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

Subject: Trail Ridge Energy, L.L.C.
Baldwin, Duval County, Florida
Request for Treated Landfill Gas Exemption Determination (MSW Landfill NSPS)

Dear Mr. Neeley:

Derenzo and Associates, Inc. is submitting to USEPA Region 4 on behalf of Trail Ridge Energy, L.L.C. (Trail Ridge Energy) this request that the regulatory agency determine that equipment and processes planned for operation at its landfill gas fueled electricity generation facility satisfy the definition of treatment in accordance with Title 40 of the Code of Federal Regulations (40 CFR) 60.752 (b) (2) (iii) (C). The use of treated landfill gas as engine generator fuel exempts Trail Ridge Energy from the nonmethane organic compound (NMOC) testing and combustion temperature monitoring and recordkeeping requirements of the Municipal Solid Waste (MSW) landfill New Source Performance Standards (NSPS).

The FDEP is reviewing a PSD permit application for the construction of the Trail Ridge Energy landfill gas fueled electricity generation facility (which will be located at the Trail Ridge Landfill) and requested that the Treated Landfill Exemption Determination for the Trail Ridge Energy operations be submitted to USEPA Region 4 for its review and approval.

USEPA TREATED GAS DETERMINATIONS

USEPA has issued several determinations that support the use of gas treatment equipment, which processes the collected gas for subsequent sale or reuse, as an appropriate landfill gas emissions control method. These determinations (USEPA Region 5) specify that USEPA ... *has stated in the Federal Register Proposed Rule Amendments dated May 23, 2002,* (67 FR 36476-36481) *that compression, de-watering, and filtering the landfill gas down to at least 10 microns is considered treatment for the purposes of 60.752 (b) (2) (iii) (C).* Therefore, equipment that achieves these specifications is compliant with the federal emission standards specified in the MSW Landfill NSPS.

Attachment A provides for reference treated landfill gas determinations that have been issued by USEPA Regions 1, 3, 5, and 9.

TRAIL RIDGE ENERGY PROCESS DESCRIPTION

The Trail Ridge Energy landfill gas to electricity plant will be located at Trail Ridge Landfill, Inc. in Baldwin, Florida. The proposed facility will utilize landfill gas as fuel to power six Caterpillar, Inc. Model G3520C gas internal combustion (IC) engine and electricity generator sets. Since the IC engines will use landfill gas received from the landfill as fuel, they can be considered either combustion control devices for landfill gas emissions or equipment using treated landfill gas under the regulatory provisions of the MSW landfill NSPS. The treated landfill gas is the fuel that will be used at Trail Ridge Energy.

Prior to its use as fuel at the electricity generation facility, the methane-rich gas collected from the Trail Ridge Landfill will be directed (in the specified sequence) through a treatment system that is comprised of the following equipment and processes:

The gas received from the Trail Ridge Landfill is initially de-watered in knockout tanks that are located upstream of the Trail Ridge 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 Trail Ridge 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 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.

Components of the specified gas treatment system are not equipped with atmospheric vents. Therefore, all of the landfill gas to be directed to the IC engines will be processed by the treatment system for engine generator use as a treated fuel. The treatment system design does not have bypass(es) that would allow for landfill gas emissions.

Attachment B provides a flow diagram and operating details for the Trail Ridge Energy landfill gas treatment system.

APPLICABLE REGULATIONS

Standards for Air Emissions from MSW Landfills

The Trail Ridge Landfill (the source of the Trail Ridge Energy fuel) is subject to the Standards of Performance for MSW Landfills (MSW Landfill NSPS, 40 CFR Part 60 Subpart WWW) that regulate NMOC emissions generated by affected landfills. *§60.752 Standards for air emissions from municipal solid waste landfills* specifies that:

> *(b)(2) ... the owner or operator shall: (iii) route all of the collected gas to a control system that complies with either ...*
>
> *(A) An open flare ...*
>
> *(B) A control system designed and operated to reduce NMOC by 98 weight-percent, or, when an enclosed combustion device is used for control, to either reduce NMOC by 98 weight percent or reduce the outlet NMOC concentration to less than 20 parts per million by volume, dry basis as hexane at 3 percent oxygen ...*
>
> *(C) Route the collected gas to a treatment system that processes the collected gas for subsequent sale or use ...*

Rule Requirements and Exemption Determinations

Performance Tests

Provisions of the MSW landfill NSPS [40 CFR 60.752 (b) (2) (iii) (B)] require that initial tests be conducted on landfill gas control devices to demonstrate the performance of the equipment relative to its NMOC emissions. The specified performance test is not required pursuant to 40 CFR 60.752 (b) (2) (iii) (C) to demonstrate compliance with 40 CFR 60.752 (b) (2) (iii) if the raw gas is processed by a landfill gas treatment system prior to its subsequent sale or use as fuel.

USEPA Region 3 has specified in documents (Determination Detail Control No. 0200019 and October 3, 2002 correspondence provided in Attachment A) that *Based on its technical judgment, EPA considers refrigeration, filtering through the 10 micron screen, and compression for combustion in energy recovery devices such as boilers, process heaters ..., turbines, or internal combustion engines to satisfy the definition of treatment at 40 CFR Sec. 60.752 (b) (2) (iii) (C).* The approved method of de-watering specified in the October 2002 determination is knock-out pots and an air to air cooler.

Based on the documented landfill gas treatment determinations and associated details that have been recorded by USEPA and the design of the landfill gas de-watering, filtering and compression processes that are proposed for operation at Trail Ridge Energy, the landfill gas used to fuel the electricity generation plant will be received from a treatment system that complies with the

provisions of 40 CFR 60.752 (b) (2) (iii). Therefore, the IC engines that will be operated at Trail Ridge Energy are not subject to the NMOC emission performance tests specified in 40 CFR 60.752 (b) (2) (iii) (B).

Combustion Temperature Monitoring and Recordkeeping

Provisions of the MSW landfill NSPS [40 CFR 60.758 (b) (2) (i) and 60.758 (c) (1) (i)] require that combustion temperature monitoring be performed with a device specified in 40 CFR 60.756 (b) (1). The purpose of these measurements is to continuously monitor average combustion temperature for comparison with the value recorded during performance tests required under 40 CFR 60.752 (b) (2) (iii) (B). Therefore, based on the performance test exemption, because the IC engines use treated gas, they are not subject to the testing and combustion temperature monitoring requirements of 40 CFR 60.756 (b).

The December 9, 2003 USEPA, Region 5 determination (provided in Attachment A) specifies that equipment and processes that meet the landfill gas treatment criteria ... *would not be subject to the monitoring and recordkeeping located at 60.756 (b) and 60.758 (b) and (c).*

Trail Ridge Energy, L.L.C. appreciates review of the information presented in this correspondence by USEPA Region 4 and requests that a written notification of the requested determinations be issued.

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

Sincerely,

DERENZO AND ASSOCIATES, INC.

David R. Derenzo
Services Director

attachments
c: Bill Owen, Trail Ridge Energy
Syed Arif, FDEP

ATTACHMENT A

USEPA Region 1
Use of Treatment System Prior to IC Engine Combustion
Control Number 0300121
August 15, 2003

USEPA Region 3
Waiver of Initial Performance Test
Control Number 0200019
February 12, 2002
Request for Initial Performance Test Waiver
October 3, 2002

USEPA Region 5
Clarification of LFG Treatment NSPS Exemption for Dixon/Lee Energy Partners, L.L.C.
December 9, 2003

USEPA Region 9
NSPS Subpart WWW Applicability to Internal Combustion Engines
Connected to LFG Treatment System
April 22, 2004

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Determination Detail

Control Number: 0300121

Category: NSPS
EPA Office: Region 1
Date: 08/15/2003
Title: Use of Treatment System Prior to IC Engine Combustion
Recipient: Douglas McVay
Author: Michael Kenyon
Comments:

Subparts: Part 60, WWW Municipal Solid Waste Landfills

References: 60.752

Abstract:

Q. What constitutes a "treatment system" according to Subpart WWW, and does the treatment system at Ridgewood Power Associates in Johnston, Rhode Island satisfy the requirements of 40 CFR 60.752?

A. The pre-treatment system employed by Ridgewood Power does meet EPA's criteria for a treatment system as defined under 40 CFR 60.752(b)(2)(iii)(C). Treatment of the landfill gas in this manner is a means of compliance with the gas control requirements of the NSPS. Region 1 concurs that the IC engines combusting the treated landfill gas are not subject to the requirements of 40 CFR 60.752(b)(2)(iii)(B).

Letter:

August 15, 2003

Douglas L. McVay
Associate Supervising Engineer
Office of Air Resources
Department of Environmental Management

235 Promenade Street
Providence, RI 02908-5767

Dear Mr. McVay:

Thank you for your June 3, 2003 letter requesting a new NSPS Subpart WWW applicability determination for Ridgewood Providence Power Partners, L.P. RPPP operates a small power plant located at the Central Landfill in Johnston, Rhode Island. The DEM/EPA had previously determined that the RPPP facility, which consists of nine internal combustion engines fired with landfill gas generated by Central Landfill, must comply with the control system requirements found at 40 CFR 60.752(b)(2)(iii)(B).

RPPP is now claiming that they treat the landfill gas prior to combusting the gas in their IC engines. The landfill gas treatment system filters, de-waters and compresses the landfill gas prior to use in the engines, and, according to RPPP, meets the requirements for a "treatment system" in 40 CFR 60.752(b)(2)(iii)(C). Therefore, RPPP maintains that their IC engines combusting the treated gas should not be subject to the control requirements of 40 CFR 60.752(b)(2)(iii)(B).

EPA has reviewed relevant applicability determinations, including two that were presented to the DEM by RPPP, and has also reviewed EPA's proposed definition for "treatment system" contained in a May 23, 2002 Federal Register Notice of proposed rulemaking. [See 67 FR 36480].

As you know, the NSPS does not now contain a definition for the term "treatment system." However, EPA's May 23, 2002 Federal Register Notice contains a proposed definition of the term, which also constitutes EPA's current interpretation of the term as it now appears in the NSPS. The preamble to EPA's May 23, 2002 proposed rulemaking also includes the following statements about the proposed definition of "treatment system":

"At a minimum, the system must filter landfill gas using a dry filter or similar device (e.g., impaction, interception or diffusion device). The filter should reduce particulate matter in the gas stream. This will prolong the life of the combustion device and decrease the buildup of material on combustion device internals, which will support good combustion. Good combustion is essential to ensuring the proper destruction of NMOC. In addition, the system must de-water landfill gas using chillers or other dehydration equipment. The de-watering equipment should reduce moisture content of the gas, which will maintain low water content in the gas and will prevent degradation of combustion efficiencies. Finally, the system must compress landfill gas using gas blowers or similar devices. Compression should further reduce the moisture content of the gas and raise gas pressure to the level required by the end use combustion device."

Thus, if RPPP treats the landfill gas it receives in accordance with EPA's proposed definition of "treatment system" and consistent with the preamble discussion quoted in the preceding paragraph, then Region 1 concurs that the IC engines combusting the treated landfill gas are not subject to the requirements of 40 CFR 60.752(b)(2)(iii)(B). Treatment of the landfill gas in this manner is a means of compliance with the gas control requirements of the NSPS that differs from, and is in the alternative to, the IC engine performance testing and NMOC destruction efficiency compliance method that formed the basis of Region 1's 2001 enforcement action. However, keep in mind that, in accordance with 40 CFR 60.752(b)(2)(iii)(C), any emissions from any atmospheric vent from the gas treatment system, including any compressor, are still subject to the requirements of 40 CFR 60.752(b)(2)(iii)(A) and (B).

Finally, please note that EPA's current interpretation of the term "treatment system," as it now appears in the NSPS, may change based on any changes that might be contained in EPA's final rulemaking.

If you have any questions concerning this applicability determination, please contact John Courcier of my staff at (617) 918-1659, or by email at courcier.john@epa.gov.

Sincerely,

Michael Kenyon, Chief
Air Programs Branch

cc: D. Dart, OES
G. Dain, OES
T. Olivier, OES
J. Courcier, OEP

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Determination Detail

Control Number: 0200019

Category: NSPS
EPA Office: Region 3
Date: 02/12/2002
Title: Waiver of Initial Performance Test
Recipient: Steven C. White
Author: Judith Katz
Comments:

Subparts: Part 60, WWW Municipal Solid Waste Landfills

References: 60.752(b)(2)(iii)

Abstract:

Q: Will EPA grant a waiver from the initial performance test required in 40 CFR Part 60, Subpart WWW, for landfill gas used in a large process heater (more than 44 megawatts)? The landfill gas is to be compressed, filtered, and refrigerated before being sent to the process heater.

A: Yes. EPA considers compressing, filtering, and refrigerating landfill gas for use in an energy recovery project to be "treatment" under WWW. Therefore, no initial performance test is required.

Letter:

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

February 12, 2002

Steven C. White, P.E.

Enerdyne Power Systems
7421 Carmel Executive Park
Suite 302
Charlotte, North Carolina 28226

Re: Request for Waiver of Requirement for Initial Performance Test

Dear Mr. White:

This letter responds to your October 10, 2001, letter requesting a waiver of the initial performance test requirement in 40 C.F.R. Sec. 60.752(b)(2)(iii)(B) for the Atlantic Waste Disposal, Inc./Honeywell International, Inc. project. Landfill gas is to be piped from the Atlantic Landfill to the Honeywell ammonia plant in Hopewell, Virginia, and burned in a Kellog Primary Reformer, a process heater.

You indicated in conversations and e-mail correspondence with the U.S. Environmental Protection Agency ("EPA") that the landfill gas will be refrigerated, filtered through a 10 micron screen, and compressed before transmission to Honeywell. 40 C.F.R. Sec. 60.752(b)(2)(iii)(C) states that landfill gas may be controlled by routing the collected gas to a treatment system that processes the collected gas for subsequent sale or use. Based on its technical judgement, EPA considers refrigeration, filtering through the 10 micron screen, and compression for combustion in energy recovery devices such as boilers, process heaters (e.g., the Kellog Primary Reformer), turbines, or internal combustion engines to satisfy the definition of treatment at 40 C.F.R. Sec. 60.752(b)(2)(iii)(C). Part 60, Subpart WWW, does not include an initial performance test for the landfill gas treatment control option. Therefore, once this project has met the treatment standards articulated above, an initial performance test will not be required.

However, emissions from any atmospheric vent from the gas treatment system, including any compressor, are subject to the requirements of 40 C.F.R. Sec. 60.752(b)(2)(iii)(A) and (B). This does not include exhaust from an energy recovery device.

EPA's Office of Enforcement and Compliance Assistance and Office of Air Quality and Planning Standards were consulted for this letter. If you have any questions about this issue, call Bowen ("Chip") Hosford at (215) 814-3158.

Sincerely,

Judith M. Katz, Director
Air Protection Division

cc: Edmund J. Skernolis, Waste Management Incorporated Lisa A. Childress, VADEQ, Piedmont Regional Office Gary E. Graham, VADEQ Michelle Laur, EPA, OAQPS Zofia S. Kosim, EPA, OECA

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION III
1650 Arch Street
Philadelphia, Pennsylvania 19103-2029

OCT 0 3 2002

Amy B. Hardy
Environmental Compliance Coordinator
Southeastern Public Service Authority
Regional Office
723 Woodlake Drive
Chesapeake, Virginia 23320

Re: Request for Initial Performance Test Waiver

Dear Ms. Hardy:

This letter is in response to your October 3, 2002, letter requesting a waiver of the initial performance test requirement in 40 C.F.R.§60.752 (b)(2)(iii)(B) for the Southeastern Public Service Authority ("SPSA") landfill gas to energy plant owned and operated by US Energy Biogas located at the SPSA landfill. Landfill gas is piped from the landfill to US Energy and burned in four Caterpillar internal combustion engines.

You indicated in conversations, and by providing Mr. Jamie Margaritis' October 1, 2002, letter to you, that the landfill gas will be de-watered by passing through three knockouts, filtered through two 10 micron screens, cooled in an air-to-air cooler, and compressed to 8 psig in a 300 horsepower blower before transmission to the energy plant. 40 C.F.R. §60.752(b)(2)(iii)(C) states that landfill gas may be controlled by routing the collected gas to a treatment system that processes the collected gas for subsequent sale or use. Based on its technical judgement, EPA considers de-watering, filtering through the 10 micron screen, and compression for combustion in energy recovery devices such as boilers, process heaters, turbines, or internal combustion engines to satisfy the definition of treatment at 40 C.F.R. §60.752(b)(2)(iii)(C). Part 60, subpart WWW, does not include an initial performance test for the landfill gas treatment control option. Therefore, once this project has met the treatment standards articulated above, an initial performance test will not be required.

However, emissions from any atmospheric vent from the gas treatment system, including any compressor, are subject to the requirements of 40 C.F.R. §60.752(b)(2)(iii)(A) and (B). This does not include exhaust from an energy recovery device.

If you have any questions about this issue, call Bowen Hosford at (215) 814-3158.

Sincerely,

Judith M. Katz, Director
Air Protection Division

cc: Ethan Chatfield, SCS Engineers
Gary E. Graham, VADEQ
Steve Hackney, VADEQ
Martha Smith, EPA, OAQPS
Zofia S. Kosim, EPA, OECA

SOUTHEASTERN PUBLIC SERVICE AUTHORITY
Regional Office
723 Woodlake Drive, Chesapeake, VA 23320
phone: (757) 420-4700 fax: (757) 424-4133
www.spsa.com

October 3, 2002

Bowen (Chip) Hosford
Environmental Protection Agency- Region III
1650 Arch Street
Philadelphia, PA 19103-2029

Subject: Request for Waiver from Requirement for Initial Performance Test
Southeastern Public Service Authority (SPSA) Regional Landfill

Dear Mr. Hosford:

Per our telephone conversation on October 2, 2002, the Southeastern Public Service Authority (SPSA) Regional Landfill in Suffolk, Virginia is hereby requesting a waiver from the initial performance test requirement in 40 CFR 60.752(b)(2)(iii)(B).

On June 7, 2002, SPSA submitted a Tier 2 test report, as required by the New Source Performance Standards (NSPS), indicating that the facility exceeded the 50 Mg threshold and will therefore be subject to certain provisions of the NSPS requiring installation and operation of the Gas Collection and Control System (GCCS). On August 15, 2002 the Virginia Department of Environmental Quality (VDEQ) issued the subject facility a draft Title V Air Operating Permit. The draft permit requires the landfill gas-to-energy (LFGTE) electrical generation plant, which utilizes landfill gas for fuel, to perform an initial performance test on the 4 Caterpillar internal combustion engines.

In accordance with 40 CFR 60.752(b)(2)(iii)(C), landfill gas collected from a MSW landfill may either be combusted in an appropriate control device or routed to a "treatment system that processes the collected gas for subsequent sale or use". The EPA has recently provided clarification to define the term "landfill gas treatment" in the form of draft NSPS Amendments. This clarification defined landfill gas treatment as "landfill gas processed in a treatment system that filters, de-waters and compresses the gas". Furthermore, the EPA has recently granted other facilities located in Virginia waivers based on similar criteria as outlined above. Specifically, the EPA has granted a waiver from the initial performance test at the Atlantic Waste Disposal, Inc. Landfill in a letter dated February 19, 2002.

The landfill gas treatment process at the SPSA Landfill, prior to the collected gas entering the engines, involves: compression through two Hoffman blowers, de-watering through a minimum of 3 knock-out pots and an air to air cooler, and filtering through a dry 10-micron 4" thick filter. The owner/operator of the LFGTE facility, US Energy Biogas, has outlined this process in correspondence dated September 26, 2002.

P.O. Box 1346
Chesapeake, VA 23320-1341

Since the subject facility routes collected gas from the Landfill to a "treatment system" prior to use in the LFGTE plant, SPSA is requesting a site-specific waiver from the EPA indicating that the SPSA Regional Landfill satisfies the definition of treatment and therefore will be exempt from the initial performance test required by the NSPS and draft Title V permit.

During our discussion on October 2, 2002, background information (correspondence dated September 10, 2002 and September 12, 2002) was forwarded to your office regarding SPSA's response to the draft Title V permit. Although the above request for waiver addresses concerns #3 and 4 of this correspondence, SPSA would also appreciate EPA guidance on concerns #1, 2, 5, 6 and 7.

Per a telephone conversation with Steve Hackney of Tidewater Regional DEQ on October 1, 2002, SPSA requested a delay in the permitting process until a resolution is determined. Mr. Hackney stated the only way the permit could be delayed is by request from the EPA. Therefore, SPSA is asking for guidance from the EPA on this matter in delaying permit finalization. Please contact the undersigned if you have any questions or require additional information.

Sincerely,

Amy E. Hardy

Amy E. Hardy
Environmental Compliance Coordinator

cc: Steve Hackney, DEQ-TRO
Richard Cheliras, SPSA
Ethan Chatfield, SCS Engineers
Bob Dick, SCS Engineers
Jamie Margaritas, US Energy Biogas
Dominic Antignano, US Energy Biogas

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590

DEC 0 9 2003

REPLY TO THE ATTENTION OF:

(AE-17J)

Gregory J. Graetz
Project Engineer
Derenzo and Associates, Inc.
39395 Schoolcraft Road
Livonia, Michigan 48150

Re. Clarification of Landfill Gas Treatment NSPS Exemption for Dixon/Lee Energy Partners, L.L.C. in Dixon, Illinois Facility I.D. No. 103020ACJ

Dear Mr. Graetz:

Thank you for your October 20, 2003, letter to the U.S. EPA asking for clarification regarding the gas treatment exemption for Dixon/Lee Energy Partners landfill to energy facility (Dixon) located near Dixon, Illinois. Dixon utilizes landfill gas as fuel to power internal combustion engines (IC) and electricity generators. Dixon acts as the control device for the landfill gas emissions from two neighboring landfills and is subject to the New Source Performance Standards (NSPS) for Municipal Solid Waste Landfills (40 CFR Part 60, Subpart WWW). The landfill gas is the only fuel used at the facility.

Your letter indicates that prior to use as fuel in the IC engines and generators, the landfill gas is first 1) compressed with blowers, 2) chilled with an air-to-air cooler, 3) de-watered with a knock-out pot (tank) and a demister pad, and 4) filtered with a sequence of media that consists of a primary dry 10-micron filter and a secondary dry 1-micron filter. You also indicate that Dixon operates an air-assisted, open candlestick flare that is used to control landfill gas during periods of engine maintenance and repair, and when control is required for excess landfill gas generation.

The regulations at 40 C.F.R. Part 60.752(b)(2)(iii) state that collected landfill gas is required to be routed to a control system that complies with the requirements in either: A) an open flare; B) a control system or enclosed combuster designed to reduce NMOC; or C) a treatment system that processes the collected gas for subsequent sale or use. The landfill gas applicable to Dixon has been treated for sale or use under 60.752(b)(2)(iii)(C). U.S. EPA has made several determinations

and has stated in the Federal Register Proposed Rule Amendments dated May 23, 2002, that compression, de-watering, and filtering the landfill gas down to at least 10 microns is considered treatment for the purposes of 60.752(b)(2)(iii)(C).

Your letter also asks for clarification that once the landfill gas is treated pursuant to 60.752(b)(2)(iii)(C), that the gas is no longer subject to the monitoring and recordkeeping requirements found at 60.756(b) and 60.758(b) and (c), respectively. The Federal Register Proposed Rule Amendments clarify that once the landfill gas is treated, the facilities that buy or use the gas have no further obligations related to the NSPS. Therefore, Dixon would not be subject to the monitoring and recordkeeping requirements located at 70.756(b) and 60.758(b) and (c).

However, emissions from any atmospheric vent from the gas treatment system, including any compressor, are subject to the requirements of 40 C.F.R 60.752(b)(2)(iii)(A) and (B). This does not include exhaust from an energy recovery device.

This determination was based on a previous determinations from Region 3 dated February 12, 2002, and October 3, 2002, and was presented to OAQPS and OECA for comment. The Federal Register Proposed Rule Amendments from 2002 are meant to be a clarification of the existing NSPS, not changes in the rule. If you have any questions, feel free to contact Lynne Roberts, of my staff, at (312) 886-0250.

Sincerely yours,

George T. Czerniak, Chief
Air Enforcement and Compliance Assurance Branch

cc: Julie Armitage, Acting Manager
Bureau of Air - Compliance and Enforcement Section
Illinois Environmental Protection Agency

Mary Ann Warner, OAQPS
Research Triangle Park

Zofia Kosim, OECA
USEPA Headquarters

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION IX
75 Hawthorne Street
San Francisco, CA 94105

APR 2 2 2004

Gregory Gratz
Project Engineer
Derenzo and Associates, Inc.
39395 Schoolcraft Road
Livonia, MI 48150

Re: Kiefer Landfill

Dear Mr. Gratz:

The United States Environmental Protection Agency (EPA) received your letter dated March 2, 2004 regarding New Source Performance Standard ("NSPS") Subpart WWW applicability to internal combustion ("IC") engines and boilers connected to the Kiefer Landfill Gas ("LFG") Treatment system.

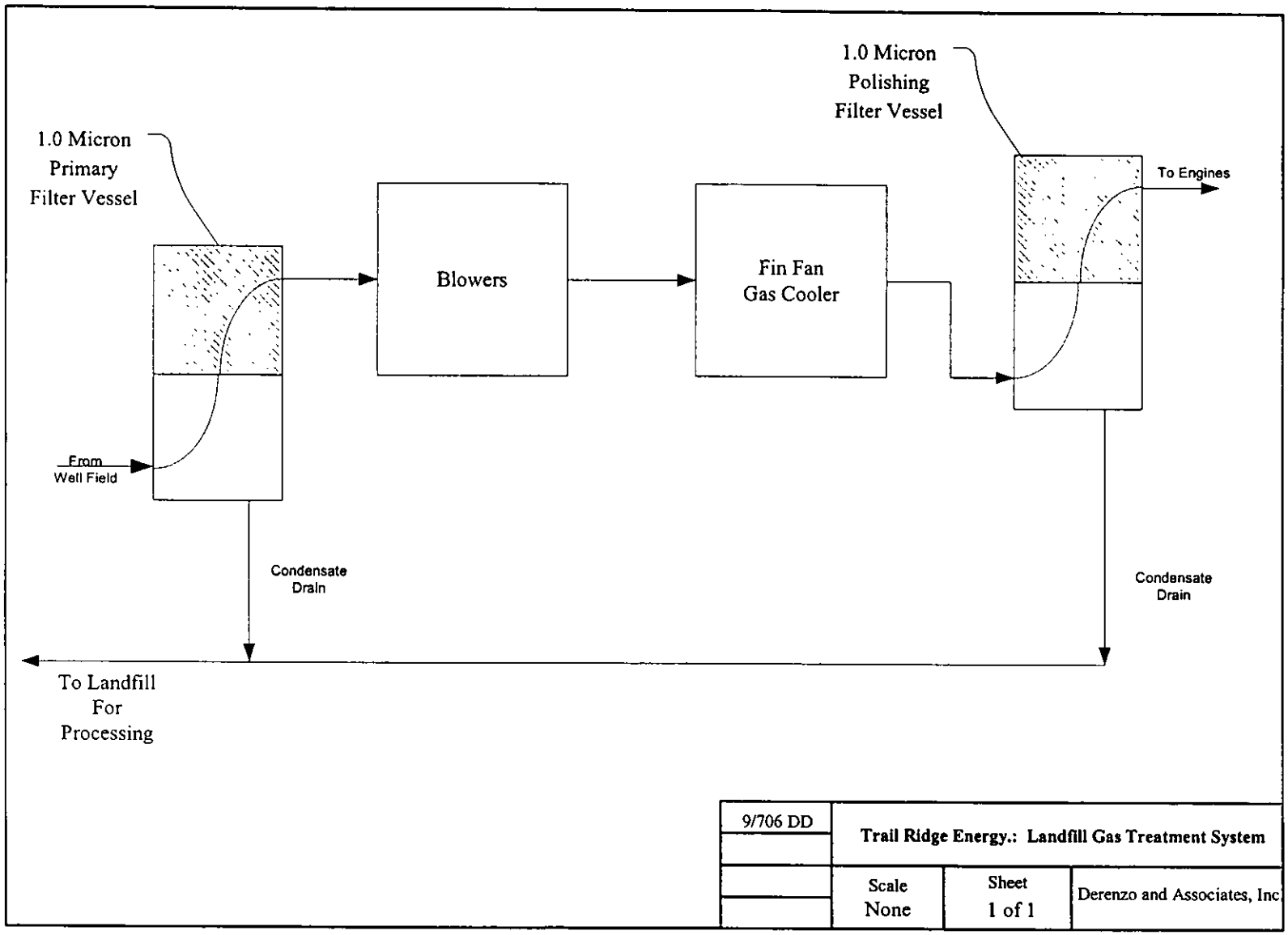
EPA has issued several determinations indicating that compression, de-watering, and landfill gas filtered down to at least 10 microns for use in an energy recovery device is considered treatment for the purposes of 60.752(b)(2)(iii)(C). In accordance with those previous determinations, Region 9 concurs with the statement in your letter dated March 2, 2004 that landfill gas treated in this (compression, de-watering, and filtering landfill gas down to at least 10 microns for use in an energy recovery device) manner is not subject to the requirements of Subpart WWW or 40 CFR Part 63 Subpart AAAA- National Emissions Standards for Hazardous Air Pollutants (NESHAP) for Municipal Solid Waste (MSW) Landfills.

Sincerely,

Douglas K. McDaniel
Acting Chief, Air Enforcement

ATTACHMENT B

Trail Ridge Energy, L.L.C.
Landfill Gas Treatment System Process Flow Diagram



9/706 DD	**Trail Ridge Energy.: Landfill Gas Treatment System**		
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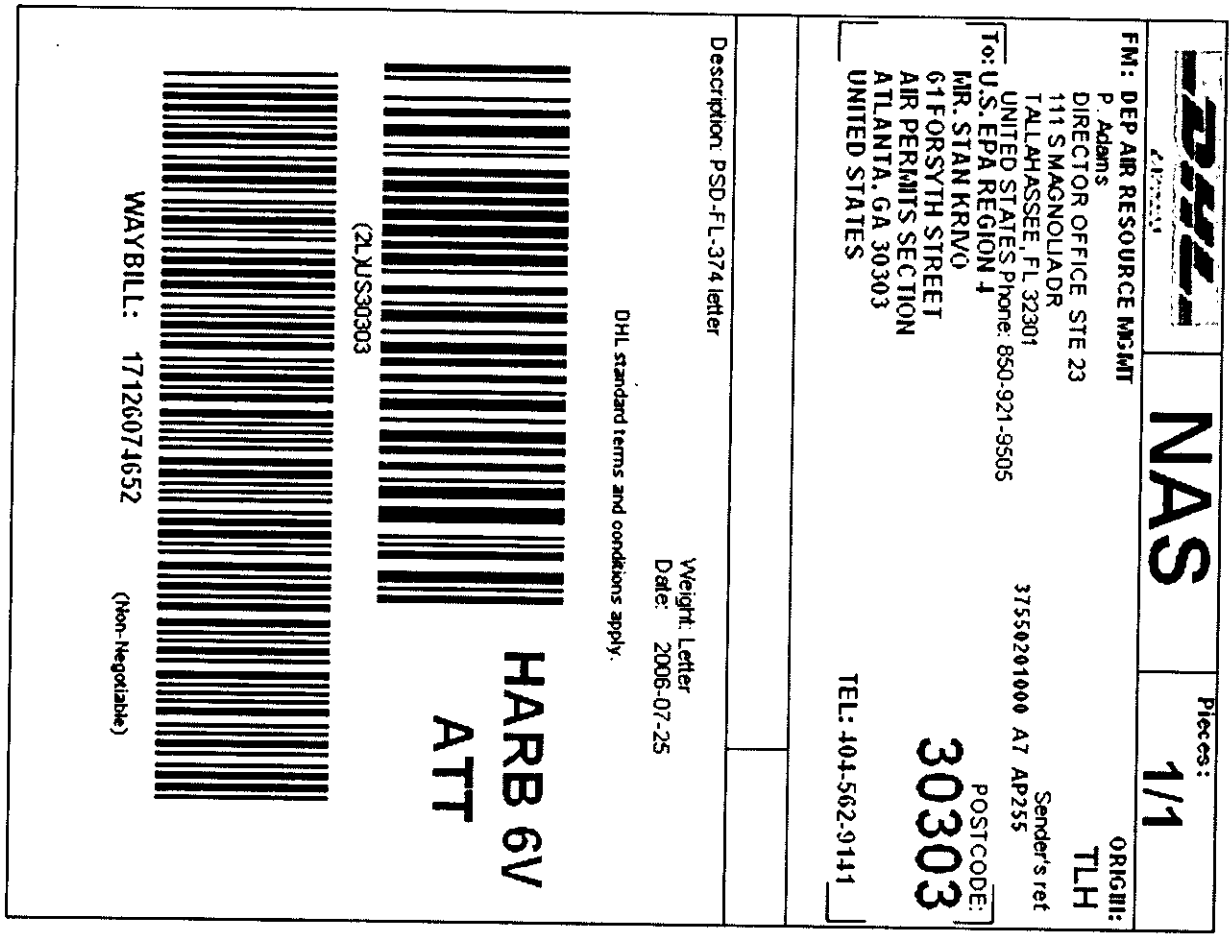

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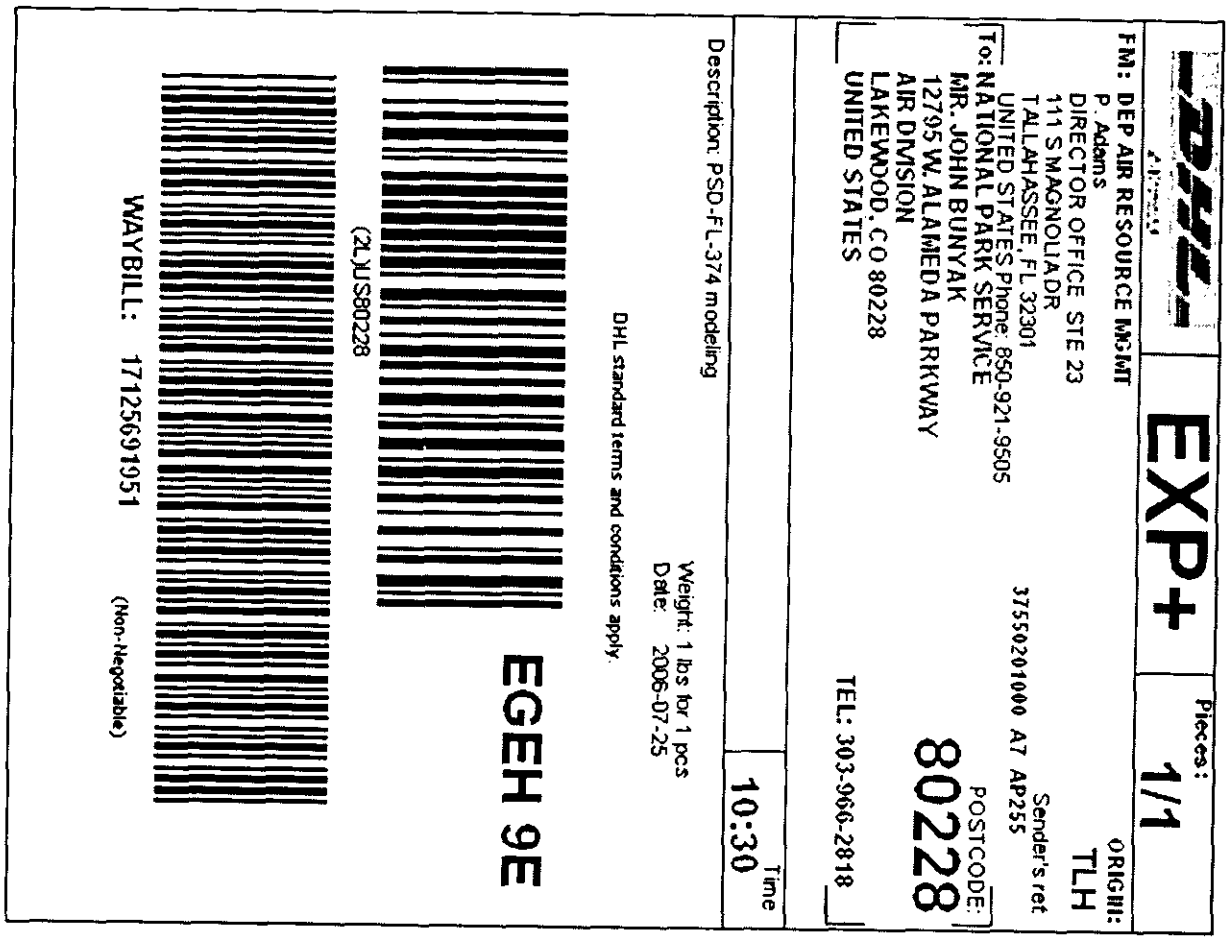

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DIRECTOR OFFICE STE 23
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TALLAHASSEE, FL 32301
UNITED STATES Phone: 850-921-9505

To: NATIONAL PARK SERVICE
MR. JOHN BUNYAK
12795 W. ALAMEDA PARKWAY
AIR DIVISION
LAKEWOOD, CO 80228
UNITED STATES
TEL: 303-966-2818

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Lakewood, CO 80228
UNITED STATES

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Phone#: 303-966-2818

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

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Derenzo and Associates, Inc.
Environmental Consultants

July 24, 2006

Mr. Cleve Holladay
Bureau of Air Regulation
FLORIDA DEPT OF ENVIRONMENTAL PROTECTION
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Subject: Revised air quality modeling results for Trail Ridge Energy, L.L.C.
DEP File No. 0310358-004-AC (PSD-FL-374)

Dear Mr. Holladay:

Derenzo and Associates, Inc. (Derenzo and Associates), on behalf of the Trail Ridge Energy, L.L.C. (Trail Ridge Energy) is submitting to the Florida Department of Environmental Protection (DEP), Bureau of Air Regulation revised air quality modeling results for the installation of six (6) landfill gas-fired reciprocating internal combustion engines at the Trial Ridge Landfill in Baldwin, Duval County. Initial air quality modeling results were submitted to the Florida DEP on June 5, 2006. The information in this correspondence is being provided in response to the Florida DEP comments dated July 5, 2006.

Class II Area Significant Impact Analysis

The Florida DEP provided Derenzo and Associates with 2001-2005 Jacksonville meteorological data for use with the AERMOD air pollutant dispersion modeling computer program. AERMOD was executed using this meteorological data and the AERMOD input file (source input parameters were identical to those presented in the original protocol) for the Trail Ridge Landfill gas combustion sources (six internal combustion engines and open utility flare). The highest predicted ambient air impacts are less than the corresponding Class II area PSD significant concentration for all pollutants and averaging periods.

Attachment A presents revised air quality impact results compared to Class II area significant impact levels (Table I-3.5 of the original protocol).

Class I Area Significant Impact Analysis

The AERMOD computer model was executed using the 2001-2005 Jacksonville meteorological data (provided by Florida DEP) to calculate maximum NO_X, PM_{10} and SO_2 impacts for receptors within the Okefenokee National Wilderness Area that are within 50 km of the proposed facility location.

The CALPUFF-Lite computer modeling analysis was repeated to include SO_2 impacts (in addition to NO_X and PM_{10} that were presented in the original protocol) for receptors within the Okefenokee National Wilderness Area that are greater than 50 km from the proposed facility location.

The highest predicted ambient air impacts are less than the corresponding significant impact levels for Class I areas for all pollutants and averaging periods.

Attachment A presents revised air quality impact results compared to significant impact levels for Class I areas (Table I-4.3 of the original protocol).

Class I Area Regional Haze Analysis

The CALPUFF-Lite computer modeling analysis as described in the original protocol was repeated to include SO_2 emissions in the visibility degradation (haze) analysis for receptors within the Okefenokee National Wilderness Area that are greater than 50 km from the proposed facility location. The operating parameters of the CALPUFF-Lite screening model were configured to calculate light extinction values at the receptors identified in the original protocol. The maximum haze visibility degradation for the revised analysis is 4.98% (i.e., visibility degradation calculated with CALPUFF Lite compared to the existing default background visibility impairment (b_{ext}) of 10.0 Mm^{-1}), which is a slight increase compared to 4.94% as presented in the original modeling protocol (which did not include SO_2). This result satisfies the screening requirement for acceptable visibility impairment less than 5%.

Attachment A presents results of CALPUFF Lite visibility impairment analysis for the Okefenokee National Wilderness Area Class I area (Table I-4.4 of the original protocol).

A compact disc containing the computer modeling program input and output files for the revised analyses is enclosed.

Please contact us at (517) 324-1880 or rharvey@derenzo.com should you have any questions or require additional information.

Sincerely,

DERENZO AND ASSOCIATES, INC.

Robert Harvey
Engineering Services Manager

c: Mr. Scott Salisbury, Trail Ridge Energy
Enclosures

Table I-3.5 Air impact results compared to PSD Class II Significant Impact Levels

Pollutant	Averaging Time	Replacement Flare Emission Rate (g/s)	Potential TRE Facility Emission Rate (g/s)	Maximum Predicted Replacement Flare Impact ($\mu g/m^3$)	Maximum Predicted TRE Facility Impact ($\mu g/m^3$)	Combined TRE and Flare Impact ($\mu g/m^3$)	Class II Significant Impact Levels ($\mu g/m^3$)
NO_2	Annual	0.56	1.67	0.05	0.76	0.80	1.0
CO	8-hr	6.85	10.24	9.11	95.5	96.3	500
	1-hr	6.85	10.24	18.6	138	138	2000
SO_2	Annual	0.14	0.73	0.01	0.33	0.34	1.0
	24-hr	0.14	0.73	0.12	3.69	3.73	5.0
	3-hr	0.14	0.73	0.27	8.88	8.88	25.0
PM_{10}	Annual	0.32	0.89	0.03	0.41	0.44	1.0
	24-hr	0.32	0.89	0.45	4.62	4.71	5.0

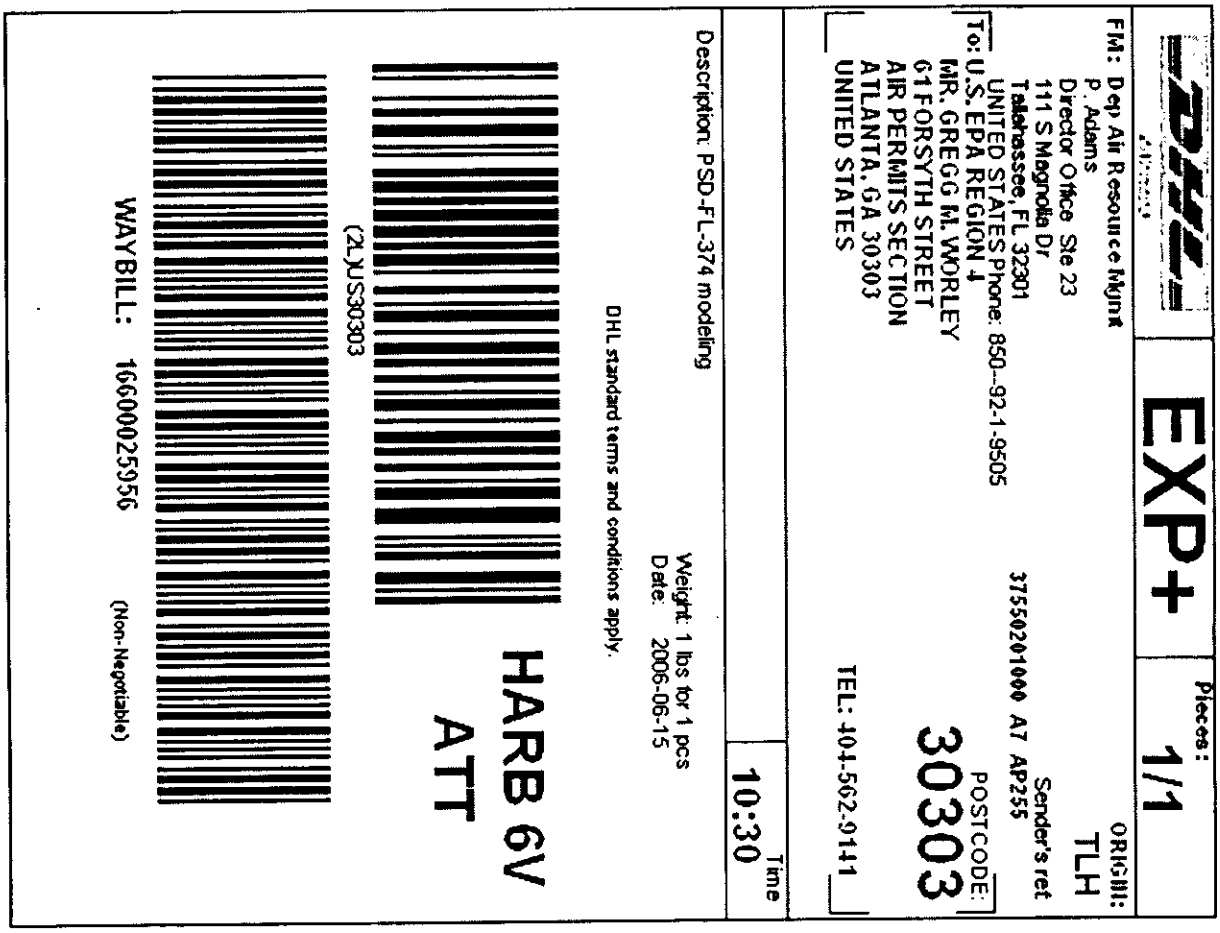
Table I-4.3 Results of Class I area significant impact analysis

Pollutant	Averaging Period	Met. Year	Maximum Landfill Sources Impact [1] [Distance < 50 km] ($\mu g/m^3$)	Met. Year	Maximum Landfill Sources Impact [2] [Distance > 50 km] ($\mu g/m^3$)	Class I Significant Impact Levels ($\mu g/m^3$)
NO_2	Annual	2004	0.012	1994	0.004	0.1
PM_{10}	Annual	2004	0.007	1992	0.084	0.2
PM_{10}	24-hr	2005	0.217	1992	0.120	0.3
SO_2	Annual	2004	0.005	1990	0.003	0.1
SO_2	24-hr	2005	0.172	1990	0.036	0.2
SO_2	3-hr	2005	0.776	1990	0.113	1.0

1. Determined using AERMOD
2. Determined using CALPUFF-Lite

Table I-4.4 Results of CALPUFF Lite visibility impairment analysis for the Okefenokee National Wilderness Area Class I area

Met. Year	Background Visibility (Mm^{-1})	Days with > 5% Light Extinction	Greatest Light Extinction Change
1990	10.0	0	2.82%
1991	10.0	0	3.40%
1992	10.0	0	4.79%
1994	10.0	0	4.98%
1995	10.0	0	4.27%



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Phone#: 850-921-9505

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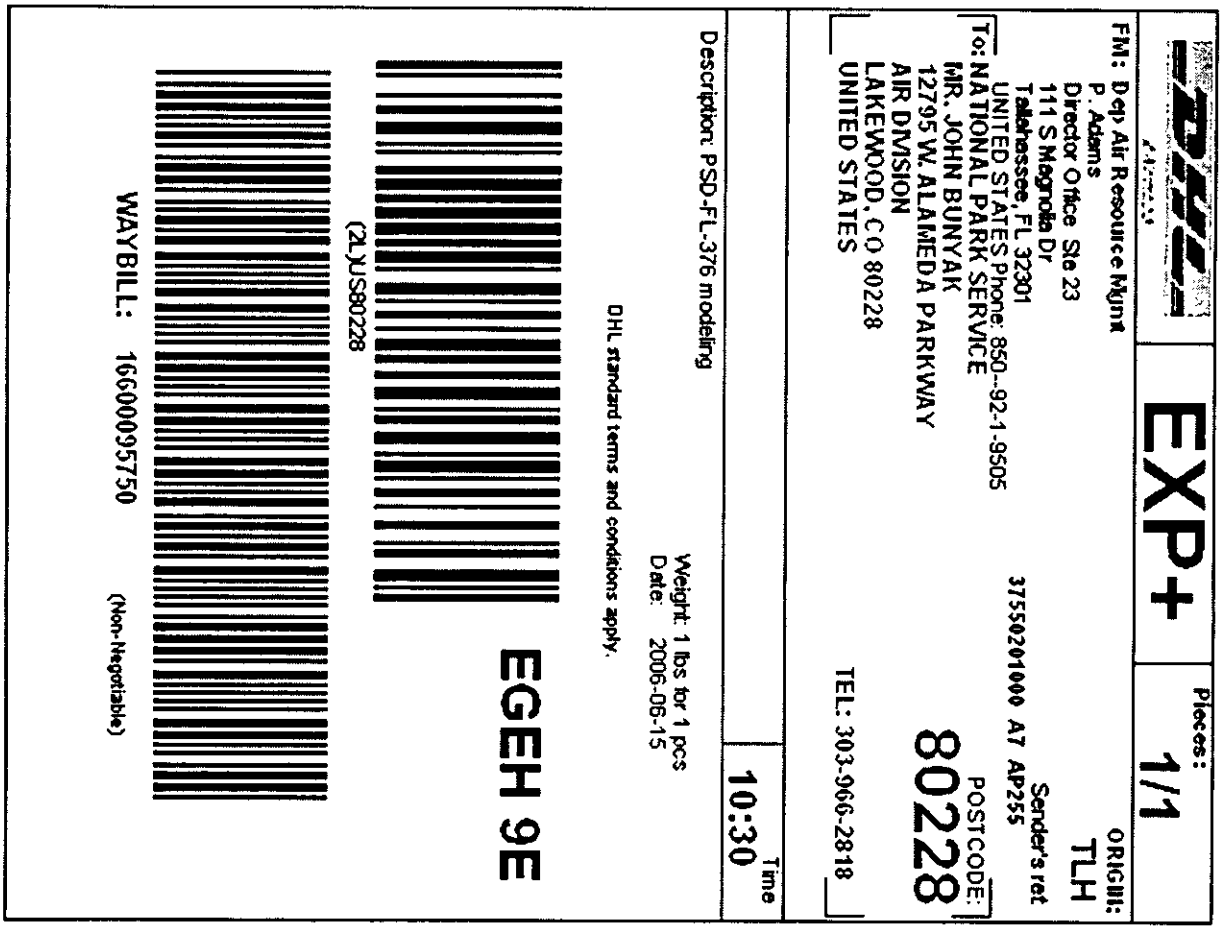

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Sent By: P. Adams
Phone#: 850-921-9505

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