy to construct and operate an electric generation facility at the Brevard County Solid Waste Management Central Disposal Facility (Central Disposal Facility) in Brevard County. Based on our initial review of the proposed project, we have determined that additional information is needed in order to continue processing this application package. Please submit the information requested below to the Department's Bureau of Air Regulation:

1. The application in Section 2.1.1 states that the lower heating value (LHV) of the landfill gas (LFG) is approximately 397.4 British thermal units per standard cubic foot of gas (Btu/scf). This value is expected to be 450 Btu/scf by the time the engines are operational. Please explain how the LHV value will increase to 450 Btu/scf in a year's time. What other modifications will be taking place at the landfill to accomplish this?
2. The application in Section 2.1.2 states that the minimum heating value of 420 Btu/scf is currently being achieved as represented in Table 1. Table 1 does not indicate that. Please explain the discrepancy.
3. The application in Section 2.1.3 states that the LFG treatment consists of a condensate knock-out tank with a 10 micron filter, followed by a blower and a chiller and then a final knock-out tank equipped with a 3 micron filter. The Texas Bio Energy Permit (PSD-TX-1034) indicates that their set-up uses a 1 micron filter for the final knock-out chamber. Please explain the reasons for not using the same set-up as the one done at Texas.
4. The application in Section 2.3 is not clear whether this project will be a phased construction project. If it will be a phased construction project, please provide a schedule for the phased construction. Rule 62-212.400(10)(d) requires that the owner or operator of a phased construction project shall adhere to the procedures provided in 40 CFR 52.21(j)(4). Those procedures requires that for phased construction projects, the determination of best available control technology shall be reviewed and modified as appropriate at the latest reasonable time which occurs no later than 18 months prior to commencement of construction of each independent phase of the project. At such time, the owner or operator of the applicable stationary source may be required to demonstrate the adequacy of any previous determination of best available control technology for the source.
5. The application in Section 5.2 states that Brevard Energy is part of the Central Disposal Facility and its approved Air Construction Permit is to be incorporated into the Central Disposal Facility Title V Operating Permit. Mr. Euripides Rodriguez (321-633-2042) of the Brevard County Solid Waste

"More Protection, Less Process"

Printed on recycled paper.

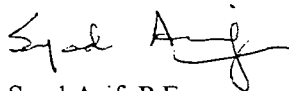
Management Department is listed as the Primary Responsible Official for the Central Disposal Facility. Please provide a letter signed by him agreeing to be the Primary Responsible Official for the Brevard Energy and the Central Disposal Facility.

6. The application states that the electricity generation equipment and processes will be owned and operated by Brevard Energy, LLC. Will Brevard Energy, LLC be paying for the six internal combustion engines or will it be paid by the Brevard County?
7. The Department has still not received the required air quality analysis and will have an additional 30 days after receiving the modeling information to send any further comments based on the modeling review. Any additional comments from EPA and the U.S. Fish and Wildlife Service will be forwarded to you after we receive them.

The Department will resume processing this application after receipt of the requested information. Rule 62-4.050(3), F.A.C. requires that all applications for a Department permit must be certified by a professional engineer registered in the State of Florida. This requirement also applies to responses to Department requests for additional information of an engineering nature. A new certification statement by the authorized representative or responsible official must accompany any material changes to the application. Rule 62-4.055(1), F.A.C. now requires applicants to respond to requests for information within 90 days.

We will be happy to meet and discuss the details with you and your staff. If you have any questions, I can be contacted at 850/921-9528. You may discuss the modeling requirements with Mr. Cleve Holladay at 850/921-8689.

Sincerely,



Syed Arif, P.E.
Bureau of Air Regulation

/sa

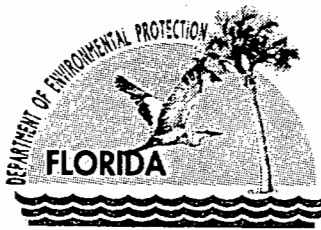
cc: Len Kozlov, DEP-CD
Jeff Pope, P.E., Clayton Group Services, Inc.
Gregg Worley, EPA Region 4
John Bunyak, NPS

SENDER: COMPLETE THIS SECTION	COMPLETE THIS SECTION ON DELIVERY
<ul style="list-style-type: none"> Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired. Print your name and address on the reverse so that we can return the card to you. Attach this card to the back of the mailpiece, or on the front if space permits. 	A. Signature x <u>Diane Lehr</u> <input type="checkbox"/> Agent <input type="checkbox"/> Addressee
1. Article Addressed to: Mr. Scott Salisbury Trail Ridge Energy, L.L.C. 29261 Wall Street Wixom, Michigan 48393	B. Received by (Printed Name) <u>Diane Lehr</u> C. Date of Delivery <u>7-6-06</u> D. Is delivery address different from item 1? <input type="checkbox"/> Yes <input type="checkbox"/> No If YES, enter delivery address below:
2. Article Number (Transfer from service label) <u>7000 1670 0013 3110 0277</u>	3. Service Type <input checked="" type="checkbox"/> Certified Mail <input type="checkbox"/> Express Mail <input type="checkbox"/> Registered <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> Insured Mail <input type="checkbox"/> C.O.D. 4. Restricted Delivery? (Extra Fee) <input type="checkbox"/> Yes

PS Form 3811, February 2004 Domestic Return Receipt 102595-02-M-1540

U.S. Postal Service CERTIFIED MAIL RECEIPT (Domestic Mail Only; No Insurance Coverage Provided)												
OFFICIAL USE												
<table border="1"> <tr> <td>Postage</td> <td>\$</td> </tr> <tr> <td>Certified Fee</td> <td></td> </tr> <tr> <td>Return Receipt Fee (Endorsement Required)</td> <td></td> </tr> <tr> <td>Restricted Delivery Fee (Endorsement Required)</td> <td></td> </tr> </table>	Postage	\$	Certified Fee		Return Receipt Fee (Endorsement Required)		Restricted Delivery Fee (Endorsement Required)		Postmark Here			
Postage	\$											
Certified Fee												
Return Receipt Fee (Endorsement Required)												
Restricted Delivery Fee (Endorsement Required)												
<table border="1"> <tr> <td>1</td> <td>Mr. Scott Salisbury</td> </tr> <tr> <td>Se</td> <td>Trail Ridge Energy, L.L.C.</td> </tr> <tr> <td>St</td> <td>29261 Wall Street</td> </tr> <tr> <td>City</td> <td>Wixom, Michigan 48393</td> </tr> </table>	1	Mr. Scott Salisbury	Se	Trail Ridge Energy, L.L.C.	St	29261 Wall Street	City	Wixom, Michigan 48393	<table border="1"> <tr> <td> </td> </tr> <tr> <td> </td> </tr> <tr> <td> </td> </tr> </table>			
1	Mr. Scott Salisbury											
Se	Trail Ridge Energy, L.L.C.											
St	29261 Wall Street											
City	Wixom, Michigan 48393											
PS Form 3800, May 2000 See Reverse for Instructions												

7000 1670 0013 3110 0277



Jeb Bush
Governor

Department of Environmental Protection

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Colleen M. Castille
Secretary

June 8, 2006

Mr. Gregg M. Worley, Chief
Air Permits Section
U.S. EPA, Region 4
61 Forsyth Street
Atlanta, Georgia 30303-8960

RE: Brevard Energy, L.L.C.
Central Disposal Facility
0090069-004-AC, PSD-FL-378

Dear Mr. Worley:

Enclosed for your review and comment is a PSD application submitted by Brevard Energy, L.L.C., for a new landfill gas fueled internal combustion engine electricity generation facility in Cocoa, Brevard County, Florida.

Your comments may be forwarded to my attention at the letterhead address or faxed to the Bureau of Air Regulation at 850/921-9533. If you have any questions, please contact Scott Sheplak, Review Engineer, at 850/921-9532.

Sincerely,

Patry Adams

for

A. A. Linero, P.E., Administrator
South Permitting Section

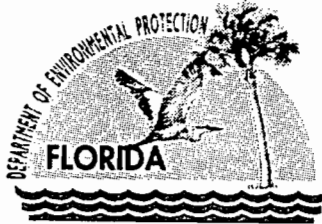
AAL/pa

Enclosure

cc: S. Sheplak

"More Protection, Less Process"

Printed on recycled paper.



Jeb Bush
Governor

Department of Environmental Protection

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Colleen M. Castille
Secretary

June 8, 2006

Mr. John Bunyak, Chief
Policy, Planning & Permit Review Branch
NPS – Air Quality Division
P. O. Box 25287
Denver, Colorado 80225

RE: Brevard Energy, L.L.C.
Central Disposal Facility
0090069-004-AC, PSD-FL-378

Dear Mr. Bunyak:

Enclosed for your review and comment is a PSD application submitted by Brevard Energy, L.L.C., for a new landfill gas fueled internal combustion engine electricity generation facility in Cocoa, Brevard County, Florida.

Your comments may be forwarded to my attention at the letterhead address or faxed to the Bureau of Air Regulation at 850/921-9533. If you have any questions, please contact Scott Sheplak, Review Engineer, at 850/921-9532.

Sincerely,

for

A. A. Linero, P.E., Administrator
South Permitting Section

AAL/pa

Enclosure

cc: S. Sheplak

"More Protection. Less Process"

Printed on recycled paper.

		FM: Dep Air Resource Mgmt P. Adams Director Office Ste 23 111 S Magnolia Dr Tallahassee, FL 32301 UNITED STATES Phone: 850-921-9505	
To: DEP SOUTH DISTRICT RON BLACKBURN 2295 VICTORIA AVENUE, SUITE 364 AIR RESOURCES FORT MYERS, FL 33902 UNITED STATES		33902 POSTCODE: Sender's ref: TLH ORIGIN: 1/1 Pieces:	
Description: U.S. Sugar application		Weight: 1 lbs for 1 pcs Date: 2006-06-09	
DHL standard terms and conditions apply.		12MO Day	
		FMYW 7C FSC	
(2L)US33902			
WAYBILL: 16520223053 (Non-Negotiable)		33902	



Please fold or cut in half
DO NOT PHOTOCOPY

Using a photocopy could delay the delivery of your package and will result in additional shipping charge

SENDER'S RECEIPT

Waybill #: 16520223053

To(Company):
 DEP South District
 Air Resources
 2295 Victoria Avenue, Suite 364
 Fort Myers, FL 33902
 UNITED STATES

Attention To: Ron Blackburn
 Phone#: 239-332-6975

Sent By: P. Adams
 Phone#: 850-921-9505

Rate Estimate: 3.07
 Protection: Not Required
 Description: U.S. Sugar application

Weight (lbs.): 1
 Dimensions: 0 x 0 x 0

Ship Ref:
 Service Level: Ground (Est. delivery in 1 business day(s))

Special Svc:

Date Printed: 6/9/2006
 Bill Shipment To: Sender
 Bill To Acct: 778941286

DHL Signature (optional) _____ Route _____ Date _____ Time _____

For Tracking, please go to www.dhl-usa.com or call 1-800-225-5345



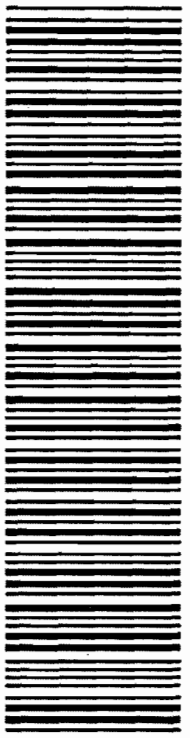
Thank you for shipping with DHL

Create new shipment

View pending shipments

Print waybill



		GND		Pieces: 1/1
FM: Dep Air Resource Mgmt P. Adams Director Office Ste 23 111 S Magnolia Dr Tallahassee, FL 32301 UNITED STATES Phone: 850-921-9505		ORIGIN: TLH Sender's ref: 37550201000		POSTCODE: 30303
To: U.S. EPA REGION 4 MR. GREGG M. WORLEY 61 FORSYTH STREET AIR PERMITS SECTION ATLANTA, GA 30303 UNITED STATES		TEL: 404-562-9141		09FR Day
Description: PSD-FL-378 application				
Weight: 5 lbs for 1 pcs Date: 2006-06-08				
DHL standard terms and conditions apply.				
		HARB 6V ATT		
(2L)US30303				
WAYBILL: 16505588153		(Non-Negotiable)		



Please fold or cut in half
DO NOT PHOTOCOPY


Using a photocopy could delay the delivery of your package and will result in additional shipping charge

SENDER'S RECEIPT Waybill #: 16505588153	Rate Estimate: 3.07 Protection: Not Required Description: PSD-FL-378 application
To(Company): U.S. EPA Region 4 Air Permits Section 61 Forsyth Street Atlanta, GA 30303 UNITED STATES	Weight (lbs.): 5 Dimensions: 0 x 0 x 0
Attention To: Mr. Gregg M. Worley Phone#: 404-562-9141	Ship Ref: 37550201000 Service Level: Ground (Est. delivery in 1 business day(s))
Sent By: P. Adams Phone#: 850-921-9505	Special Svc: Date Printed: 6/8/2006 Bill Shipment To: Sender Bill To Acct: 778941266

DHL Signature (optional) _____ Route _____ Date _____ Time _____

For Tracking, please go to www.dhl-usa.com or call 1-800-225-5345


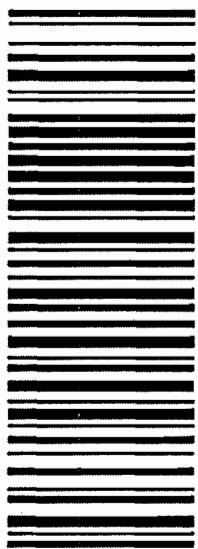
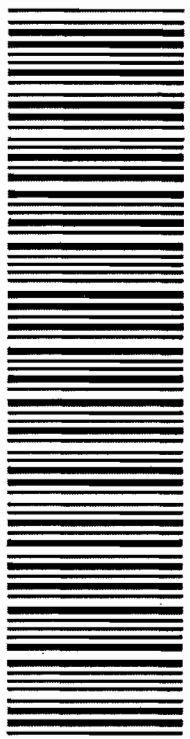
Thank you for shipping with DHL

Create new shipment 

▶ View pending shipments

Print waybill 



		EXP		Pieces: 1/1
FM: Dep Air Resource Mgmt P. Adams Director Office Ste 23 111 S Magnolia Dr Tallahassee, FL 32301 UNITED STATES Phone: 850-921-9505		ORIGIN: TLH		37550201000 A7 AP255 Sender's ref
To: NATIONAL PARK SERVICE MR. JOHN BUNYAK 12795 W. ALAMEDA PARKWAY AIR DIVISION LAKEWOOD, CO 80228 UNITED STATES		POSTCODE: 80228		TEL: 303-966-2818
Description: PSD-FL-378 application				
Weight: 5 lbs for 1 pcs Date: 2006-06-08				
DHL standard terms and conditions apply.				
 (2L)US80228		EGEH 9E		
 WAYBILL: 16505511956 (Non-Negotiable)				



Please fold or cut in half
DO NOT PHOTOCOPY

Using a photocopy could delay the delivery of your package and will result in additional shipping charge

SENDER'S RECEIPT
 Waybill #: 16505511956

To(Company):
 National Park Service
 Air Division
 12795 W. Alameda Parkway
 Lakewood, CO 80228
 UNITED STATES

Attention To: Mr. John Bunyak
 Phone#: 303-966-2818

Sent By: P. Adams
 Phone#: 850-921-9505

Rate Estimate: 18.67
 Protection: Not Required
 Description: PSD-FL-378 application

Weight (lbs.): 5
 Dimensions: 0 x 0 x 0

Ship Ref: 37550201000 A7 AP255
 Service Level: Next Day 12:00 (Next business day by 12 PM)

Special Svc:

Date Printed: 6/8/2006
 Bill Shipment To: Sender
 Bill To Acct: 778941286


DHL Signature (optional) _____ Route _____ Date _____ Time _____

For Tracking, please go to www.dhl-usa.com or call 1-800-225-5345

Thank you for shipping with DHL

Create new shipment 

View pending shipments

Print waybill 



Derenzo and Associates, Inc.

Environmental Consultants

June 2, 2006

Mr. Jeff Koerner
Bureau of Air Regulation
Division of Air Resource Management
Department of Environmental Protection
STATE OF FLORIDA
2600 Blair Stone Road, MS 5505
Tallahassee, FL 32399-2400

Subject: Brevard Energy, L.L.C.
PSD Air Construction Permit Application

Dear Mr. Koerner:

Derenzo and Associates, Inc. (Derenzo and Associates), on behalf of Brevard Energy, L.L.C, is submitting to the Florida Department of Environmental Protection, Division of Air Resource Management six copies of an Air Construction Permit application for a new landfill gas (LFG) fueled internal combustion (IC) engine electricity generation facility at the Brevard County Central Disposal Facility in Brevard County Florida.

A check payable to the Florida Department of Environmental Protection for \$7,500 is attached to page 3 of Appendix A of the enclosed document labeled Master Copy to cover the Air Construction Permit application review services for a facility that is subject to Prevention of Significant Deterioration rules.

Appendix A of the enclosed documents provides a completed Department of Environmental Protection Division of Air Resources Management Application for Air Permit - Long Form for the proposed LFG-fueled IC engine electricity generation facility.

Sincerely,

DERENZO AND ASSOCIATES, INC.



David R. Derenzo
Services Director

enclosures

c: Bill Owen, Brevard Energy, w/enclosure
Scott Salisbury, Brevard Energy, w/enclosure