

Derenzo and Associates, Inc.

Environmental Consultants

June 7, 2006

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BUREAU OF AIR REGULATION

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: Seminole Energy, L.L.C.
DEP File No. 1170084-005-AC (PSD-FL-376)
Response to May 16, 2006 request for information

Dear Mr. Arif:

Derenzo and Associates, Inc. (Derenzo and Associates), on behalf of Seminole Energy, L.L.C (Seminole 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 May 16, 2006.

Attachment A provides for reference the May 16, FDEP-DARM communication.

Item 1 – 40 CFR 63, Part AAAA Applicability

The Osceola Road Solid Waste Management Facility (landfill):

1. Has a design capacity that is equal to or greater than 2.5 million megagrams (Mg) and 2.5 million cubic meters (m³).
2. Non-methane organic compound (NMOC) emissions are calculated to be equal to or greater than 50 megagrams per year (Mg/yr) and have been collected and controlled since 1999.
3. Is subject to the requirements of the MSW landfill NSPS (40 CFR Part 60, subpart WWW).

National Emission Standards for Hazardous Air Pollutants; Municipal Solid Waste Landfill (40 CFR Part 63, Subpart AAAA) contains the same requirements as the EG/NSPS (40 CFR Part 60, subpart Cc and WWW), plus startup, shutdown malfunction (SSM) definition and reporting of deviations for out-of-range monitoring parameters. The final rule requires compliance reporting every 6 months while the EG/NSPS requires annual reporting. A MSW

landfill is subject to this subpart if it accepted waste since November 8, 1987 or has additional capacity for waste deposition and meets any one of the following three criteria. The MSW landfill is:

1. A major source as defined in 40 CFR 63.2 of subpart A (i.e., potential individual HAPs equal to or greater than 10 tons per year or combined HAPs equal to or greater than 25 tons per year).
2. Collocated with a major source as defined in 40 CFR 63.2 of subpart A.
3. An area source landfill that has design capacity equal to or greater than 2.5 million Mg and 2.5 million m³ and has estimated uncontrolled emissions equal to or greater than 50 Mg/yr.

Attachment B provides the Osceola Road Solid Waste Management Facility Statement of Basis for Title V Operating Permit revisions that incorporate an additional landfill gas flaring system, requirements of 40 CFR Part 63, Subpart AAAA, and to add facility-wide individual and combined hazardous air pollutant (HAP) emissions limits to establish the facility as a synthetic minor for HAPs.

Derenzo and Associates is a contractor for Seminole Energy not Seminole County. Therefore, the applicable requirements of the Title V Operating Permit issued (or planned to be issued) the Osceola Road Solid Waste Management Facility should be obtained from the appropriate Seminole County representatives.

Item 2 – Osceola Road Solid Waste Management Facility Approvals

Seminole Energy has requested that the Primary Responsible Official for the Osceola Road Solid Waste Management Facility (Mr. David Gregory) prepare for submittal to the FDEP-DARM a document that specifies Seminole Energy has the approval of Seminole County to construct and operate the proposed LFG fueled electricity generation facility at the Osceola Road Solid Waste Management Facility. It is expected that this document will be available for submittal to appropriate FDEP-DARM representatives in the near future.

Item 3 – Equipment Purchase/Ownership

Seminole Energy will purchase, pay for and own all of the equipment installed and operated at the proposed electricity generation facility.

Item 4 – Staged Equipment Installation

Seminole Energy (i.e., the owner of the proposed electricity generation facility at the landfill stationary source) is:

1. Aware that it may be required to demonstrate the adequacy of any previous determination of best available control technology (BACT) for the source: and
2. Willing to adhere to permit conditions that specify the FDEP-DARM may require BACT be reviewed and modified as appropriate at the latest reasonable time which occurs no later than 18 months prior to the commencement of construction of each independent phase of the project as required by Rule 62-212.400(10)(d) and specified in 40 CFR 52.21(j)(4).

Item 5 – Engine AP-42 PM10 Emission Calculations

Table 2.4-5 of *Compilation of Air Pollutant Emission Factors Volume I: Stationary Point and Area Sources, Fifth Edition* (USEPA AP-42) presents a particulate matter emission factor for LFG fueled IC Engines of 48 pounds per million dscf of methane.

Base load operations for a CAT 3520 engine that has a higher heating value (HHV) of approximately 14.9 MMBtu/hr are required to be fueled with a gas that contains 14,764.6 dscf/hr of methane based on a methane HHV of 1010 Btu/scf.

$$(14,912,226 \text{ Btu/hr HHV}) / (1010 \text{ Btu/scf methane}) = 14,764.6 \text{ dscf/hr methane}$$

$$(14,764.6 \text{ dscf/hr methane}) (48 \text{ lb. particulate} / 10^6 \text{ dscf methane}) = 0.709 \text{ lb/hr. particulate}$$

The Bio Energy Texas permit indicates that its CAT 3520 engines have a brake horsepower (bhp) rating of 2172.

Therefore, the gram/bhp-hr (g/bhp-hr) particulate (PM10) emission rate is:

$$(0.709 \text{ lb/hr. particulate}) (453 \text{ grams/lb}) / 2172 \text{ hp} = 0.148 \text{ g/bhp-hr}$$

The Seminole Energy permit application presents CAT 3520 engine specification data that indicate the LHV input capacity of the equipment is 14.11 MMbtu/hr (15.68 MMBtu/hr HHV) and bhp rating is 2233 (which is slightly higher than the information specified for the Bio Energy Texas equipment).

Item 6 – Proposed Project Ambient Air Impact Analyses

Analyses are currently being performed to complete the ambient air quality impact demonstrations that are required by the regulatory agency for the proposed LFG fueled electricity generation processes. It is expected that these analyses will be submitted to appropriate FDEP-DARM representatives in the near future.

Derenzo and Associates, Inc.

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

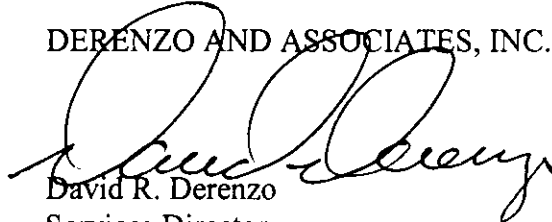
Page 4
June 7, 2006

Seminole 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

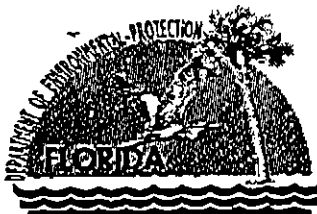
c: Bill Owen, Landfill Energy Systems

C. Holladay
J. Kozlowski, CD
M. Worley, EPA
D. Bernick, NPS

Derenzo and Associates, Inc.

ATTACHMENT A

May 16, 2006 FDEP-DARM Communication



Department of Environmental Protection

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Jeb Bush
Governor

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

Colleen M. Castille
Secretary

May 16, 2006

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

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

Post-it® Fax Note	7671	Date	5/16/06	# of pages	2
To	Dave D	From	Mike L		
Co./Dept.		Co.			
Phone #		Phone #			
Fax #		Fax #			

Re: DEP File No. 1170084-005-AC (PSD-FL-376).....

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

Dear Mr. Salisbury:

The Department has received the application on April 18, 2006, to allow Seminole Energy to construct and operate an electric generation facility at the Osceola Road Solid Waste Management Facility in Seminole 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 3.3 states that the Seminole County (Board of County Commissioners) has submitted an application for revisions to the Title V Operating Permit. The application incorporates the requirements of 40 CFR 63, Part AAAA as well as establishing the facility as a synthetic minor for HAPS. Please explain the applicability of 40 CFR 63, Part AAAA if the facility is synthetic minor for HAPS. Does the landfill have a design capacity equal to or greater than 2.5 million megagrams and 2.5 million cubic meters and has estimated uncontrolled NMOC emissions equal to or greater than 50 megagrams per year?
2. The application in Section 5.2 states that Seminole Energy is part of the Osceola Road Solid Waste Management Facility and its approved Air Construction Permit is to be incorporated into the Solid Waste Facility Title V Operating Permit. Mr. David Gregory (407-665-2022) of the Solid Waste Division for the Seminole County Environmental Services Department is listed as the Primary Responsible Official for the Osceola Road Solid Waste Management Facility. Please provide a letter signed by him agreeing to be the Primary Responsible Official for the Seminole Energy and the Osceola Road Solid Waste Management Facility.
3. The application states that the electricity generation equipment and processes will be owned and operated by Seminole Energy. Will Seminole Energy, LLC be paying for the six internal combustion engines or will it be paid by the Seminole County?
4. The application indicates that this project could be a phased construction project. Initially only four of the six CAT G3520C gas IC engines will be installed. The remaining two will be installed when sufficient landfill gas is generated to fuel the remaining two engines. 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

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Mr. Scott Salisbury
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May 16, 2006

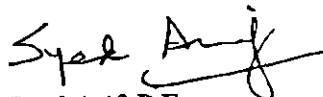
source may be required to demonstrate the adequacy of any previous determination of best available control technology for the source. Please indicate if the facility will be able to comply with this requirement.

5. In one of the responses to the Department's PM₁₀ emission limit issue for the Trail Ridge facility it was indicated that the Bio Energy Texas PM₁₀ emission limit was based on AP-42 emission factor. Please calculate based on AP-42 emission factor and show that it equates to 0.148 g/bhp-hr. The BACT PM₁₀ emission limit proposed for Seminole Energy is 0.24 g/bhp-hr.
6. 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

Derenzo and Associates, Inc.

ATTACHMENT B

**Osceola Road Solid Waste Management Facility
Statement of Basis
For
Title V Operating Permit Revisions**

STATEMENT OF BASIS

Seminole County Board of County Commissioners
Osceola Road Solid Waste Management Facility
Facility ID No.: **1170084**
Seminole County

Title V Air Operation Permit Renewal
DRAFT Permit Project No.: **1170084-003-AV**
Renewal of Title V Air Operation Permit No.: 1170084-001-AV

The initial Title V Air Operation Permit, No. 1170084-001-AV, was issued/effective on August 10, 1998, and the Title V Air Operation Permit Renewal was issued/effective on August 27, 2002. This Title V Air Operation Permit Revision is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210 and 62-213. The above named permittee is hereby authorized to operate the facility shown on the application and approved drawing(s), plans, and other documents, attached hereto or on file with the permitting authority, in accordance with the terms and conditions of this permit.

The subject of this permit is the revision of Title V Air Operation Permit, No. 1170084-003-AV for the purpose of incorporating an additional landfill gas flare system as well as the requirements of 40 CFR, Part 63, Subpart AAAA, and to add facility-wide individual and combined hazardous air pollutant (HAP) emissions limits to establish the facility as a synthetic minor for HAPs. This facility is located at 1930 Osceola Road; UTM Coordinates: Zone 17, 492.00 km East and 3184.50 km North; and, Latitude: 28° 47' 30" North and Longitude: 81° 04' 42" West.

Seminole County operates the Osceola Road Solid Waste Management Facility (landfill) identified as emissions unit 001 (EU -001). This is an active, Class I landfill that began receiving waste in 1970. It has a design capacity of 45,000,000 cubic yards and an average annual yearly waste acceptance rate of 310,000 megagrams. It is also an active asbestos waste disposal site. There is no bioreactor at the landfill. Non-methane organic compound (NMOC) emissions are calculated to be equal to or greater than 50 megagrams per year. Landfill gas emissions have been collected and controlled since 1999. The landfill currently has two candlestick flares. The flares shall be operated with the flame present at all times as determined by a thermocouple, but are not subject to compliance assurance monitoring (CAM) under 40 CFR Part 64.

Based on the Title V Air Operation Permit Revision application received July 22, 2003, the landfill is not a major source of HAPs, but is a major source of non-HAP pollutants.

E.U. 001 The facility is subject to: 40 CFR Part 60, Subparts A (General Provisions) and WWW (Standards of Performance for Municipal Solid Waste Landfills); 40 CFR Part 63, Subparts A (General Provisions) and AAAA (National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills); with the exception of the candlestick flare control system, which shall have no visible emissions per 40 CFR Part 60.18(c)(1), the facility is subject to the General Visible Emissions (VE) limit of less than 20 percent per Rule 62-296.320(4)(b)1., F.A.C., VE testing of the candlestick flare is required annually; the General Volatile Organic Compound (VOC) standard per Rule 62-296.320(1)(a), F.A.C.; and the Objectionable Odor Rule per Rule 62-296.320(2), F.A.C.

Also included in this permit are miscellaneous unregulated/insignificant emissions units and/or activities.



Jeb Bush
Governor

Department of Environmental Protection

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

Colleen M. Castille
Secretary

May 16, 2006

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

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

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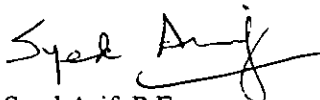
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Syed Arif, P.E.
Bureau of Air Regulation

/sa

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

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

2. Article Number
 (Transfer from service label)

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 Addressee
Diane Lehr

B. Received by (Printed Name) *Diane Lehr* C. Date of Delivery *5-19-06*

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 If YES, enter delivery address below: No

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 29261 Wall Street
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