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September 17, 2009
Project No. G080670A

Mr. Syed Arif, P.E.
New Source Review Section
Florida Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Re: Industrial Power Generating Company, LLC (INGENCO)
Dade South Landfill
Response to FDEP July 1, 2009, Request for Additional Information

Dear Mr. Arif:

This letter is in response to your July 1, 2009, request for additional information concerning the INGENCO air permit application for a nominal 8 MW Landfill Gas- and Oil-Fired Electrical Generating Station. INGENCO is proposing to construct the Generating Station at the Dade South Landfill located at 24000 Southwest 97th Avenue, Miami, Florida.

Below is INGENCO's response to your request for information.

1. *Section 1.1 of the application: The application indicates that bio-diesel fuel might be used in the Detroit Diesel engines. Please provide more information on the bio-diesel fuel that will be utilized in the engines. What effect will the bio-diesel have on nitrogen oxides (NO_X) emissions from the engines? If the NO_X emissions are higher compared to No. 2 fuel oil, have they been taken into account when determining total NO_X emissions from the engines? [Rule 62-4.070, F.A.C. Reasonable Assurance]*

Applicant Response – INGENCO is requesting the operational flexibility to use bio-diesel as a fuel in the engines. The characteristics of bio-diesel will vary, depending on the source and the blend. The heat content of bio-diesel will typically range between 130,000 to 145,000 BTU/gallon. INGENCO has tested nitrogen oxide (NO_X) and CO emissions from the engines at their King & Queen plant located in Virginia. Table 1 illustrates the emission results from the King & Queen plant, as compared to the emission factors used to estimate emissions for the proposed engines.

Table 1 - King and Queen Bio-diesel Stack Test Results

			Stack Test Results at King & Queen			Dade South Requested Emissions	
Start Date	Fuel	Gas Fraction %	NO_X lbs/MMBTU	CO lbs/MMBTU	Opacity (%)	NOx lbs/MMBTU	CO lbs/MMBTU
4/29/2008	Bio-diesel	0.0	1.78	0.05	0	2.15	0.26
4/29/2008	Bio-diesel	88.0	0.96	1.16	0	0.89	1.12
4/29/2008	Bio-diesel	92.0	0.8	0.9	0	0.68	1

INGENCO is aware that the emissions from the engines will be affected by the methane content of the site-specific landfill gas (LFG) and the heat content of the bio-diesel. INGENCO believes there is adequate flexibility in the proposed engine emissions to account for both diesel and bio-diesel use in the engines. INGENCO has requested annual NO_X and CO limits, and they are committed to meeting these limits independent of the amounts of diesel, bio-diesel, and LFG used.

INGENCO's testing has shown that the emissions rates from combusting bio-diesel will differ from rates obtained from fuel oil. INGENCO believes that emissions factors for bio-diesel combustion should be site-specific. Bio-diesel is viewed as a fuel that may be used in the future and is not considered the primary liquid fuel for this facility. INGENCO believes that notification of use and subsequent testing is an appropriate way to handle this fuel. Permits at other INGENCO locations contain language reflecting this belief. An example of language covering the use of bio-diesel as an alternative fuel is shown below. INGENCO requests that FDEP consider this concept.

> Stack Test - An initial performance test shall be conducted for nitrogen oxides and carbon monoxide from the 48 dual-fuel diesel engines (A1-H6) within 60 days of the Piedmont Regional Office receiving notice of the combustion of bio-diesel fuel oil, to determine compliance with the emission limits contained in Conditions 18, 22, and 23. Separate tests shall be performed while operating in single fuel mode using 100% bio-diesel fuel oil and in dual fuel mode using various quantities of landfill gas and bio-diesel fuel oil. The bio-diesel fuel oil test shall be performed at no less than 80% of the rated capacity of the electrical output on a minimum of one set of six engines. The dual fuel tests shall be performed at no less than 65% of the rated capacity of the electrical output on a minimum of one set of six engines at two points between 70% and 96% gas fraction on a Btu basis with one point within 4% of the 96% end point. The tests shall be conducted and reported and data reduced as set forth in 9 VAC 5-50-30 and the test methods and procedures contained in each applicable section or subpart listed in 9 VAC 5-50-410. The details of the tests are to be arranged with the Director, Piedmont Region. The facility shall submit a test protocol at least 30 days prior to testing. Two copies of the test results shall be submitted to the Director, Piedmont Region within 60 days after test completion and shall conform to the test report format enclosed with this permit.
> (9 VAC 5-50-30 and 9 VAC 5-50-20; 9 VAC 5-50-30, 9 VAC 5-50-410, and 9 VAC 5-80-1200)

2. *Section 1.3 of the application: The application indicates that the engines when operating in the dual fuel mode will be burning No. 2 fuel oil (or bio-diesel) and landfill gas (LFG). Please indicate when the engines are operating in dual fuel mode, how will the fractions of each fuel be monitored? The application also indicates that the optimum level of LFG fraction will be in the 92 to 94 percent range. How will this fraction of LFG be monitored? [Rule 62-4.070, F.A.C. Reasonable Assurance]*

Applicant Response – As indicated in Section 4.0 of the permit application,

> INGENCO will demonstrate compliance with the applicable emission limits requested for the facility by recording all pertinent engine operating data in an electronic data collection system at the facility. The data will be transmitted to INGENCO's headquarters in Richmond, Virginia, where the permanent electronic records will be maintained.

Gas fraction, the percentage of total energy required to operate an engine derived from landfill gas, is a controllable parameter. INGENCO has developed control and reporting algorithms in the engine control modules and associated external PLC software. These data, along with landfill gas flow and volume and liquid fuel flow and volume to the facility, are recorded continuously in a data collection system. The data are used to calculate facility emissions. These records can be provided to the Department's upon request.

3. *Section 1.3 of the application: The application indicates that the LFG will be treated [by] compression, dewatering, and filtration through a 10-micron filter. The Department has required filtration through a 1-micron filter (primary and polishing) for similar projects in*

the past. The same requirement will be imposed by the Department for this project. [Rule 62-4.070, F.A.C. Reasonable Assurance]

Applicant Response – Based on past operating experience, INGENCO believes requiring a 1-micron filter is neither reasonable nor practical. We find the Department's request for a 1-micron filter to be contrary to our experience at 11 currently operational INGENCO facilities. INGENCO has requested and received applicability determinations from the U.S. Environmental Protection Agency (USEPA) indicating that a 10-micron filter is sufficient for meeting the definition of a treatment system under 40 CFR 60.752(b)(2)(iii)(C). We have included, as Attachment 1, a copy of the most recent applicability determination received by INGENCO from the USEPA for our Joliet, Illinois, facility.

4. *Section 1.3 and 1.5 of the application: The application indicates that a process diagram of the LFG treatment is included in Figure 3. The process diagram of the LFG treatment was not included with the application. Please submit the process diagram of the LFG treatment system. The application states in Section 1.5 that INGENCO will purchase LFG from the landfill that has been treated by compression, filtration and moisture removal. Will the operation of the LFG treatment system INGENCO responsibility or the Dade South landfill? [Rule 62-4.070, F.A.C. Reasonable Assurance]*

Applicant Response – The copy of the LFG treatment system process flow diagram was inadvertently left out of the original construction permit application. Enclosed is a copy of the process flow diagram as Attachment 2. The operation of the LFG treatment system for LFG routed to INGENCO will be the responsibility of INGENCO. Please note, at this time, INGENCO will only operate the LFG treatment facility for LFG used by INGENCO.

5. *Section 1.4 of the application: The application indicates that the 24 Detroit engines were manufactured prior to 2007. Please submit documentation to the Department that shows the manufactured date of the engines. [Rule 62-4.070, F.A.C. Reasonable Assurance]*

Applicant Response – INGENCO has not purchased the engines for the facility at this time. INGENCO will submit documentation verifying that the engines were manufactured prior to 2007 before the units are installed at this facility.

6. *Section 2.1.1 and 2.1.2 of the application: Emission calculations were done for NO_X, carbon monoxide (CO), volatile organic compound (VOC) and particulate matter (PM) based on stack sampling results from similar facilities. Please provide stack sampling test data that were used to determine emissions from this facility. (Rule 62-4.070, F.A.C. Reasonable Assurance]*

Applicant Response – Enclosed, as Attachment 3, is a summary of the stack sampling data for similar INGENCO facilities. The yellow highlights are testing using the old series controllers. As noted previously, the test results will be affected by LFG methane content, which varies from ~20% at VB (Virginia Beach) to ~35% at CF (Chesterfield) to 48% to 54% at the other locations.

7. *Section 2. 1.3 of the application: Emission calculations for sulfur dioxide ($S0_2$) were done by assuming the hydrogen sulfide (1-hS) concentration in the LFG to be 347 ppm. The Department in a teleconference on September 30, 2008 (followed up by an e-mail on February 5, 2009) requested the applicant to conduct H_2S analysis of the LFG. Please provide results of the analysis, and if the H_2S analysis has not been performed, please conduct the analysis and provide the results to the Department. [Rule 62-4.070, F.A.C. Reasonable Assurance]*

Applicant Response – HSA Engineers and Scientists were contracted to obtain a sample of the LFG from at Dade South Landfill. Three samples were obtained on September 3, 2009, and submitted to Air Toxics LTD, which analyzed the samples on September 4, 2009, for Sulfur Gases by ASTM D-5504 GC/SCD. Sample results indicate H_2S in the LFG ranged between 58,000 ppbv and 73,000 ppbv. Total sulfur compounds (including H_2S) ranged from 75,500 ppbv to 94,200 ppbv. At 94,200 ppbv, the percentage of sulfur in the LFG is equal to 0.00942% (i.e., 94,200 ppbv/1e9 x 100 percent = 0.00942%). These analytical results substantiate the LFG analysis provided as Appendix 1 in the construction permit, which indicates H_2S to be less than 0.01%. A copy of the analytical results is included as Attachment 4.

Mr. Lee Casey has indicated the expected H_2S concentration would be low, since the tipping fees at the landfill were set high enough to discourage deposition of construction and demolition wastes. The H_2S concentration used in the construction permit was based on discussions with FDEP indicating a belief that the H_2S should be higher. The value used in permit calculations is representative of the maximum H_2S concentration (assuming no fluctuation) in the LFG to remain a minor source for SO_2.

Section 2.1.4 and Appendix 4 of the application: Emission calculations for hydrogen chloride (HCI) were based on a default concentration of chlorinated compounds in the LFG as shown in Appendix 4 of the application. Please explain if the concentration of chlorinated compounds were verified analytically for the Dade South LFG? [Rule 62-4.070, F.A.C. Reasonable Assurance]

Applicant Response – Emission calculations for HCl were based on default concentrations of chlorinated compounds provided in AP-42 Chapter 2.4 Municipal Solid Waste Landfills. The chlorinated compound concentrations were not analytically verified. The default USEPA values are generally higher than what is found in landfills. It is INGENCO's experience that most regulatory agencies except the USEPA default values.

8. *Section 3.15.1 and Appendix 2 of the application: The application states that the generator limits are 340 kilowatts (kW)* ***[note: generator limits are 350 kW-hours]*** *per generator, which limits the engine output to 469 brake horsepower (bhp) and therefore, the new electrical generating station will not be subject to 40 CFR Part 63, Subpart ZZZZ as the engine rating is less than 500 bhp. The generator specification sheet in Appendix 2 of the application lists the rated power of the engine as 550 bhp and 410 kW. Please explain the discrepancy. [Rule 62-4.070, F.A.C. Reasonable Assurance]*

Applicant Response – The generator is rated at 350 kW, which limits the engines output to 469 bhp. The Detroit Diesel Series 60 engines that INGENCO plans on installing are compression ignition engines, which will meet the definition of "existing engines" pursuant to 40 CFR Part 63, Subpart ZZZZ (63.6590). The engines do not have to meet the requirements of Subpart ZZZZ pursuant to:

> *63.6590 (3) A stationary RICE which is an existing spark ignition 4 stroke rich burn (4SRB) stationary RICE located at an area source, an existing spark ignition 4SRB stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source, an existing spark ignition 2 stroke lean burn (2SLB) stationary RICE, an existing spark ignition 4 stroke lean burn (4SLB) stationary RICE,* ***an existing compression ignition (CI) stationary RICE****, an existing emergency stationary RICE, an existing limited use stationary RICE,* ***or an existing stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, does not have to meet the requirements of this subpart and of subpart A of this part. No initial notification is necessary.*** *[Emphasis added]*

9. *Section 5.2 of the application: The application states that the installation of siloxane removal system is possible and will allow operation of a catalytic control system such as selective catalytic reduction (SCR) to control NO_X emissions. Please provide cost effectiveness data in dollars per ton of NO_X removed with the installation of siloxane removal system and SCR. [Rule 62-4.070, F.A.C. Reasonable Assurance)*

Applicant Response – INGENCO does not believe operation of a siloxane removal system is feasible on this LFG to Energy project or similar medium BTU projects that combust landfill gas to produce electricity. INGENCO has been investigating siloxane removal technologies for over five years. We have constructed the only facility that, to our knowledge, intends to have engines operating with SCR and oxidative catalysts. That facility, located in King County, Washington, is designed to convert up to 11,000 SCFM of landfill gas to pipeline quality (>96% methane) gas. This very complex and expensive facility uses a medium BTU waste gas stream in the production of supplemental electricity. The facility is currently in the start-up phase. The cost of such technology is prohibitive for a landfill such as the Miami-Dade South Landfill. There are a number of siloxane removal technologies in use at medium BTU landfill gas to electricity projects. These removal systems are designed to protect engines and turbines from siloxane and are not designed to protect catalysts.

INGENCO cited several USEPA publications in the construction permit application, which indicate siloxane removal for LFG to Energy projects is not feasible. This is due to the fact that the siloxane removal systems are limited to removal of siloxanes only to a level that will protect the integrity of the engines. Protection of the catalyst requires a much greater level of siloxane removal. ***This level of siloxane removal has not been proven in practice.*** Without a siloxane removal system, siloxane has been shown to foul catalysts in as little as a few days or hours. Tests conducted by INGENCO, with a siloxane removal system, have shown catalysts lasting anywhere from less than 24 hours to longer periods, based on efficiency and operation of the silicon (siloxane, silane, etc.) removal system, as well as the landfill gas siloxane levels. Permitting and compliance under these conditions become problematic. The efficiency of the catalyst continually and rapidly decreases, causing facility emissions to increase. A typical catalyst should last upward of 16,000 hours.

The quote referred to in Question 9 above is from the USEPA White Paper for *Above the Floor MACT for Digester and Landfill Gas* (9/1998), which states:

> *...installation of a pretreatment system to remove the Siloxane prior to combustion in the engine is possible, and will allow a catalytic control system to operate on digester and landfill gases. However, the cost to install and maintain such a system is substantial and is the reason why these pretreatment systems are not currently operating anywhere in the country. Case in point, a POTW in San Diego, which had installed an SCR system for NOx control on their engine, had installed a pretreatment system, which consisted of water drop out, physical screening and activated carbon, to remove the Siloxane prior to combustion in the engine. The system apparently worked, however, capital and operating costs were high and the facility decided to replace this system (in 1998) with a low-NOx lean burn engine.*

The conclusion of the above White Paper indicates the following:

> *...the fact that there are no catalyst controlled digester gas or landfill gas engines successfully operating in the United States, and that pretreatment systems to remove Siloxane are costly to install and maintain; the RICE Workgroup does not believe that catalytic control has **proven reliable** or cost-effective enough to be considered for above-the-floor MACT controls.*

An Ohio EPA air permit for Carbon Limestone LFG Power Station dated February 13, 2003, also references the above White Paper and the San Diego POTW. The Ohio EPA concluded in their permit the following:

> *While flue gas treatment control systems are very effective at controlling NOx emissions from IC engines burning natural gas, they are clearly technically infeasible as an application on LFG fired IC engines. Therefore, SCR, SNCR, and NSCR are rejected as BACT for LFG-fired IC engine NOx emissions control, and will not be evaluated further.*

A recently issued Florida Permit for Trail Ridge Landfill's LFG fired engines has also indicates the use of an SCR is not feasible due to siloxanes as follows:

> *Trail Ridge Landfill Technical Evaluation and Preliminary Determination (October 16, 2006) – "Due to the presence of siloxanes (and other chemicals) in the LFG fuel, the utilization of NSCR and SCR equipment to control NOx in the exhausts of the LFG fueled IC engines* ***is not feasible****. (pg 13)*

Other recent Florida Permits for Brevard Energy and Seminole Energy indicate Combustor design and good combustion practices as BACT for LFG-fueled engines.

In the June 12, 2006, Preamble to the proposed National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines, USEPA states:

> ...for stationary landfill and digester gas fired engines, EPA evaluated currently available control technologies. Chemicals in landfill and digester gas fuels called siloxanes poison the catalyst in add-on control technologies such as SCR, NSCR, and oxidation catalysts, rendering them ineffective in very short periods of time. (See discussion below.) Emission standards requiring after treatment 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.

Since there are no operating siloxane removal technologies for LFG to energy engines, siloxane removal has not been found effective in practice; therefore, it is technically infeasible for this type of application. A cost analysis is not required for a technically infeasible control technology.

10. *The National Park Service (NPS) reviewed the application and commented that the proposed facility will not cause significant impacts at the Everglades National Park. However, based on information in the application, significant plume impacts were predicted at Biscayne National Park (NP) from the proposed facility. Generally the NPS considers plumes from a proposed source as significant if the perceptible impacts exceed a delta E of 2.0. Because the reported impacts are above the NPS plume impact threshold at Biscayne NP, the NPS asked that Dade South Landfill to look at mitigating measures to reduce emissions and corresponding impacts.*

Applicant Response – There are differences in the PSD requirements for visibility protection at Class I areas such as ENP (40 CFR Part 52.21(p)(3)) and the general requirement to assess impairment to visibility as part of the additional impact analyses (40 CFR Part 52.21(O)(1)) for Class II areas such as BNP. An important distinction is that for Class II areas, the regulation does not require a demonstration of insignificant visibility impact. Notwithstanding this distinction, a more refined analysis has been conducted by AECOM and reported in this addendum (see Attachment 5 and revised model input files).

On July 2, 2009, INGENCO received the following supplemental request for information from FDEP:

11. *Appendix 13 contains the model input parameters for carbon monoxide (CO), nitrogen oxides (NOX) and particulate matter less than 10 microns (PM10). These parameters are used for determining model impacts for comparison to increments and National Ambient Air Quality Standards (NAAQS). The "Model Input Parameters-NOX Increment/NAAQS Sources" table in this Appendix has discrepancies between the location shown in the table and the locations that are actually modeled. It appears that the locations that are modeled are correct. However, this table and the others in Appendix should be corrected where necessary. Also provide the actual names of the facilities and the respective emission sources in the corrected tables. [Rule 62-4.070, F.A.C. Reasonable Assurance]*

A copy of the corrected tables is included as Attachment 6.

We trust that we have provided FDEP with sufficient detail to continue to review our Air Construction Permit Application. If you have any questions or require additional information, please contact me at 269-544-6955 or lmspurr@ftch.com.

Please contact us if you have additional questions or need further clarification.

Sincerely,

FISHBECK, THOMPSON, CARR & HUBER, INC.

Lynn Spurr

Lynn M. Spurr

lcr
Enclosures
cc/enc: Robert Greene – Ingenco
Cleve Holladay – DEP
German Hernandez – Miami-Dade Solid Waste Management
Kathleen Forney – EPA Region 4
Lee Hoefert – DEP-SED
Mallika Muthiah – DERM
Dee Morse – NPS
Vicki Gipson – DEP-BAR
James A. Susan, P.E. – FTC&H

FISHBECK, THOMPSON, CARR & HUBER, INC.
FLORIDA BOARD OF PROFESSIONAL ENGINEERS
CERTIFICATION OF AUTHORIZATION
NO. 26130

NAME: JAMES A. SUSAN, P.E.
TITLE: SENIOR VICE PRESIDENT
FLORIDA P.E. NO: 61237

SIGNATURE James A. Susan

DATE 9/17/09

Attachment 1

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

NOV 14 2008

REPLY TO THE ATTENTION OF:
(AE-17J)

Mr. Robert L. Greene
Environmental Compliance Manager
Industrial Power Generating Company, LLC
2250 Dabney Road
Richmond, Virginia 23230

Re: NSPS Applicability Determination for Treatment System

Dear Mr. Greene:

Thank you for your October 7, and November 13, 2008, letters to the U.S. Environmental Protection Agency, requesting an applicability determination for a methane gas to electrical energy facility proposed to be constructed by Industrial Power Generating Company, LLC ("INGENCO") at the CDT landfill located in Joliet, Illinois. The CDT landfill is subject to the Landfill New Source Performance Standards, 40 CFR Part 60, Subpart WWW ("Landfill NSPS").

The CDT landfill currently collects landfill gas in a gas collection system and directs it to an existing open flare for destruction. INGENCO plans to install appropriate valving between the landfill blowers and the existing flare to direct the gas to the proposed INGENCO facility. The gas will first be filtered through a 10-micron coalescing filter, then dewatered in a gas cooler, and finally compressed to 5-15 psig by the blowers. The gas cooler will be a fin-fan cooler designed to decrease the gas temperature from 265 degrees Fahrenheit (° F) to 150 ° F at an ambient temperature of 95 ° F. The filtered, dewatered, and compressed landfill gas will be sent to the internal combustion ("IC") engines for destruction. The facility will be equipped so that landfill gas is automatically diverted to the open flare when the gas is not being used by the engines. INGENCO is requesting a determination from EPA as to whether the proposed gas processing system meets the definition of a "treatment system" under 40 CFR § 60.752(b)(2)(iii)(C) and is exempt from further monitoring under 40 CFR Part 60, Subpart WWW.

EPA's Determination

According to 40 CFR § 60.752(b)(2)(iii), collected landfill gas must be routed to a control system that complies with the requirements of either 40 CFR § 60.752(b)(2)(iii)(A), (B), or (C). 40 CFR § 60.752(b)(2)(iii)(A) requires that the gas be routed to an open flare designed and operated in accordance with 40 CFR § 60.18. 40

CFR § 60.752(b)(2)(iii)(B) requires that the gas be routed to a control system designed and operated to reduce non-methane organic compounds ("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 ppm by volume, dry basis as hexane at 3 percent oxygen. 40 CFR § 60.752(b)(2)(iii)(C) contains the option of routing the collected gas to a treatment system that processes the collected gas for subsequent sale or use.

As you know, the NSPS does not currently contain a definition for the term "treatment system." However, in past applicability determinations, EPA has considered filtering of the gas through a 10 micron screen to reduce particulate matter, de-watering of the landfill gas using chillers or other dehydration equipment to reduce moisture content, and compression using gas blowers or similar devices to further reduce moisture content and raise gas pressure to the level required by the combustion device as "treatment" when the gas is used in an energy recovery project. Based on the information provided by INGENCO regarding the proposed energy recovery facility at the CDT landfill, the gas will be filtered through a 10-micron coalescing filter, de-watered in a gas cooler, and compressed to 5-15 psig. Based on the information provided by INGENCO, this system appears to meet EPA's current requirements regarding "treatment" and EPA will consider your proposed system as "treatment" under the current NSPS.

As you note in your letter, on September 8, 2006, amendments were proposed to the NSPS Subpart WWW, the Emission Guidelines and Federal Plan for Municipal Solid Waste Landfills, and the National Emission Standard for Hazardous Air Pollutants: Municipal Solid Waste Landfills ("NESHAP") regarding the definition of "treatment system" and the requirements for treatment systems. In this proposed rulemaking, a treatment system means: "a system that has an absolute filtration rating of 10 microns or less, lowers the water dew point of the landfill gas by at least 20 degrees Fahrenheit with a de-watering process, and compresses the landfill gas." In addition, the proposed amendments require that the collection and control design plan be modified to include design specifications and proposed operating and monitoring parameters and values for the filtering, de-watering and compression systems. Further, the proposed amendments contain monitoring and recordkeeping requirements pertaining to treatment systems. Once these amendments are finalized and in whatever form they are finalized, your treatment system may be required to comply with all requirements related to landfill gas treatment systems.

You are correct that under both the current and proposed NSPS rules, once the gas has been treated and sent to the IC engines, it is no longer subject to the requirements of the NSPS, and in turn, the NESHAP. However, the emissions from any atmospheric vent from the gas treatment system are subject to the NSPS requirements at 40 C.F.R. § 60.752(b)(2)(iii)(A) or (B), as well as the NESHAP. When the open flare is used, it must comply with 40 CFR § 60.752(b)(2)(iii)(A). Further, you will have to meet the emission control, monitoring and recordkeeping requirements related to treatment systems under both the NSPS and the NESHAP.

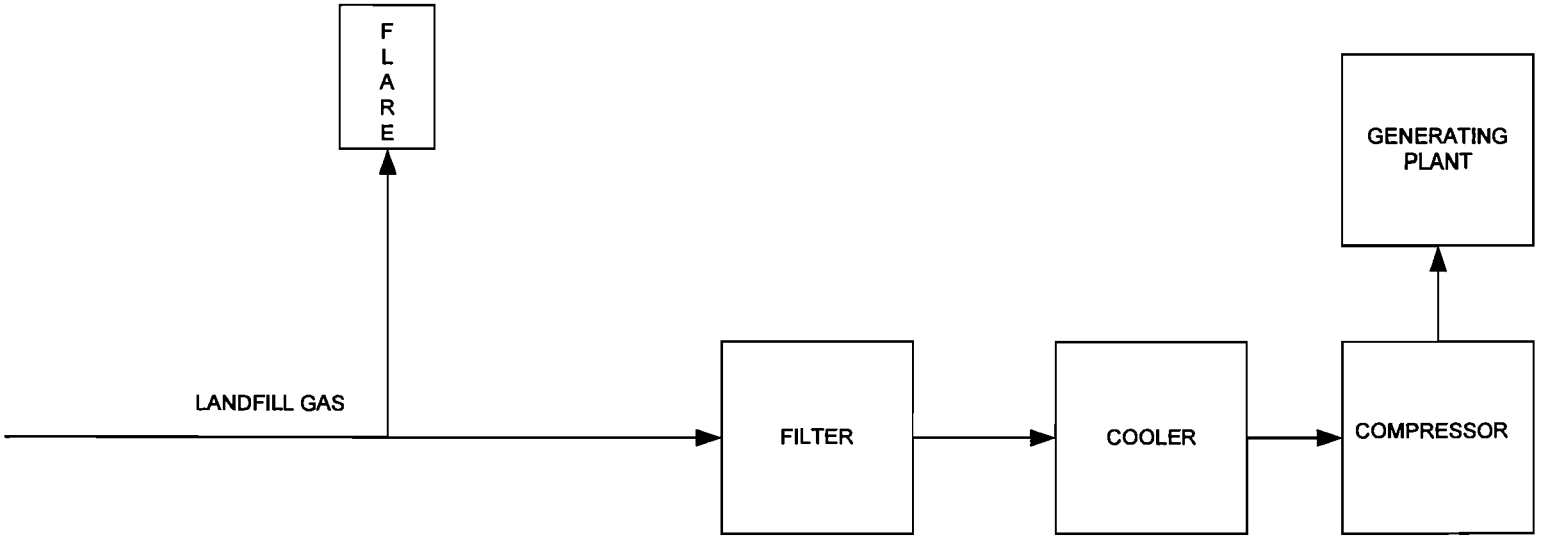
If you have any questions regarding this letter, feel free to contact Linda H. Rosen, of my staff, at (312) 886-6810.

Sincerely,

George T. Czerniak
Chief
Air Enforcement and Compliance Assurance Branch

cc: Ray Pilapil, Manager
Bureau of Air – Compliance and Enforcement Section
Illinois Environmental Protection Agency

Attachment 2


FLARE
GENERATING PLANT
LANDFILL GAS
FILTER
COOLER
COMPRESSOR

Attachment 3

Plant	Start Date	Engine Group	Fuel	Gas Fraction (%)	NOx (lb/MMBTU)	CO (lb/MMBTU)	Opacity (%)	PM (lb/MMBTU)	VOC (lb/MMBTU)
AM	9/15/2003	G	No. 2	0.0	1.679	0.108	0	0	0
CC	2/2/2004	H	No. 2	0.0	2.137	0.046	0.00	0.023	0
VB	3/17/2004	E	No. 2	0.0	2.026	0.075	0		0
AM	5/18/2004	H	No. 2	0.0	1.718	0.288	0		0
CF	12/2/2004	C	No. 2	0.0	2.097	0.189	0.00		0
AM	2/15/2005	E	No. 2	0.0	1.992	0.138	0		0
VB	8/25/2005	A	No. 2	0.0	1.954	0.243	0		0
VB	8/26/2005	A	No. 2	0.0	1.954	0.243	0		0
VB	5/23/2006	B	No. 2	0.0	2.100	0.200	0.00		0
VB	5/23/2006	B	No. 2	0.0	2.1	0.2	0		0
BR	2/12/2008	C	No. 2	0.0	1.700	0.090	< 1.00		0
KQ	4/29/2008	A	No. 2	0.0	1.49	0.13	0		0.09
CC	10/13/2008	A	No. 2	0.0	1.630	0.29			
CC	10/13/2008	C	No. 2	0.0	1.470	0.18			
CC	10/15/2008	E	No. 2	0.0	1.630	0.31			
CC	10/15/2008	G	No. 2	0.0	1.640	0.18			
CC	10/16/2008	D	No. 2	0.0	1.610	0.25			
CC	10/16/2008	F	No. 2	0.0	1.690	0.31			
CF	11/11/2008	A	No. 2	0.0	1.620	0.26			
CF	11/11/2008	E	No. 2	0.0	1.350	0.18			
CF	11/13/2008	F	No. 2	0.0	1.530	0.36			
CF	11/13/2008	H	No. 2	0.0	1.550	0.25			
CF	12/2/2008	B	No. 2	0.0	1.600	0.28			
CF	12/2/2008	D	No. 2	0.0	1.730	0.25			
NB	1/13/2009	A	No. 2	0.0	1.710	0.09		0.01	0
Average					1.748	0.206		0.011	0.007
stdev					0.223	0.082			
CC	10/15/2008	E	No. 2	85.0	0.980	1.14			
BR	2/12/2008	C	No. 2	85.1	0.500	1.720	10.40	0.010	0.187
CF	12/3/2004	B	No. 2	87.0	1.166	1.148	0	0	0.095
CF	7/6/2005	G	No. 2	87.9	0.945	0.926	0.00	0.103	0.109
AM	6/28/2005	A	No. 2	88.0	0.841	1.215	1.4	0.068	0.024
AM	6/30/2005	A	No. 2	88.0	0.826	0.982	0	0.063	0.166
CC	6/28/2005	A	No. 2	88.0	0.841	1.215	1.40	0.068	0.024
CC	10/14/2008	A	No. 2	88.0	0.940	1.08			
CC	10/14/2008	C	No. 2	88.0	0.980	1.04			
CC	10/17/2008	D	No. 2	88.0	0.850	1.17			
CC	10/17/08	F	No. 2	88.0	0.900	1.01			
CF	7/6/2005	G	No. 2	88.0	0.945	0.926	0	0.103	0.109
CF	11/11/2008	A	No. 2	88.0	0.840	0.96			
CF	11/12/2008	E	No. 2	88.0	0.570	0.86			
CF	11/13/2008	F	No. 2	88.0	0.770	1.38			
CF	11/13/2008	H	No. 2	88.0	0.820	1.23			
CF	12/2/2008	B	No. 2	88.0	0.960	1.07			
CF	12/2/2008	D	No. 2	88.0	0.870	0.98			
KQ	4/29/2008	A	No. 2	88.0	0.72	1.39	0	0.009	
CC	10/15/2008	E	No. 2	89.0	1.180	1.11			
Average					0.872	1.128	1.650	0.053	0.102
stdev					0.162	0.200	3.592	0.042	0.063

CF	12/3/2004	B	No. 2	90.0	1.166	1.148	0	0	0.095
AM	6/28/2005	A	No. 2	92.0	0.682	0.846	0	0.055	0.198
CC	6/28/2005	A	No. 2	92.3	0.682	0.846	0.00	0.055	0.000
AM	6/30/2005	A	No. 2	92.0	0.649	0.828	0	0.051	0.015
CF	7/6/2005	G	No. 2	92.0	0.645	0.707	0.00	0.092	0.000
CF	7/6/2005	G	No. 2	92.0	0.645	0.707	0	0.092	0
BR	2/12/2008	C	No. 2	92.5	0.460	1.340	3.10	0.013	0.005
KQ	4/29/2008	A	No. 2	92.0	0.54	1.030	0	0.008	0.1
CC	10/14/2008	C	No. 2	92.0	0.620	0.860			
CC	10/14/2008	A	No. 2	92.0	0.590	0.960			
CC	10/16/2008	F	No. 2	90.0	0.700	0.99			
CC	10/16/2008	D	No. 2	92.0	0.720	0.990			
CF	11/11/2008	E	No. 2	92.0	0.580	0.780			
CF	11/12/2008	A	No. 2	92.0	0.580	0.830			
CF	11/13/2008	F	No. 2	92.0	0.580	1.000			
CF	11/13/2008	H	No. 2	92.0	0.550	1.010			
CF	12/2/2008	B	No. 2	92.0	0.780	0.860			
CF	12/2/2008	D	No. 2	92.0	0.620	0.800			
NB	1/12/2009	A	No. 2	92.1	0.420	1.050		0.01	0.22
Average					0.643	0.925	0.388	0.042	0.070
stdev					0.153	0.157	1.096	0.036	0.088

Old Controllers

Attachment 4

Air Toxics LTD.
Laboratory Services Since 1989

9/9/2009

Mr. Gordon Walters
HSA Engineers and Scientists
1520 Royal Palm Square Blvd
Suite 200
Fort Myers FL 33919

Project Name: Miami-Dade South Landfill
Project #:
Workorder #: 0909119

Dear Mr. Gordon Walters

The following report includes the data for the above referenced project for sample(s) received on 9/4/2009 at Air Toxics Ltd.

The data and associated QC analyzed by ASTM D-5504 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Bryanna Langley at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Bryanna Langley
Project Manager

Air Toxics LTD.
Laboratory Services Since 1989

WORK ORDER #: 0909119

Work Order Summary

CLIENT:	Mr. Gordon Walters HSA Engineers and Scientists 1520 Royal Palm Square Blvd Suite 200 Fort Myers, FL 33919	**BILL TO:**	Accounts Payables HSA Engineers and Scientists 1520 Royal Palm Square Blvd Suite 200 Fort Myers, FL 33919
PHONE:	239-936-0789	**P.O. #**	
FAX:		**PROJECT #**	Miami-Dade South Landfill
DATE RECEIVED:	09/04/2009	**CONTACT:**	Bryanna Langley
DATE COMPLETED:	09/09/2009		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	EFF-1400	ASTM D-5504	Tedlar Bag	Tedlar Bag
02A	EFF-1500	ASTM D-5504	Tedlar Bag	Tedlar Bag
03A	EFF-1600	ASTM D-5504	Tedlar Bag	Tedlar Bag
04A(cancelled)	EFF-1700	ASTM D-5504	Tedlar Bag	Tedlar Bag
05A	Lab Blank	ASTM D-5504	NA	NA
06A	LCS	ASTM D-5504	NA	NA

CERTIFIED BY: Linda D. Fruman DATE: 09/09/09

Laboratory Director

Certfication numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763, NJ NELAP - CA004
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,
Accreditation number: E87680, Effective date: 07/01/09, Expiration date: 06/30/10
Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
ASTM D-5504
HSA Engineers and Scientists
Workorder# 0909119

Four 1 Liter Tedlar Bag samples were received on September 04, 2009. The laboratory performed the analysis of sulfur compounds via ASTM D-5504 using GC/SCD. The method involves direct injection of the air sample into the GC via a fixed 2.0 mL sampling loop. See the data sheets for the reporting limits for each compound.

Receiving Notes

Samples EFF-1400, EFF-1500, EFF-1600 and EFF-1700 were received with a discernable volume of water in the Tedlar bag container. Analysis of the samples proceeded.

Sample EFF-1700 was cancelled on 9/4/09 per client's request.

Analytical Notes

Ethyl Methyl Sulfide and n-Butyl Mercaptan coelute with 3-Methyl Thiophene.

Definition of Data Qualifying Flags

Seven qualifiers may have been used on the data analysis sheets and indicate as follows:
B - Compound present in laboratory blank greater than reporting limit.
J - Estimated value.
E - Exceeds instrument calibration range.
S - Saturated peak.
Q - Exceeds quality control limits.
U - Compound analyzed for but not detected above the detection limit.
M - Reported value may be biased due to apparent matrix interferences.
File extensions may have been used on the data analysis sheets and indicates as follows:
a-File was requantified
b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue

Air Toxics LTD.
Laboratory Services Since 1989

Summary of Detected Compounds
SULFUR GASES BY ASTM D-5504 GC/SCD

Client Sample ID: EFF-1400

Lab ID#: 0909119-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)
Hydrogen Sulfide	1000	58000
Methyl Mercaptan	1000	10000
Dimethyl Sulfide	1000	7500

Client Sample ID: EFF-1500

Lab ID#: 0909119-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)
Hydrogen Sulfide	1000	62000
Methyl Mercaptan	1000	11000
Dimethyl Sulfide	1000	8100

Client Sample ID: EFF-1600

Lab ID#: 0909119-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)
Hydrogen Sulfide	1000	73000
Methyl Mercaptan	1000	12000
Dimethyl Sulfide	1000	9200

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Client Sample ID: EFF-1400

Lab ID#: 0909119-01A

SULFUR GASES BY ASTM D-5504 GC/SCD

File Name:	**I090406**	**Date of Collection: 9/3/09 2:00:00 PM**	
Dil. Factor:	**250**	**Date of Analysis: 9/4/09 10:27 AM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)
Hydrogen Sulfide	1000	58000
Carbonyl Sulfide	1000	Not Detected
Methyl Mercaptan	1000	10000
Ethyl Mercaptan	1000	Not Detected
Dimethyl Sulfide	1000	7500
Carbon Disulfide	1200	Not Detected
Isopropyl Mercaptan	1000	Not Detected
tert-Butyl Mercaptan	1000	Not Detected
n-Propyl Mercaptan	1000	Not Detected
Thiophene	1000	Not Detected
Isobutyl Mercaptan	1000	Not Detected
3-Methyl Thiophene/n-Butyl Mercaptan/Ethyl Methyl Sulfide	1000	Not Detected
Diethyl Sulfide	1000	Not Detected
Dimethyl Disulfide	1000	Not Detected
Tetrahydrothiophene	1000	Not Detected
2-Ethylthiophene	1000	Not Detected
2,5-Dimethylthiophene	1000	Not Detected
Diethyl Disulfide	1000	Not Detected

Container Type: 1 Liter Tedlar Bag

Air Toxics LTD.
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Client Sample ID: EFF-1500

Lab ID#: 0909119-02A

SULFUR GASES BY ASTM D-5504 GC/SCD

File Name:	**I090407**	**Date of Collection:**	**9/3/09 3:00:00 PM**
Dil. Factor:	**250**	**Date of Analysis:**	**9/4/09 10:49 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)
Hydrogen Sulfide	1000	62000
Carbonyl Sulfide	1000	Not Detected
Methyl Mercaptan	1000	11000
Ethyl Mercaptan	1000	Not Detected
Dimethyl Sulfide	1000	8100
Carbon Disulfide	1200	Not Detected
Isopropyl Mercaptan	1000	Not Detected
tert-Butyl Mercaptan	1000	Not Detected
n-Propyl Mercaptan	1000	Not Detected
Thiophene	1000	Not Detected
Isobutyl Mercaptan	1000	Not Detected
3-Methyl Thiophene/n-Butyl Mercaptan/Ethyl Methyl Sulfide	1000	Not Detected
Diethyl Sulfide	1000	Not Detected
Dimethyl Disulfide	1000	Not Detected
Tetrahydrothiophene	1000	Not Detected
2-Ethylthiophene	1000	Not Detected
2,5-Dimethylthiophene	1000	Not Detected
Diethyl Disulfide	1000	Not Detected

Container Type: 1 Liter Tedlar Bag

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: EFF-1600

Lab ID#: 0909119-03A

SULFUR GASES BY ASTM D-5504 GC/SCD

File Name:	**I090408**	**Date of Collection:**	**9/3/09 4:00:00 PM**
Dil. Factor:	**250**	**Date of Analysis:**	**9/4/09 11:11 AM**

Compound	Rpt. Limit (ppbv)	Amount (ppbv)
Hydrogen Sulfide	1000	73000
Carbonyl Sulfide	1000	Not Detected
Methyl Mercaptan	1000	12000
Ethyl Mercaptan	1000	Not Detected
Dimethyl Sulfide	1000	9200
Carbon Disulfide	1200	Not Detected
Isopropyl Mercaptan	1000	Not Detected
tert-Butyl Mercaptan	1000	Not Detected
n-Propyl Mercaptan	1000	Not Detected
Thiophene	1000	Not Detected
Isobutyl Mercaptan	1000	Not Detected
3-Methyl Thiophene/n-Butyl Mercaptan/Ethyl Methyl Sulfide	1000	Not Detected
Diethyl Sulfide	1000	Not Detected
Dimethyl Disulfide	1000	Not Detected
Tetrahydrothiophene	1000	Not Detected
2-Ethylthiophene	1000	Not Detected
2,5-Dimethylthiophene	1000	Not Detected
Diethyl Disulfide	1000	Not Detected

Container Type: 1 Liter Tedlar Bag

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: Lab Blank

Lab ID#: 0909119-05A

SULFUR GASES BY ASTM D-5504 GC/SCD

File Name:	**I090404**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/3/09 09:28 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)
Hydrogen Sulfide	4.0	Not Detected
Carbonyl Sulfide	4.0	Not Detected
Methyl Mercaptan	4.0	Not Detected
Ethyl Mercaptan	4.0	Not Detected
Dimethyl Sulfide	4.0	Not Detected
Carbon Disulfide	5.0	Not Detected
Isopropyl Mercaptan	4.0	Not Detected
tert-Butyl Mercaptan	4.0	Not Detected
n-Propyl Mercaptan	4.0	Not Detected
Thiophene	4.0	Not Detected
Isobutyl Mercaptan	4.0	Not Detected
3-Methyl Thiophene/n-Butyl Mercaptan/Ethyl Methyl Sulfide	4.0	Not Detected
Diethyl Sulfide	4.0	Not Detected
Dimethyl Disulfide	4.0	Not Detected
Tetrahydrothiophene	4.0	Not Detected
2-Ethylthiophene	4.0	Not Detected
2,5-Dimethylthiophene	4.0	Not Detected
Diethyl Disulfide	4.0	Not Detected

Container Type: NA - Not Applicable

Air Toxics LTD.
Laboratory Services Since 1989

Client Sample ID: LCS

Lab ID#: 0909119-06A

SULFUR GASES BY ASTM D-5504 GC/SCD

File Name:	**I090403**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 9/3/09 09:05 PM**	

Compound	%Recovery
Hydrogen Sulfide	85
Carbonyl Sulfide	95
Methyl Mercaptan	100
Ethyl Mercaptan	100
Dimethyl Sulfide	96
Carbon Disulfide	87
Isopropyl Mercaptan	99
tert-Butyl Mercaptan	99
n-Propyl Mercaptan	97
Thiophene	91
Isobutyl Mercaptan	98
3-Methyl Thiophene/n-Butyl Mercaptan/Ethyl Methyl Sulfide	99
Diethyl Sulfide	97
Dimethyl Disulfide	93
Tetrahydrothiophene	96
2-Ethylthiophene	87
2,5-Dimethylthiophene	83
Diethyl Disulfide	80

Container Type: NA - Not Applicable

Attachment 5

FTC&H

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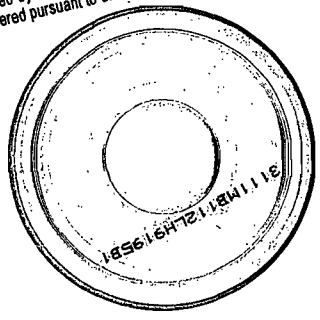


Project No. G080780A

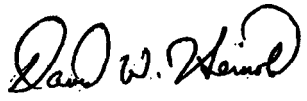
September 18, 2009

Industrial Power Generating Company, LLC (INGENCO)
Date South Landfill
Response to FDEP July 1, 2009 Request
for Additional Information
Attachment 5 Electronic Files

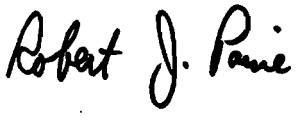
Prepared for:
Industrial Power Generating Company, LLC
Miami, FL

Addendum to Visibility Modeling Analysis for INGENCO's 8-MW Landfill Gas Generating Station

Prepared for:
Industrial Power Generating Company, LLC
Miami, FL



Prepared by David W. Heinold



Reviewed by Robert J. Paine

AECOM, Inc.
August 2009
Document No.: 13042-001-100-A

Introduction

The May 2009 report entitled "*Modeling Analysis for AQRVs in National Parks for INGENCO's 8-MW Landfill Gas and Oil Electrical Generating Station*" (AECOM Document 13042-001-100) included a Level 2 screening assessment of plume visibility at a Class I area, Everglades National Park (ENP) and a Class II area, Biscayne National Park (BNP). There are differences in the PSD requirements for visibility protection at Class I areas such a ENP (40 CFR Part 52.21(p)(3)) and the general requirement to assess impairment to visibility as part of the additional impact analyses (40 Part 52.21(o)(1)) for Class II areas such as BNP. An important distinction is that for Class II areas the regulation does not require a demonstration of insignificant visibility impact. Notwithstanding this distinction, given that the May 2009 screening analysis indicated the potential for visible plumes at BNP, a more refined analysis has been conducted and reported in this Addendum.

In the May 2009 report two emission cases were evaluated, the preferred case representing normal maximum operating conditions with all 24 engines at full load fueled by 92% LFG and 8% fuel oil and a worst case with 71% fuel oil and 29% fuel oil. The visibility analysis computed worst-case plume visibility parameters ΔE (plume perceptibility) and C_p (plume contrast) for lines-of sight within BNP. The modeled worst-case conditions simulated with VISCREEN were compared to plume detection thresholds of 2.0 for ΔE and +/-0.05 for C_p. The screening assessment demonstrated that a visible plume would not occur under normal operating conditions at ENP, but due to its close proximity, a visible plume could occasionally occur at BNP for some wind directions. The purpose of the supplemental assessment presented in this addendum is to more fully characterize the potential magnitude and frequency of daytime visible plumes at BNP under normal maximum operating conditions. Two types of analyses have been conducted: 1) an extension of Level 2 visibility assessment to include actual observer locations in the park and 2) an upper limit estimation of the percent of the time that a plume could be visible anywhere in the park.

Level 2 Assessment for Actual Observer Locations

The Level 2 screening analysis performed in the May 2009 report included two assessments of meteorological frequency to determine worst-case conditions. One assessment encompassed all times of the day and another considered daytime hours (6 AM to 6 PM). The inclusion of all hours (even overnight hours when there is no sunlight to illuminate the plume) was considered to conservatively account for the theoretical transient condition of an observer viewing the sky at sunrise and seeing a plume that was emitted into the stable nighttime atmosphere and then transported overnight to the Class I area. Thus, even though the atmospheric stability at the Class I area after sunrise would be, by definition, neutral or unstable, the Level 2 visibility frequency analysis could include stable conditions that frequently occur overnight. Consideration of overnight transport applies only if, as is commonly the case, the transport time from the source to the Class I area is several hours. If, as is the case for BNP, the source is very close to the area of interest, the transport time is negligible such that the atmospheric stability at the source and the Class I area are the same at all times. The maximum transport time from the proposed facility to BNP is only about 20 minutes (based on 1.1 km distance and minimum 1 m/sec wind speed used in VISCREEN). Therefore, for the BNP assessment it is appropriate to include only daytime periods for the meteorological frequency assessment.

The May 2009 Level 2 visibility assessment conservatively placed an observer at the closest boundary of BNP to INGENCO for each of six wind direction sectors that intersect the park. These locations, shown in Figure A-1, are near the shore and are accessible only by boat. To evaluate the visible plume potential for park visitors who spend time at the park islands where there are camp sites and hiking trails, we conducted a separate Level 2 visibility analysis to include observation points on Adams Key, Elliott Key, and Boca Chita Key as well as the park visitor's center. These locations of these observation points are shown in Figure A-2. The resultant Level 2 worst-case visibility parameters for an observer placed at the closest boundary are provided in Table A-1 (copied from Table 3-3 of the May 2009 report) and the visibility parameters for observers placed on the Keys are provided in Table A-2. The analysis for park visitors indicates that under worst-case conditions, the plume could be marginally visible on the southern end of Elliott Key and on Adams Key due to ΔE values slightly above 2.0, but the magnitude is substantially lower than for the more conservative analysis conducted in May 2009. No C_p values exceed the perceptibility threshold for any observer location.

Figure A-1 Location of BNP Boundary Observation Points for the Level 2 Visibility Assessment

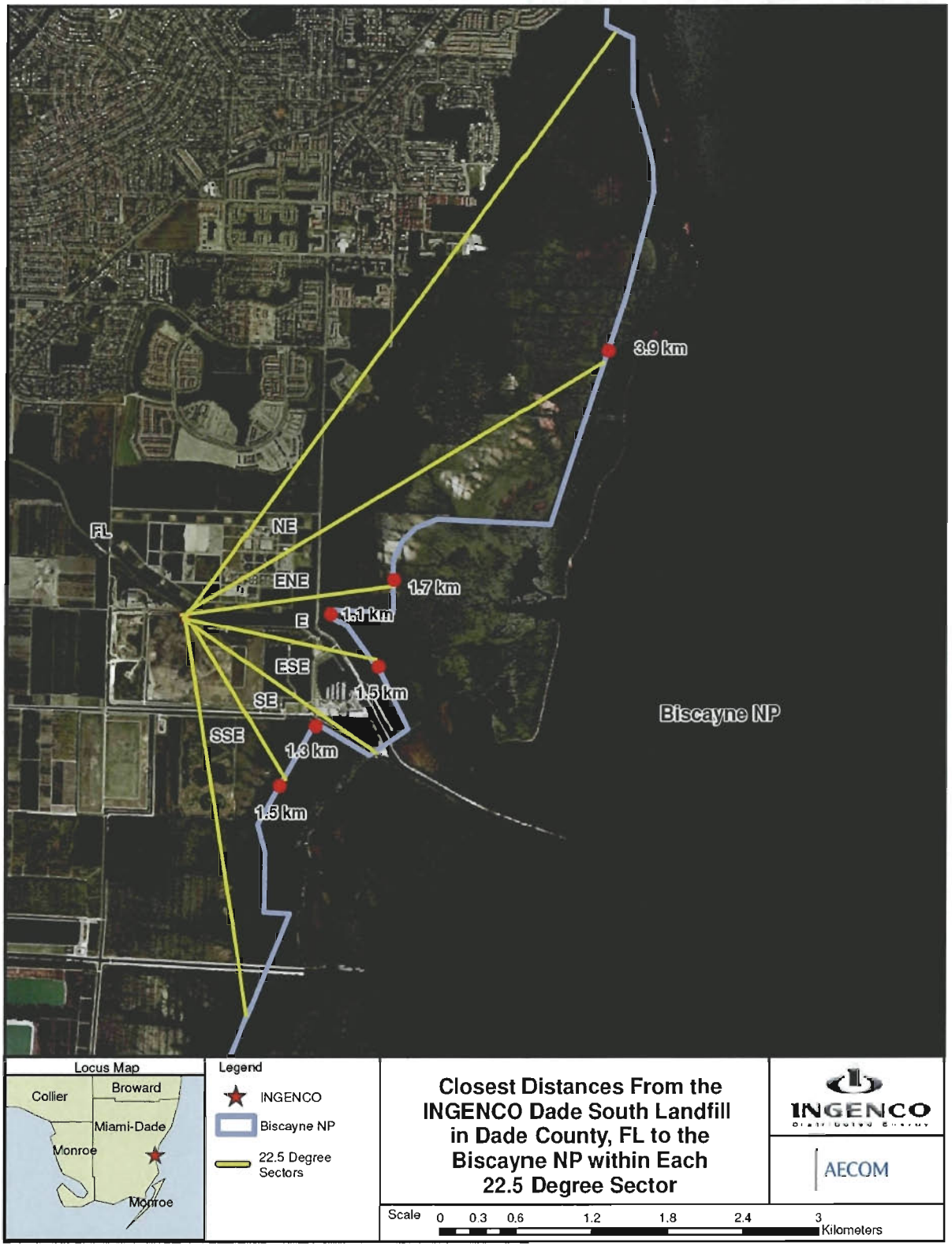


Figure A-2 Location of Visitors at Biscayne National Park for the Level 2 Visibility Assessment

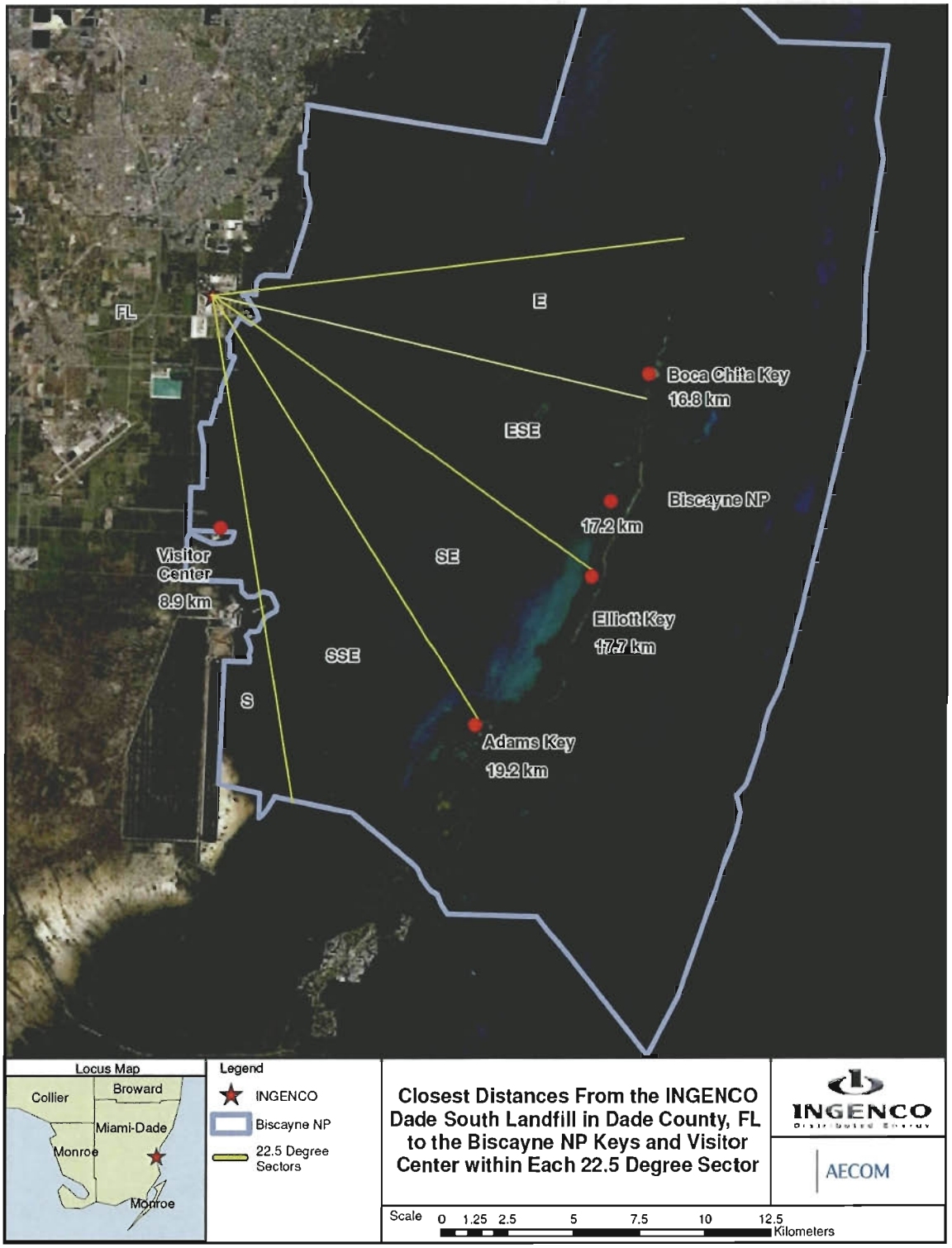


Table A-1 Level 2 Visibility Parameters a the BNP Boundary 6 AM to 6 PM EST, 92% LFG Firing						
Observer Location	**Direction**	**Distance (km)**	**Stability**	**Wind Speed (m/sec)**	**Δ E**	**Cp**
BNP Boundary	NE	3.9	D	7	0.5	-0.004
BNP Boundary	ENE	1.7	D	8	0.8	-0.006
BNP Boundary	E	1.1	D	7	1.2	-0.009
BNP Boundary	ESE	1.5	D	4	1.7	-0.013
BNP Boundary	**SE**	**1.3**	**D**	**2**	**3.6**	**-0.029**
BNP Boundary	**SSE**	**1.5**	**E**	**3**	**3.3**	**-0.027**
PSD Class I Plume Visibility Threshold					2.0	-0.05

Table A-2 Level 2 Visibility Parameters at BNP Observer Locations 6 AM to 6 PM ET, 92% LFG Firing						
Observer Location	**Direction**	**Distance (km)**	**Stability**	**Wind Speed (m/sec)**	**Δ E**	**Cp**
Boca Chita Key	**E**	16.8	D	7	1.1	-0.011
Elliott Key	**ESE**	17.2	D	4	1.5	-0.015
Elliott Key	**SE**	**17.7**	**E**	**4**	**2.4**	**-0.025**
Adams Key	**SSE**	**19.2**	**E**	**3**	**2.7**	**-0.029**
Visitor Center	**S**	8.9	D	4	1.0	-0.008
PSD Class I Plume Visibility Threshold					2.0	-0.05

Percent of Time That a Plume Could Be Visible

To further quantify how frequently a plume could be seen, an analysis of visible plume meteorological conditions was conducted. This analysis estimated the percent of the time that a plume could be visible for the two direction sectors (SE and SSE) that have Level 2 worst-case ΔE values exceeding 2.0, as identified in Tables A-1 and A-2. For each observer location, VISCREEN was applied iteratively to determine the combination of atmospheric stability class and wind speed that would result in value of ΔE of 2.0. It was determined that unstable stability categories A and B would never result in visible plumes and that categories E and F would always result in a visible plume (although these conditions occur mostly at night and rapidly transform to unstable conditions after sunrise). For transitional stability categories C and D, a wind speed threshold for perceptible plume events was determined. The hourly meteorological conditions for the 5 year data set of daytime periods (hour ending 0700 through hour ending 1800 EST) were analyzed to determine the frequency that the ΔE threshold are exceeded. The results of this analysis, provided in Table A-3, indicate that the chance for a visible plume at these locations is very low, not exceeding 2% for any observer.

Table A-3 Probability of a Perceptible Plume (ΔE > 2.0) Viewed Against the Sky in BNP

Direction from INGENCO - Observer Location	Distance from INGENCO to Observer (km)	Distance from INGENCO to Biscayne NP (km)	Wind Speed Threshold (m/sec) for Stability C	Wind Speed Threshold (m/sec) for Stability D	Percent of Daytime Hours with ΔE>2.0
SE - Elliott Key	17.7	1.3	1.6	3.3	1.4%
SSE - Adams Key	19.2	1.5	1.4	2.8	1.7%
SE - BNP Boundary	1.3	1.3	1.6	3.7	1.6%
SSE -BNP Boundary	1.5	1.5	1.4	3.4	2.0%

Note: ΔE<2.0 for stability A and B and ΔE>2.0 for stability E and F

Summary

This refined assessment demonstrates that there will be only a slight probability of a visible plume at BNP even if all 24 engines were to simultaneously operate firing 92% LFG at peak load continuously throughout the year. There are inherently conservative aspects of the VISCREEN model application that ensure that these results represent an upper limit estimate of what will actually occur. For instance, VISCREEN selects a sun-plume-observer geometry that maximizes the plume visibility parameters. This geometry may not be appropriate for the time of day and year that the simulated meteorological conditions occur. In addition, the natural background visual range of 169 km used in this assessment is much greater than the visibility that is presently experienced on the 20% best visibility days at ENP, which over the past three years has ranged from about 100 to 125 km (http://vista.cira.colostate.edu/dev/web/AnnualSummaryDev/Composition.aspx). It is also likely that the background visual range at BNP, which is offshore, is somewhat less than the visual range measured at ENP due to additional extinction caused by sea salt aerosol and existing emissions from the Miami-Dade County metropolitan area. The conclusion drawn from these modeling results, especially in the context of the degree of conservatism built into the assessment, is that the INGENCO project will not materially or adversely affect visibility within the BNP.

Attachment 6

Model Input Parameters - CO Increment/NAAQS Sources

Stack ID	Site Name	Emission Unit ID	Emission Unit Description	Easting (m)	Northing (m)	Stack Height (m)	Stack Temp (Deg K)	Exit Velocity (m/sec)	Stack Diameter (meters)	CO Emission Rate (g/sec) NAAQS
1100023	MEMORIAL REGIO HOSP/SO BROWARD HOSP DIST	3	CLEAVER BROOKS 1900/95 INCINERATOR 1550 TYPES 0-IV	581,161	2,877,767	16.76	333.15	14.94	0.46	0.00
1100024	MEMORIAL REGIO HOSP/SO BROWARD HOSP DIST	4	Two (2) Cleaver Brooks (10 MMBTU/hr) Steam Boilers	581,161	2,877,767	9.14	294.26	0.34	0.61	0.02
1120952	WEEKLEY ASPHALT PAVING,INC., PLANT NO. 1	2	DRUM MIX ASPHALT PLANT W/ BAGHOUSE	567,801	2,872,738	6.40	427.59	23.16	1.16	0.36
1121411	FLORIDA SILICA SAND COMPANY INC	1	ROTARY SAND DRYER to serve a sand and silica mix. & bag.	584,202	2,881,037	4.88	366.48	15.24	0.61	0.07
1121492	FRED HUNTER'S MEMORIAL SERVICES, INC.	2	IE43-ET CREMATION INCINERATOR	578,561	2,878,547	6.10	366.48	9.14	0.52	0.01
1123701	BROWARD COUNTY INTERIM CONTINGENCY LF	1	Municipal Solid Waste Landfill Gas Collect.Sys.& open Flare	557,561	2,879,977	6.71	1,033.15	0.09	2.13	1.05
1123702	BROWARD COUNTY INTERIM CONTINGENCY LF	2	Enclosed Flare model EF73I10 (THIS FLARE IS TO BE REPLACED)	557,561	2,879,977	9.14	1,088.71	1.55	2.13	0.03
1123703	BROWARD COUNTY INTERIM CONTINGENCY LF	3	LFG Specialties 750-scfm Candlestick flare	557,561	2,879,977	6.71	1,033.15	0.09	2.13	2.12
1123704	BROWARD COUNTY INTERIM CONTINGENCY LF	4	LFG Specialties 750-scfm candlestick flare (Relocatable)	557,561	2,879,977	6.71	1,033.15	20.91	0.15	2.12
1123991	BROWARD COUNTY SANITARY LANDFILL- DAVIE	1	MSW landfill	564,751	2,883,307	12.19	1,144.26	1.43	2.44	0.01
1123992	BROWARD COUNTY SANITARY LANDFILL- DAVIE	2	ENCLOSED FLARE	564,751	2,883,307	12.19	1,144.26	1.43	2.44	0.01
1124101	SFWMD PUMP STATION S-9/S-9A	1	S-9 - (3)-1824 hp diesel engines	555,101	2,882,277	8.53	663.71	41.21	0.36	1.07
1124102	SFWMD PUMP STATION S-9/S-9A	2	S-9A - (2)- 624 bhp diesel engines	555,101	2,882,277	6.10	294.26	0.00	0.30	0.72
1127045	PAS TECHNOLOGIES	5	A YORKSHIRE SHIPLEY NATURAL GAS-FIRED BOILER.	571,911	2,873,927	7.32	294.26	0.00	6.10	0.01
2500013	CUTLER POWER PLANT	3	Fossil Fuel Fired Steam Generator#5- Phase II Acid Rain Unit	569,741	2,834,789	45.72	413.71	15.45	4.27	4.74
2500014	CUTLER POWER PLANT	4	Fossil fuel Fired Steam Generator#6- Phase II Acid Rain Unit	569,741	2,834,789	45.72	413.71	18.50	4.27	8.07
2500031	TURKEY POINT POWER PLANT	1	440 MW Boiler- Phase II, Acid Rain Unit 1 (Fossil Plant)	566,591	2,813,050	121.92	408.15	24.51	5.52	5.82
2500032	TURKEY POINT POWER PLANT	2	440 MW Boiler- Phase II, Acid Rain Unit 2 (Fossil Plant)	566,591	2,813,050	121.92	408.15	23.47	5.52	5.24
2500035	TURKEY POINT POWER PLANT	5	(4) 2.5 MW emergency diesel generators (Nuclear Plant)	566,591	2,813,050	6.10	663.71	44.41	0.56	0.06
2500036	TURKEY POINT POWER PLANT	6	(5) Other Diesel Emergency Generators (Nuclear Plant)	566,591	2,813,050	3.96	814.26	53.10	0.20	0.01
2500037	TURKEY POINT POWER PLANT	7	Miscellaneous Diesel Plant Equipment (Nuclear Plant)	566,591	2,813,050	2.44	683.15	66.51	0.10	6.54
2500039	TURKEY POINT POWER PLANT	9	Unit 5A Combustion Turbine (170 MW) with HRSG	566,591	2,813,050	39.93	367.59	17.98	5.79	8.60
2500051	GENERAL ASPHALT (PLANT #1)	1	ASPHALT BATCH PLANT W/25% RECYCLE & REPROCESSED FUEL	568,801	2,855,238	7.62	346.48	30.78	1.16	1.37
2500133	GORDON W. IVEY POWER PLANT	3	2070 kW Dual Fuel Diesel Generator #3	552,751	2,817,360	15.54	755.37	63.28	0.52	0.20
2500138	GORDON W. IVEY POWER PLANT	8	2500 kW Dual Fuel Diesel Generator #8	552,751	2,817,360	18.29	488.71	34.66	0.71	0.18
2500139	GORDON W. IVEY POWER PLANT	9	2500 kW Dual Fuel Diesel Generator #9	552,751	2,817,360	18.59	488.71	34.66	0.71	0.18
2500148	MIAMI CEMENT PLANT	8	KILN #1 & #2	557,491	2,851,888	41.76	399.82	7.62	4.57	11.84

Model Input Parameters - CO Increment/NAAQS Sources

Stack ID	Site Name	Emission Unit ID	Emission Unit Description	Easting (m)	Northing (m)	Stack Height (m)	Stack Temp (Deg K)	Exit Velocity (m/sec)	Stack Diameter (meters)	CO Emission Rate (g/sec) NAAQS
2500204	TARMAC-PENNSUCO CEMENT	4	41 TPH KILN #2 W/DOUBLE CHAMBER E.S.P.	562,271	2,861,538	60.96	422.04	10.06	2.29	43.63
2500221	U S FOUNDRY MANUFACTURING CORP.	1	Two Grey iron Cupola	567,301	2,859,638	9.14	338.71	21.03	0.70	0.24
2500223	U S FOUNDRY MANUFACTURING CORP.	3	Foundry Cupola with afterburner and Wheelabrator Baghouse	567,301	2,859,638	15.24	522.04	43.77	0.76	4.64
2500224	U S FOUNDRY MANUFACTURING CORP.	4	Molding Loop 4 & SAND HANDLING 1,2, & 3 w/Dustex Baghouse	567,301	2,859,638	0.00	294.26	0.001	0.00	0.62
2500227	U S FOUNDRY MANUFACTURING CORP.	7	Pouring and cooling for casting lines 1, 3 & 4	567,301	2,859,638	0.00	294.26	0.001	0.00	0.63
2501572	VA MEDICAL CENTER	2	CLEAVER BROOKS MODEL SH850E NAT. GAS FIRED 1000LBH INCINERAT	578,601	2,852,438	50.90	344.26	1.52	1.49	0.00
2501573	VA MEDICAL CENTER	3	Fire Tube Steam Boilers (2) w/13.4 MMBTU/Hr (400 HP):	578,601	2,852,438	13.72	294.26	0.001	0.61	0.26
2501574	VA MEDICAL CENTER	4	Hurst 300 Series Steam Boilers (2) w/17.5 mmBTU/hr (400 hp)	578,601	2,852,438	10.67	294.26	0.001	1.22	0.05
2501575	VA MEDICAL CENTER	5	Three (3) Detroit Diesel Generators	578,601	2,852,438	7.62	294.26	0.001	0.30	0.01
2501576	VA MEDICAL CENTER	6	Three (3) Diesel Generators	578,601	2,852,438	7.62	294.26	0.001	0.30	0.01
2501578	VA MEDICAL CENTER	8	One Superior Boiler Works Temporary Steam Boiler	578,601	2,852,438	4.57	294.26	0.001	0.30	0.00
2502052	NORTH SHORE MEDICAL CENTER	2	KAWASAKI M1A-13 GAS TURBINE COGENERATION PLANT	578,101	2,859,938	6.10	294.26	0.001	0.76	0.02
2502328	JACKSON MEMORIAL HOSPITAL	8	600 hp (25.11 mmBtu/hr) Kewanee Scotch Marine Boiler B-1	578,031	2,852,578	17.07	502.04	7.83	0.61	0.07
2502329	JACKSON MEMORIAL HOSPITAL	9	600 hp (25.11 mmBtu/hr) Kewanee Scotch Marine Boiler B-2	578,031	2,852,578	17.07	502.04	7.83	0.61	0.07
2502451	MOUNT SINAI MEDICAL CENTER	1	Cleaver Brooks MD# 2500A Incinerator w/ heat recovery boiler	586,002	2,854,738	0.00	298.15	0.001	0.00	0.02
2502452	MOUNT SINAI MEDICAL CENTER	2	2-MD#CB200-300 Hot Wtr. Generator/1-MD#CBM4HP4400 Boiler	586,002	2,854,738	0.00	460.93	0.001	0.00	0.00
2502501	PET HEAVEN MEMORIAL PARK	1	SIMONDS 404 INCINERATOR-400 LB/HR TYPE IV WASTE-DUAL CHAMBER	562,901	2,849,638	9.14	424.82	10.67	0.76	0.63
2502521	MIAMI PLANT	1	400 ASPHALT DRUM MIX PLANT W/ AERO PULSE MODEL M774 BAGHOUSE	557,001	2,869,138	7.62	294.26	0.001	0.76	0.93
2502578	KROME QUARRY	8	Portable Crusher Unit with Diesel Power Unit	550,171	2,842,239	0.00	294.26	0.001	0.00	0.50
2502811	HIALEAH/PRESTON WATER TREATMENT PLANT	1	Lime recalc. kiln w/cooler,twin cyclone & scrubbing twr-8.9T	570,701	2,856,598	22.86	313.71	0.73	0.91	1.22
2502816	HIALEAH/PRESTON WATER TREATMENT PLANT	6	Standby Diesel Engine Generator # 1, EMD model 20-645E4	570,701	2,856,598	8.23	663.71	66.11	0.46	0.71
2502817	HIALEAH/PRESTON WATER TREATMENT PLANT	7	Standby Diesel Engine Generator # 2, EMD model 20-645E4	570,701	2,856,598	8.23	663.71	66.11	0.46	0.71
2502818	HIALEAH/PRESTON WATER TREATMENT PLANT	8	Standby Diesel Engine Generator # 3, EMD model 20-645E4	570,701	2,856,598	8.23	663.71	66.11	0.46	0.71
2502819	HIALEAH/PRESTON WATER TREATMENT PLANT	9	Standby Diesel Engine Generator # 4, EMD model 20-645F4B	570,701	2,856,598	8.84	608.15	45.08	0.53	0.02
2503141	ALEXANDER ORR WATER TREATMENT PLANT	1	ENGINE #1; 825 HP DIESEL DRIVING GEN/PUMP #1	565,921	2,843,169	8.53	394.26	0.001	0.30	0.58
2503143	ALEXANDER ORR WATER TREATMENT PLANT	3	ENGINE #3; 825 HP DIESEL DRIVING PUMP #3	565,921	2,843,169	8.53	394.26	0.001	0.30	0.69
2503144	ALEXANDER ORR WATER TREATMENT PLANT	4	ENGINE #4; 825 HP DIESEL DRIVING PUMP #4	565,921	2,843,169	8.53	298.15	0.001	0.30	0.69

Model Input Parameters - CO Increment/NAAQS Sources

Stack ID	Site Name	Emission Unit ID	Emission Unit Description	Easting (m)	Northing (m)	Stack Height (m)	Stack Temp (Deg K)	Exit Velocity (m/sec)	Stack Diameter (meters)	CO Emission Rate (g/sec) NAAQS
2503145	ALEXANDER ORR WATER TREATMENT PLANT	5	ENGINE #5; 1500 HP DIESEL DRIVING 21000 GPM PUMP	565,921	2,843,169	0.00	298.15	0.001	0.00	0.71
2503146	ALEXANDER ORR WATER TREATMENT PLANT	6	ENGINE #6; 2113 HP DUAL-FUEL DRIVING 26000 GPM PUMP	565,921	2,843,169	8.53	394.26	0.001	0.37	1.78
2503201	MIAMI DADE ZOOLOGICAL PARK	1	200 #/HR SIMONDS PATHOLOGICAL INCINERATOR FOR ZOO	559,561	2,832,769	9.14	922.04	4.88	0.40	0.00
2503371	MERCY HOSPITAL	1	Simonds MD# 4AF-5C Incinerator with heat recovery boiler	578,071	2,846,709	12.19	349.82	10.36	0.61	0.15
2503372	MERCY HOSPITAL	2	2 ea. Cleaver Brooks MD# CB300 Boilers	578,071	2,846,709	15.24	294.26	0.00	0.30	0.03
2503481	MIAMI DADE RRF/MONTENAY	1	RDF Spreader Stoker Combustor (Unit #1) & auxiliary burners	563,831	2,857,458	76.20	422.04	41.21	2.57	7.71
2503482	MIAMI DADE RRF/MONTENAY	2	RDF Spreader Stoker Combustor (Unit #2) & auxiliary burners	563,831	2,857,458	76.20	422.04	41.21	2.57	7.71
2503483	MIAMI DADE RRF/MONTENAY	3	RDF Spreader Stoker Combustor (Unit #3) & auxiliary burners	563,831	2,857,458	76.20	422.04	41.21	2.57	7.71
2503484	MIAMI DADE RRF/MONTENAY	4	RDF Spreader Stoker Combustor (Unit #4) & auxiliary burners	563,831	2,857,458	76.20	422.04	41.21	2.57	7.71
2503612	MIAMI DADE ANIMAL SERVICES	2	CRAWFORD C-1000S NATURAL GAS FIRED ANIMAL CREMATOR	567,611	2,857,908	4.57	699.82	4.27	0.61	0.00
2503772	CENTRAL CONCRETE SUPERMIX, INC.	2	ROSS 100CY/HR CONCRETE BATCH PLANT W/BAGHOUSE	569,501	2,845,839	10.97	298.15	9.14	0.61	0.00
2503783	QUIKRETE MIAMI	3	ROTARY AGGREGATE DRYER; ENTATECH BURNER WITH BAGHOUSE	562,001	2,863,738	7.92	422.04	18.90	0.61	0.00
2503902	USDA - MIAMI IMPORT CENTER	2	ADVANCED COMBUSTION SYS. MODEL CA 500 P - NAT.GAS FIRED	570,501	2,854,138	8.53	294.26	0.001	0.91	0.00
2503903	USDA - MIAMI IMPORT CENTER	3	One (1) Natural Gas Fired Biological Waste Incinerator	570,501	2,854,138	9.14	294.26	0.001	0.91	0.00
2503931	MIAMI INTERNATIONAL AIRPORT	1	CLEAN AIR MODEL CA2500 INCINERATOR #1, 2500 LB /HR.	570,611	2,853,218	11.58	1,255.37	11.61	0.91	0.34
2503933	MIAMI INTERNATIONAL AIRPORT	3	CLEAN AIR MODEL CA2500 INCINERATOR #2, 2500 LB/HR	570,611	2,853,218	11.58	538.71	6.40	1.22	1.58
2503937	MIAMI INTERNATIONAL AIRPORT	7	28 Emergency Diesel Generators (Less Than 600 HP)	570,611	2,853,218	2.44	477.59	0.001	0.15	0.23
2503938	MIAMI INTERNATIONAL AIRPORT	8	28 Emergency Diesel Generators (Greater Than 600 HP)	570,611	2,853,218	2.44	477.59	0.001	0.15	0.03
2504074	NAILITE INTERNATIONAL	4	Line 2: 3 spraybooths w/curing oven routed to RTO	577,501	2,867,318	9.14	294.26	0.001	1.22	0.01
2504223	AEROTHRUST CORP	3	One Test cell - Jet engine	572,201	2,854,038	7.62	294.26	0.001	0.61	0.00
2504604	MIAMI ANIMAL IMPORT CENTER	4	ADVANCED COMBUSTION SYST., MODEL CA500P	570,401	2,854,138	6.10	294.26	0.001	0.91	0.00
2504641	TARMAC FLORIDA	1	17.5 T/HR BLOCK PLANT WITH BAGHOUSE #1 PLANT #1 (EAST)	562,301	2,861,938	13.72	298.15	20.12	0.18	0.00
2504642	TARMAC FLORIDA	2	17.5 T/HR BLOCK PLANT WITH BAGHOUSE #2 - PLANT #1 (WEST)	562,301	2,861,938	13.72	298.15	20.12	0.18	0.00
2504643	TARMAC FLORIDA	3	17.5 T/HR BLOCK PLANT WITH BAGHOUSE #3 - PLANT #2	562,301	2,861,938	13.72	298.15	20.12	0.18	0.00
2504701	SOUTH FLORIDA COGENERATION ASSOCIATES	1	239 MBTU/HR GAS TURBINE	579,561	2,850,618	39.62	388.71	16.46	2.74	3.80
2504763	CENTRAL DISTRICT WASTEWATER TRTMNT PLANT	3	BLOWER #2; 410 HP I.C.ENG;DGSTR GAS OR #2 F.O.FIRED	584,292	2,847,609	10.67	741.48	31.39	0.21	0.00
2504764	CENTRAL DISTRICT WASTEWATER TRTMNT PLANT	4	BLOWER#3; 410 HP I.C.ENG;F.O.FIRED ONLY (SEE COMMENT)	584,292	2,847,609	10.67	741.48	31.39	0.21	0.08

Model Input Parameters - CO Increment/NAAQS Sources

Stack ID	Site Name	Emission Unit ID	Emission Unit Description	Easting (m)	Northing (m)	Stack Height (m)	Stack Temp (Deg K)	Exit Velocity (m/sec)	Stack Diameter (meters)	CO Emission Rate (g/sec) NAAQS
2504766	CENTRAL DISTRICT WASTEWATER TRTMNT PLANT	6	BLOWER #5; 950 HP(COMMENT) I.C.ENG;DGSTR GAS OR #2 F.O.FIRED	584,292	2,847,609	10.67	741.48	25.91	0.37	0.01
2504767	CENTRAL DISTRICT WASTEWATER TRTMNT PLANT	7	1.2 MW Digester Gas Electric Generator; # 1	584,292	2,847,609	11.58	741.48	29.26	0.46	0.66
2504769	CENTRAL DISTRICT WASTEWATER TRTMNT PLANT	9	1.2 MW Digester Gas Electric Generator; # 2	584,292	2,847,609	11.58	741.48	29.26	0.46	0.59
2504781	CEMEX-S DADE (KROME) READY-MIX	1	CCB Plant-split silo(cement)comp#1,w/cartridge dustcollector	550,601	2,833,439	0.00	294.26	0.001	0.00	0.00
2504793	ST. IVES INC. FLORIDA	3	1-TEC Md# HXC-II7000 Catalytic Oxidizer for 2-printing press	573,321	2,862,978	10.67	549.82	14.02	0.76	0.00
2504795	ST. IVES INC. FLORIDA	5	KOMORi S-38 PRESS with TEC Md# HXC-II 7000 Catalytic Oxidiz	573,321	2,862,978	10.67	549.82	14.02	0.76	0.01
2504796	ST. IVES INC. FLORIDA	6	HARRIS M1000B, 8 UNIT PRESS WITH TEC INCINERATOR	573,321	2,862,978	10.67	549.82	12.19	0.76	0.03
2504798	ST. IVES INC. FLORIDA	8	Two Printing Presses with an Regenerative Thermal Oxidizer	573,321	2,862,978	13.72	294.26	0.001	0.91	0.02
2504882	BENADA ALUMINUM OF FLORIDA	2	MISC METAL/OVEN CENTRAL-#19598;2,200,000 BTU, NATURAL GAS.	567,401	2,859,238	1.52	294.26	0.001	0.30	0.00
2504883	BENADA ALUMINUM OF FLORIDA	3	MISC METAL /BAKING OVEN LANLEY-#W1014;2,000,000 BTU,NATR GAS	567,401	2,859,238	3.66	294.26	0.001	0.30	0.01
2504884	BENADA ALUMINUM OF FLORIDA	4	Two Fire Tubes for Dip Tank and Die Cleaning Tank	567,401	2,859,238	0.00	294.26	0.001	0.00	0.01
2504885	BENADA ALUMINUM OF FLORIDA	5	Paint Hook Cleaning Oven	567,401	2,859,238	10.67	294.26	0.001	0.91	0.00
2505051	GULFSTREAM PARK	1	HAY/MANURE INCINERATOR	582,301	2,868,438	6.10	1,033.15	7.01	0.46	0.09
2505105	EDRON FIXTURE CORP.	5	Three (3) Natural gas fired ovens	573,621	2,863,078	7.62	294.26	0.001	0.30	0.03
2505201	SOUTH DISTRICT WASTEWATER TREATMNT PLANT	1	Digester gas-fired cogeneration Engine #1	565,901	2,825,260	12.19	688.71	21.03	0.46	0.60
2505202	SOUTH DISTRICT WASTEWATER TREATMNT PLANT	2	Digester gas-fired cogeneration Engine #2	565,901	2,825,260	12.19	688.71	21.03	0.46	0.50
2505203	SOUTH DISTRICT WASTEWATER TREATMNT PLANT	3	Digester gas-fired cogeneration Engine #3	565,901	2,825,260	12.19	688.71	21.03	0.46	0.75
2505206	SOUTH DISTRICT WASTEWATER TREATMNT PLANT	6	Standby Generator Set (model 20E4B) #1	565,901	2,825,260	6.40	616.48	0.001	0.84	0.04
2505207	SOUTH DISTRICT WASTEWATER TREATMNT PLANT	7	Standby Generator Set (model 20E4B) #2	565,901	2,825,260	6.40	616.48	0.001	0.84	0.02
2505208	SOUTH DISTRICT WASTEWATER TREATMNT PLANT	8	Standby Generator Set (model 20E4B) #3	565,901	2,825,260	6.40	616.48	0.001	0.84	0.03
2505209	SOUTH DISTRICT WASTEWATER TREATMNT PLANT	9	Standby Generator Set (model 20E4B) #4	565,901	2,825,260	6.40	616.48	0.001	0.84	0.03
2505292	PAVEX MIAMI PLANT	2	190 TPH DRUM MIX ASPHALT PLANT W/ AN ASTEC BAGHOUSE	558,601	2,868,738	6.71	435.93	24.69	1.10	0.20
2505462	QUICKCRETE READY MIX, INC.	2	400 TPH CONCRETE BATCH PLANT W BAGHOUSE	566,601	2,859,738	12.19	298.15	0.001	0.00	0.00
2505534	HOMESTEAD AIR RESERVE BASE	4	(2) Jet Engine Test Facilities; Building. 4055 and 4064	559,901	2,819,940	0.00	294.26	0.001	0.00	0.05
2505871	ASPHALT GROUP, INC.	1	300 TPH ASPHALT DRUM MIX PLANT W/ BAGHOUSE	563,501	2,806,740	12.50	410.93	22.86	1.37	1.44
2505891	MEDLEY BLOCK INDUSTRY	1	TWO (2) 10CY/HR CONCRETE BLOCK PLANTS.	564,401	2,862,038	15.85	298.15	0.001	0.00	0.00
2505937	CORDIS CORP.	7	Three (3) Existing Emergency Generators	570,321	2,864,728	7.62	294.26	0.001	0.30	0.01

Model Input Parameters - CO Increment/NAAQS Sources

Stack ID	Site Name	Emission Unit ID	Emission Unit Description	Easting (m)	Northing (m)	Stack Height (m)	Stack Temp (Deg K)	Exit Velocity (m/sec)	Stack Diameter (meters)	CO Emission Rate (g/sec) NAAQS
2505938	CORDIS CORP.	8	Five (5) Bi-Fuel Emergency Generators	570,321	2,864,728	6.10	294.26	0.001	0.30	0.05
2506002	NORTH DISTRICT WASTEWATER TREATMNT PLANT	2	Diesel Engine Standby Generator #1, EMD model No. 20-645E4B	584,452	2,866,808	6.40	663.71	23.80	0.76	0.01
2506003	NORTH DISTRICT WASTEWATER TREATMNT PLANT	3	Diesel Engine Standby Generator #2, EMD model No. 20-645E4B	584,452	2,866,808	2.74	663.71	16.52	0.91	1.17
2506004	NORTH DISTRICT WASTEWATER TREATMNT PLANT	4	Diesel Engine Standby Generator #3, EMD model No. 20-645E4B	584,452	2,866,808	2.74	663.71	16.52	0.91	0.01
2506005	NORTH DISTRICT WASTEWATER TREATMNT PLANT	5	Diesel Engine Standby Generator #4, EMD model No. 20-645E4B	584,452	2,866,808	2.74	663.71	16.52	0.91	0.01
2506007	NORTH DISTRICT WASTEWATER TREATMNT PLANT	7	Diesel Engine Standby Generator #5, EMD model No. 16-710G4A	584,452	2,866,808	2.74	663.71	16.52	0.91	0.00
2506008	NORTH DISTRICT WASTEWATER TREATMNT PLANT	8	Diesel Engine Standby Generator #6, CAT model No. 3612	584,452	2,866,808	7.01	703.71	29.93	0.71	0.01
2506031	MIAMI DADE SOLID WSTE MGMT/NO DADE LF	1	LANDFILL	570,671	2,871,978	0.00	294.26	0.001	0.00	1.77
2506032	MIAMI DADE SOLID WSTE MGMT/NO DADE LF	2	Enclosed Flare model GF-1000	570,671	2,871,978	9.14	810.37	10.85	2.10	1.41
2506111	GE ENGINE SERVICES-MIAMI, INC.	1	THREE (3) JET ENGINE TEST CELLS	570,411	2,852,428	11.28	294.26	0.001	1.22	0.47
2506113	GE ENGINE SERVICES-MIAMI, INC.	3	miscellaneous sources of air emissions	570,411	2,852,428	0.00	294.26	0.001	0.00	0.00
2506151	MEDLEY LANDFILL	1	FLARE #1 - open utility flare; 3,000 scfm.	565,041	2,859,858	15.24	294.26	0.001	0.15	7.02
2506155	MEDLEY LANDFILL	5	Enclosed 6,000 scfm primary flare	565,041	2,859,858	16.76	294.26	0.001	3.96	3.45
2506161	NOVEN PHARMACEUTICALS, INC.	1	Pharmaceutical Adhesive Coating Process - East Coater	561,501	2,834,979	9.75	294.26	0.001	0.61	0.02
2506231	MIAMI DADE SOLID WASTE MGMT/SOUT DADE LF	1	LANDFILL CELLS 1 THROUGH 5	565,511	2,824,950	13.72	1,172.04	0.08	3.05	7.99
2506232	MIAMI DADE SOLID WASTE MGMT/SOUT DADE LF	2	ENCLOSED FLARE	565,511	2,824,950	15.24	1,172.04	0.07	3.35	9.62
2506241	GENERAL ASPHALT PLANT WDHMA	1	300 TPH CNTR FLOW DRUM MIX ASPHALT PLANT/CEDARAPIDS BAGHOUSE	569,681	2,868,158	9.14	409.26	18.90	1.40	0.40
2506302	WOODLAWN PARK CEMETERY	2	HUMAN CREMATORY INCINERATOR ENER-TEK MODEL IE43-ET	575,341	2,849,489	5.49	727.59	4.02	0.52	0.01
2506361	DADE CORRECTIONAL INSTITUTION	1	CLEAVER BROOKS CB100 (3.54 MBTU/HR) #2 FUEL OIL FIRED BOILER	550,501	2,810,400	7.62	449.82	9.11	0.36	0.00
2506405	AAR LANDING GEAR SERVICES	5	Natural Gas Ovens	564,561	2,860,448	10.67	294.26	0.001	0.61	0.04
2506409	AAR LANDING GEAR SERVICES	9	Natural Gas Fired Oven	564,561	2,860,448	0.00	294.26	0.001	0.00	0.00
2506481	MIAMI DADE MEDICAL EXAMINER	1	INCINERATOR	578,441	2,852,648	13.41	810.93	4.27	0.46	0.00
2506641	FLOWERS BAKING COMPANY OF MIAMI	1	Oven 1 (bread)	579,171	2,868,708	9.75	293.15	0.88	0.82	0.02
2506642	FLOWERS BAKING COMPANY OF MIAMI	2	Bun Oven #1	579,171	2,868,708	9.75	294.26	0.001	0.61	0.02
2506643	FLOWERS BAKING COMPANY OF MIAMI	3	Bun Oven #2	579,171	2,868,708	9.75	294.26	0.001	0.61	0.02
2506644	FLOWERS BAKING COMPANY OF MIAMI	4	Boilers 1-2	579,171	2,868,708	10.67	294.26	0.001	0.61	0.00
2506647	FLOWERS BAKING COMPANY OF MIAMI	7	Bread Oven	579,171	2,868,708	10.67	294.26	0.001	0.61	0.02

Model Input Parameters - CO Increment/NAAQS Sources

Stack ID	Site Name	Emission Unit ID	Emission Unit Description	Easting (m)	Northing (m)	Stack Height (m)	Stack Temp (Deg K)	Exit Velocity (m/sec)	Stack Diameter (meters)	CO Emission Rate (g/sec) NAAQS
2506651	H & J ASPHALT PLANT	1	Asph. Plant:180 tpy, Simplcity S-830-6,cyclone, Astec Baghse	575,101	2,854,838	7.62	294.26	0.001	0.61	0.73
2506652	H & J ASPHALT PLANT	2	40 tph Portable Asphalt Crusher	575,101	2,854,838	9.14	294.26	0.001	0.91	0.00
2506742	POMPEII FURNITURE	2	Three (3) Spray Paint Booths	578,591	2,851,908	10.67	294.26	0.001	0.61	0.00
2506821	NATIONAL COMMUNICATIONS, LLC	1	4 heatset web offset printing presses controlled by an RTO	569,481	2,864,498	0.00	294.26	0.001	0.00	0.07
2506822	NATIONAL COMMUNICATIONS, LLC	2	MEG TEC CATALYTIC OXIDIZER	569,481	2,864,498	0.00	294.26	0.001	0.00	0.00
2506825	NATIONAL COMMUNICATIONS, LLC	5	AWS Premier model Regenerative Thermal Oxidizer	569,481	2,864,498	15.24	294.26	0.001	0.91	0.00
2506826	NATIONAL COMMUNICATIONS, LLC	6	Two (2) Heatset Presses with RTO and One (1) Cold Web Press	569,481	2,864,498	10.67	294.26	0.001	0.91	0.08
2509451	TALLOWMASTERS	1	two identical gas fired steam boilers	558,651	2,852,178	9.14	294.26	0.001	0.91	0.00
2509465	HOLSUM BAKERY	5	Packaged Label Printing	567,081	2,858,888	0.00	294.26	0.001	0.00	0.03
2509622	WOOD GROUP TURBOPOWER, LCC	2	Aircraft engine test cell	569,471	2,865,548	9.14	294.26	0.001	0.91	0.01
2511043	DYPLAST PRODUCTS	3	One (1) Kewanee 200 HP Natural Gas Fired Boiler	573,641	2,863,228	9.14	294.26	0.001	0.91	0.01
2511461	GATE GOURMET #0425	1	Solid Waste Incinerator (900 lbs/hr)	572,471	2,852,418	9.14	294.26	0.001	0.91	0.00
2511861	AEROTHRUST CORP.	1	One (1) Test Cell - Jet Engines	569,201	2,852,958	12.19	294.26	0.001	5.33	0.00
2511912	NORTHWINGS ACCESSORIES	2	Two (2) Curing Ovens	566,901	2,853,838	7.62	294.26	0.001	0.91	0.00
2511941	BAGELMANIA	1	Baking of bread,bagels and rolls	564,451	2,861,488	13.72	294.26	0.001	0.61	0.00
2511962	AVIATION ENGINE SERVICE	2	Jet Engine Test Cell	566,641	2,859,468	0.00	294.26	0.001	0.00	0.01
2512851	COLUMBIA SOUTHERN, INC.	1	One Paint Spray Booth, One Drying Oven, and One storage Rm.	574,361	2,858,278	0.00	294.26	0.001	0.00	0.00
2512861	QUALITY TECHNOLOGY SERVICES-MIAMI	1	Data center consisting of 3 generators, 5 storage tanks	562,471	2,852,938	0.00	294.26	0.001	0.00	0.04
11101413	ST. IVES HOLLYWOOD	13	LITHO PRESS #22	585,302	2,878,437	12.19	519.26	7.01	1.62	0.01
11101414	ST. IVES HOLLYWOOD	14	LITHO PRESS #23	585,302	2,878,437	12.19	519.26	7.01	1.62	0.01
11101415	ST. IVES HOLLYWOOD	15	LITHO PRESS # 25 W/CONTIWEB ECOWEB CONV.DRYER/KATEC AFTERBUR	585,302	2,878,437	12.50	519.26	10.67	0.55	0.00
11101416	ST. IVES HOLLYWOOD	16	Press No. 24 w/a Contiweb dryer and a thermal oxidizer.	585,302	2,878,437	5.79	723.15	4.66	0.61	0.01
11101417	ST. IVES HOLLYWOOD	17	Presses No.22 & 23 W/A/ CONV.TEC.S SYST.DRYER & KATEC AFTER.	585,302	2,878,437	5.79	294.26	0.001	0.61	0.01
11101419	ST. IVES HOLLYWOOD	19	Press # 25 w/ a dryer controlled by AEG RTO (22&23REMOVED)	585,302	2,878,437	5.79	723.15	8.84	0.61	0.03
25000310	TURKEY POINT POWER PLANT	10	Unit 5B Combustion Turbine (170 MW) with HRSG	566,591	2,813,050	39.93	367.59	17.98	5.79	8.58
25000311	TURKEY POINT POWER PLANT	11	Unit 5C Combustion Turbine (170 MW) with HRSG	566,591	2,813,050	39.93	367.59	17.98	5.79	8.60
25000312	TURKEY POINT POWER PLANT	12	Unit 5D Combustion Turbine (170 MW) with HRSG	566,591	2,813,050	39.93	367.59	17.98	5.79	8.60

Model Input Parameters - CO Increment/NAAQS Sources

Stack ID	Site Name	Emission Unit ID	Emission Unit Description	Easting (m)	Northing (m)	Stack Height (m)	Stack Temp (Deg K)	Exit Velocity (m/sec)	Stack Diameter (meters)	CO Emission Rate (g/sec) NAAQS
25001310	GORDON W. IVEY POWER PLANT	10	2500 kW Dual Fuel Diesel Generator #10	552,751	2,817,360	18.59	488.71	34.66	0.71	0.32
25001311	GORDON W. IVEY POWER PLANT	11	3270 kW Dual Fuel Diesel Generator #11	552,751	2,817,360	16.15	488.71	33.62	0.82	0.36
25001312	GORDON W. IVEY POWER PLANT	12	3270 kW Dual Fuel Diesel Generator #12	552,751	2,817,360	16.15	488.71	33.62	0.82	0.24
25001313	GORDON W. IVEY POWER PLANT	13	2070 kW Dual Fuel Diesel Generator #13	552,751	2,817,360	15.24	755.37	63.28	0.52	0.16
25001314	GORDON W. IVEY POWER PLANT	14	2070 kW Dual Fuel Diesel Generator #14	552,751	2,817,360	15.24	755.37	63.28	0.52	0.14
25001315	GORDON W. IVEY POWER PLANT	15	2070 kW Dual Fuel Diesel Generator #15	552,751	2,817,360	15.24	755.37	63.28	0.52	0.15
25001316	GORDON W. IVEY POWER PLANT	16	2070 kW Dual Fuel Diesel Generator #16	552,751	2,817,360	15.24	755.37	63.28	0.52	0.25
25001317	GORDON W. IVEY POWER PLANT	17	2070 kW Dual Fuel Diesel Generator #17	552,751	2,817,360	15.24	755.37	63.28	0.52	0.20
25001318	GORDON W. IVEY POWER PLANT	18	8800 kW Dual Fuel Diesel Generator #18	552,751	2,817,360	16.46	752.59	26.12	1.27	1.41
25001319	GORDON W. IVEY POWER PLANT	19	8800 kW Dual Fuel Diesel Generator #19	552,751	2,817,360	16.46	752.59	26.12	1.27	1.34
25001320	GORDON W. IVEY POWER PLANT	20	6485 kW Dual Fuel Diesel Generator #20	552,751	2,817,360	14.63	755.37	75.93	0.70	1.24
25001321	GORDON W. IVEY POWER PLANT	21	6485 kW Dual Fuel Diesel Generator #21	552,751	2,817,360	14.63	755.37	75.93	0.70	1.37
25001414	MIAMI CEMENT PLANT	14	25 TON/HR STONE DRYER & 40 TPH SOIL THERMAL TREATMENT FACIL.	557,491	2,851,888	24.38	699.82	11.58	1.37	0.01
25001418	MIAMI CEMENT PLANT	18	KILN SYSTEM(raw mill,kiln PH/PC and clinker cooler)	557,491	2,851,888	109.42	513.15	49.04	2.44	57.38
25002028	TARMAC-PENNSUCO CEMENT	28	Raw Mill & Pyroprocessing System	562,271	2,861,538	45.72	294.26	0.001	0.91	72.64
25002219	U S FOUNDRY MANUFACTURING CORP.	19	Molding Loop 3A	567,301	2,859,638	15.85	294.26	0.001	1.22	0.05
25023211	JACKSON MEMORIAL HOSPITAL	11	Natural gas chiller (York International)	578,031	2,852,578	9.14	394.26	9.08	0.46	0.00
25023212	JACKSON MEMORIAL HOSPITAL	12	Seventeen (17) Emergency Generators	578,031	2,852,578	18.29	810.37	52.24	0.30	0.08
25028110	HIALEAH/PRESTON WATER TREATMENT PLANT	10	Standby Diesel Engine Generator # 5, EMD model 20-645F4B	570,701	2,856,598	8.84	608.15	45.08	0.53	0.02
25028111	HIALEAH/PRESTON WATER TREATMENT PLANT	11	Standby Diesel Engine Generator # 6, EMD model 20-645F4B	570,701	2,856,598	8.84	608.15	45.08	0.53	0.03
25028112	HIALEAH/PRESTON WATER TREATMENT PLANT	12	Standby Diesel Engine Generator # 7, EMD model 20-645F4B	570,701	2,856,598	8.84	608.15	45.08	0.53	2.08
25031418	ALEXANDER ORR WATER TREATMENT PLANT	18	New pump engine # 3; nat gas fueled Caterpillar G3512 LE-130	565,921	2,843,169	9.75	650.93	7.89	0.30	0.54
25031419	ALEXANDER ORR WATER TREATMENT PLANT	19	New pump engine # 4; nat gas fueled Caterpillar G3512 LE-130	565,921	2,843,169	9.75	650.93	7.89	0.30	0.54
25031420	ALEXANDER ORR WATER TREATMENT PLANT	20	New pump engine # 5; 2090 BHP nat. gas fired engine	565,921	2,843,169	9.75	652.59	3.63	0.46	0.87
25031421	ALEXANDER ORR WATER TREATMENT PLANT	21	Emergency generator for lime kiln, rated at 250kW	565,921	2,843,169	12.19	294.26	0.001	0.08	0.00
25031424	ALEXANDER ORR WATER TREATMENT PLANT	24	Unit 5 in Standby Generating Bank (units 1 - 6)	565,921	2,843,169	6.40	608.15	47.21	0.53	0.55
25031425	ALEXANDER ORR WATER TREATMENT PLANT	25	Unit 6 in Standby Generating Bank (units 1-6)	565,921	2,843,169	6.40	608.15	47.21	0.53	0.55

Model Input Parameters - CO Increment/NAAQS Sources

Stack ID	Site Name	Emission Unit ID	Emission Unit Description	Easting (m)	Northing (m)	Stack Height (m)	Stack Temp (Deg K)	Exit Velocity (m/sec)	Stack Diameter (meters)	CO Emission Rate (g/sec) NAAQS
25047610	CENTRAL DISTRICT WASTEWATER TRTMNT PLANT	10	1.2 MW Digester Gas Electric Generator; # 3	584,292	2,847,609	11.58	741.48	29.26	0.46	0.39
25047611	CENTRAL DISTRICT WASTEWATER TRTMNT PLANT	11	1.2 MW Digester Gas Electric Generator; # 4	584,292	2,847,609	11.58	741.48	29.26	0.46	0.36
25047613	CENTRAL DISTRICT WASTEWATER TRTMNT PLANT	13	2.5 MW Diesel Electric Generator; EMD # 1	584,292	2,847,609	4.57	663.71	23.80	0.76	0.09
25047614	CENTRAL DISTRICT WASTEWATER TRTMNT PLANT	14	2.5 MW Diesel Electric Generator; EMD # 2	584,292	2,847,609	4.57	663.71	23.80	0.76	0.07
25047615	CENTRAL DISTRICT WASTEWATER TRTMNT PLANT	15	2.5 MW Diesel Electric Generator; EMD # 3	584,292	2,847,609	4.57	663.71	23.80	0.76	0.03
25047619	CENTRAL DISTRICT WASTEWATER TRTMNT PLANT	19	2.865 MW Diesel Engine Generator; EMD # 4	584,292	2,847,609	7.01	608.15	26.09	0.70	0.01
25047620	CENTRAL DISTRICT WASTEWATER TRTMNT PLANT	20	2.865 MW Diesel Engine Generator; EMD # 5	584,292	2,847,609	7.01	608.15	26.09	0.70	0.00
25052010	SOUTH DISTRICT WASTEWATER TREATMNT PLANT	10	Standby Generator Set (model 16G4A) #5	565,901	2,825,260	6.40	616.48	0.00	0.84	0.03
25052013	SOUTH DISTRICT WASTEWATER TREATMNT PLANT	13	Standby Generator Set (model 20F4B) #6	565,901	2,825,260	6.40	663.71	28.13	0.70	0.03
77700104	PAN AMERICAN CONSTRUCTION LP	4	300 TPH PORTABLE ASPHALT DRUM MIX PLANT	560,461	2,854,738	9.14	294.26	0.001	1.07	0.38
77702503	RINKER LAKE QUARRY	3	Diesel Engine Drive Unit	562,801	2,865,838	0.00	294.26	0.001	0.00	0.20
77752121	WEEKLEY ASPHALT PAVING, INC., PLANT NO 1	1	Asphalt Drum Mix Plant and Asphalt Cement Heater	557,311	2,880,437	8.23	408.15	28.59	0.99	0.47
77752211	RANGER CONSTRUCTION, SOUTH - MIAMI #2.	1	8', 280 TPH Astec Double Barrel Drum Mix Asphalt Plant	558,081	2,868,748	9.14	294.26	0.001	0.91	0.48

Stack ID	Site Name	Emission Unit ID	Emission Unit Description	Easting (m)	Northing (m)	Stack Height (m)	Stack Temp (Deg K)	Exit Velocity (m/sec)	Stack Diameter (meters)	NO_x Emission Rate (g/sec)
2505201	MIAMI-DADE WATER AND SEWER DEPARTMENT	1	Digester gas-fired cogeneration Engine #1	565,901	2,825,260	12.19	688.71	20.97	0.46	2.65
25052013	MIAMI-DADE WATER AND SEWER DEPARTMENT	13	Standby Generator Set (model 20F4B) #6	565,901	2,825,260	6.40	616.48	18.90	0.84	4.01
2506232	MIAMI DADE SOLID WASTE MGMT	2	ENCLOSED FLARE	565,511	2,824,950	20.65	1273.00	20.00	1.09	0.52
1120952	WEEKLEY ASPHALT PAVING, INC.	2	DRUM MIX ASPHALT PLANT W/ BAGHOUSE	567,801	2,872,738	6.40	427.59	23.17	1.16	7.19
1124101	SOUTH FLORIDA WATER MANAGEMENT DISTRICT	1	S-9 - (3)-1824 hp diesel engines	555,101	2,882,277	8.53	663.71	41.21	0.36	4.64
1124102	SOUTH FLORIDA WATER MANAGEMENT DISTRICT	2	S-9A - (2)- 624 bhp diesel engines	555,101	2,882,277	6.10	294.26	0.00	0.30	7.00
2500013	FLORIDA POWER & LIGHT (PCU)	3	Fossil Fuel Fired Steam Generator#5- Phase II Acid Rain Unit	569,741	2,834,789	45.72	413.71	15.45	4.27	23.70
2500014	FLORIDA POWER & LIGHT (PCU)	4	Fossil fuel Fired Steam Generator#6- Phase II Acid Rain Unit	569,741	2,834,789	45.72	413.71	18.50	4.27	40.90
2500031	FLORIDA POWER & LIGHT (PTF)	1	440 MW Boiler- Phase II, Acid Rain Unit 1 (Fossil Plant)	566,591	2,813,050	121.92	408.15	24.51	5.52	257.00
25000310	FLORIDA POWER & LIGHT (PTF)	10	Unit 5B Combustion Turbine (170 MW) with HRSG	566,591	2,813,050	39.93	294.26	17.98	5.79	10.00
25000311	FLORIDA POWER & LIGHT (PTF)	11	Unit 5C Combustion Turbine (170 MW) with HRSG	566,591	2,813,050	39.93	367.59	17.98	5.79	10.00
25000312	FLORIDA POWER & LIGHT (PTF)	12	Unit 5D Combustion Turbine (170 MW) with HRSG	566,591	2,813,050	39.93	367.59	17.98	5.79	10.00
2500032	FLORIDA POWER & LIGHT (PTF)	2	440 MW Boiler- Phase II, Acid Rain Unit 2 (Fossil Plant)	566,591	2,813,050	121.92	408.15	23.47	5.52	257.00
2500033	FLORIDA POWER & LIGHT (PTF)	3	(5) 2.75 MW Diesel Generators (Fossil Plant)	566,591	2,813,050	4.27	663.71	44.41	0.56	14.90
2500035	FLORIDA POWER & LIGHT (PTF)	5	(4) 2.5 MW emergency diesel generators (Nuclear Plant)	566,591	2,813,050	6.10	663.71	44.41	0.56	2.26
2500036	FLORIDA POWER & LIGHT (PTF)	6	(5) Other Diesel Emergency Generators (Nuclear Plant)	566,591	2,813,050	3.96	814.26	53.10	0.20	3.63
2500037	FLORIDA POWER & LIGHT (PTF)	7	Miscellaneous Diesel Plant Equipment (Nuclear Plant)	566,591	2,813,050	2.44	683.15	66.51	0.10	1.39
2500039	FLORIDA POWER & LIGHT (PTF)	9	Unit 5A Combustion Turbine (170 MW) with HRSG	566,591	2,813,050	39.93	367.59	17.98	5.79	10.00
2500051	GENERAL ASPHALT CO., INC.	1	ASPHALT BATCH PLANT W/25% RECYCLE & REPROCESSED FUEL	568,801	2,855,238	7.62	346.48	30.79	1.16	1.21
25001310	HOMESTEAD CITY UTILITIES	10	2500 kW Dual Fuel Diesel Generator #10	552,751	2,817,360	18.59	367.59	34.66	0.71	0.98
25001311	HOMESTEAD CITY UTILITIES	11	3270 kW Dual Fuel Diesel Generator #11	552,751	2,817,360	16.15	488.71	33.62	0.82	0.27
25001312	HOMESTEAD CITY UTILITIES	12	3270 kW Dual Fuel Diesel Generator #12	552,751	2,817,360	16.15	488.71	33.62	0.82	0.20
25001313	HOMESTEAD CITY UTILITIES	13	2070 kW Dual Fuel Diesel Generator #13	552,751	2,817,360	15.24	755.37	63.28	0.52	0.30
25001314	HOMESTEAD CITY UTILITIES	14	2070 kW Dual Fuel Diesel Generator #14	552,751	2,817,360	15.24	755.37	63.28	0.52	0.44
25001315	HOMESTEAD CITY UTILITIES	15	2070 kW Dual Fuel Diesel Generator #15	552,751	2,817,360	15.24	755.37	63.28	0.52	0.45
25001316	HOMESTEAD CITY UTILITIES	16	2070 kW Dual Fuel Diesel Generator #16	552,751	2,817,360	15.24	755.37	63.28	0.52	0.16
25001317	HOMESTEAD CITY UTILITIES	17	2070 kW Dual Fuel Diesel Generator #17	552,751	2,817,360	15.24	755.37	63.28	0.52	0.19

Stack ID	Site Name	Emission Unit ID	Emission Unit Description	Easting (m)	Northing (m)	Stack Height (m)	Stack Temp (Deg K)	Exit Velocity (m/sec)	Stack Diameter (meters)	NO_x Emission Rate (g/sec)
25001318	HOMESTEAD CITY UTILITIES	18	8800 kW Dual Fuel Diesel Generator #18	552,751	2,817,360	16.46	752.59	26.12	1.27	4.31
25001319	HOMESTEAD CITY UTILITIES	19	8800 kW Dual Fuel Diesel Generator #19	552,751	2,817,360	16.46	752.59	26.12	1.27	4.09
2500132	HOMESTEAD CITY UTILITIES	2	2070 kW Dual Fuel Diesel Generator #2	552,751	2,817,360	15.54	755.37	63.28	0.52	0.16
25001320	HOMESTEAD CITY UTILITIES	20	6485 kW Dual Fuel Diesel Generator #20	552,751	2,817,360	14.63	755.37	75.93	0.70	3.78
25001321	HOMESTEAD CITY UTILITIES	21	6485 kW Dual Fuel Diesel Generator #21	552,751	2,817,360	14.63	755.37	75.93	0.70	4.19
2500133	HOMESTEAD CITY UTILITIES	3	2070 kW Dual Fuel Diesel Generator #3	552,751	2,817,360	15.54	755.37	63.28	0.52	0.17
2500138	HOMESTEAD CITY UTILITIES	8	2500 kW Dual Fuel Diesel Generator #8	552,751	2,817,360	18.29	488.71	34.66	0.71	0.56
2500139	HOMESTEAD CITY UTILITIES	9	2500 kW Dual Fuel Diesel Generator #9	552,751	2,817,360	18.59	488.71	34.66	0.71	0.54
25001414	RINKER MATERIALS DBA CEMEX, INC.	14	25 TON/HR STONE DRYER & 40 TPH SOIL THERMAL TREATMENT FACIL.	557,491	2,851,888	24.38	699.82	11.58	1.37	0.01
25001418	RINKER MATERIALS DBA CEMEX, INC.	18	KILN SYSTEM(raw mill,kiln PH/PC and clinker cooler)	557,491	2,851,888	109.42	513.15	49.042	2.44	81.70
2500148	RINKER MATERIALS DBA CEMEX, INC.	8	KILN #1 & #2	557,491	2,851,888	41.76	399.82	7.62	4.57	32.90
25002021	TARMAC AMERICA LLC	21	INSUFFLATION SYSTEM - SERVING KILN SYSTEM 2 AND 3	562,271	2,861,538	6.10	505.37	27.86	0.69	0.94
25002028	TARMAC AMERICA LLC	28	Raw Mill & Pyroprocessing System	562,271	2,861,538	45.72	294.26	0.00	0.91	90.80
2500204	TARMAC AMERICA LLC	4	41 TPH KILN #2 W/DOUBLE CHAMBER E.S.P.	562,271	2,861,538	60.96	422.04	10.06	2.29	27.80
2500206	TARMAC AMERICA LLC	6	142 TPH KILN #3 W/DROPOUT BOX& DUAL CHAMBER E.S.P.	562,271	2,861,538	60.96	482.04	10.97	4.27	74.70
25023211	JACKSON MEMORIAL HOSPITAL	11	Natural gas chiller (York International)	578,031	2,852,578	9.14	394.26	9.08	0.46	0.00
25023212	JACKSON MEMORIAL HOSPITAL	12	Seventeen (17) Emergency Generators	578,031	2,852,578	18.29	810.37	52.24	0.30	0.39
2502326	JACKSON MEMORIAL HOSPITAL	6	ECOLAIRE MODEL 500 PE INCINERATOR	578,031	2,852,578	13.11	1366.48	10.97	0.52	0.25
2502328	JACKSON MEMORIAL HOSPITAL	8	600 hp (25.11 mmBtu/hr) Kewanee Scotch Marine Boiler B-1	578,031	2,852,578	17.07	502.04	7.833	0.61	0.08
2502329	JACKSON MEMORIAL HOSPITAL	9	600 hp (25.11 mmBtu/hr) Kewanee Scotch Marine Boiler B-2	578,031	2,852,578	17.07	502.04	7.833	0.61	0.08
2502501	PET HEAVEN MEMORIAL PARK	1	SIMONDS 404 INCINERATOR-400 LB/HR TYPE IV WASTE-DUAL CHAMBER	562,901	2,849,638	9.14	424.82	10.67	0.76	0.01
2502521	COMMUNITY ASPHALT CORPORATION	1	400 ASPHALT DRUM MIX PLANT W/ AERO PULSE MODEL M774 BAGHOUSE	557,001	2,869,138	7.62	294.26	0.00	0.76	0.39
2502578	RINKER MATERIALS OF FLORIDA, INC.	8	Portable Crusher Unit with Diesel Power Unit	550,171	2,842,239	0.00	294.26	0.00	0.00	2.34
2502811	MIAMI-DADE WATER AND SEWER DEPARTMENT	1	Lime recalc. kiln w/cooler,twin cyclone & scrubbing twr-8.9T	570,701	2,856,598	22.86	313.71	0.73	0.91	0.84
25028110	MIAMI-DADE WATER AND SEWER DEPARTMENT	10	Standby Diesel Engine Generator # 5, EMD model 20-645F4B	570,701	2,856,598	8.84	608.15	45.08	0.53	14.10
25028111	MIAMI-DADE WATER AND SEWER DEPARTMENT	11	Standby Diesel Engine Generator # 6, EMD model 20-645F4B	570,701	2,856,598	8.84	608.15	45.08	0.53	14.10
25028112	MIAMI-DADE WATER AND SEWER DEPARTMENT	12	Standby Diesel Engine Generator # 7, EMD model 20-645F4B	570,701	2,856,598	8.84	608.15	45.08	0.53	14.10

Stack ID	Site Name	Emission Unit ID	Emission Unit Description	Easting (m)	Northing (m)	Stack Height (m)	Stack Temp (Deg K)	Exit Velocity (m/sec)	Stack Diameter (meters)	NO_x Emission Rate (g/sec)
2502816	MIAMI-DADE WATER AND SEWER DEPARTMENT	6	Standby Diesel Engine Generator # 1, EMD model 20-645E4	570,701	2,856,598	8.23	663.71	66.11	0.46	7.35
2502817	MIAMI-DADE WATER AND SEWER DEPARTMENT	7	Standby Diesel Engine Generator # 2, EMD model 20-645E4	570,701	2,856,598	8.23	663.71	66.11	0.46	7.35
2502818	MIAMI-DADE WATER AND SEWER DEPARTMENT	8	Standby Diesel Engine Generator # 3, EMD model 20-645E4	570,701	2,856,598	8.23	663.71	66.11	0.46	7.35
2502819	MIAMI-DADE WATER AND SEWER DEPARTMENT	9	Standby Diesel Engine Generator # 4, EMD model 20-645F4B	570,701	2,856,598	8.84	608.15	45.08	0.53	14.10
2503141	MIAMI-DADE WATER AND SEWER DEPARTMENT	1	ENGINE #1; 825 HP DIESEL DRIVING GEN/PUMP #1	565,921	2,843,169	8.53	394.26	0.00	0.30	2.66
25031410	MIAMI-DADE WATER AND SEWER DEPARTMENT	10	Diesel Engine Generator # 2, EMD model No. 20-645F4B	565,921	2,843,169	8.84	608.15	45.08	0.53	14.10
25031411	MIAMI-DADE WATER AND SEWER DEPARTMENT	11	Diesel Engine Generator # 3, EMD model No. 20-645F4B	565,921	2,843,169	8.84	608.15	45.08	0.53	14.10
25031412	MIAMI-DADE WATER AND SEWER DEPARTMENT	12	Diesel Engine Generator # 4, EMD model No. 20-645F4B	565,921	2,843,169	8.84	608.15	45.08	0.53	14.10
25031418	MIAMI-DADE WATER AND SEWER DEPARTMENT	18	New pump engine # 3; nat gas fueled Caterpillar G3512 LE-130	565,921	2,843,169	9.75	650.93	7.894	0.30	0.56
25031419	MIAMI-DADE WATER AND SEWER DEPARTMENT	19	New pump engine # 4; nat gas fueled Caterpillar G3512 LE-130	565,921	2,843,169	9.75	650.93	7.89	0.30	0.56
25031420	MIAMI-DADE WATER AND SEWER DEPARTMENT	20	New pump engine # 5; 2090 BHP nat. gas fired engine	565,921	2,843,169	9.75	652.59	3.63	0.46	0.40
25031421	MIAMI-DADE WATER AND SEWER DEPARTMENT	21	Emergency generator for lime kiln, rated at 250kW	565,921	2,843,169	12.19	294.26	0.00	0.08	0.00
25031423	MIAMI-DADE WATER AND SEWER DEPARTMENT	23	Rm Emer. Diesel Engine Gen., Cater. Model 3508 TA-130, 900kW	565,921	2,843,169	5.49	746.48	105.644	0.20	4.73
25031424	MIAMI-DADE WATER AND SEWER DEPARTMENT	24	Unit 5 in Standby Generating Bank (units 1 - 6)	565,921	2,843,169	6.40	608.15	47.214	0.53	14.00
25031425	MIAMI-DADE WATER AND SEWER DEPARTMENT	25	Unit 6 in Standby Generating Bank (units 1-6)	565,921	2,843,169	6.40	608.15	47.214	0.53	14.00
2503143	MIAMI-DADE WATER AND SEWER DEPARTMENT	3	ENGINE #3; 825 HP DIESEL DRIVING PUMP #3	565,921	2,843,169	8.53	394.26	0.00	0.30	3.21
2503144	MIAMI-DADE WATER AND SEWER DEPARTMENT	4	ENGINE #4; 825 HP DIESEL DRIVING PUMP #4	565,921	2,843,169	8.53	298.15	0.00	0.30	3.21
2503146	MIAMI-DADE WATER AND SEWER DEPARTMENT	6	ENGINE #6; 2113 HP DUAL-FUEL DRIVING 26000 GPM PUMP	565,921	2,843,169	8.53	394.26	0.00	0.37	8.23
2503147	MIAMI-DADE WATER AND SEWER DEPARTMENT	7	Rotary Lime Recalcining Kiln designed to produce 150 TPD CaO	565,921	2,843,169	0.00	349.82	50.60	0.91	2.37
2503149	MIAMI-DADE WATER AND SEWER DEPARTMENT	9	Diesel Engine Generator # 1, EMD model No. 20-645F4B	565,921	2,843,169	8.84	608.15	45.08	0.53	14.10
2503481	MIAMI DADE RRF	1	RDF Spreader Stoker Combustor (Unit #1) & auxiliary burners	563,831	2,857,458	76.20	422.04	41.21	2.57	17.70
2503482	MIAMI DADE RRF	2	RDF Spreader Stoker Combustor (Unit #2) & auxiliary burners	563,831	2,857,458	76.20	422.04	41.209	2.57	17.70
2503483	MIAMI DADE RRF	3	RDF Spreader Stoker Combustor (Unit #3) & auxiliary burners	563,831	2,857,458	76.20	422.04	41.209	2.57	17.70
2503484	MIAMI DADE RRF	4	RDF Spreader Stoker Combustor (Unit #4) & auxiliary burners	563,831	2,857,458	76.20	422.04	41.21	2.57	17.70
2503902	U S DEPT OF AGRICULTURE	2	ADVANCED COMBUSTION SYS. MODEL CA 500 P - NAT.GAS FIRED	570,501	2,854,138	8.53	294.26	0.00	0.91	0.00
2503903	U S DEPT OF AGRICULTURE	3	One (1) Natural Gas Fired Biological Waste Incinerator	570,501	2,854,138	9.14	294.26	0.00	0.91	0.01
2503931	MIAMI-DADE AVIATION DEPARTMENT (MDAD)	1	CLEAN AIR MODEL CA2500 INCINERATOR #1, 2500 LB /HR.	570,611	2,853,218	11.58	1255.37	11.61	0.91	0.47

Stack ID	Site Name	Emission Unit ID	Emission Unit Description	Easting (m)	Northing (m)	Stack Height (m)	Stack Temp (Deg K)	Exit Velocity (m/sec)	Stack Diameter (meters)	NO_x Emission Rate (g/sec)
2503933	MIAMI-DADE AVIATION DEPARTMENT (MDAD)	3	CLEAN AIR MODEL CA2500 INCINERATOR #2, 2500 LB/HR	570,611	2,853,218	11.58	S38.71	6.40	1.22	0.47
2503937	MIAMI-DADE AVIATION DEPARTMENT (MDAD)	7	28 Emergency Diesel Generators (Less Than 600 HP)	570,611	2,853,218	2.44	477.59	0.00	0.15	1.05
2503938	MIAMI-DADE AVIATION DEPARTMENT (MDAD)	8	28 Emergency Diesel Generators (Greater Than 600 HP)	570,611	2,853,218	2.44	477.59	0.00	0.15	0.11
2504701	SOUTH FLORIDA COGENERATION ASSOCIATES	1	239 MBTU/HR GAS TURBINE	579,561	2,850,618	39.62	388.71	16.46	2.74	10.80
25047610	MIAMI-DADE WATER AND SEWER DEPARTMENT	10	1.2 MW Digester Gas Electric Generator; # 3	584,292	2,847,609	11.58	741.48	29.26	0.46	2.88
25047613	MIAMI-DADE WATER AND SEWER DEPARTMENT	13	2.5 MW Diesel Electric Generator; EMD # 1	584,292	2,847,609	4.57	663.71	23.81	0.76	3.96
2504763	MIAMI-DADE WATER AND SEWER DEPARTMENT	3	BLOWER #2; 410 HP I.C.ENG;DGSTR GAS OR #2 F.O.FIRED	584,292	2,847,609	10.67	741.48	31.39	0.21	0.01
2504764	MIAMI-DADE WATER AND SEWER DEPARTMENT	4	BLOWER#3; 410 HP I.C.ENG;F.O.FIRED ONLY (SEE COMMENT)	584,292	2,847,609	10.67	741.48	31.39	0.21	0.36
2504766	MIAMI-DADE WATER AND SEWER DEPARTMENT	6	BLOWER #5; 950 HP(COMMENT) I.C.ENG;DGSTR GAS OR #2 F.O.FIRED	584,292	2,847,609	10.67	741.48	25.91	0.37	0.01
2505871	THE ASPHALT GROUP, LLC	1	300 TPH ASPHALT DRUM MIX PLANT W/ BAGHOUSE	563,501	2,806,740	12.50	410.93	22.860	1.37	1.36
2506003	MIAMI-DADE WATER AND SEWER DEPARTMENT	3	Diesel Engine Standby Generator #2, EMD model No. 20-645E4B	584,452	2,866,808	2.74	663.71	16.520	0.91	6.61
2506081	110TH AVENUE INVESTMENTS, INC.	1	115 TPH ADM MODEL BH 308-8 DRUM MIX ASPHALT PLANT	563,811	2,851,978	4.88	422.04	23.774	0.67	0.52
2506082	110TH AVENUE INVESTMENTS, INC.	2	160 TPH Due-Drum Counterflow Asphalt Plant-Almix Baghouse	563,811	2,851,978	7.62	294.26	0.001	0.91	0.02
2506111	GE ENGINE SERVICES-MIAMI, INC.	1	THREE (3) JET ENGINE TEST CELLS	570,411	2,852,428	11.28	294.26	0.001	1.22	0.98
2506113	GE ENGINE SERVICES-MIAMI, INC.	3	miscellaneous sources of air emissions	570,411	2,852,428	0.00	294.26	0.001	0.00	0.01
2506141	HOMESTEAD LANDFILL & RECYCLING MNGT. COM	1	40*10*10 FT REFRACTORY-LINED AIR CURTAIN INCINERATOR	562,401	2,816,240	0.00	294.26	0.00	0.00	5.04
2506151	WASTE MANAGEMENT INC. OF FLORIDA	1	FLARE #1 - open utility flare; 3,000 scfm.	565,041	2,859,858	15.24	294.26	0.001	0.15	0.00
2506155	WASTE MANAGEMENT INC. OF FLORIDA	5	Enclosed 6,000 scfm primary flare	565,041	2,859,858	16.76	294.26	0.001	3.96	1.03
2506241	GENERAL ASPHALT CO., INC.	1	300 TPH CNTR FLOW DRUM MIX ASPHALT PLANT/CEDARAPIDS BAGHOUSE	569,681	2,868,158	9.144	409.26	18.898	1.4	1.36
2511962	AVIATION ENGINE SERVICE, INC	2	Jet Engine Test Cell	566,641	2,859,468	0	294.26	0.001	0	1.35
77702503	RINKER MATERIALS OF FLORIDA	3	Diesel Engine Drive Unit	562,801	2,865,838	0	294.26	0.001	0	9.40E-01

Model Input Parameters - PM10 Increment/NAAQS Sources

Stack ID	Site Name	Emission Unit ID	Emission Unit Description	Easting (m)	Northing (m)	Stack Height (m)	Stack Temp (Deg K)	Exit Velocity (m/sec)	Stack Diameter (meters)	CO Emission Rate (g/sec)
2500013	FLORIDA POWER & LIGHT (PCU)	3	Fossil Fuel Fired Steam Generator#5- Phase II Acid Rain Unit	569,741	2,834,789	45.72	413.71	15.45	4.27	0.03
2500014	FLORIDA POWER & LIGHT (PCU)	4	Fossil fuel Fired Steam Generator#6- Phase II Acid Rain Unit	569,741	2,834,789	45.72	413.71	18.50	4.27	0.14
2500016	FLORIDA POWER & LIGHT (PCU)	6	Mobile Equipment and Engines	569,741	2,834,789	0.00	0.00	294.26	0.00	0.00
2500017	FLORIDA POWER & LIGHT (PCU)	7	Emergency Diesel Generator	569,741	2,834,789	0.61	0.61	294.26	0.00	0.00
2500031	FLORIDA POWER & LIGHT (PTF)	1	440 MW Boiler- Phase II, Acid Rain Unit 1 (Fossil Plant)	566,591	2,813,050	121.92	408.15	24.51	5.52	9.52
2500032	FLORIDA POWER & LIGHT (PTF)	2	440 MW Boiler- Phase II, Acid Rain Unit 2 (Fossil Plant)	566,591	2,813,050	121.92	408.15	23.47	5.52	8.22
2500033	FLORIDA POWER & LIGHT (PTF)	3	(5) 2.75 MW Diesel Generators (Fossil Plant)	566,591	2,813,050	4.27	663.71	44.41	0.56	0.00
2500035	FLORIDA POWER & LIGHT (PTF)	5	(4) 2.5 MW emergency diesel generators (Nuclear Plant)	566,591	2,813,050	6.10	663.71	44.41	0.56	0.06
2500036	FLORIDA POWER & LIGHT (PTF)	6	(5) Other Diesel Emergency Generators (Nuclear Plant)	566,591	2,813,050	3.96	814.26	53.10	0.20	0.00
2500037	FLORIDA POWER & LIGHT (PTF)	7	Miscellaneous Diesel Plant Equipment (Nuclear Plant)	566,591	2,813,050	2.44	683.15	66.51	0.10	0.00
2500038	FLORIDA POWER & LIGHT (PTF)	8	Unregulated emission units (Nuclear Plant)	566,591	2,813,050	0.15	0.15	799.82	17.00	0.00
2500039	FLORIDA POWER & LIGHT (PTF)	9	Unit 5A Combustion Turbine (170 MW) with HRSG	566,591	2,813,050	39.93	367.59	17.98	5.79	2.22
2500051	GENERAL ASPHALT CO., INC.	1	ASPHALT BATCH PLANT W/25% RECYCLE & REPROCESSED FUEL	568,801	2,855,238	7.62	346.48	30.78	1.16	0.28
2500221	U S FOUNDRY MANUFACTURING CORP.	1	Two Grey iron Cupola	567,301	2,859,638	9.14	0.70	338.71	0.00	0.13
2500222	U S FOUNDRY MANUFACTURING CORP.	2	Paint Spray Booth	567,301	2,859,638	9.14	1.07	294.26	0.00	0.00
2500223	U S FOUNDRY MANUFACTURING CORP.	3	Foundry Cupola with afterburner and Wheelabrator Baghouse	567,301	2,859,638	15.24	0.76	522.04	20400.00	0.06
2500224	U S FOUNDRY MANUFACTURING CORP.	4	Molding Loop 4 & SAND HANDLING 1,2, & 3 w/Dustex Baghouse	567,301	2,859,638	0.00	0.00	294.26	0.00	0.29
2500225	U S FOUNDRY MANUFACTURING CORP.	5	SAND HANDLING AREA 2	567,301	2,859,638	0.00	0.00	294.26	0.00	0.04
2500227	U S FOUNDRY MANUFACTURING CORP.	7	Pouring and cooling for casting lines 1, 3 & 4	567,301	2,859,638	0.00	0.00	294.26	0.00	1.77
2500228	U S FOUNDRY MANUFACTURING CORP.	8	Mold Making for Molding Loops 1 & 3	567,301	2,859,638	0.00	0.00	294.26	0.00	0.05
2500229	U S FOUNDRY MANUFACTURING CORP.	9	CORE MAKING of small shell cores & oil baked cores	567,301	2,859,638	0.00	0.00	294.26	0.00	0.00
2503141	MIAMI-DADE WATER AND SEWER DEPARTMENT	1	ENGINE #1; 825 HP DIESEL DRIVING GEN/PUMP #1	565,921	2,843,169	8.53	394.26	0.00	0.30	0.00
2503143	MIAMI-DADE WATER AND SEWER DEPARTMENT	3	ENGINE #3; 825 HP DIESEL DRIVING PUMP #3	565,921	2,843,169	8.53	394.26	0.00	0.30	0.00
2503144	MIAMI-DADE WATER AND SEWER DEPARTMENT	4	ENGINE #4; 825 HP DIESEL DRIVING PUMP #4	565,921	2,843,169	8.53	298.15	0.00	0.30	0.01
2503145	MIAMI-DADE WATER AND SEWER DEPARTMENT	5	ENGINE #5; 1500 HP DIESEL DRIVING 21000 GPM PUMP	565,921	2,843,169	0.00	0.00	298.15	0.00	0.05
2503146	MIAMI-DADE WATER AND SEWER DEPARTMENT	6	ENGINE #6; 2113 HP DUAL-FUEL DRIVING 26000 GPM PUMP	565,921	2,843,169	8.53	394.26	0.00	0.37	0.09
2503148	MIAMI-DADE WATER AND SEWER DEPARTMENT	8	TWO (2) 1050 TON LIME SILOS W/ COMMON BAGHOUSE	565,921	2,843,169	21.03	0.91	294.26	0.00	0.01
2503481	MIAMI DADE RRF	1	RDF Spreader Stoker Combustor (Unit #1) & auxiliary burners	563,831	2,857,458	76.20	422.04	41.21	2.57	0.83
2503482	MIAMI DADE RRF	2	RDF Spreader Stoker Combustor (Unit #2) & auxiliary burners	563,831	2,857,458	76.20	422.04	41.21	2.57	0.83
2503483	MIAMI DADE RRF	3	RDF Spreader Stoker Combustor (Unit #3) & auxiliary burners	563,831	2,857,458	76.20	422.04	41.21	2.57	0.83
2503484	MIAMI DADE RRF	4	RDF Spreader Stoker Combustor (Unit #4) & auxiliary burners	563,831	2,857,458	76.20	422.04	41.21	2.57	0.83
2503486	MIAMI DADE RRF	6	MSW to RDF Processing Facility with Baghouses	563,831	2,857,458	0.00	0.00	298.15	0.00	0.69
2503487	MIAMI DADE RRF	7	Bulky Waste to Biomass Processing Facility with Baghouses	563,831	2,857,458	0.00	0.00	298.15	0.00	0.38

Model Input Parameters - PM10 Increment/NAAQS Sources

Stack ID	Site Name	Emission Unit ID	Emission Unit Description	Easting (m)	Northing (m)	Stack Height (m)	Stack Temp (Deg K)	Exit Velocity (m/sec)	Stack Diameter (meters)	CO Emission Rate (g/sec)
2503488	MIAMI DADE RRF	8	Ash Building and Handling System-Ash Storage Silo w Baghouse	563,831	2,857,458	0.00	0.00	298.15	2000.00	0.02
2503489	MIAMI DADE RRF	9	Two Lime Storage Silos each with a baghouse	563,831	2,857,458	0.00	0.00	294.26	0.00	0.00
2503931	MIAMI-DADE AVIATION DEPARTMENT (MDAD)	1	CLEAN AIR MODEL CA2500 INCINERATOR #1, 2500 LB /HR.	570,611	2,853,218	11.58	1255.37	11.61	0.91	0.74
2503933	MIAMI-DADE AVIATION DEPARTMENT (MDAD)	3	CLEAN AIR MODEL CA2500 INCINERATOR #2, 2500 LB/HR	570,611	2,853,218	11.58	538.71	6.40	1.22	0.74
2503937	MIAMI-DADE AVIATION DEPARTMENT (MDAD)	7	28 Emergency Diesel Generators (Less Than 600 HP)	570,611	2,853,218	2.44	477.59	0.00	0.15	0.16
2503938	MIAMI-DADE AVIATION DEPARTMENT (MDAD)	8	28 Emergency Diesel Generators (Greater Than 600 HP)	570,611	2,853,218	2.44	477.59	0.00	0.15	0.00
2504701	SOUTH FLORIDA COGENERATION ASSOCIATES	1	239 MBTU/HR GAS TURBINE	579,561	2,850,618	39.62	388.71	16.46	2.74	0.47
2505201	MIAMI-DADE WATER AND SEWER DEPARTMENT	1	Digester gas-fired cogeneration Engine #1	565,901	2,825,260	12.19	0.46	688.71	2758.00	0.02
2505202	MIAMI-DADE WATER AND SEWER DEPARTMENT	2	Digester gas-fired cogeneration Engine #2	565,901	2,825,260	12.19	0.46	688.71	2758.00	0.01
2505203	MIAMI-DADE WATER AND SEWER DEPARTMENT	3	Digester gas-fired cogeneration Engine #3	565,901	2,825,260	12.19	0.46	688.71	2758.00	0.02
2505206	MIAMI-DADE WATER AND SEWER DEPARTMENT	6	Standby Generator Set (model 20E4B) #1	565,901	2,825,260	6.40	0.84	616.48	0.00	0.00
2505207	MIAMI-DADE WATER AND SEWER DEPARTMENT	7	Standby Generator Set (model 20E4B) #2	565,901	2,825,260	6.40	0.84	616.48	0.00	0.00
2505208	MIAMI-DADE WATER AND SEWER DEPARTMENT	8	Standby Generator Set (model 20E4B) #3	565,901	2,825,260	6.40	0.84	616.48	0.00	0.00
2505209	MIAMI-DADE WATER AND SEWER DEPARTMENT	9	Standby Generator Set (model 20E4B) #4	565,901	2,825,260	6.40	0.84	616.48	0.00	0.00
2505871	THE ASPHALT GROUP, LLC	1	300 TPH ASPHALT DRUM MIX PLANT W/ BAGHOUSE	563,501	2,806,740	12.50	410.93	22.86	1.37	0.42
2506141	HOMESTEAD LANDFILL & RECYCLING MNGT. COM	1	40*10*10 FT REFRACTORY-LINED AIR CURTAIN INCINERATOR	562,401	2,816,240	0.00	294.26	0.00	0.00	6.22
2506231	MIAMI DADE SOLID WASTE MGMT	1	LANDFILL CELLS 1 THROUGH 5	565,511	2,824,950	13.72	3.05	1172.04	4000.00	0.18
2506232	MIAMI DADE SOLID WASTE MGMT	2	ENCLOSED FLARE	565,511	2,824,950	15.24	3.35	1172.04	4000.00	0.22
25000310	FLORIDA POWER & LIGHT (PTF)	10	Unit 5B Combustion Turbine (170 MW) with HRSG	566,591	2,813,050	39.93	367.59	17.98	5.79	2.22
25000311	FLORIDA POWER & LIGHT (PTF)	11	Unit 5C Combustion Turbine (170 MW) with HRSG	566,591	2,813,050	39.93	367.59	17.98	5.79	2.22
25000312	FLORIDA POWER & LIGHT (PTF)	12	Unit 5D Combustion Turbine (170 MW) with HRSG	566,591	2,813,050	39.93	367.59	17.98	5.79	2.22
25002210	U S FOUNDRY MANUFACTURING CORP.	10	FINISHING AREA SHOTBLAST MACHINE WITH BAGHOUSE	567,301	2,859,638	0.00	0.00	294.26	0.00	0.05
25002211	U S FOUNDRY MANUFACTURING CORP.	11	SCRAP METAL MATERIAL HANDLING	567,301	2,859,638	0.00	0.00	294.26	0.00	0.00
25002212	U S FOUNDRY MANUFACTURING CORP.	12	Emergency Generator For Emergency Emptying of Cupola	567,301	2,859,638	9.14	0.30	294.26	0.00	0.00
25002214	U S FOUNDRY MANUFACTURING CORP.	14	SAND HANDLING AREA # 3	567,301	2,859,638	0.00	0.00	294.26	0.00	0.68
25002215	U S FOUNDRY MANUFACTURING CORP.	15	DISA Cold Box Core Machine with Packed Gas Scrubber	567,301	2,859,638	8.53	0.30	298.15	0.00	0.00
25002217	U S FOUNDRY MANUFACTURING CORP.	17	New sand cooler and new vibrator drum (Renumbered)	567,301	2,859,638	0.00	0.00	294.26	0.00	0.00
25002219	U S FOUNDRY MANUFACTURING CORP.	19	Molding Loop 3A	567,301	2,859,638	15.85	1.22	294.26	0.00	0.06
25052010	MIAMI-DADE WATER AND SEWER DEPARTMENT	10	Standby Generator Set (model 16G4A) #5	565,901	2,825,260	6.40	0.84	616.48	0.00	0.00
25052011	MIAMI-DADE WATER AND SEWER DEPARTMENT	11	Two Digester Gas-Fired Boilers	565,901	2,825,260	6.40	0.82	294.26	0.00	0.00
25052013	MIAMI-DADE WATER AND SEWER DEPARTMENT	13	Standby Generator Set (model 20F4B) #6	565,901	2,825,260	6.40	0.70	663.71	0.00	0.00