



May 13, 2010

093-87660

Mr. A. A. Linero, Program Administrator
Special Projects Section
Florida Department of Environmental Protection
2600 Blairstone Road
Tallahassee, Florida 32399-2400

RECEIVED
MAY 14 2010
BUREAU OF
AIR REGULATION

**RE: SOUTHEAST RENEWABLE FUELS, LLC
DEP FILE NO. 0510032-001-AC (PSD-FL-412)
ADVANCED BIOREFINERY PERMIT APPLICATION
REQUEST FOR ADDITIONAL INFORMATION #1**

Dear Mr. Linero:

Southeast Renewable Fuels, LLC (SRF) and Golder Associates Inc. (Golder) have received the Florida Department of Environmental Protection's (FDEP's) request for additional information (RAI) dated April 16, 2010, regarding the air construction permit application for the sweet sorghum to ethanol advanced biorefinery to be located in Hendry County, Florida. Each of FDEP's requests is answered below, in the same order as they appear in the RAI letter.

Material and Fuel Handling

Comment 1. Backup Biomass Wood Chips: Please identify and define the type of wood chips that will be burn at the boiler. Explain the wood receiving and handling operations. How and where would the woody biomass be processed, sorted, screened and chipped to size? Does this facility include a wood chipper? [Rule 62-4.070, F.A.C. Reasonable Assurance]

Response: The woody biomass material burned in the boiler will consist of clean wood chips, cellulose and vegetative matter, clean construction and demolition wood debris, and yard waste. The cogeneration boiler will combust no more than 30 percent by weight yard waste on a calendar quarter basis, which is defined as a municipal solid waste in Title 40, Part 60.51a of the Code of Federal Regulations (40 CFR 60.51a). The biomass fuel will not contain hazardous substances, hazardous wastes, biomedical wastes, or garbage, and will not contain special wastes, except wood, lumber, trees, tree remains, sweet sorghum bagasse, sugarcane and sorghum tops and leaves, and other clean vegetative and cellulose matter. SRF will perform a daily visual inspection of any wood material or similar vegetative matter that has been delivered to the plant for use as fuel. Any shipment observed to contain prohibited materials shall not be used as fuel, unless such materials can be readily segregated and removed from the wood material and vegetative matter.

The biomass material received at the facility will be unloaded onto a designated area near the wood storage pile. If necessary, the material will be processed through a portable hogger (chipper) and screen to reduce the material to a size suitable for burning in the boiler. From the wood storage pile, the wood material is loaded via frontend loader onto the reclaim conveyor, and is transported to the boiler by the conveyor system, as shown in Figure 2-12. The handling of the wood chips is described on page 11 of the PSD report. Although the portable hogger and screen is not described in the discussion or specifically shown on the flow diagram, the fugitive particulate matter (PM) emissions presented in Table 2-17 do account for a hogger and screen processing all of the wood material.



VOC Fugitive Emissions

Comment 2. **Equipment Leak Estimates:** Please calculate facility fugitive VOC emissions from equipment leaks involved in the ethanol production process. [Rule 62-4.070, F.A.C. Reasonable Assurance]

Response: Fugitive volatile organic compound (VOC) emissions from equipment leaks in the ethanol production process have been estimated and are presented in Table A (attached). Emissions have been estimated based on the document entitled "Protocol for Estimating Equipment Leaks" (EPA, 1995). The number of pumps, valves, flanges, and connectors has been estimated for the ethanol process, as well as the number in gas, light liquid, and heavy liquid service. VOC control efficiencies based on a leak detection and repair (LDAR) program have been included. As shown, the total fugitive VOC emissions are estimated to be 6.52 tons per year (TPY).

Comment 3. **Leak Detection and Repair (LDAR) Plan.** Emission units associated with ethanol projects are subject to NSPS Subpart VVa – Standards of Performance for Equipment Leaks of VOC in the Synthetic Organic Chemical Manufacturing Industry. A requirement of Subpart VVa is the development of a leak detection and repair (LDAR) program that control volatile organic compounds (VOC) emissions. Please submit at this time a preliminary LDAR program that can be used to describe the reasonable precautions to control fugitive VOC emissions. A final LDAR program plan would be submitted to the Compliance Authority during final design and construction. [Rule 62-204.800(8)(b)53., F.A.C. and 40 CFR 60, Subpart VVa]

Response: A preliminary LDAR plan is attached as Attachment A.

BACT Analysis

Comment 4. **Boiler Alternatives.** The application lists two types of boilers, the spreader stoker and the fluidized bed boiler. However, the Best Available Control Technology (BACT) analysis was provided for a biomass cogeneration boiler without distinction. Please provide the BACT analysis considering each boiler technology and its BACT controls. [Rule 62-4.070, F.A.C. Reasonable Assurance]

Response: This response will address each pollutant, or group of pollutants separately.

PM

The technically feasible control technologies for PM emissions are the same regardless of the type of boiler (spreader stoker or fluidized bed). Baghouses have never been utilized on a bagasse-fired spreader stoker boiler or fluidized bed boiler. Although baghouses have been employed on fluidized bed biomass-fired boilers, the lack of operating experience on bagasse-fired boilers precludes use of this control technology. Nevertheless, an electrostatic precipitator (ESP) is able to achieve the same PM emission levels as a baghouse. The proposed PM emission limit is 0.02 pound per million British thermal units (lb/MMBtu), which is the lowest PM limit for any bagasse-fired boiler.

NO_x

The technically feasible control technologies for emissions of nitrogen oxides (NO_x) are the same regardless of the type of boiler (spreader stoker or fluidized bed). The same issues exist with selective catalytic reduction (SCR) technology applied to either boiler type. Therefore, the same technology, selective non-catalytic reduction (SNCR) is

proposed for either boiler type. It is noted that the latest bagasse-fired boiler BACT determination for a spreader stoker boiler (U.S. Sugar Boiler No. 8) required SNCR, as did the latest determination for a fluidized bed boiler burning ethanol process stillage (Highlands Ethanol). The proposed NO_x emission limit is 0.14 lb/MMBtu, 30-day rolling average, for the spreader stoker type boiler. As described on page 19 of the PSD report, the proposed NO_x limit for the fluidized bed boiler is 0.10 lb/MMBtu, 30-day rolling average, based on the inherently lower uncontrolled NO_x emissions for this type boiler.

SO₂

The technically feasible control technologies for sulfur dioxide (SO₂) emissions are the same regardless of the type of boiler (spreader stoker or fluidized bed). The only real difference is that limestone injection is an inherent part of the fluidized bed boiler, and therefore an add-on SO₂ control system is even less justified compared to a spreader stoker boiler. No difference in the SO₂ emission limit was proposed based on boiler type, due to the already very low level of emissions. The dry sorbent injection system proposed for the spreader stoker boiler will be equivalent to the inherent limestone injection system of the fluidized bed boiler.

SAM

Sulfuric acid mist (SAM) emissions are primarily a function of SO₂ emissions, and therefore the same rationale for BACT for SO₂ emissions applies to SAM emissions.

CO/VOC

Carbon monoxide (CO) and VOC emissions are combustion-related and therefore the feasible control technologies are the same for both boiler types. The costs of alternative technologies are generally the same for both type boilers. Good combustion practices (GCPs) was selected as BACT for both boiler types. Add-on technologies such as regenerative SCR (RSCR) were ruled out as unproven and too expensive. However, different BACT limits were proposed for CO and VOC based on the inherent boiler designs, as described on pages 78, 79, and 81 of the PSD report.

Comment 5. BACT Analysis Cost Analysis for CO and VOC. Only limited cost analysis was submitted for the use of oxidation catalyst for the control of CO and VOC from the boiler. Although the application cites oxidation catalyst proposals at Biomass Energy and Burlington as non-BACT installations, this insufficient rationale to exclude the option when considering a PSD BACT proposal. Note that oxidation catalyst is also proposed in the FBEnergy application (Manatee County) submitted by Golder who is handling the present project. [Rule 62-4.070, F.A.C. Reasonable Assurance]

Response: We do not agree that only a limited cost analysis for an oxidation catalyst system was performed. As described on page 77 of the PSD report, the costs of an RSCR system with an oxidation catalyst are presented in Table 5-5. The cost analysis presented in Table 5-5 represents the standard BACT analysis required by the U.S. Environmental Protection Agency (EPA), and should be sufficient to rule out this technology. The Department just issued a draft permit to Highlands Ethanol, for a very similar boiler and process, and did not require an oxidation catalyst. Moreover, the FBEnergy facility is proposing SCR and an oxidation catalyst to demonstrate that these technologies are feasible and that these type facilities can be permitted anywhere in the country, including nonattainment areas. Therefore, we would argue that this technology represents lowest achievable emission rate (LAER), but not BACT.

Comment 6. **BACT Analysis Cost Analysis for NO_x.** The cost analysis for NO_x under the regenerative selective catalytic reduction (RSCR) option actually provides for simultaneous CO and VOC control. When considering the control of three pollutants, the cost-effectiveness is improved since it applies to three pollutants rather than one. Please re-evaluate this case given the dual function of the RSCR system. [Rule 62-212.200, F.A.C. (definition of BACT)]

Response: As described on page 77 of the PSD report, the cost effectiveness of RSCR was considered for both NO_x and CO emission reduction combined. Including VOC would make little difference since the magnitude of VOC emissions is small. As described on page 77, the total cost effectiveness for RSCR, including both NO_x and CO control, is estimated at \$2,880 per ton (compared to \$5,830 per ton for NO_x alone). However, as stated on page 65, the incremental cost of RSCR over that of SNCR for NO_x control only is \$17,000 per ton, and as stated on page 77, the incremental cost of RSCR for CO control only is \$5,700 per ton. These costs are very high, and imposing a \$14 million capital cost on the facility for RSCR and oxidation catalyst would likely render the project economically infeasible. See the response to Comment 7 below for further cost effectiveness information.

Comment 7. **Cost Ranking of Different Technologies.** Section 5 of the permit application a BACT analysis was performed for criteria air pollutants. However, a ranking by costs for each BACT determination was not performed. For example, a cost ranking for NO_x control by Selective Catalytic Reduction (SCR) versus Non-Selective Catalytic Reduction (SNCR) technologies was not provided. Please provide cost rankings of the different BACT determinations for each pollutant considering each type of boiler. [Rule 62-4.070, F.A.C. Reasonable Assurance]

Response: For PM, SRF has proposed the top-ranked control technology in terms of pollutant removal. Therefore, no cost analysis of control alternatives was conducted. For the remaining pollutants NO_x, SO₂, CO, and VOC, a ranking of control technologies by costs is presented in Tables B and C (attached) for the spreader stoker and the fluidized bed boiler options, respectively.

Hazardous Air Pollutants

Comment 8. **Hazardous Air Pollutants:** Please describe the compliance methods by which HAPs emissions will be documented at less than 10 tons per year (TPY) for any single hazardous air pollutant (HAP) or 25 TPY of all HAP combined. Please note that the hydrogen fluoride (HF) emissions seem low. Please provide the test results upon which the estimate is based. [Rule 62-4.070, F.A.C. Reasonable Assurance]

Response: SRF proposes to perform an initial compliance test for the HAPs predicted to be emitted in the largest quantities: acrolein, benzene, chlorine, formaldehyde, hydrogen chloride, and styrene. These are all organic HAPs, except for hydrogen chloride and chlorine. CO will also be measured during these tests to act as a surrogate for future organic HAP prediction. If the initial compliance tests indicate the organic HAPs are less than 75 percent of the estimated maximum emissions (from Table 2-14 of the PSD report), SRF would propose that no further testing is necessary. If measured emissions are greater than 75 percent of the estimated maximum emissions, SRF proposes to conduct quarterly tests for the first year of operation to validate the emission factors and to demonstrate the boiler is not a major source of HAPs.

The HF emissions are based on actual stack testing from New Hope Power Company (refer to Appendix B of PSD report). These test data represent a comprehensive set of tests from a similar boiler burning a combination of sugarcane bagasse and wood, and therefore should be very representative of expected emissions from the SRF cogeneration boiler.

Acid Rain Applicability

Comment 9. Capacity of Steam Electrical Generating Unit: Section C. of the Facility Information part of the application indicates that the facility will not be subject to the Acid Rain regulations. Please provide a rule analysis given that the unit (i.e. the boiler) serves generators with a total capacity greater than 25 megawatts of electricity (MWe) combined.

Response: The General Provisions of the Acid Rain Program are contained in 40 CFR 72. The proposed SRF boiler would be classified as a "cogeneration facility" under the Acid Rain program. A "cogeneration unit" is defined in §72.2 as:

...a unit that has equipment used to produce electric energy and forms of useful thermal energy (such as heat or steam) for industrial, commercial, heating, or cooling purposes, through sequential use of energy.

Applicability provisions to the Acid Rain Program are set forth in §72.6. Paragraph (b) describes those types of units that are not affected units under the program. Subparagraph (b)(4) provides the following for cogeneration facilities:

b) The following types of units are not affected units subject to the requirements of the Acid Rain Program:

(4) A cogeneration facility which:

(ii) For units which commenced construction after November 15, 1990, supplies equal to or less than one-third its potential electrical output capacity or equal to or less than 219,000 MWe-hrs actual electric output on an annual basis to any utility power distribution system for sale (on a gross basis). However, if in any three calendar year period after November 15, 1990, such unit sells to a utility power distribution system an annual average of more than one-third of its potential electrical output capacity and more than 219,000 MWe-hrs actual electric output (on a gross basis), that unit shall be an affected unit, subject to the requirements of the Acid Rain Program.

SRF would expect to produce no more than 210,000 MWe-hrs per year for sale to any power distribution system (25 MWe x 8,400 hours per year). Actual power sales will likely be much less than this figure. Therefore, the facility should not be subject to the Acid Rain Program.

Air Quality Analysis

Comment 10. PM₁₀ as Surrogate for PM_{2.5}: Please provide further justification for the use of PM₁₀ as a surrogate for PM_{2.5}. Please refer to the list of issues to be addressed in the March 23, 2010 memo from Stephen Page, Director of the U.S. Environmental Protection Agency's Office of Air Quality Planning and Standards.

Response: Please refer to the attached email and associated tables dated April 26, 2010, previously sent to Tom Rogers.

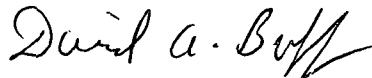
Comment 11. NO₂ and SO₂ Modeling: Please submit the revised modeling for NO₂ and SO₂ that addresses a re-determination of the significant impact area, as discussed in our conference call on April 13, 2010. Provide updated or revised language and tables as necessary.

Response: Please refer to the attached email and associated tables dated April 15, 2010, previously sent Mr. to Tom Rogers.

Thank you for considering this information. If you have any questions, please do not hesitate to call me at (352) 336-5600.

Sincerely,

GOLDER ASSOCIATES INC.



David A. Buff, P.E., Q.E.P.
Principal Engineer

cc: Don Markley, SRF
Carlos Rionda, SRF

Attachments

DB/tz

APPLICATION INFORMATION

Professional Engineer Certification

1. Professional Engineer Name: David A. Buff Registration Number: 19011
2. Professional Engineer Mailing Address... Organization/Firm: Golder Associates Inc.** Street Address: 6026 NW 1st Place City: Gainesville State: FL Zip Code: 32607
3. Professional Engineer Telephone Numbers... Telephone: (352) 336-5600 ext. 545 Fax: (352) 336-6603
4. Professional Engineer E-mail Address: dbuff@golder.com
5. Professional Engineer Statement: <i>I, the undersigned, hereby certify, except as particularly noted herein*, that:</i> <i>(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this application for air permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and</i> <i>(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.</i> <i>(3) If the purpose of this application is to obtain a Title V air operation permit (check here <input type="checkbox"/> , if so), I further certify that each emissions unit described in this application for air permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance plan and schedule is submitted with this application.</i> <i>(4) If the purpose of this application is to obtain an air construction permit (check here <input checked="" type="checkbox"/> , if so) or concurrently process and obtain an air construction permit and a Title V air operation permit revision or renewal for one or more proposed new or modified emissions units (check here <input type="checkbox"/> , if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.</i> <i>(5) If the purpose of this application is to obtain an initial air operation permit or operation permit revision or renewal for one or more newly constructed or modified emissions units (check here <input type="checkbox"/> , if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.</i> Signature: <u>David A. Buff</u> Date: <u>5/13/10</u> (seal)

* Attach any exception to certification statement.

**Board of Professional Engineers Certificate of Authorization #00001670.

TABLES

**TABLE A
VOC EMISSION ESTIMATES FOR FUGITIVE EQUIPMENT LEAKS, SRF ETHANOL PROCESS**

Component Type	Service	Component Count	Emission Factors (kg/hr/source) ^a	Weighted Average VOC Content (%) ^b	Uncontrolled Emissions ^d		Control Efficiency (%) ^c	Controlled Emissions ^d	
					(lb/hr)	(TPY)		(lb/hr)	(TPY)
Valves	Gas/Vapor	25	0.00597	100	0.33	1.44	87	0.043	0.187
Valves	Light Liquid	200	0.00403	96	1.70	7.46	84	0.272	1.193
Valves	Heavy Liquid	100	0.00023	5	0.0025	0.0111	0	0.0025	0.0111
Sealless Valves	Light Liquid	200	4.90E-07	96	0.00021	0.00091	84	0.00003	0.00015
Sealless Valves	Heavy Liquid	100	0	5	0	0	0	0	0
Pump Seals	Light Liquid	0	0.0199	96	0	0	69	0	0
Pump Seals	Heavy Liquid	0	0.00862	5	0	0	0	0	0
Pump Seals, Dual Mech.	Light Liquid	50	0.0199	96	2.101	9.204	69	0.651	2.853
Pump Seals, Dual Mech.	Heavy Liquid	10	0.00862	5	0	0	0	0	0
Agitator Seals	Light Liquid	10	0.0199	96	0.42	1.84	69	0.13	0.57
Agitator Seals	Heavy Liquid	10	0.00862	5	0.0095	0.0415	0	0.009	0.042
Compressor Seals	Gas/Vapor	0	0.228	100	0	0	0	0	0
Pressure Relief Valves	Gas/Vapor	0	0.104	100	0	0	0	0	0
Connectors	All	1250	0.00183	30	1.51	6.61	93	0.11	0.46
Open-Ended Lines	All	60	0.0017	30	0.067	0.295	0	0.067	0.295
Sampling Connections	All	20	0.015	30	0.20	0.87	0	0.198	0.867
					6.35	27.81	Total VOCs	1.49	6.52
							Total HAPs^e	0.07	0.33

^a Emission factors are based on *Protocol for Equipment Leak Emission Estimates*, EPA-453/R-95-017, November 1995. Table 2-1 for SOCM I Average Emission Factors, or Table 2-11 for Default-Zero Values.

^b For components in heavy liquid service, weighted average VOC content estimated at 5 percent.
For components in light liquid service, weighted average VOC content estimated at 96 percent.
For components in liquid service, weighted average VOC content estimated at 30 percent.

^c Control Efficiency for LDAR program for each component is based on Table 5-2 of *Protocol for Equipment Leak Emission Estimates*, EPA-453/R-95-017, November 1995.

^d Emissions were calculated assuming 8,760 hours of operation. Example Calculations are shown below:

Uncontrolled for Gas/Vapor Valve:

$$\text{Short term emissions} - 25 \text{ sources} \times 0.00597 \text{ kg/hr/source} \times 2.2 \text{ lb/kg} \times (\% \text{ VOC content} / 100) = 0.33 \text{ lb/hr}$$

$$\text{Annual} - 0.33 \text{ lb/hr} \times 8,760 \text{ hr/yr} / 2,000 \text{ lb/ton} = 1.44 \text{ TPY}$$

Controlled for Gas/Vapor Valve:

$$\text{Short term emissions} - 0.33 \text{ lb/hr} \times (1 - (87/100)) = 0.043 \text{ lb/hr}$$

$$\text{Annual} - 0.043 \text{ lb/hr} \times 8,760 \text{ hr/yr} / 2,000 \text{ lb/ton} = 0.19 \text{ TPY}$$

^e HAP emissions are conservatively estimated to be 5% of VOC emissions.



**TABLE B
SUMMARY OF TOP-DOWN BACT ANALYSIS IMPACT RESULTS FOR
SPREADER STOKER BOILER**

Control Alternative	Control Efficiency (%)	Emissions (TPY)	Emissions Reduction (TPY)	Economic Impacts			
				Installed Capital Cost (\$)	Total Annualized Cost (\$/yr)	Average Cost Effectiveness (\$/ton)	Incremental Cost Effectiveness (\$/ton)
<u>NO_x</u>							
RSCR	74	184.0	533.0	14,552,100	3,106,924	5,829	17,484
SNCR	60	286.9	430.4	1,768,222	1,313,016	3,051	3,051
Uncontrolled	0	717.4	--	--	--	--	--
<u>SO₂</u>							
Lime Spray Dryer	95	8.1	153.0	3,200,000	1,999,871	13,071	13,071
No Add-On Control	0	161.0	--	--	--	--	--
<u>CO + VOC</u>							
RSCR	80	156.2	625.0	14,552,100	3,106,924	4,971	6,008
Advanced Over-Fire Air	24	593.7	187.5	3,084,415	478,794	2,554	2,554
Modern Over-Fire Air	0	781.2	--	--	--	--	--
<u>NO_x + CO + VOC</u>							
RSCR		340.2	1,158.0	14,552,100	3,106,924	2,683	2,435
SNCR + Advanced Over-Fire Air		880.6	617.9	4,852,637	1,791,810	2,900	2,554
SNCR + Modern Over-Fire Air		1,068.1	430.4	1,768,222	1,313,016	3,051	3,051
Uncontrolled		1,498.6	--	--	--	--	--



**TABLE C
SUMMARY OF TOP-DOWN BACT ANALYSIS IMPACT RESULTS FOR
FLUIDIZED BED BOILER**

Control Alternative	Economic Impacts						
	Control Efficiency (%)	Emissions (TPY)	Emissions Reduction (TPY)	Installed Capital Cost (\$)	Total	Average Cost Effectiveness (\$/ton)	Incremental Cost Effectiveness (\$/ton)
					Annualized Cost (\$/yr)		
<u>NO_x</u>							
RSCR	74	133.2	379.2	14,552,100	3,106,924	8,194	25,007
SNCR	60	205.0	307.4	1,768,222	1,313,016	4,271	--
Uncontrolled	0	512.4					
<u>CO + VOC</u>							
RSCR	80	78.1	543.0	14,552,100	3,106,924	5,722	--
Fluidized Bed Boiler	0	390.6	--	--	--	--	--
<u>NO_x + CO + VOC</u>							
RSCR		211.3	691.7	14,552,100	3,106,924	4,492	4,669
SNCR		595.6	307.4	1,768,222	1,313,016	4,271	--
Uncontrolled		903.0					

ATTACHMENT A

PRELIMINARY LEAK DETECTION AND REPAIR PROGRAM

ATTACHMENT A
PRELIMINARY LEAK DETECTION AND REPAIR PROGRAM
FOR SOUTHEAST RENEWABLE FUELS, LLC
HENDRY COUNTY, FLORIDA
MAY 2010

1.0 INTRODUCTION

Southeast Renewable Fuels, LLC (SRF) will be subject to the new source performance standards (NSPS) contained in Title 40, Part 60 of the Code of Federal Regulations (40 CFR 60), Subpart VVa – Equipment Leaks of VOC in the Synthetic Organic Chemicals Manufacturing Industry For Which Construction, Reconstruction, or Modification Commenced After November 7, 2006. This subpart applies to all process units within the Synthetic Organic Chemicals Manufacturing Industry (SOCMI). The SOCMI industry is defined as the industry that produces, as intermediates or final products, one or more of the chemicals listed in §60.489. Ethanol is one of those listed chemicals.

Process unit means the components assembled and connected by pipes or ducts to process raw materials and to produce, as intermediate or final products, one or more of the chemicals listed in §60.489. A process unit can operate independently if supplied with sufficient feed or raw materials and sufficient storage facilities for the product. For the purpose of this subpart, process unit includes any feed, intermediate and final product storage vessels [except as specified in §60.482-1a(g)], product transfer racks, and connected ducts and piping. A process unit includes all equipment as defined in Subpart VVa (i.e., pumps, compressors, pressure relief devices, sampling connections, open-ended valves or lines, valves, valves, and connectors).

For the proposed SRF facility, Subpart VVa would apply to the ethanol production process, storage tanks, and the ethanol truck loading rack. In order to comply with the leak detection and repair requirements of Subpart VVa, a leak detection and repair (LDAR) program must be developed and implemented. SRF must be in compliance with Subpart VVA, including the LDAR program, no later than 180 days after the SRF facility becomes operational.

The following presents the framework for establishing a LDAR program at the SRF facility. The use of this procedure will assure compliance with federal and state regulations. This procedure applies to all regulated equipment used in volatile organic compound (VOC) service within the ethanol production process at the SRF Advanced Biorefinery.

2.0 LDAR PROGRAM

2.1 Identification of Process Equipment

- Identify each regulated piece of equipment component, the type of equipment, and type of service. Document in a log.
- Assign a unique identification (ID) number to each piece of equipment. Update as necessary.
- Tag and physically locate each piece of equipment in the facility. Verify its location on the piping and instrumentation diagrams (P&IDs) or process flow diagrams. Update as necessary.
- Maintain log of dates when new equipment is added and replacement equipment is taken out of service.

2.2 Leak Definition

- Identify the definition of "leaking" for each piece of equipment. Leak definitions vary by equipment type, VOC service (e.g., light liquid, heavy liquid, gas/vapor), and monitoring frequency. The regulations may define a leak based on a measured VOC level, visual inspections and observations (such as fluids dripping, spraying, misting, or clouding around equipment), sound (such as hissing), or smell.

2.3 Monitoring of Equipment

- Identify the monitoring frequency for each piece of equipment. Monitoring frequency may be weekly, monthly, quarterly, or annually. Document equipment and frequency in a log.
- Monitor all regulated equipment in accordance with U.S. Environmental Protection Agency (EPA) Method 21, contained in 40 CFR 60 Appendix A, which measures VOC emissions. Attach ID tags to all leaking equipment.
- Obtain background VOC readings from equipment designated as "no detectable emissions" initially, annually, and when requested by the Florida Department of Environmental Protection (FDEP). Record date of monitoring and instrument reading.

2.4 Repairing of Equipment

- Repair all leaking components as soon as practicable, but no later than the time period specified in the rule for each type of equipment (generally between 5 and 15 days for first attempt at repair).
- Test the repaired equipment per Method 21 to ensure the equipment is not leaking above the applicable leak definition.
- Place all leaking components that would require a process unit shutdown on the Delayed Repair List. Record the component ID number and an explanation of why the component cannot be repaired immediately. Also include an estimated date for repairing the equipment.

2.5 Recordkeeping

- Maintain a list of ID numbers for all equipment subject to Subpart VVa.
- Maintain a list of ID numbers for all equipment designated as "no detectable leaks."
- Maintain a list of ID numbers for all valves designated as "unsafe to monitor," and an explanation/review of conditions for the designation.

- Maintain the results of performance testing and leak detection monitoring, including leak monitoring results per the leak frequency, monitoring no-leak equipment, and non-periodic event monitoring.
- For all detected leaks, maintain records of the equipment ID number, the instrument and operator ID numbers, and the date the leak was detected.
- Maintain a log of the dates of each repair attempt and an explanation of the attempted repair method.
- Maintain a log of the dates of successful repairs. Document results of monitoring test to demonstrate the leak was repaired successfully.

EMAILS DATED APRIL 15 AND APRIL 26, 2010

Tom Zych | Document Production Coordinator | **Golder Associates Inc.**
6026 NW 1st Place, Gainesville, Florida, USA 32607
T: +1 (352) 336-5600 | F: +1 (352) 336-6603 | E: Tom_Zych@golder.com | www.golder.com

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Please consider the environment before printing this email.

From: Marks, Steve
Sent: Monday, May 10, 2010 1:51 PM
To: Zych, Tom
Subject: FW: SRF Supplemental Information, part 2

From: Marks, Steve
Sent: Monday, April 26, 2010 4:49 PM
To: 'Rogers, Tom'
Cc: 'Linero, Alvaro'; Buff, Dave; McCann, Bob; Grener, Priscilla
Subject: RE: SRF Supplemental Information, part 2

Tom,

Please find attached updated spreadsheets that complete the information requested by FDEP during our April 13, 2010 telephone call. An initial set of responses were provided to the Department in an April 15, 2010 email (see below). However, the SO₂ analyses discussed in Item 2 and the PM_{2.5} analyses mentioned in Item 4 of the April 15 email had not been completed at that time. This purpose of this email is to provide the remaining information not sent on April 15th.

As mentioned in Item 2 of the April 15th email, below, the SO₂ significant impact analyses were updated and the maximum significant impact distance was revised to 34.5 km. Table 6-5 (attached) was updated and as a result, an additional 12 facilities were incorporated into the SO₂ AAQS and PSD Class II analyses. Tables F-2 to F-5 (attached) have been updated to include the detail for the 12 additional facilities. A receptor grid of 35 km was used for both the AAQS and PSD Class II modeling analyses.

The updated SO₂ AAQS and PSD Class II modeling results are presented in Tables 6-10 and 6-12 (attached), respectively. The results indicate that the total SO₂ concentrations due to the proposed project and background source will comply with the SO₂ AAQS and the allowable PSD Class II increments.

Response to Item 4)

A significant impact analysis was performed using the proposed project's PM_{2.5} emissions that were provided in the submitted application. The highest annual average concentration was 1.245 ug/m³ which is greater than the most stringent SIL of 0.3 ug/m³. The highest 24-hour concentration is 12.65 ug/m³ which is greater than the most stringent SIL of 1.2 ug/m³. Therefore, AAQS analysis were performed for both averaging times. The sig impact distances were determined for each averaging time

and were 0.86 km for the annual and 4.36 km for the 24-hour averaging times. As such, receptor grids of 1 and 4.5 km were developed for the PM2.5 annual and 24-hr AAQS analyses, respectively.

The PM10 background source inventory used for the AAQS, as presented in Table 6-6 of the submitted PSD report, does not change for a significant impact distance of 4.5 km. As such the background source inventory used for the PM2.5 AAQS analyses is the same as that which was used for the submitted PM10 AAQS analyses.

The following updated tables are attached:

Table 6-10 – Significant impact analysis – for both SO2 and PM2.5

Table 6-12 – AAQS analysis results for SO2 and PM2.5, and

Table 6-13 – PSD Class analysis results for SO2

Please note that Tables 6-14 and F-1 have been included for completeness and have not been updated since the April 15th email.

From Table 6-12, the highest annual and 5-year average 24-hour modeled concentrations are 1.9 and 14.3 ug/m³, respectively. When added to non-modeled annual and 24-hour PM2.5 background concentrations of 7.2 and 18.6, respectively (see Table 4-2 in the submitted PSD report), the total annual and 24-hour concentrations become 9.1 and 32.9 ug/m³, respectively, will be less than the AAQS of 15 and 35 ug/m³.

The last batch of updated air modeling files have been forwarded to you separately earlier today via our FTP server. Please let me know if you have any problems retrieving the modeling files. It is believed that the information provided today completes the response to the Department's April 13, 2010 request for additional and updated modeling. Please feel free to contact me if you have any questions or comments. Thank you.

Steve

From: Marks, Steve

Sent: Thursday, April 15, 2010 6:43 PM

To: 'Rogers, Tom'

Cc: 'Linero, Alvaro'; Buff, Dave; McCann, Bob

Subject: SRF Supplemental Information

Tom,

This initial email is being provided to address comments on the Southeast Renewable Fuels (SRF) PSD application provided during last Tuesday's (April 13, 2010) telephone conversation. The comments generally covered the following areas:

- 1) The Justification for the selection of a 4% significant impact level for the 1-hour NO2 ambient air quality standard (AAQS)
- 2) Question about the calculated significant impact distances used for NO2 and SO2 cumulative source modeling analyses
- 3) Question about double counting sources in the SO2 PSD Class I modeling analyses
- 4) Addressing the PM2.5 AAQS

Responses:

1) Presently, a significant impact level (SIL) for the 1-hour NO₂ AAQS does not exist. However, it was determined that a SIL was needed for the modeling analyses to limit the distances of both the background sources that need to be considered and also the receptor grid to be used for the cumulative sources analyses. The only other 1-hour AAQS in place before the NO₂ standard was for carbon monoxide (CO). The 1-hour SIL for CO is 2,000 ug/m³ which is 5 percent of the AAQS of 40,000 ug/m³. While there are SIL for other pollutants and longer averaging times that range from 1.9 to 3.3 percent of their respective AAQS, a SIL of 4.0% was considered appropriate for NO₂ due to the 1-hour averaging time and also because the purpose of the SIL was not to exempt the project from cumulative source modeling but to limit the distances of sources to be considered and of the receptor grid to be used. As a side note, Golder initially proposed a 4.0% 1-hour NO₂ SIL in an air modeling protocol submitted to the Georgia DNR on March 9, 2010. Using the same reasoning, the GA DNR suggested a 5% SIL in their response.

2) Some discrepancies in the calculation of the SIL distances were noted in the original analysis and in response, the significant impact analyses have been revised for both SO₂ and NO₂. The NO₂ significant impact analysis is now using a revised emission rate provided in Table 6-3 (attached) which results in a significant impact distance of 11.8 km. As such, the NO₂ background facility screening and detail was updated (Tables 6-7, F-7), and a new 12-km receptor grid was used for the 1-Hour NO₂ AAQS modeling analysis. For SO₂, the maximum significant impact distance was determined to be 34.5 km for the 24-hour average. As such the SO₂ background facility screening table has been updated and results in the inclusion of additional background sources into the SIA and a much larger receptor grid. As such, the cumulative source SO₂ AAQS and PSD increment analysis are currently being updated and the results will be provided to FDEP next week.

Based on the revised modeling analyses, Tables 6-10, 6-12, 6-13, 6-14 and F-1 have been updated (attached). Please note that the highlighted values in Tables 6-12 and 6-13 are currently being updated. Table 6-14 has been revised to reflect the highest-2nd highest predicted concentrations. The previously submitted Table 6-14 incorrectly reflected the "highest" predicted concentrations. The revised results should be much more consistent with the SO₂ PSD Class I analysis results that have previously been submitted to FDEP on other projects.

3) Upon re-examination of the SO₂ PSD Class I CALPUFF input files submitted to FDEP, it was determined that no double counted of sources exists and that the submitted runs are accurate. It is noted that some of the sugar mill area sources have sources that only operate during the growing season and sources that operate during the off-season. Sometimes, they are the same sources but with different emission rates. In modeling, the emissions for such sources are controlled by hourly emission factors records.

4) response to be provided

The first batch of updated air modeling files have been forwarded to you via our FTP server. Please let me know if you have any problems retrieving the files. The remaining items of the Department's request will be provided early next week.

Steve

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TABLE 6-3
MODELED EMISSION RATES USED FOR THE SIGNIFICANT IMPACT ANALYSIS, SRF

Source ID	Model ID	Description	Modeled Emission Rate ^a																			
			SO ₂						PM ₁₀				CO				NO _x ^e				SAM ^d	
			Annual ^b		24-hour ^c		3-hour ^c		Annual ^b		24-hour		8-hour		1-hour		Annual ^b		1-hour		24-hour	
(TPY)	(g/s)	(lb/hr)	(g/s)	(lb/hr)	(g/s)	(TPY)	(g/s)	(lb/hr)	(g/s)	(lb/hr)	(g/s)	(lb/hr)	(g/s)	(TPY)	(g/s)	(lb/hr)	(g/s)	(lb/hr)	(g/s)			
Point Sources																						
Boiler Type^a																						
Spreader Stoker	SSBLR	Spreader Stoker	161.1	4.63	54.6	6.88	69.7	8.78	40.9	1.18	9.8	1.23	1,352.0	170.35	1,352.0	170.35	215.0	6.18	72.4	9.12	1.20	0.15
Bubbling Fluidized Bed	BFBBLR	Bubbling Fluidized Bed	161.1	4.63	54.6	6.88	69.7	8.78	40.9	1.18	9.8	1.23	624.0	78.62	624.0	78.62	153.5	4.42	72.4	9.12	1.20	0.15
Cooling Tower 1	CT1MCH	Machine cooling	--	--	--	--	--	--	0.019	0.00054	0.0043	0.00054	--	--	--	--	--	--	--	--	--	--
Cooling Tower 2	CTCS_A - CTCS_C	Condensing set cooling	--	--	--	--	--	--	0.10	0.0028	0.022	0.0028	--	--	--	--	--	--	--	--	--	--
Cooling Tower 3	CTP_A - CTP_C	Process cooling	--	--	--	--	--	--	0.054	0.0015	0.012	0.0015	--	--	--	--	--	--	--	--	--	--
Flare 1 ^a	BIOFLR	Biogas Flare	45.4	1.31	126.2	15.90	126.2	15.90	0.13	0.0037	0.37	0.047	1.14	0.14	1.14	0.14	0.26	0.0076	0.72	0.091	--	--
Flare 2	TRKFLR	Truck Load Out Flare	0.0091	0.00026	0.0059	0.00074	0.0059	0.00074	0.052	0.0015	0.034	0.0043	3.61	0.45	3.61	0.45	0.78	0.022	0.50	0.062	--	--
Area and Volume Sources																						
	Model ID	Description	Source Type	PM ₁₀										Area Source Emission Rate								
				Annual		24-hour		Area Source Size		Annual		24-hour										
				(TPY)	(g/s)	(lb/hr)	(g/s)	(ft ²)	(m ²)	(g/m ² -s)	(g/m ² -s)											
Biomass Materials Handling	BIOFUG	Conveyors, belts, and sceens	Area	0.75	0.021	0.55	0.070	204,892	19,035	1.13E-06	3.65E-06											
Biomass Pile Wind Erosion	BIOFUGWE	Biomass storage pile wind erosion	Area	0.41	0.012	1.13	0.14	204,892	19,035	6.20E-07	7.47E-06											
Biomass Pile Vehicular Maint.	BIOFUGVM	Biomass storage vehicular maintenance	Area	2.74	0.079	0.91	0.11	204,892	19,035	4.14E-06	6.01E-06											
Biomass Truck Traffic ^b	BMTRK	Sorghum and wood deliveries, and ash hauling	Line	1.18	0.034	0.27	0.034	--	--	--	--											
Other Truck Traffic	MSTRK	Ethanol, fusel oil, second grade alcohol load out, and dry ice load out, plus gasoline deliveries	Line	0.11	0.0030	0.029	0.0037	--	--	--	--											

^a Emissions are included for both boiler types, however, only the spreader stoker boiler is modeled based on worst case emissions. When the boiler is not operating, Flare 1 (biogas flare) can operate up to 720 hr/yr.

^b Annual averages are based on the annual emission rate in TPY over 8,760 hours.

^c SO₂ short-term emissions were modeled based on a worst-case scenario with the biogas flare operating instead of the boiler.

^d SAM emissions are included only for the visibility analysis. SAM is not a PSD pollutant.

^e A NO_x to NO₂ conversion factor of 75% applies based on EPA's Guidline on Air Quality Models.

TABLE 6-7
SUMMARY OF THE NO_x FACILITIES CONSIDERED FOR INCLUSION IN THE PSD CLASS II AIR MODELING ANALYSES

AIRS Number	Facility	County	UTM Coordinates		Relative to SRF ^a				Maximum NO _x Emissions (TPY)	Q _x (TPY) Emission Threshold ^{b,c} (Dist - SID) x 20	Include in Modeling Analysis ?
			East (km)	North (km)	X (km)	Y (km)	Distance (km)	Direction (deg)			
<u>Modeling Area^d</u>											
None											
<u>Screening Area^d</u>											
0510003	U.S. Sugar Clewiston Mill And Refinery	Hendry	506.1	2956.9	4.1	16.0	16.52	14	3646.5	90.3	YES
0510022	Fiberstar, Inc.	Hendry	487.7	2957.2	-14.3	16.3	21.69	319	48.4	193.8	NO
0510015	Southern Gardens Citrus Processing Corp.	Hendry	487.5	2957.6	-14.5	16.7	22.12	319	158.4	202.3	NO
0990332	Okeelanta Cogeneration Plant - New Hope Power Co.	Palm Beach	524.4	2940.0	22.4	-0.9	22.38	92	1498.0	207.5	YES
0430018	Oldcastle Lawn And Garden Moore Haven	Glades	492.0	2961.3	-10.0	20.4	22.74	334	25.0	214.8	NO
0990005	Okeelanta Sugar Refinery	Palm Beach	524.9	2940.1	22.9	-0.8	22.91	92	84.4	218.3	NO
0990615	SFWMD - Pump Station G-372	Palm Beach	519.3	2923.6	17.3	-17.3	24.49	135	245.4	249.8	NO
0510027	Clewiston Facility	Hendry	495.4	2966.5	-6.6	25.6	26.43	346	10.9	288.7	NO
0430008	South Florida Thermal Services, Inc.	Glades	489.2	2966.6	-12.8	25.7	28.71	334	34.5	334.2	NO
0110351	SFWMD Pump Station S-8 & G-404	Broward	522.3	2912.2	20.3	-28.7	35.15	145	771.2	463.1	YES
0990026	Sugar Cane Growers Co-Op	Palm Beach	534.9	2953.9	32.9	13.0	35.33	68	3470.7	466.7	YES
0990614	SFWMD - Pump Station G-370	Palm Beach	540.5	2919.5	38.5	-21.4	44.03	119	248.5	640.5	NO
0510004	Citrus Belle	Hendry	456.4	2950.3	-45.6	9.4	46.56	282	107.6	691.2	NO
0210018	Sunniland Quarry	Collier	467.8	2905.8	-34.2	-35.1	49.01	224	46.6	740.1	NO
0990019	Osceola Farms	Palm Beach	544.4	2967.7	42.4	26.8	50.20	58	987.0	764.1	YES
0990016	Atlantic Sugar Mill	Palm Beach	553.0	2945.4	51.0	4.5	51.16	85	1110.6	783.3	YES
0990354	SFWMD - Pump Station S-7	Palm Beach	545.8	2912.8	43.8	-28.1	52.04	123	235.5	800.7	NO
0990549	SFWMD - Pump Station G-310	Palm Beach	554.2	2940.5	52.2	-0.5	52.20	90	498.0	804.0	NO
0990550	SFWMD - Pump Station G-335	Palm Beach	552.6	2922.0	50.6	-18.9	54.02	110	60.7	840.4	NO
7775215	Daniel P. Mays/Church Road Site	Hendry	445.8	2934.5	-56.2	-6.4	56.53	263	87.6	890.7	NO
0710113	City Of Cape Coral Dep Pub Srvc	Lee	444.4	2941.1	-57.6	0.2	57.62	270	14.5	912.4	NO
7775253	Lehigh Acres Site	Hendry	443.8	2949.2	-58.2	8.3	58.75	278	6.5	935.0	NO
0710193	West Felda Tank Battery	Lee	442.6	2937.2	-59.4	-3.7	59.51	266	1.6	950.1	NO
<u>Beyond Screening Area out to 100 km^d</u>											
0990646	Fp&L / West County Energy Center	Palm Beach	562.2	2952.9	60.2	12.0	61.37	79	665.6	987.4	NO
0990349	SFWMD - Pump Station S-5a	Palm Beach	562.6	2951.3	60.6	10.4	61.49	80	249.4	989.7	NO
0990530	Hubbard / East Coast Paving (Wpb)	Palm Beach	562.8	2952.0	60.8	11.1	61.79	80	29.4	995.8	NO
0990620	SFWMD - Pump Station S-319	Palm Beach	566.3	2951.2	64.3	10.3	65.12	81	241.4	1062.5	NO
0990621	SFWMD - Pump Station S-362	Palm Beach	567.2	2945.0	65.2	4.1	65.34	86	249.2	1066.8	NO
0990566	Indian Trail Improvement District - Aci	Palm Beach	565.7	2956.4	63.7	15.5	65.59	76	22.1	1071.7	NO
0850102	Indiantown Cogeneration Plant	Martin	547.7	2990.7	45.7	49.8	67.56	43	2584.0	1111.1	YES
0210031	Raccoon Point	Collier	509.6	2873.2	7.6	-67.7	68.13	174	543.7	1122.5	NO
0850002	Louis Dreyfus Citrus / Indiantown Plant	Martin	548.0	2991.5	46.0	50.6	68.35	42	34.0	1127.0	NO
0850001	Martin Power Plant	Martin	543.1	2996.7	41.1	55.8	69.29	36	35913.6	1145.9	YES
0850147	Floridian Natural Gas Storage Co., Inc.	Martin	545.9	2996.3	43.9	55.4	70.73	38	23.9	1174.5	NO
0550060	Compressor Station No. 29	Highlands	494.3	3012.4	-7.7	71.5	71.91	354	28.5	1198.3	NO
7770267	Asphalt Plant #6	Lee	429.0	2928.9	-73.0	-12.0	73.98	261	13.8	1239.7	NO
0710187	Fort Myers Asphalt Plant No. 2	Lee	428.0	2930.4	-74.0	-10.5	74.72	262	20.2	1254.3	NO
0990021	United Technologies / Pratt Whitney Acft	Palm Beach	568.4	2975.8	66.4	34.9	75.04	62	1256.4	1260.8	NO
7770073	Clearwater Asphalt Plant	Pinellas	514.5	3014.9	12.5	74.0	75.07	10	26.0	1261.5	NO
0210023	Golden Gate Asphalt Plant And Quarry	Collier	437.9	2898.9	-64.1	-42.0	76.63	237	47.8	1292.7	NO
0550014	Lake Placid Asphalt Plant	Highlands	465.6	3008.7	-36.4	67.8	76.95	332	59.9	1299.1	NO
0710133	Gulf Coast Sanitary Landfill	Lee	424.2	2942.8	-77.8	1.9	77.80	271	46.6	1316.1	NO
0710119	Lee Co. Solid Waste Resource Rec. Fac.	Lee	424.1	2945.8	-77.9	4.9	78.04	274	950.1	1320.7	NO
0990087	Ranger Construction / (Royal Palm Beach)	Palm Beach	579.9	2951.7	77.9	10.8	78.65	82	24.8	1332.9	NO
0112410	Sfwmd Pump Station S-9/S-9a	Broward	555.5	2882.3	53.5	-58.6	79.31	138	243.0	1346.3	NO

**TABLE 6-7
SUMMARY OF THE NO_x FACILITIES CONSIDERED FOR INCLUSION IN THE PSD CLASS II AIR MODELING ANALYSES**

AIRS Number	Facility	County	UTM Coordinates		Relative to SRF ^a			Maximum NO _x Emissions (TPY)	Q, (TPY) Emission Threshold ^{b,c} (Dist - SID) x 20	Include in Modeling Analysis ?	
			East (km)	North (km)	X (km)	Y (km)	Distance (km)				Direction (deg)
0710002	Fort Myers Power Plant	Lee	422.3	2952.6	-79.7	11.7	80.56	278	30426.2	1371.3	YES
0990310	Community Asphalt / Wpb Plant	Palm Beach	582.3	2950.9	80.3	10.0	80.92	83	33.9	1378.4	NO
7775172	Asphalt Plant No. 7	Charlotte	423.7	2964.4	-78.4	23.5	81.80	287	15.4	1395.9	NO
0150028	Tuckers Corner	Charlotte	422.7	2963.9	-79.3	23.0	82.57	286	13.8	1411.4	NO
0210051	Collier County Landfill -Naples Landfill	Collier	434.6	2893.2	-67.4	-47.7	82.58	235	31.8	1411.5	NO
0990333	Compressor Station No. 21	Palm Beach	584.3	2952.8	82.3	11.9	83.20	82	156.2	1424.0	NO
7774822	Pennsylvania Street Site	Lee	418.4	2930.9	-83.6	-10.0	84.18	263	38.5	1443.6	NO
0710265	Fort Myers Plant	Lee	417.4	2931.1	-84.6	-9.8	85.13	263	16.2	1462.7	NO
0990234	Solid Waste Authority Of Pbc/Ncrrf	Palm Beach	585.3	2960.9	83.3	20.0	85.62	76	2541.9	1472.4	YES
7770233	Plant #4 - Drum Mix Asphalt Plant	Lee	416.4	2930.8	-85.6	-10.1	86.19	263	13.8	1483.9	NO
7774818	Naples Asphalt Plant No. 4	Collier	432.5	2889.7	-69.5	-51.2	86.32	234	61.1	1486.5	NO
0710004	Gulf Paving Co	Lee	415.2	2944.1	-86.8	3.2	86.86	272	11.2	1497.2	NO
0112094	Central Disposal	Broward	583.2	2908.0	81.2	-32.9	87.61	112	74.8	1512.2	NO
0930104	Berman Road Landfill	Okeechobee	530.3	3024.0	28.3	83.1	87.74	19	146.5	1514.8	NO
0110045	Hardrives / Deerfield Plant	Broward	583.8	2909.1	81.8	-31.8	87.80	111	10.8	1515.9	NO
0990344	Parkway Asphalt / (Riviera Beach)	Palm Beach	587.4	2962.1	85.4	21.2	87.96	76	19.0	1519.3	NO
0850120	Martin Co/Palm City li Sanitary Landfill	Martin	561.1	3006.6	59.1	65.7	88.40	42	17.9	1528.0	NO
0112120	Wheelabrator North Broward	Broward	583.9	2907.6	81.9	-33.3	88.41	112	1399.2	1528.2	NO
0112357	Broward County/North Regional Wwtf	Broward	583.5	2905.0	81.5	-35.9	89.04	114	88.3	1540.9	NO
0990123	Fp&L / Physical Distribution Ctr & Osf	Palm Beach	589.7	2961.2	87.7	20.3	90.02	77	16.1	1560.4	NO
0250252	Miami Plant	Miami-Dade	557.0	2869.3	55.0	-71.6	90.29	142	12.8	1565.7	NO
0210116	Flamingo Bend Nursery	Collier	436.9	2878.1	-65.1	-62.8	90.49	226	48.0	1569.8	NO
0990045	L.W. Utilities / Tom G. Smith Pwr Plant	Palm Beach	592.8	2943.7	90.8	2.8	90.84	88	5863.6	1576.9	YES
0990095	Bethesda Memorial Hospital	Palm Beach	592.6	2931.9	90.6	-9.0	91.00	96	34.2	1580.0	NO
0990119	Boca Raton Community Hospital	Palm Beach	589.5	2915.7	87.5	-25.2	91.07	106	12.3	1581.5	NO
0110038	Bonsal American	Broward	586.2	2904.6	84.2	-36.3	91.69	113	22.1	1593.8	NO
0112152	Gold Coast Crematory	Broward	584.7	2897.8	82.7	-43.1	93.24	118	10.2	1624.9	NO
0990042	FP&L / Riviera Power Plant	Palm Beach	593.3	2960.6	91.3	19.7	93.38	78	16565.2	1627.5	YES
0990015	Boca Raton Resort And Club	Palm Beach	592.0	2913.7	90.0	-27.2	94.04	107	12.4	1640.8	NO
0990046	Cemex Construction / (Riviera Beach)	Palm Beach	594.3	2960.8	92.3	19.9	94.42	78	98.7	1648.4	NO
0990350	Sfwmd / Pump Station S-6	Palm Beach	596.2	2927.8	94.2	-13.1	95.07	98	494.6	1661.5	NO
0111019	Holy Cross Hospital	Broward	587.1	2896.5	85.1	-44.4	95.97	118	10.9	1679.4	NO
0112119	Wheelabrator South Broward	Broward	579.5	2883.3	77.5	-57.6	96.57	127	1497.0	1691.4	NO
0110037	Ft. Lauderdale Power Plant	Broward	580.1	2883.6	78.1	-57.3	96.86	126	11509.1	1697.1	YES
0250603	Miami Dade Solid Wste Mgmt/No Dade Lf	Miami-Dade	570.7	2872.1	68.7	-68.8	97.18	135	259.6	1703.6	NO
0250624	General Asphalt Plant Wdhma	Miami-Dade	569.7	2868.3	67.7	-72.6	99.24	137	81.3	1744.8	NO
0150075	Zemel Road Solid Waste Management Facil.	Charlotte	405.5	2964.0	-96.5	23.1	99.25	283	31.0	1745.0	NO
0250020	Tarmac-Pennsuco Cement	Miami-Dade	562.3	2861.7	60.3	-79.2	99.52	143	1228.6	1750.5	NO

Note: NA = Not applicable, ND = No data, SID = Significant impact distance for the project

^a Southeast Renewable Fuels East and North Coordinates (km) are: 502.0 2940.90 km

^b The significant impact distance for the project is estimated to be: 12 km

^c Based on the North Carolina Screening Threshold method, a background facility is included in the modeling analysis if the facility is beyond the modeling area and its emission rate is greater than the product of (Distance-SID) x 20.

^d "Modeling Area" is the area in which the project is predicted to have a significant impact (12 km). EPA recommends that all sources within this area be modeled. "Screening Area" is the significant impact distance for the SRF Facility of 12 km, plus 50 km beyond the modeling area. EPA recommends that sources be modeled that are expected to have a significant impact in the modeling area. "Beyond Screening Area out to 100 km" is the distance between the facilities and out to 100 km in which large sources are included in the modeling.

**TABLE 6-10
MAXIMUM PREDICTED IMPACTS FOR SRF PROJECT ONLY
COMPARED TO EPA CLASS II SIGNIFICANT IMPACT LEVELS**

Pollutant	Averaging Time	Maximum Predicted Concentration ^a ($\mu\text{g}/\text{m}^3$)	Receptor Location		Time Period (YYMMDDHH)	EPA Class II Significant Impact Levels ($\mu\text{g}/\text{m}^3$)
			UTM- East (m)	UTM- North (m)		
SO ₂	Annual	1.35	501,767	2,940,764	01123124	1
	24-Hour	88.7	502,381	2,940,963	05070224	5
	3-Hour	293.2	502,000	2,940,600	05011912	25
PM ₁₀	Annual	9.0	501,767	2,940,764	02123124	1
	24-Hour	28.5	502,380	2,941,012	03011024	5
PM _{2.5} ^b	Annual	1.2	501,767	2,940,764	02123124	0.3
	24-Hour	12.7	502,197	2,940,669	04010724	1.2
NO ₂ ^c	Annual	0.60	501,500	2,940,600	01123124	1
	1-Hour	22.85	502,141	2,941,061	02080311	7.6 ^d
CO	8-Hour	238.8	502,400	2,941,000	02061416	500
	1-Hour	322.1	502,400	2,941,100	04090522	2,000

Note: YYMMDDHH = Year, Month, Day, Hour Ending

^a Concentrations are based on concentrations predicted using 5 years of meteorological data from 2001 to 2005 of surface and upper air data from the National Weather Service stations at Fort Myers Southwest Florida Regional (RSW) Airport and Tampa International Airport, respectively.

^b The SIL for PM_{2.5} annual and 24-hour concentrations are based on the most stringent of three proposed standards in the EPA document titled "PSD for PM_{2.5} - Increments, SILs and SMC" (EPA-HQ-AOR-2006-0605; FRL-8470-1).

^c A NO_x to NO₂ conversion factor of 75% applies based on EPA's Guideline on Air Quality Models.

^d EPA has not yet defined a significant impact level for NO₂ 1-hour impacts. Therefore, a level of 7.6 $\mu\text{g}/\text{m}^3$ was used, based on 4% of the AAQS standard (189 $\mu\text{g}/\text{m}^3$). The AAQS 1-hour NO₂ standard is met when the 3-year average of the 98th percentile of the daily 1-hour maximum values is less than 189 $\mu\text{g}/\text{m}^3$. However, for the significant impact analysis, a conservative approach was taken, and the maximum 1-hour impacts were compared to 4% of the AAQS.

**TABLE 6-12
MAXIMUM PREDICTED SO₂, PM₁₀, PM_{2.5} AND NO₂ IMPACTS FOR ALL SOURCES, COMPARED TO THE AAQS**

Averaging Time and Rank	Maximum Concentration (µg/m ³) ^a			Receptor Location		Time Period (YYMMDDHH)	AAQS (µg/m ³)
	Total	Modeled Sources	Background	UTM- East (m)	UTM- North (m)		
<u>SO₂</u>							
Annual, Highest	23.2	18.0	5.2	534,000	2,952,900	01123124	60
	21.5	16.3	5.2	534,000	2,952,900	02123124	
	21.2	16.0	5.2	534,000	2,952,900	03123124	
	20.8	15.6	5.2	534,000	2,952,900	04123124	
	22.8	17.6	5.2	534,000	2,952,900	05123124	
24-Hour, HSH	91.2	85.7	5.5	535,000	2,953,900	1,013,024	260
	100.1	94.6	5.5	535,000	2,952,900	2,042,324	
	100.9	95.4	5.5	534,000	2,952,900	3,020,824	
	113.6	108.1	5.5	535,000	2,953,900	4,021,424	
	97.8	92.3	5.5	535,000	2,953,900	5,031,624	
3-Hour, HSH	271.3	263.5	7.8	535,000	2,953,900	1,091,115	1,300
	358.8	351.0	7.8	535,000	2,952,900	2,021,312	
	336.9	329.1	7.8	535,000	2,952,900	3,102,115	
	332.5	324.7	7.8	535,000	2,952,900	4,031,712	
	342.2	334.4	7.8	535,000	2,952,900	5,091,015	
<u>PM₁₀</u>							
Annual, Highest	29.6	9.6	20.0	501,767	2,940,764	01123124	50
	29.8	9.8	20.0	501,767	2,940,764	02123124	
	28.9	8.9	20.0	501,767	2,940,764	03123124	
	29.2	9.2	20.0	501,767	2,940,764	04123124	
	28.7	8.7	20.0	501,767	2,940,764	05123124	
24-Hour, H6H	75.2	26.2	49.0	501,768	2,940,715	01121224	150
<u>PM_{2.5}</u>							
Annual, Highest	9.0	1.8	7.2	501,767	2,940,764	01123124	15
	9.1	1.9	7.2	501,767	2,940,764	02123124	
	8.9	1.7	7.2	502,197	2,940,669	03123124	
	8.9	1.7	7.2	501,767	2,940,764	04123124	
	9.1	1.9	7.2	502,197	2,940,669	05123124	
24-Hour, Highest	--	14.6	--	502,197	2,940,669	01101724	35
	--	13.5	--	502,245	2,940,669	02120624	
	--	14.0	--	502,197	2,940,669	03110924	
	--	15.1	--	502,245	2,940,669	04011124	
	--	14.5	--	502,245	2,940,669	05111824	
Average	32.9	14.3	18.6	--	--	--	
<u>NO₂^{b,c}</u>							
1-Hour, HSH	159.4	91.7	67.7	512,000	2,928,900	01051923	189
	159.5	91.8	67.7	514,000	2,930,900	02121919	
	157.4	89.7	67.7	511,000	2,929,900	03030604	
	165.3	97.6	67.7	511,000	2,928,900	04050224	
	158.6	90.9	67.7	510,000	2,928,900	05121119	

Note: YYMMDDHH = Year, Month, Day, Hour Ending
 HSH = Highest, second-highest
 H6H = Highest, sixth-highest

- ^a Concentrations are based on concentrations predicted using 5 years of meteorological data from 2001 to 2005 of surface and upper air data from the National Weather Service stations at Fort Myers Southwest Florida Regional (RSW) Airport and Tampa International Airport, respectively.
- ^b A NO_x to NO₂ conversion factor of 75% applies based on EPA's Guideline on Air Quality Models.
- ^c The AAQS standard (189 µg/m³). The AAQS 1-hour NO₂ standard is met when the 3-year average of the 98th percentile of the daily 1-hour maximum values is less than 189 µg/m³. However, for the AAQS analysis, a conservative approach was taken, and the maximum HSH 1-hour impacts were compared to the AAQS standard.



**TABLE 6-13
MAXIMUM PREDICTED SO₂ AND PM₁₀ IMPACTS FOR ALL SOURCES,
COMPARED TO THE PSD CLASS II INCREMENTS**

Averaging Time and Rank	Maximum Concentration ^a (µg/m ³)	Receptor Location		Time Period (YYMMDDHH)	PSD Class II Increment (µg/m ³)
		UTM- East (m)	UTM- North (m)		
<u>SO₂</u>					
Annual, Highest	0.7	537,000	2,963,900	01123124	20
	0.3	537,000	2,964,900	02123124	
	0.5	537,000	2,963,900	03123124	
	0.4	537,000	2,966,900	04123124	
	0.3	537,000	2,964,900	05123124	
24-Hour, HSH	70.7	502,284	2,941,061	01031524	91
	63.4	501,864	2,940,666	02091724	
	72.9	501,765	2,940,863	03070524	
	67.2	502,380	2,941,012	04053124	
	73.1	501,912	2,940,667	05111124	
3-Hour, HSH	226.5	501,959	2,940,667	01082312	512
	220.3	502,046	2,941,061	02111012	
	222.8	502,381	2,940,963	03012115	
	228.8	502,100	2,940,600	04020315	
	242.1	501,912	2,940,667	05041012	
<u>PM₁₀</u>					
Annual, Highest	8.5	501,767	2,940,764	01123124	17
	8.6	501,767	2,940,764	02123124	
	7.6	501,767	2,940,764	03123124	
	8.1	501,767	2,940,764	04123124	
	7.5	501,767	2,940,764	05123124	
24-Hour, HSH	24.4	502,284	2,941,061	01030324	30
	25.8	501,817	2,940,666	02082224	
	21.2	501,767	2,940,764	03112224	
	27.0	501,768	2,940,715	04120624	
	23.1	501,768	2,940,715	05010924	

Note: YYMMDDHH = Year, Month, Day, Hour Ending
 HSH = Highest, second-highest
 H6H = Highest, sixth-highest
 NA = Not Applicable

^a Concentrations are based on concentrations predicted using 5 years of meteorological data from 2001 to 2005 of surface and upper air data from the National Weather Service stations at Fort Myers Southwest Florida Regional (RSW) Airport and Tampa International Airport, respectively.



**TABLE 6-14
MAXIMUM PREDICTED SO₂ IMPACTS FOR SRF ALL SOURCES
COMPARED TO THE PSD CLASS I INCREMENTS**

Pollutant	Averaging Time	Maximum Concentration (µg/m ³) ^a			PSD Class I Increment (µg/m ³)
		2001	2002	2003	
<u>Everglades NP</u> SO ₂	24-Hour	4.0	2.1	3.8	5

^a Concentrations are based on high, second high (HSH) concentrations predicted using the CALPUFF model and 3 years of meteorological data, 2001 to 2003, developed by VISTAS.

**TABLE F-1
MAXIMUM PREDICTED IMPACTS FOR SRF PROJECT ONLY, LAND USE DATA COMPARISON
COMPARED TO EPA CLASS II SIGNIFICANT IMPACT LEVELS**

Pollutant	Averaging Time	Maximum Predicted Concentration ^a ($\mu\text{g}/\text{m}^3$)	Receptor Location		Time Period (YYMMDDHH)	EPA Class II Significant Impact Levels ($\mu\text{g}/\text{m}^3$)
			UTM- East (m)	UTM- North (m)		
<u>RSW Airport Land Use</u>						
SO ₂	Annual	1.35	501,767	2,940,764	01123124	1
	24-Hour	88.72	502,381	2,940,963	05070224	5
	3-Hour	293.21	502,000	2,940,600	05011912	25
PM ₁₀	Annual	9.02	501,767	2,940,764	02123124	1
	24-Hour	28.49	502,380	2,941,012	03011024	5
NO ₂ ^b	Annual	0.60	501,500	2,940,600	1,123,124	1
	1-Hour	22.85	502,141	2,941,061	2,080,311	7.6 ^c
CO	8-Hour	238.80	502,400	2,941,000	2,061,416	500
	1-Hour	322.08	502,400	2,941,100	4,090,522	2,000
<u>SRF Site Land Use</u>						
SO ₂	Annual	1.33	501,767	2,940,764	01123124	1
	24-Hour	88.3	502,381	2,940,963	05070224	5
	3-Hour	296.4	502,300	2,941,100	01071209	25
PM ₁₀	Annual	8.9	501,767	2,940,764	0123124	1
	24-Hour	27.3	501,768	2,940,715	03082124	5
NO ₂ ^b	Annual	0.58	501,500	2,940,600	0123124	1
	1-Hour	22.22	502,141	2,941,061	01092411	7.6 ^c
CO	8-Hour	231.7	502,400	2,941,000	02061416	500
	1-Hour	333.5	502,100	2,939,500	01010511	2,000

Note: YYMMDDHH = Year, Month, Day, Hour Ending

^a Concentrations are based on concentrations predicted using 5 years of meteorological data from 2001 to 2005 of surface and upper air data from the National Weather Service stations at Fort Myers Southwest Florida Regional (RSW) Airport and Tampa International Airport, respectively.

^b A NO_x to NO₂ conversion factor of 75% applies based on EPA's Guidline on Air Quality Models.

^c EPA has not yet defined a significant impact level for NO₂ 1-hour impacts. Therefore, a level of 7.6 $\mu\text{g}/\text{m}^3$ was used, based on 4% of the AAQS standard (189 $\mu\text{g}/\text{m}^3$). The AAQS 1-hour NO₂ standard is met when the 3-year average of the 98th percentile of the daily 1-hour maximum values is less than 189 $\mu\text{g}/\text{m}^3$. However, for the significant impact analysis, a conservative approach was taken, and the maximum 1-hour impacts were compared to 4% of the AAQS.

TABLE F-2
SRF SUMMARY OF SO₂ 24-HOUR AND ANNUAL SOURCES INCLUDED IN THE PSD CLASS II MODELING ANALYSES

Facility ID	Facility Name Emission Unit Description	EU ID	Modeling ID Name	UTM Location		Height		Diameter		Temperature		Velocity		SO ₂ Emission Rate 24-Hour/Annual		Type of PSD Source (EXP/CON)	Modeled In		
				X (m)	Y (m)	ft	m	ft	m	°F	K	ft/s	m/s	(lb/hr)	(g/sec)		AAQS	Class II	
0510003	U.S. Sugar Clewiston Mill and Refinery																		
	On-crop season^a																		
	Boiler No. 1	001	USSBLR1N	506,100	2,956,900	213.0	64.92	8.0	2.44	150.0	338.7	82.9	25.27	29.70	3.74	CON	Yes	Yes	
	Boiler No. 2	002	USSBLR2N	506,100	2,956,900	213.0	64.92	8.0	2.44	150.0	338.7	82.9	25.27	26.80	3.38	CON	Yes	Yes	
	Boiler No. 4	009	USSBLR4N	506,100	2,956,900	150.0	45.72	8.2	2.50	160.0	344.3	88.7	27.04	36.00	4.54	CON	Yes	Yes	
	Boiler No. 7	014	USSBLR7N	506,100	2,956,900	225.0	68.58	8.0	2.44	335.0	441.5	94.5	28.80	125.50	15.81	CON	Yes	Yes	
	Boiler No. 8	028	USSBLR8N	506,100	2,956,900	199.0	60.66	10.9	3.32	315.0	430.4	75.7	23.07	64.60	8.14	CON	Yes	Yes	
	Off-crop season^a																		
	Boiler No. 7	014	USSBLR7F	506,100	2,956,900	225.0	68.58	8.0	2.44	335.0	441.5	94.5	28.80	125.50	15.81	CON	Yes	Yes	
	Boiler No. 8	028	USSBLR8F	506,100	2,956,900	199.0	60.66	10.9	3.32	315.0	430.4	75.7	23.07	64.60	8.14	CON	Yes	Yes	
	Baseline (on-crop)																		
	Boiler No. 1	001	USSBLR1B	506,100	2,956,900	75.8	23.10	6.1	1.86	160.0	344.3	99.0	30.18	-38.10	-4.80	EXP	No	Yes	
	Boiler No. 2	002	USSBLR2B	506,100	2,956,900	75.8	23.10	6.1	1.86	158.0	343.2	117.0	35.66	-38.10	-4.80	EXP	No	Yes	
	Boiler No. 3	003	USSBLR3B	506,100	2,956,900	90.0	27.43	7.5	2.29	156.0	342.0	48.2	14.69	-21.70	-2.73	EXP	No	Yes	
	East Pellet Plant		EPellet	506,100	2,956,900	40.0	12.19	5.0	1.52	165.0	347.0	28.0	8.53	-78.00	-9.83	EXP	No	Yes	
	West Pellet Plant		WPellet	506,100	2,956,900	51.5	15.70	5.0	1.52	165.0	347.0	28.0	8.53	-78.00	-9.83	EXP	No	Yes	
	Sugar Refinery Sources																		
	Granular Carbon Furnace S-12	017	S12	506,100	2,956,900	30.0	9.14	2.00	0.61	160.0	344.3	22.8	6.95	0.64	0.081	CON	Yes	Yes	
0510015	Southern Gardens Citrus Processing Corp.																		
	Boiler #1	001	SGARD01	487,500	2,957,600	55.0	16.76	4.0	1.22	400.0	477.6	49.6	15.12	1.78	0.22	CON	Yes	Yes	
	Boiler #2	002	SGARD02	487,500	2,957,600	55.0	16.76	4.0	1.22	400.0	477.6	49.6	15.12	1.78	0.22	CON	Yes	Yes	
	Boiler #3	008	SGARD08	487,500	2,957,600	55.0	16.76	4.0	1.22	400.0	477.6	49.6	15.12	1.89	0.24	CON	Yes	Yes	
	Boiler #4	010	SGARD10	487,500	2,957,600	55.0	16.76	4.0	1.22	400.0	477.6	49.6	15.12	0.33	0.04	CON	Yes	Yes	
	Boilers 1-4		SGARDBLR	487,500	2,957,600	55.0	16.76	4.0	1.22	400.0	477.6	49.6	15.12	5.78	0.73	CON	Yes	Yes	
	Peel Dryer No. 2 with Waste Heat Evaporator	019	SGARD19	487,500	2,957,600	125.0	38.10	5.7	1.74	160.0	344.3	27.3	8.32	10.50	1.32	CON	Yes	Yes	
	Peel Dryer No. 1 with Waste Heat Evaporator	003	SGARD03	487,500	2,957,600	125.0	38.10	5.7	1.74	160.0	344.3	27.3	8.32	10.50	1.32	CON	Yes	Yes	
	Peel Dryers 1 and 2		SGARDDRY	487,500	2,957,600	125.0	38.10	5.7	1.74	160.0	344.3	27.3	8.32	21.00	2.65	CON	Yes	Yes	
0990332	New Hope Power Company																		
	Boiler A	--	BLRA	524,920	2,939,440	199.0	60.7	10.0	3.05	352.0	450.9	67.7	20.63	152.0	19.15	CON	Yes	Yes	
	Boiler B	--	BLRB	524,920	2,939,440	199.0	60.7	10.0	3.05	352.0	450.9	67.7	20.63	152.0	19.15	CON	Yes	Yes	
	Boiler C	--	BLRC	524,920	2,939,440	199.0	60.7	10.0	3.05	352.0	450.9	67.7	20.63	152.0	19.15	CON	Yes	Yes	
0430018	Oldcastle Lawn and Garden Diesel Engine and Mulch Grinder	001	OLG1	492,040	2,961,340	20.0	6.1	0.75	0.23	900.0	755.4	229.1	69.83	2.05	0.26	CON	Yes	Yes	
0990005	Okeelanta ^a																		
	Boiler 4 PSD Baseline	--	OKBLR4B	524,700	2,939,500	75.0	22.9	7.5	2.29	139.7	333.0	24.1	7.36	-86.90	-10.95	EXP	No	Yes	
	Boiler 5 PSD Baseline	--	OKBLR5B	524,700	2,939,500	75.0	22.9	7.5	2.29	139.7	333.0	39.6	12.07	-124.13	-15.64	EXP	No	Yes	
	Boiler 6 PSD Baseline	--	OKBLR6B	524,700	2,939,500	75.0	22.9	7.5	2.29	141.5	334.0	28.7	8.74	-124.13	-15.64	EXP	No	Yes	
	Boiler 10 PSD Baseline	--	OKBLR10B	524,700	2,939,500	75.0	22.9	7.5	2.29	141.5	334.0	33.9	10.35	-136.11	-17.15	EXP	No	Yes	
	Boiler 11 PSD Baseline	--	OKBLR11B	524,700	2,939,500	75.0	22.9	7.5	2.29	155.9	342.0	32.4	9.89	-133.25	-16.79	EXP	No	Yes	
	Boilers 4-11 PSD baseline		OKBLRB	524,700	2,939,500	75.0	22.9	7.5	2.29	139.7	333.0	24.1	7.36	-604.52	-76.17	EXP	No	Yes	
	Boiler 16 PSD ^b	--	OKBLR16	524,700	2,939,500	75.0	22.9	5.0	1.52	409.7	483.0	74.9	22.83	12.10	1.52	CON	Yes	Yes	
0990615	South Florida Water Management District Pump Station G-372	001	SFWMD372	519,140	2,923,650	74.0	22.6	1.5	0.46	650.0	616.5	136.8	41.70	3.39	0.43	CON	Yes	Yes	
0510027	Clewiston Facility - Amerimix Industries, Inc. Rotary Sand Dryer	001	AMERIND	495,410	2,966,500	30.0	9.14	2.0	0.61	230	383.2	191.0	58.21	37.4	4.71	CON	Yes	Yes	
0430008	South Florida Thermal Services, Inc. Thermal Soil Treatment Plant with Afterburner & Baghouse	001	ATI01	489,200	2,966,600	23.0	7.01	3.2	0.98	1400	1033.2	123.0	37.49	19.5	2.45	CON	Yes	Yes	

TABLE F-2
SRF SUMMARY OF SO₂ 24-HOUR AND ANNUAL SOURCES INCLUDED IN THE PSD CLASS II MODELING ANALYSES

Facility ID	Facility Name Emission Unit Description	EU ID	Modeling ID Name	UTM Location		Height		Stack Parameters				SO ₂ Emission Rate 24-Hour/Annual		Type of PSD Source (EXP/CON)	Modeled In			
				X (m)	Y (m)	ft	m	Diameter		Temperature		Velocity			(lb/hr)	(g/sec)	AAQS	Class II
								ft	m	°F	K	ft/s	m/s					
0110351	South Florida Water Management District - Pump Stns S-8 & G-404 Five diesel engines		SFWMDS8	522,260	2,912,270	12	3.66	2.0	0.61	660.0	622.0	31.6	9.63	4.76	0.60	CON	Yes	Yes
0990026	Sugar Cane Growers Co-Op ^{a,b} <u>On-crop season</u>																	
	Boiler No. 1	001	SCBLR1N	534,900	2,953,300	150.0	45.72	7.0	2.13	156.0	342.0	49.6	15.12	599.10	75.49	CON	Yes	Yes
	Boiler No. 2	002	SCBLR2N	534,900	2,953,300	150.0	45.72	7.0	2.13	156.0	342.0	51.1	15.58	567.57	71.51	CON	Yes	Yes
	Boiler No. 3	003	SCBLR3N	534,900	2,953,300	180.0	54.86	5.3	1.62	156.0	342.0	40.3	12.28	0.00	0.00	CON	Yes	Yes
	Boiler No. 4	004	SCBLR4N	534,900	2,953,300	180.0	54.86	8.9	2.72	162.0	345.4	54.1	16.49	0.00	0.00	CON	Yes	Yes
	Boiler No. 5	005	SCBLR5N	534,900	2,953,300	150.0	45.72	7.0	2.13	160.0	344.3	77.1	23.50	0.00	0.00	CON	Yes	Yes
	Boiler No. 8	008	SCBLR8N	534,900	2,953,300	155.0	47.24	9.5	2.90	154.0	340.9	37.6	11.46	0.00	0.00	CON	Yes	Yes
	<u>Off-crop season</u>																	
	Boiler No. 1	001	SCBLR1F	534,900	2,953,300	150.0	45.72	7.0	2.13	156.0	342.0	49.6	15.12	599.10	75.49	CON	Yes	Yes
	Boiler No. 4	004	SCBLR4F	534,900	2,953,300	180.0	54.86	8.9	2.72	162.0	345.4	54.1	16.49	567.57	71.51	CON	Yes	Yes
	<u>Baseline</u>																	
	BOILER #1 PSD Baseline On-crop season	--	SCBLR1BN	534,900	2,953,300	79.1	24.10	5.5	1.68	395.0	474.8	52.3	15.94	-236.20	-29.76	EXP	No	Yes
	BOILER #2 PSD Baseline On-crop season	--	SCBLR2BN	534,900	2,953,300	79.1	24.10	5.5	1.68	405.1	480.4	58.6	17.88	-236.20	-29.76	EXP	No	Yes
	BOILER #3 PSD Baseline On-crop season	--	SCBLR3BN	534,900	2,953,300	79.1	24.10	5.5	1.68	470.0	516.5	54.1	16.50	-177.60	-22.38	EXP	No	Yes
	Boilers 1-3 PSD Baseline On-Crop		BLR123BN	534,900	2,953,300	79.1	24.10	5.5	1.68	395.0	474.8	52.3	15.94	-650.00	-81.90	EXP	No	Yes
	BOILER #4 PSD Baseline On-crop season	--	SCBLR4BN	534,900	2,953,300	86.0	26.20	5.3	1.62	149.1	338.2	32.4	9.88	-205.60	-25.91	EXP	No	Yes
	BOILER #5 PSD Baseline On-crop season	--	SCBLR5BN	534,900	2,953,300	79.1	24.10	6.7	2.03	490.0	527.6	93.2	28.42	-315.00	-39.69	EXP	No	Yes
	BOILER #6 PSD Baseline On-crop season	--	SCBLR6BN	534,900	2,953,300	40.0	12.20	5.0	1.52	630.1	605.4	21.4	6.53	-147.70	-18.61	EXP	No	Yes
	BOILER #7 PSD Baseline On-crop season	--	SCBLR7BN	534,900	2,953,300	40.0	12.20	5.0	1.52	630.4	605.6	56.4	17.20	-353.80	-44.58	EXP	No	Yes
	BOILER #1 PSD Baseline Off-crop season	--	SCBLR1BF	534,900	2,953,300	79.1	24.10	5.5	1.68	395.0	474.8	52.3	15.94	-149.80	-18.87	EXP	No	Yes
	BOILER #2 PSD Baseline Off-crop season	--	SCBLR2BF	534,900	2,953,300	79.1	24.10	5.5	1.68	405.1	480.4	58.6	17.88	-149.80	-18.87	EXP	No	Yes
	BOILER #3 PSD Baseline Off-crop season	--	SCBLR3BF	534,900	2,953,300	79.1	24.10	5.5	1.68	470.0	516.5	54.1	16.50	-112.40	-14.16	EXP	No	Yes
	Boilers 1-3 PSD Baseline Off-Crop		BLR123BF	534,900	2,953,300	79.1	24.10	5.5	1.68	395.0	474.8	52.3	15.94	-412.00	-51.91	EXP	No	Yes
	BOILER #4 PSD Baseline Off-crop season	--	SCBLR4BF	534,900	2,953,300	86.0	26.20	5.3	1.62	149.1	338.2	32.4	9.88	-205.60	-25.91	EXP	No	Yes
	BOILER #5 PSD Baseline Off-crop season	--	SCBLR5BF	534,900	2,953,300	79.1	24.10	6.7	2.03	490.0	527.6	93.2	28.42	0.00	0.00	EXP	No	Yes
	BOILER #6 PSD Baseline Off-crop season	--	SCBLR6BF	534,900	2,953,300	40.0	12.20	5.0	1.52	630.1	605.4	21.4	6.53	0.00	0.00	EXP	No	Yes
	BOILER #7 PSD Baseline Off-crop season	--	SCBLR7BF	534,900	2,953,300	40.0	12.20	5.0	1.52	630.4	605.6	56.4	17.20	-121.80	-15.35	EXP	No	Yes
0990019	Osceola Farms ^a																	
	Unit 2	--	OSBLR2	544,200	2,968,000	90.0	27.4	5.0	1.52	155.9	342.0	40.7	12.41	228.90	28.84	CON	Yes	Yes
	Unit 3	--	OSBLR3	544,200	2,968,000	90.0	27.4	6.25	1.91	154.0	340.9	38.8	11.84	229.20	28.88	CON	Yes	Yes
	Unit 4	--	OSBLR4	544,200	2,968,000	90.0	27.4	6.0	1.83	153.6	340.7	59.5	18.14	228.90	28.84	CON	Yes	Yes
	Unit 5a	--	OSBLR5A	544,200	2,968,000	90.0	27.4	5.0	1.52	150.0	338.7	56.9	17.33	115.90	14.60	CON	Yes	Yes
	Unit 5b	--	OSBLR5B	544,200	2,968,000	90.0	27.4	5.0	1.52	150.0	338.7	46.7	14.23	115.90	14.60	CON	Yes	Yes
	Unit 6	--	OSBLR6	544,200	2,968,000	90.0	27.4	6.17	1.88	151.0	339.3	53.0	16.14	250.10	31.51	CON	Yes	Yes
	Units 2-6		OSBLR26	544,200	2,968,000	90.0	27.4	5.0	1.52	150.0	338.7	46.7	14.23	1168.90	147.28	CON	Yes	Yes
	<u>Baseline</u>																	
	Unit 1 PSD Baseline	--	OSBLR1B	544,200	2,968,000	72.2	22.0	5.0	1.52	155.9	342.0	29.5	8.98	-40.24	-5.07	EXP	No	Yes
	Unit 2 PSD Baseline	--	OSBLR2B	544,200	2,968,000	72.2	22.0	5.0	1.52	155.9	342.0	46.6	14.22	-129.52	-16.32	EXP	No	Yes
	Unit 3 PSD Baseline	--	OSBLR3B	544,200	2,968,000	72.2	22.0	6.5	1.98	155.9	342.0	36.8	11.23	-57.62	-7.26	EXP	No	Yes
	Unit 4 PSD Baseline	--	OSBLR4B	544,200	2,968,000	72.2	22.0	6.0	1.83	155.9	342.0	43.8	13.35	-108.02	-13.61	EXP	No	Yes
0990016	Atlantic Sugar ^{a,c}																	
	Unit 1	--	ATLSUG1	552,900	2,945,200	90.0	27.4	6.0	1.83	163.1	346.0	58.9	17.97	67.00	8.44	NO	Yes	No
	Unit 2	--	ATLSUG2	552,900	2,945,200	90.0	27.4	6.0	1.83	170.3	350.0	76.6	23.36	67.00	8.44	NO	Yes	No
	Unit 3	--	ATLSUG3	552,900	2,945,200	90.0	27.4	6.0	1.83	170.3	350.0	70.7	21.56	65.80	8.29	NO	Yes	No
	Unit 4	--	ATLSUG4	552,900	2,945,200	90.0	27.4	6.0	1.83	159.5	344.0	82.5	25.16	65.50	8.25	NO	Yes	No
	Units 1-4		ATLSUG14	552,900	2,945,200	90.0	27.4	6.0	1.83	163.1	346.0	58.9	17.97	265.30	33.43	NO	Yes	No
	Unit 5 PSD ^b	--	ATLSUG5	552,900	2,945,200	90.0	27.4	5.5	1.68	150.5	339.0	63.1	19.24	48.40	6.10	NO	Yes	No
	<u>Baseline</u>																	
	Unit 1 PSD Baseline	--	ATLSUG1B	552,900	2,945,200	62.0	18.9	6.3	1.92	451.1	506.0	41.7	12.70	-136.8	-17.24	EXP	No	Yes
	Unit 2 PSD Baseline	--	ATLSUG2B	552,900	2,945,200	62.0	18.9	6.3	1.92	460.1	511.0	35.8	10.90	-178.6	-22.50	EXP	No	Yes
	Unit 3 PSD Baseline	--	ATLSUG3B	552,900	2,945,200	71.8	21.9	6.0	1.83	479.9	522.0	57.4	17.50	-134.0	-16.88	EXP	No	Yes
	Unit 4 PSD Baseline	--	ATLSUG4B	552,900	2,945,200	60.0	18.3	6.0	1.83	159.5	344.0	49.2	15.00	-134.0	-16.88	EXP	No	Yes



TABLE F-2
SRF SUMMARY OF SO₂ 24-HOUR AND ANNUAL SOURCES INCLUDED IN THE PSD CLASS II MODELING ANALYSES

Facility ID	Facility Name Emission Unit Description	EU ID	Modeling ID Name	UTM Location		Height		Diameter		Temperature		Velocity		SO ₂ Emission Rate 24-Hour/Annual		Type of PSD Source (EXP/CON)	Modeled In	
				X (m)	Y (m)	ft	m	ft	m	°F	K	ft/s	m/s	(lb/hr)	(g/sec)		AAQS	Class II
0850102	Indiantown Cogeneration LP - Indiantown Plant Pulverized Coal Main Boiler Two Auxiliary Boilers	001	INDTOWN1	547,650	2,990,700	495.0	150.9	16.0	4.88	140.0	333.2	93.2	28.41	582.00	73.33	CON	Yes	Yes
		007	INDTOWN3	547,650	2,990,700	210.0	64.0	5.0	1.52	350.0	449.8	87.5	26.67	18.00	2.27	CON	Yes	Yes
0850001	FPL - Martin Power Plant Units 1&2 PSD Baseline Units 1&2 Units 3&4 Aux Boiler Diesel Generator Unit 8 (EUs 11, 12, 17, &18)	1-2	MART12B	542,680	2,992,650	499.0	152.1	26.2	8.0	338.0	443.2	68.7	20.94	-13840.00	-1743.84	EXP	No	Yes
		1-2	MART12	542,680	2,992,650	499.0	152.1	26.2	8.0	338.0	443.2	68.7	20.94	8817.00	1110.94	CON	Yes	Yes
		3-6	MART34	542,680	2,992,650	213.0	64.9	20.0	6.1	280.0	410.9	62.0	18.90	4.00	0.50	CON	Yes	Yes
		7	MARTAU	542,680	2,992,650	60.0	18.3	3.6	1.1	504.1	535.4	50.0	15.24	102.38	12.90	CON	Yes	Yes
		9	MARTGEN	542,680	2,992,650	25.0	7.6	1.0	0.3	955.0	785.9	130.0	39.62	4.05	0.51	CON	Yes	Yes
		--	MART8OIL	542,680	2,992,650	120.0	36.6	19.0	5.8	296.3	420.0	73.5	22.40	16.00	2.02	CON	Yes	Yes
0710119	Lee County Resource Recovery Municipal Waste Combustion Units #1 & #2	1	LECORRF	424,210	2,945,700	274.9	83.8	6.2	1.89	239.7	388.6	64.6	19.69	82.00	10.33	CON	Yes	Yes
0710002	Fort Myers Power Plant Unit 1 PSD Unit 2 PSD CT No. 1 - 12 250MW Combined Cycle CT - 2A - 2F 170 MW Simple Cycle CT No. 1 & 2 (3A & 3B)	1	FMPU1	422,300	2,952,900	301.1	91.8	9.5	2.90	299.9	422.0	98.1	29.90	-4606.50	-580.42	EXP	No	Yes
		2	FMPU2	422,300	2,952,900	397.5	121.2	18.1	5.52	274.7	408.0	63.0	19.20	-10495.50	-1322.43	EXP	No	Yes
		3-14	FMPCT112	422,300	2,952,000	32.0	9.8	11.4	3.5	975.0	797.0	189.4	57.7	4800	604.80	NO	Yes	No
		18-23	FMPCT2AF	422,300	2,953,030	125.0	38.1	19	5.8	220.0	377.6	70.3	21.4	30.6	3.86	CON	Yes	Yes
		27-28	FMPCT3AB	422,300	2,952,900	80.0	24.4	20.5	6.2	1116.0	875.4	120.7	36.8	206.2	25.98	CON	Yes	Yes
0112120	North Broward RRF PSD Main Stack (All boilers operating)		NBRRF	583,600	2,907,600	195	59.44	15.0	4.57	300.0	422.0	63.8	19.45	131.20	16.53	CON	Yes	Yes
0990045	City of Lake Worth Utilities Diesel Generator Units 1-5 Gas Turbine No.1 Steam Generator Unit 1 Unit 3, S-3 Unit 4, S-4 Combined Cycle Unit, S-5	001-005	LAKWTHDG	592,800	2,943,700	17.0	5.18	1.8	0.56	667.0	625.9	121.7	37.09	38.0	4.78	CON	Yes	Yes
		006	LAKWTHHR	592,800	2,943,700	46.0	14.02	16.0	4.88	837.0	720.4	81.5	24.84	109.0	13.73	CON	Yes	Yes
		007	LAKWTHU1	592,800	2,943,700	60.0	18.29	5.0	1.52	311.0	428.2	34.5	10.52	-267.0	-33.64	EXP	No	Yes
		009	LAKWTHU3	592,800	2,943,700	113.0	34.44	7.0	2.13	293.0	418.2	51.4	15.70	832.0	104.83	NO	Yes	No
		010	LAKWTHU4	592,800	2,943,700	115.0	35.05	7.5	2.29	293.0	418.2	55.8	17.00	-1072.0	-135.07	EXP	No	Yes
		011	LAKWTHU5	592,800	2,943,700	75.0	22.86	10.0	3.05	404.0	479.8	87.5	27.80	286.0	36.04	CON	Yes	Yes
0990042	FPL -Riviera Beach Units 3&4 PSD Baseline Units 3&4 Units 1 Units 2	--	RIVU34B	593,270	2,960,620	298	90.8	16.0	4.88	263.0	401.5	88.1	26.9	-4356.0	-548.86	EXP	No	Yes
		--	RIVU34	593,270	2,960,620	298	90.8	16.0	4.88	263.0	401.5	88.1	26.9	5098.0	642.35	CON	Yes	Yes
		--	RIVU1	593,270	2,960,620	150	45.7	10.8	3.29	309.0	427.0	24.8	7.56	-160.0	-20.16	EXP	No	Yes
		--	RIVU2	593,270	2,960,620	150	45.7	15.0	4.57	315.0	430.4	20.7	6.31	-298.0	-37.55	EXP	No	Yes
0112119	Wheelabrator South Broward, Inc. MSW Combustor & Auxiliary Burners- Units 1, 2, & 3		SBCRRF	578,870	2,883,390	195	59.4	13.0	3.96	226.1	381.0	59.1	18.01	105.30	13.27	CON		
0110037	Florida Power & Light (FPL) - Fort Lauderdale CTs 1-4 PSD GT 1-12 (0.5% fuel oil) GT 13-24 (0.5% fuel oil) 4&5 PSD Baseline	--	LAUDU45	579,390	2,883,360	150	45.7	18.0	5.5	330.0	438.7	158.7	48.37	398.60	50.22	CON	Yes	Yes
		--	LDGT1_12	579,390	2,883,360	45	13.7	15.6	4.8	860.0	733.2	93.3	28.44	770.80	97.12	NO	Yes	No
		--	LDGT1324	579,390	2,883,360	45	13.7	15.6	4.8	860.0	733.2	93.3	28.44	770.80	97.12	NO	Yes	No
		--	FTLAU45B	579,390	2,883,360	150	45.7	14.0	4.3	299.9	422.0	48.0	14.63	-1663.00	-209.54	EXP	No	Yes

Note: EXP = PSD expanding source.
CON = PSD consuming source.

NO = Baseline Source, assuming potential baseline emissions are the same as current actual emissions.

^a Facilities or sources within facilities that operate only during the October 1 through April 31 crop season. For sources identified operating during off-crop season, the season is May through September.

^b Facility-wide SO₂ emission limit of 14 tons/day (1,166.7) lb/hr). Only Boilers 1 and 4 operate during off-crop season.

TABLE F-3
SRF SUMMARY OF SO₂ 24-HOUR AND ANNUAL SOURCES INCLUDED IN THE AAQS MODELING ANALYSES

Facility ID	Facility Name Emission Unit Description	EU ID	Modeling ID Name	UTM Location		Stack Parameters				SO ₂ Emission Rate		Modeled In AAQS				
				X (m)	Y (m)	Height		Diameter		Temperature			Velocity		24-Hour/Annual (lb/hr) (g/sec)	
0510003	U.S. Sugar Clewiston Mill and Refinery															
	On-crop season^a															
	Boiler No. 1	001	USSBLR1N	506,100	2,956,900	213.0	64.92	8.0	2.44	150.0	338.7	82.9	25.27	29.70	3.74	Yes
	Boiler No. 2	002	USSBLR2N	506,100	2,956,900	213.0	64.92	8.0	2.44	150.0	338.7	82.9	25.27	26.80	3.38	Yes
	Boiler No. 4	009	USSBLR4N	506,100	2,956,900	150.0	45.72	8.2	2.50	160.0	344.3	88.7	27.04	36.00	4.54	Yes
	Boiler No. 7	014	USSBLR7N	506,100	2,956,900	225.0	68.58	8.0	2.44	335.0	441.5	94.5	28.80	125.50	15.81	Yes
	Boiler No. 8	028	USSBLR8N	506,100	2,956,900	199.0	60.66	10.9	3.32	315.0	430.4	75.7	23.07	64.60	8.14	Yes
	Off-crop season^a															
	Boiler No. 7	014	USSBLR7F	506,100	2,956,900	225.0	68.58	8.0	2.44	335.0	441.5	94.5	28.80	125.50	15.81	Yes
	Boiler No. 8	028	USSBLR8F	506,100	2,956,900	199.0	60.66	10.9	3.32	315.0	430.4	75.7	23.07	64.60	8.14	Yes
	Sugar Refinery Sources															
	Granular Carbon Furnace S-12	017	S12	506,100	2,956,900	30.0	9.14	2.00	0.61	160.0	344.3	22.8	6.95	0.64	0.081	Yes
0990332	New Hope Power Company															
	Boiler A	--	BLRA	524,920	2,939,440	199.0	60.7	10.0	3.05	352.0	450.9	67.7	20.63	152	19.15	Yes
	Boiler B	--	BLRB	524,920	2,939,440	199.0	60.7	10.0	3.05	352.0	450.9	67.7	20.63	152	19.15	Yes
	Boiler C	--	BLRC	524,920	2,939,440	199.0	60.7	10.0	3.05	352.0	450.9	67.7	20.63	152	19.15	Yes
0510015	Southern Gardens Citrus Processing Corp.															
	Boiler #1	001	SGARD01	487,500	2,957,600	55.0	16.76	4.0	1.22	400.0	477.6	49.6	15.12	1.78	0.22	Yes
	Boiler #2	002	SGARD02	487,500	2,957,600	55.0	16.76	4.0	1.22	400.0	477.6	49.6	15.12	1.78	0.22	Yes
	Boiler #3	008	SGARD08	487,500	2,957,600	55.0	16.76	4.0	1.22	400.0	477.6	49.6	15.12	1.89	0.24	Yes
	Boiler #4	010	SGARD10	487,500	2,957,600	55.0	16.76	4.0	1.22	400.0	477.6	49.6	15.12	0.33	0.04	Yes
	Boilers 1-4		SGARDBLR	487,500	2,957,600	55.0	16.76	4.0	1.22	400.0	477.6	49.6	15.12	5.78	0.73	Yes
	Peel Dryer No. 2 with Waste Heat Evaporator	019	SGARD19	487,500	2,957,600	125.0	38.10	5.7	1.74	160.0	344.3	27.3	8.32	10.50	1.32	Yes
	Peel Dryer No. 1 with Waste Heat Evaporator	003	SGARD03	487,500	2,957,600	125.0	38.10	5.7	1.74	160.0	344.3	27.3	8.32	10.50	1.32	Yes
	Peel Dryers 1 and 2		SGARDDRY	487,500	2,957,600	125.0	38.10	5.7	1.74	160.0	344.3	27.3	8.32	21.00	2.65	Yes
0430018	Oldcastle Lawn and Garden															
	Diesel Engine and Mulch Grinder	001	OLG1	492,040	2,961,340	20.0	6.1	0.75	0.23	900.0	755.4	229.1	69.83	2.05	0.26	Yes
0990005	Okeelanta ^a															
	Boiler 16 PSD ^b	--	OKBLR16	524,700	2,939,500	75.0	22.9	5.0	1.52	393.0	473.7	100.7	30.69	12.10	1.52	Yes
0990615	South Florida Water Management District															
	Pump Station G-372	001	SFWMD372	519,140	2,923,650	74.0	22.6	1.5	0.46	650.0	616.5	136.8	41.70	3.39	0.43	Yes
0510027	Clewiston Facility - Amerimix Industries, Inc.															
	Rotary Sand Dryer	001	AMERIND	495,410	2,966,500	30.0	9.14	2.0	0.61	230	383.2	191.0	58.21	37.4	4.71	Yes

TABLE F-3
SRF SUMMARY OF SO₂ 24-HOUR AND ANNUAL SOURCES INCLUDED IN THE AAQS MODELING ANALYSES

Facility ID	Facility Name Emission Unit Description	EU ID	Modeling ID Name	UTM Location		Stack Parameters								SO ₂ Emission Rate		Modeled In AAQS
				X (m)	Y (m)	Height		Diameter		Temperature		Velocity		24-Hour/Annual (lb/hr)	(g/sec)	
0430008	South Florida Thermal Services, Inc. Thermal Soil Treatment Plant with Afterburner & E	001	ATI01	489,200	2,966,600	23.0	7.01	3.2	0.98	1400	1033.2	123.0	37.49	19.5	2.45	Yes
0110351	South Florida Water Management District - Pump Sta Five diesel engines		SFWMDS8	522,260	2,912,270	12	3.66	2.0	0.61	660.0	622.0	31.6	9.63	4.76	0.60	Yes
0990026	Sugar Cane Growers Co-Op ^{a, b} <u>On-crop season</u>															
	Boiler No. 1	001	SCBLR1N	534,900	2,953,300	150.0	45.72	7.0	2.13	156.0	342.0	49.6	15.12	599.10	75.49	Yes
	Boiler No. 2	002	SCBLR2N	534,900	2,953,300	150.0	45.72	7.0	2.13	156.0	342.0	51.1	15.58	567.57	71.51	Yes
	Boiler No. 3	003	SCBLR3N	534,900	2,953,300	180.0	54.86	5.3	1.62	156.0	342.0	40.3	12.28	0.00	0.00	Yes
	Boiler No. 4	004	SCBLR4N	534,900	2,953,300	180.0	54.86	8.9	2.72	162.0	345.4	54.1	16.49	0.00	0.00	Yes
	Boiler No. 5	005	SCBLR5N	534,900	2,953,300	150.0	45.72	7.0	2.13	160.0	344.3	77.1	23.50	0.00	0.00	Yes
	Boiler No. 8	008	SCBLR8N	534,900	2,953,300	155.0	47.24	9.5	2.90	154.0	340.9	37.6	11.46	0.00	0.00	Yes
	<u>Off-crop season</u>															
	Boiler No. 1	001	SCBLR1F	534,900	2,953,300	150.0	45.72	7.0	2.13	156.0	342.0	49.6	15.12	599.10	75.49	Yes
	Boiler No. 4	004	SCBLR4F	534,900	2,953,300	180.0	54.86	8.9	2.72	162.0	345.4	54.1	16.49	567.57	71.51	Yes
0990019	Osceola Farms ^a															
	Unit 2	--	OSBLR2	544,200	2,968,000	90.0	27.4	5.0	1.52	155.9	342.0	40.7	12.41	228.90	28.84	Yes
	Unit 3	--	OSBLR3	544,200	2,968,000	90.0	27.4	6.25	1.91	154.0	340.9	38.8	11.84	229.20	28.88	Yes
	Unit 4	--	OSBLR4	544,200	2,968,000	90.0	27.4	6.0	1.83	153.6	340.7	59.5	18.14	228.90	28.84	Yes
	Unit 5a	--	OSBLR5A	544,200	2,968,000	90.0	27.4	5.0	1.52	150.0	338.7	56.9	17.33	115.90	14.60	Yes
	Unit 5b	--	OSBLR5B	544,200	2,968,000	90.0	27.4	5.0	1.52	150.0	338.7	46.7	14.23	115.90	14.60	Yes
	Unit 6	--	OSBLR6	544,200	2,968,000	90.0	27.4	6.17	1.88	151.0	339.3	53.0	16.14	250.10	31.51	Yes
	Units 2-6		OSBLR5B	544,200	2,968,000	90.0	27.4	5.0	1.52	150.0	338.7	46.7	14.23	1168.90	147.28	Yes
0990016	Atlantic Sugar ^{a, e}															
	Unit 1	--	ATLSUG1	552,900	2,945,200	90.0	27.4	6.0	1.83	163.1	346.0	58.9	17.97	67.00	8.44	Yes
	Unit 2	--	ATLSUG2	552,900	2,945,200	90.0	27.4	6.0	1.83	170.3	350.0	76.6	23.36	67.00	8.44	Yes
	Unit 3	--	ATLSUG3	552,900	2,945,200	90.0	27.4	6.0	1.83	170.3	350.0	70.7	21.56	65.80	8.29	Yes
	Unit 4	--	ATLSUG4	552,900	2,945,200	90.0	27.4	6.0	1.83	159.5	344.0	82.5	25.16	65.50	8.25	Yes
	Units 1-4		ATLSUG14	552,900	2,945,200	90.0	27.4	6.0	1.83	163.1	346.0	58.9	17.97	265.30	33.43	Yes
	Unit 5 PSD ^b	--	ATLSUG5	552,900	2,945,200	90.0	27.4	5.5	1.68	150.5	339.0	63.1	19.24	48.40	6.10	Yes
0850102	Indiantown Cogeneration LP - Indiantown Plant Pulverized Coal Main Boiler Two Auxiliary Boilers	001 007	INDTOWN1 INDTOWN3	547,650 547,650	2,990,700 2,990,700	495.0 210.0	150.9 64.0	16.0 5.0	4.88 1.52	140.0 350.0	333.2 449.8	93.2 87.5	28.41 26.67	582.00 18.00	73.33 2.27	Yes Yes

TABLE F-3
SRF SUMMARY OF SO₂ 24-HOUR AND ANNUAL SOURCES INCLUDED IN THE AAQS MODELING ANALYSES

Facility ID	Facility Name Emission Unit Description	EU ID	Modeling ID Name	UTM Location		Stack Parameters								SO ₂ Emission Rate 24-Hour/Annual		Modeled In AAQS	
				X (m)	Y (m)	Height		Diameter		Temperature		Velocity		(lb/hr)	(g/sec)		
						ft	m	ft	m	°F	K	ft/s	m/s				
0850001	FPL - Martin Power Plant																
	Units 1&2	1-2	MART12	542,680	2,992,650	499.0	152.1	26.2	8.0	338.0	443.2	68.7	20.94	13840.00	1743.84	Yes	
	Units 3&4	3-6	MART34	542,680	2,992,650	213.0	64.9	20.0	6.1	280.0	410.9	62.0	18.90	3680.00	463.68	Yes	
	Aux Boiler	7	MARTAUX	542,680	2,992,650	60.0	18.3	3.6	1.1	504.1	535.4	50.0	15.24	102.38	12.90	Yes	
	Diesel Generator	9	MARTGEN	542,680	2,992,650	25.0	7.6	1.0	0.3	955.0	785.9	130.0	39.62	4.05	0.51	Yes	
	Unit 8 (EUs 11, 12, 17, &18)	--	MART8OIL	542,680	2,992,650	120.0	36.6	19.0	5.8	296.3	420.0	73.5	22.40	412.40	51.96	Yes	
0710119	Lee County Resource Recovery Municipal Waste Combustion Units #1 & #2	1	LECORRF	424,210	2,945,700	274.9	83.8	6.2	1.89	239.7	388.6	64.6	19.69	82.00	10.33	Yes	
0710002	Fort Myers Power Plant																
	CT No. 1 - 12	3-14	FMPCT112	422,300	2,952,000	32.0	9.8	11.4	3.5	975.0	797.0	189.4	57.7	4800	604.80	Yes	
	250MW Combined Cycle CT - 2A - 2F	18-23	FMPCT2AF	422,300	2,953,030	125.0	38.1	19	5.8	220.0	377.6	70.3	21.4	30.6	3.86	Yes	
	170 MW Simple Cycle CT No. 1 & 2 (3A & 3B)	27-28	FMPCT3AB	422,300	2,952,900	80.0	24.4	20.5	6.2	1116.0	875.4	120.7	36.8	206.2	25.98	Yes	
0112120	North Broward RRF PSD Main Stack (All boilers operating)		NBRRF	583,600	2,907,600	195	59.44	15.0	4.57	300.0	422.0	63.8	19.45	131.20	16.53	Yes	
0990045	City of Lake Worth Utilities																
	Diesel Generator Units 1-5	001-005	LAKWTHDG	592,800	2,943,700	17.0	5.2	1.8	0.6	667.0	625.9	121.7	37.09	38.0	4.78	Yes	
	Gas Turbine No.1	006	LAKWTHHR	592,800	2,943,700	46.0	14.0	16.0	4.9	837.0	720.4	81.5	24.84	109.0	13.73	Yes	
	Unit 3, S-3	009	LAKWTHU3	592,800	2,943,700	113.0	34.4	7.0	2.1	293.0	418.2	51.4	15.70	832.0	104.83	Yes	
	Combined Cycle Unit, S-5	011	LAKWTHU5	592,800	2,943,700	75.0	22.9	10.0	3.0	404.0	479.8	87.5	27.80	286.0	36.04	Yes	
0990042	FPL -Riviera Beach Units 3&4	--	RIVU34	593,270	2,960,620	298	90.8	16.0	4.88	263.0	401.5	88.1	26.9	5098.0	642.35	Yes	
0112119	Wheelabrator South Broward, Inc. MSW Combustor & Auxiliary Burners- Units 1, 2, & 3		SBCRRF	578,870	2,883,390	195	59.4	13.0	3.96	226.1	381.0	59.1	18.01	105.30	13.27	Yes	
0110037	Florida Power & Light (PFL) - Fort Lauderdale																
	CTs 1-4	--	LAUDU45	579,390	2,883,360	150	45.7	18.0	5.5	330.0	438.7	158.7	48.37	2152.00	271.15	Yes	
	GT 1-12 (0.5% fuel oil)	--	LDGT1_12	579,390	2,883,360	45	13.7	15.6	4.8	860.0	733.2	93.3	28.44	770.80	97.12	No	
	GT 13-24 (0.5% fuel oil)	--	LDGT1324	579,390	2,883,360	45	13.7	15.6	4.8	860.0	733.2	93.3	28.44	770.80	97.12	No	

^a Facilities or sources within facilities that operate only during the October 1 through April 31 crop season. For sources identified operating during off-crop season, the season is May through September.

^b Facility-wide SO₂ emission limit of 14 tons/day (1,166,7) lb/hr). Only Boilers 1 and 4 operate during off-crop season.

TABLE F-4
SRF SUMMARY OF SO₂ 3-HOUR SOURCES INCLUDED IN THE PSD CLASS II MODELING ANALYSES

Facility ID	Facility Name Emission Unit Description	EU ID	Modeling ID Name	UTM Location		Height		Diameter		Temperature		Velocity		SO ₂ Emission Rate 3-Hour		Type of PSD Source (EXP/CON)	Modeled In			
				X (m)	Y (m)	ft	m	ft	m	°F	K	ft/s	m/s	(lb/hr)	(g/sec)		AAQS	Class II		
0510003	U.S. Sugar Clewiston Mill and Refinery	On-crop season^a																		
		001	USSBLR1N	506,100	2,956,900	213.0	64.92	8.0	2.44	150.0	338.7	82.9	25.27	29.70	3.74	CON	Yes	Yes		
		002	USSBLR2N	506,100	2,956,900	213.0	64.92	8.0	2.44	150.0	338.7	82.9	25.27	26.80	3.38	CON	Yes	Yes		
		009	USSBLR4N	506,100	2,956,900	150.0	45.72	8.2	2.50	160.0	344.3	88.7	27.04	38.00	4.79	CON	Yes	Yes		
		014	USSBLR7N	506,100	2,956,900	225.0	68.58	8.0	2.44	335.0	441.5	94.5	28.80	138.00	17.39	CON	Yes	Yes		
		028	USSBLR8N	506,100	2,956,900	199.0	60.66	10.9	3.32	315.0	430.4	75.7	23.07	71.10	8.96	CON	Yes	Yes		
		Off-crop season^a																		
		014	USSBLR7F	506,100	2,956,900	225.0	68.58	8.0	2.44	335.0	441.5	94.5	28.80	138.00	17.39	CON	Yes	Yes		
		028	USSBLR8F	506,100	2,956,900	199.0	60.66	10.9	3.32	315.0	430.4	75.7	23.07	71.10	8.96	CON	Yes	Yes		
		Baseline (on-crop)																		
		001	USSBLR1B	506,100	2,956,900	75.8	23.10	6.1	1.86	160.0	344.3	99.0	30.18	-38.10	-4.80	EXP	No	Yes		
		002	USSBLR2B	506,100	2,956,900	75.8	23.10	6.1	1.86	158.0	343.2	117.0	35.66	-38.10	-4.80	EXP	No	Yes		
		003	USSBLR3B	506,100	2,956,900	90.0	27.43	7.5	2.29	156.0	342.0	48.2	14.69	-21.70	-2.73	EXP	No	Yes		
			East Pellet Plant		EPellet	506,100	2,956,900	40.0	12.19	5.0	1.52	165.0	347.0	28.0	8.53	-78.00	-9.83	EXP	No	Yes
	West Pellet Plant		WPellet	506,100	2,956,900	51.5	15.70	5.0	1.52	165.0	347.0	28.0	8.53	-78.00	-9.83	EXP	No	Yes		
Sugar Refinery Sources																				
	Granular Carbon Furnace S-12	017	S12	506,100	2,956,900	30.0	9.14	2.00	0.61	160.0	344.3	22.8	6.95	0.64	0.081	CON	Yes	Yes		
0510015	Southern Gardens Citrus Processing Corp.	001	SGARD01	487,500	2,957,600	55.0	16.76	4.0	1.22	400.0	477.6	49.6	15.12	1.78	0.22	CON	Yes	Yes		
		002	SGARD02	487,500	2,957,600	55.0	16.76	4.0	1.22	400.0	477.6	49.6	15.12	1.78	0.22	CON	Yes	Yes		
		008	SGARD08	487,500	2,957,600	55.0	16.76	4.0	1.22	400.0	477.6	49.6	15.12	1.89	0.24	CON	Yes	Yes		
		010	SGARD10	487,500	2,957,600	55.0	16.76	4.0	1.22	400.0	477.6	49.6	15.12	0.33	0.04	CON	Yes	Yes		
			Boilers 1-4		SGARDBLR	487,500	2,957,600	55.0	16.76	4.0	1.22	400.0	477.6	49.6	15.12	5.78	0.73	CON	Yes	Yes
		019	SGARD19	487,500	2,957,600	125.0	38.10	5.7	1.74	160.0	344.3	27.3	8.32	10.50	1.32	CON	Yes	Yes		
		003	SGARD03	487,500	2,957,600	125.0	38.10	5.7	1.74	160.0	344.3	27.3	8.32	10.50	1.32	CON	Yes	Yes		
			Peel Dryers 1 and 2		SGARDDRY	487,500	2,957,600	125.0	38.10	5.7	1.74	160.0	344.3	27.3	8.32	21.00	2.65	CON	Yes	Yes
		0990332	New Hope Power Company	--	BLRA	524,920	2,939,440	199.0	60.7	10.0	3.05	352.0	450.9	67.7	20.63	227.78	28.70	CON	Yes	Yes
				--	BLRB	524,920	2,939,440	199.0	60.7	10.0	3.05	352.0	450.9	67.7	20.63	227.78	28.70	CON	Yes	Yes
--	BLRC			524,920	2,939,440	199.0	60.7	10.0	3.05	352.0	450.9	67.7	20.63	227.78	28.70	CON	Yes	Yes		
0430018	Oldcastle Lawn and Garden Diesel Engine and Mulch Grinder	001	OLG1	492,040	2,961,340	20.0	6.1	0.75	0.23	900.0	755.4	229.1	69.83	2.05	0.26	CON	Yes	Yes		
0990005	Okeelanta ^a	--	OKBLR4B	524,700	2,939,500	75.0	22.9	7.5	2.29	139.7	333.0	24.1	7.36	-86.90	-10.95	EXP	No	Yes		
		--	OKBLR5B	524,700	2,939,500	75.0	22.9	7.5	2.29	139.7	333.0	39.6	12.07	-124.13	-15.64	EXP	No	Yes		
		--	OKBLR6B	524,700	2,939,500	75.0	22.9	7.5	2.29	141.5	334.0	28.7	8.74	-124.13	-15.64	EXP	No	Yes		
		--	OKBLR10B	524,700	2,939,500	75.0	22.9	7.5	2.29	141.5	334.0	33.9	10.35	-136.11	-17.15	EXP	No	Yes		
		--	OKBLR11B	524,700	2,939,500	75.0	22.9	7.5	2.29	155.9	342.0	32.4	9.89	-133.25	-16.79	EXP	No	Yes		
		--	OKBLRB	524,700	2,939,500	75.0	22.9	7.5	2.29	139.7	333.0	24.1	7.36	-604.52	-76.17	EXP	No	Yes		
		--	OKBLR16	524,700	2,939,500	75.0	22.9	5.0	1.52	409.7	483.0	74.9	22.83	12.10	1.52	CON	Yes	Yes		
0990615	South Florida Water Management District Pump Station G-372	001	SFWMD372	519,140	2,923,650	74.0	22.6	1.5	0.46	650.0	616.5	136.8	41.70	3.39	0.43	CON	Yes	Yes		
0510027	Clewiston Facility - Amerimix Industries, Inc. Rotary Sand Dryer	001	AMERIND	495,410	2,966,500	30.0	9.14	2.0	0.61	230	383.2	191.0	58.21	37.4	4.71	CON	Yes	Yes		
0430008	South Florida Thermal Services, Inc. Thermal Soil Treatment Plant with Afterburner & Bag	001	ATI01	489,200	2,966,600	23.0	7.01	3.2	0.98	1400	1033.2	123.0	37.49	19.5	2.45	CON	Yes	Yes		
0110351	South Florida Water Management District - Pump Stns : Five diesel engines		SFWMDS8	522,260	2,912,270	12	3.66	2.0	0.61	660.0	622.0	31.6	9.63	4.76	0.60	CON	Yes	Yes		

TABLE F-4
SRF SUMMARY OF SO₂ 3-HOUR SOURCES INCLUDED IN THE PSD CLASS II MODELING ANALYSES

Facility ID	Facility Name Emission Unit Description	EU ID	Modeling ID Name	UTM Location		Stack Parameters				SO ₂ Emission Rate 3-Hour		Type of PSD Source (EXP/CON)	Modeled In					
				X (m)	Y (m)	Height		Diameter		Temperature			ft/s	m/s	(lb/hr)	(g/sec)	AAQS	Class II
						ft	m	ft	m	°F	K							
0990026	Sugar Cane Growers Co-Op ^{a, b}																	
	On-crop season																	
	Boiler No. 1	001	SCBLR1N	534,900	2,953,300	150.0	45.72	7.0	2.13	156.0	342.0	49.6	15.12	599.10	75.49	CON	Yes	Yes
	Boiler No. 2	002	SCBLR2N	534,900	2,953,300	150.0	45.72	7.0	2.13	156.0	342.0	51.1	15.58	567.57	71.51	CON	Yes	Yes
	Boiler No. 3	003	SCBLR3N	534,900	2,953,300	180.0	54.86	5.3	1.62	156.0	342.0	40.3	12.28	0.00	0.00	CON	Yes	Yes
	Boiler No. 4	004	SCBLR4N	534,900	2,953,300	180.0	54.86	8.9	2.72	162.0	345.4	54.1	16.49	0.00	0.00	CON	Yes	Yes
	Boiler No. 5	005	SCBLR5N	534,900	2,953,300	150.0	45.72	7.0	2.13	160.0	344.3	77.1	23.50	0.00	0.00	CON	Yes	Yes
	Boiler No. 8	008	SCBLR8N	534,900	2,953,300	155.0	47.24	9.5	2.90	154.0	340.9	37.6	11.46	0.00	0.00	CON	Yes	Yes
	Off-crop season																	
	Boiler No. 1	001	SCBLR1F	534,900	2,953,300	150.0	45.72	7.0	2.13	156.0	342.0	49.6	15.12	599.10	75.49	CON	Yes	Yes
	Boiler No. 4	004	SCBLR4F	534,900	2,953,300	180.0	54.86	8.9	2.72	162.0	345.4	54.1	16.49	567.57	71.51	CON	Yes	Yes
	Baseline																	
	BOILER #1 PSD Baseline On-crop season	--	SCBLR1BN	534,900	2,953,300	79.1	24.10	5.5	1.68	395.0	474.8	52.3	15.94	-236.20	-29.76	EXP	No	Yes
	BOILER #2 PSD Baseline On-crop season	--	SCBLR2BN	534,900	2,953,300	79.1	24.10	5.5	1.68	405.1	480.4	58.6	17.88	-236.20	-29.76	EXP	No	Yes
	BOILER #3 PSD Baseline On-crop season	--	SCBLR3BN	534,900	2,953,300	79.1	24.10	5.5	1.68	470.0	516.5	54.1	16.50	-177.60	-22.38	EXP	No	Yes
	Boilers 1-3 PSD Baseline On-Crop	--	BLR123BN	534,900	2,953,300	79.1	24.10	5.5	1.68	395.0	474.8	52.3	15.94	-650.00	-81.90	EXP	No	Yes
	BOILER #4 PSD Baseline On-crop season	--	SCBLR4BN	534,900	2,953,300	86.0	26.20	5.3	1.62	149.1	338.2	32.4	9.88	-205.60	-25.91	EXP	No	Yes
	BOILER #5 PSD Baseline On-crop season	--	SCBLR5BN	534,900	2,953,300	79.1	24.10	6.7	2.03	490.0	527.6	93.2	28.42	-315.00	-39.69	EXP	No	Yes
	BOILER #6 PSD Baseline On-crop season	--	SCBLR6BN	534,900	2,953,300	40.0	12.20	5.0	1.52	630.1	605.4	21.4	6.53	-147.70	-18.61	EXP	No	Yes
	BOILER #7 PSD Baseline On-crop season	--	SCBLR7BN	534,900	2,953,300	40.0	12.20	5.0	1.52	630.4	605.6	56.4	17.20	-353.80	-44.58	EXP	No	Yes
	BOILER #1 PSD Baseline Off-crop season	--	SCBLR1BF	534,900	2,953,300	79.1	24.10	5.5	1.68	395.0	474.8	52.3	15.94	-149.80	-18.87	EXP	No	Yes
	BOILER #2 PSD Baseline Off-crop season	--	SCBLR2BF	534,900	2,953,300	79.1	24.10	5.5	1.68	405.1	480.4	58.6	17.88	-149.80	-18.87	EXP	No	Yes
	BOILER #3 PSD Baseline Off-crop season	--	SCBLR3BF	534,900	2,953,300	79.1	24.10	5.5	1.68	470.0	516.5	54.1	16.50	-112.40	-14.16	EXP	No	Yes
	Boilers 1-3 PSD Baseline Off-Crop	--	BLR123BF	534,900	2,953,300	79.1	24.10	5.5	1.68	395.0	474.8	52.3	15.94	-412.00	-51.91	EXP	No	Yes
	BOILER #4 PSD Baseline Off-crop season	--	SCBLR4BF	534,900	2,953,300	86.0	26.20	5.3	1.62	149.1	338.2	32.4	9.88	-205.60	-25.91	EXP	No	Yes
	BOILER #5 PSD Baseline Off-crop season	--	SCBLR5BF	534,900	2,953,300	79.1	24.10	6.7	2.03	490.0	527.6	93.2	28.42	0.00	0.00	EXP	No	Yes
	BOILER #6 PSD Baseline Off-crop season	--	SCBLR6BF	534,900	2,953,300	40.0	12.20	5.0	1.52	630.1	605.4	21.4	6.53	0.00	0.00	EXP	No	Yes
	BOILER #7 PSD Baseline Off-crop season	--	SCBLR7BF	534,900	2,953,300	40.0	12.20	5.0	1.52	630.4	605.6	56.4	17.20	-121.80	-15.35	EXP	No	Yes
	0990019	Osceola Farms ^a																
		Unit 2	--	OSBLR2	544,200	2,968,000	90.0	27.4	5.0	1.52	155.9	342.0	40.7	12.41	228.90	28.84	CON	Yes
Unit 3		--	OSBLR3	544,200	2,968,000	90.0	27.4	6.25	1.91	154.0	340.9	38.8	11.84	229.20	28.88	CON	Yes	Yes
Unit 4		--	OSBLR4	544,200	2,968,000	90.0	27.4	6.0	1.83	153.6	340.7	59.5	18.14	228.90	28.84	CON	Yes	Yes
Unit 5a		--	OSBLR5A	544,200	2,968,000	90.0	27.4	5.0	1.52	150.0	338.7	56.9	17.33	115.90	14.60	CON	Yes	Yes
Unit 5b		--	OSBLR5B	544,200	2,968,000	90.0	27.4	5.0	1.52	150.0	338.7	46.7	14.23	115.90	14.60	CON	Yes	Yes
Unit 6		--	OSBLR6	544,200	2,968,000	90.0	27.4	6.17	1.88	151.0	339.3	53.0	16.14	250.10	31.51	CON	Yes	Yes
Units 2-6		--	OSBLR26	544,200	2,968,000	90.0	27.4	5.0	1.52	150.0	338.7	46.7	14.23	1168.90	147.28	CON	Yes	Yes
Baseline																		
Unit 1 PSD Baseline		--	OSBLR1B	544,200	2,968,000	72.2	22.0	5.0	1.52	155.9	342.0	29.5	8.98	-40.24	-5.07	EXP	No	Yes
Unit 2 PSD Baseline		--	OSBLR2B	544,200	2,968,000	72.2	22.0	5.0	1.52	155.9	342.0	46.6	14.22	-129.52	-16.32	EXP	No	Yes
Unit 3 PSD Baseline		--	OSBLR3B	544,200	2,968,000	72.2	22.0	6.5	1.98	155.9	342.0	36.8	11.23	-57.62	-7.26	EXP	No	Yes
Unit 4 PSD Baseline		--	OSBLR4B	544,200	2,968,000	72.2	22.0	6.0	1.83	155.9	342.0	43.8	13.35	-108.02	-13.61	EXP	No	Yes
0990016		Atlantic Sugar ^{a, c}																
		Unit 1	--	ATLSUG1	552,900	2,945,200	90.0	27.4	6.0	1.83	163.1	346.0	58.9	17.97	67.00	8.44	NO	Yes
	Unit 2	--	ATLSUG2	552,900	2,945,200	90.0	27.4	6.0	1.83	170.3	350.0	76.6	23.36	67.00	8.44	NO	Yes	No
	Unit 3	--	ATLSUG3	552,900	2,945,200	90.0	27.4	6.0	1.83	170.3	350.0	70.7	21.56	65.80	8.29	NO	Yes	No
	Unit 4	--	ATLSUG4	552,900	2,945,200	90.0	27.4	6.0	1.83	159.5	344.0	82.5	25.16	65.50	8.25	NO	Yes	No
	Units 1-4	--	ATLSUG14	552,900	2,945,200	90.0	27.4	6.0	1.83	163.1	346.0	58.9	17.97	265.30	33.43	NO	Yes	No
	Unit 5 PSD ^b	--	ATLSUG5	552,900	2,945,200	90.0	27.4	5.5	1.68	150.5	339.0	63.1	19.24	48.40	6.10	NO	Yes	No
	Baseline																	
	Unit 1 PSD Baseline	--	ATLSUG1B	552,900	2,945,200	62.0	18.9	6.3	1.92	451.1	506.0	41.7	12.70	-136.8	-17.24	EXP	No	Yes
	Unit 2 PSD Baseline	--	ATLSUG2B	552,900	2,945,200	62.0	18.9	6.3	1.92	460.1	511.0	35.8	10.90	-178.6	-22.50	EXP	No	Yes
Unit 3 PSD Baseline	--	ATLSUG3B	552,900	2,945,200	71.8	21.9	6.0	1.83	479.9	522.0	57.4	17.50	-134.0	-16.88	EXP	No	Yes	
Unit 4 PSD Baseline	--	ATLSUG4B	552,900	2,945,200	60.0	18.3	6.0	1.83	159.5	344.0	49.2	15.00	-134.0	-16.88	EXP	No	Yes	

TABLE F-4
SRF SUMMARY OF SO₂ 3-HOUR SOURCES INCLUDED IN THE PSD CLASS II MODELING ANALYSES

Facility ID	Facility Name Emission Unit Description	EU ID	Modeling ID Name	UTM Location		Height		Diameter		Temperature		Velocity		SO ₂ Emission Rate 3-Hour		Type of PSD Source (EXP/CON)	Modeled In	
				X	Y	ft	m	ft	m	°F	K	ft/s	m/s	(lb/hr)	(g/sec)		AAQS	Class II
				(m)	(m)													
0850102	Indiantown Cogeneration LP - Indiantown Plant Pulverized Coal Main Boiler Two Auxiliary Boilers	001	INDTOWN1	547,650	2,990,700	495.0	150.9	16.0	4.88	140.0	333.2	93.2	28.41	582.00	73.33	CON	Yes	Yes
		007	INDTOWN3	547,650	2,990,700	210.0	64.0	5.0	1.52	350.0	449.8	87.5	26.67	18.00	2.27	CON	Yes	Yes
0850001	FPL - Martin Power Plant Units 1&2 PSD Baseline Units 1&2 Units 3&4 Aux Boiler Diesel Generator Unit 8 (EUs 11, 12, 17, & 18)	1-2	MART12B	542,680	2,992,650	499.0	152.1	26.2	8.0	338.0	443.2	68.7	20.94	-13840.00	-1743.84	EXP	No	Yes
		1-2	MART12	542,680	2,992,650	499.0	152.1	26.2	8.0	338.0	443.2	68.7	20.94	8817.00	1110.94	CON	Yes	Yes
		3-6	MART34	542,680	2,992,650	213.0	64.9	20.0	6.1	280.0	410.9	62.0	18.90	4.00	0.50	CON	Yes	Yes
		7	MARTAUX	542,680	2,992,650	60.0	18.3	3.6	1.1	504.1	535.4	50.0	15.24	102.38	12.90	CON	Yes	Yes
		9	MARTGEN	542,680	2,992,650	25.0	7.6	1.0	0.3	955.0	785.9	130.0	39.62	4.05	0.51	CON	Yes	Yes
		-	MART8OIL	542,680	2,992,650	120.0	36.6	19.0	5.8	296.3	420.0	73.5	22.40	16.00	2.02	CON	Yes	Yes
0710119	Lee County Resource Recovery Municipal Waste Combustion Units #1 & #2	1	LECORRF	424,210	2,945,700	274.9	83.8	6.2	1.89	239.7	388.6	64.6	19.69	82.00	10.33	CON	Yes	Yes
0710002	Fort Myers Power Plant Unit 1 PSD Unit 2 PSD CT No. 1 - 12 250MW Combined Cycle CT - 2A - 2F 170 MW Simple Cycle CT No. 1 & 2 (3A & 3B)	1	FMPU1	422,300	2,952,900	301.1	91.8	9.5	2.90	299.9	422.0	98.1	29.90	-4606.50	-580.42	EXP	No	Yes
		2	FMPU2	422,300	2,952,900	397.5	121.2	18.1	5.52	274.7	408.0	63.0	19.20	-10495.50	-1322.43	EXP	No	Yes
		3-14	FMPCT112	422,300	2,952,000	32.0	9.8	11.4	3.5	975.0	797.0	189.4	57.7	4800	604.80	NO	Yes	No
		18-23	FMPCT2AF	422,300	2,953,030	125.0	38.1	19	5.8	220.0	377.6	70.3	21.4	30.6	3.86	CON	Yes	Yes
		27-28	FMPCT3AB	422,300	2,952,900	80.0	24.4	20.5	6.2	1116.0	875.4	120.7	36.8	206.2	25.98	CON	Yes	Yes
0112120	North Broward RRF PSD Main Stack (All boilers operating)		NBRRF	583,600	2,907,600	195	59.44	15.0	4.57	300.0	422.0	63.8	19.45	131.20	16.53	CON	Yes	Yes
0990045	City of Lake Worth Utilities Diesel Generator Units 1-5 Gas Turbine No.1 Steam Generator Unit 1 Unit 3, S-3 Unit 4, S-4 Combined Cycle Unit, S-5	001-005	LAKWTHDG	592,800	2,943,700	17.0	5.18	1.8	0.56	667.0	625.9	121.7	37.09	38.0	4.78	CON	Yes	Yes
		006	LAKWTHHR	592,800	2,943,700	46.0	14.02	16.0	4.88	837.0	720.4	81.5	24.84	109.0	13.73	CON	Yes	Yes
		007	LAKWTHU1	592,800	2,943,700	60.0	18.29	5.0	1.52	311.0	428.2	34.5	10.52	-267.0	-33.64	EXP	No	Yes
		009	LAKWTHU3	592,800	2,943,700	113.0	34.44	7.0	2.13	293.0	418.2	51.4	15.70	832.0	104.83	NO	Yes	No
		010	LAKWTHU4	592,800	2,943,700	115.0	35.05	7.5	2.29	293.0	418.2	55.8	17.00	-1072.0	-135.07	EXP	No	Yes
		011	LAKWTHU5	592,800	2,943,700	75.0	22.86	10.0	3.05	404.0	479.8	87.5	27.80	286.0	36.04	CON	Yes	Yes
0990042	FPL - Riviera Beach Units 3&4 PSD Baseline Units 3&4 Units 1 Units 2	--	RIVU34B	593,270	2,960,620	298	90.8	16.0	4.88	263.0	401.5	88.1	26.9	-4356.0	-548.86	EXP	No	Yes
		--	RIVU34	593,270	2,960,620	298	90.8	16.0	4.88	263.0	401.5	88.1	26.9	5767.0	726.64	CON	Yes	Yes
		--	RIVU1	593,270	2,960,620	150	45.7	10.8	3.29	309.0	427.0	24.8	7.56	-160.0	-20.16	EXP	No	Yes
		--	RIVU2	593,270	2,960,620	150	45.7	15.0	4.57	315.0	430.4	20.7	6.31	-298.0	-37.55	EXP	No	Yes
0112119	Wheelabrator South Broward, Inc. MSW Combustor & Auxiliary Burners- Units 1, 2, & 3		SBCRRF	578,870	2,883,390	195	59.4	13.0	3.96	226.1	381.0	59.1	18.01	105.30	13.27	CON		
0110037	Florida Power & Light (PFL) - Fort Lauderdale CTs 1-4 PSD GT 1-12 (0.5% fuel oil) GT 13-24 (0.5% fuel oil) 4&5 PSD Baseline	--	LAUDU45	579,390	2,883,360	150	45.7	18.0	5.5	330.0	438.7	158.7	48.37	398.60	50.22	CON	Yes	Yes
		--	LDGT1_12	579,390	2,883,360	45	13.7	15.6	4.8	860.0	733.2	93.3	28.44	770.80	97.12	NO	Yes	No
		--	LDGT1324	579,390	2,883,360	45	13.7	15.6	4.8	860.0	733.2	93.3	28.44	770.80	97.12	NO	Yes	No
		--	FTLAU45B	579,390	2,883,360	150	45.7	14.0	4.3	299.9	422.0	48.0	14.63	-1663.00	-209.54	EXP	No	Yes

Note: EXP = PSD expanding source.
CON = PSD consuming source.
NO = Baseline Source, assuming potential baseline emissions are the same as current actual emissions.
* Facilities or sources within facilities that operate only during the October 1 through April 31 crop season. For sources identified operating during off-crop season, the season is May through September.
^b Facility-wide SO₂ emission limit of 14 tons/day (1,166.7) lb/hr. Only Boilers 1 and 4 operate during off-crop season.

TABLE F-5
SRF SUMMARY OF SO₂ 3-HOUR SOURCES INCLUDED IN THE AAQS MODELING ANALYSES

Facility ID	Facility Name Emission Unit Description	EU ID	Modeling ID Name	UTM Location		Stack Parameters								SO ₂ Emission Rate 3-Hour		Modeled In AAQS	
				X (m)	Y (m)	Height		Diameter		Temperature		Velocity		(lb/hr)	(g/sec)		
						ft	m	ft	m	°F	K	ft/s	m/s				
0510003	U.S. Sugar Clewiston Mill and Refinery																
	On-crop season^a																
	Boiler No. 1	001	USSBLR1N	506,100	2,956,900	213.0	64.92	8.0	2.44	150.0	338.7	82.9	25.27	29.70	3.74	Yes	
	Boiler No. 2	002	USSBLR2N	506,100	2,956,900	213.0	64.92	8.0	2.44	150.0	338.7	82.9	25.27	26.80	3.38	Yes	
	Boiler No. 4	009	USSBLR4N	506,100	2,956,900	150.0	45.72	8.2	2.50	160.0	344.3	88.7	27.04	38.00	4.79	Yes	
	Boiler No. 7	014	USSBLR7N	506,100	2,956,900	225.0	68.58	8.0	2.44	335.0	441.5	94.5	28.80	138.00	17.39	Yes	
	Boiler No. 8	028	USSBLR8N	506,100	2,956,900	199.0	60.66	10.9	3.32	315.0	430.4	75.7	23.07	71.10	8.96	Yes	
	Off-crop season^a																
	Boiler No. 7	014	USSBLR7F	506,100	2,956,900	225.0	68.58	8.0	2.44	335.0	441.5	94.5	28.80	138.00	17.39	Yes	
	Boiler No. 8	028	USSBLR8F	506,100	2,956,900	199.0	60.66	10.9	3.32	315.0	430.4	75.7	23.07	71.10	8.96	Yes	
	Sugar Refinery Sources																
	Granular Carbon Furnace S-12	017	S12	506,100	2,956,900	30.0	9.14	2.00	0.61	160.0	344.3	22.8	6.95	0.64	0.081	Yes	
0990332	New Hope Power Company																
	Boiler A	--	BLRA	524,920	2,939,440	199.0	60.7	10.0	3.05	352.0	450.9	67.7	20.63	227.78	28.70	Yes	
	Boiler B	--	BLRB	524,920	2,939,440	199.0	60.7	10.0	3.05	352.0	450.9	67.7	20.63	227.78	28.70	Yes	
	Boiler C	--	BLRC	524,920	2,939,440	199.0	60.7	10.0	3.05	352.0	450.9	67.7	20.63	227.78	28.70	Yes	
0510015	Southern Gardens Citrus Processing Corp.																
	Boiler #1	001	SGARD01	487,500	2,957,600	55.0	16.76	4.0	1.22	400.0	477.6	49.6	15.12	1.78	0.22	Yes	
	Boiler #2	002	SGARD02	487,500	2,957,600	55.0	16.76	4.0	1.22	400.0	477.6	49.6	15.12	1.78	0.22	Yes	
	Boiler #3	008	SGARD08	487,500	2,957,600	55.0	16.76	4.0	1.22	400.0	477.6	49.6	15.12	1.89	0.24	Yes	
	Boiler #4	010	SGARD10	487,500	2,957,600	55.0	16.76	4.0	1.22	400.0	477.6	49.6	15.12	0.33	0.04	Yes	
	Boilers 1-4		SGARDBLR	487,500	2,957,600	55.0	16.76	4.0	1.22	400.0	477.6	49.6	15.12	5.78	0.73	Yes	
	Peel Dryer No. 2 with Waste Heat Evaporator	019	SGARD19	487,500	2,957,600	125.0	38.10	5.7	1.74	160.0	344.3	27.3	8.32	10.50	1.32	Yes	
	Peel Dryer No. 1 with Waste Heat Evaporator	003	SGARD03	487,500	2,957,600	125.0	38.10	5.7	1.74	160.0	344.3	27.3	8.32	10.50	1.32	Yes	
	Peel Dryers 1 and 2		SGARDDRY	487,500	2,957,600	125.0	38.10	5.7	1.74	160.0	344.3	27.3	8.32	21.00	2.65	Yes	
0430018	Oldcastle Lawn and Garden Diesel Engine and Mulch Grinder	001	OLG1	492,040	2,961,340	20.0	6.1	0.75	0.23	900.0	755.4	229.1	69.83	2.05	0.26	Yes	
0990005	Okeelanta ^a Boiler 16 PSD ^b	--	OKBLR16	524,700	2,939,500	75.0	22.9	5.0	1.52	393.0	473.7	100.7	30.69	12.10	1.52	Yes	
0990615	South Florida Water Management District Pump Station G-372	001	SFWMD372	519,140	2,923,650	74.0	22.6	1.5	0.46	650.0	616.5	136.8	41.70	3.39	0.43	Yes	
0510027	Clewiston Facility - Amerimix Industries, Inc. Rotary Sand Dryer	001	AMERIND	495,410	2,966,500	30.0	9.14	2.0	0.61	230	383.2	191.0	58.21	37.4	4.71	Yes	

**TABLE F-5
SRF SUMMARY OF SO₂ 3-HOUR SOURCES INCLUDED IN THE AAQS MODELING ANALYSES**

Facility ID	Facility Name Emission Unit Description	EU ID	Modeling ID Name	UTM Location		Stack Parameters								SO ₂ Emission Rate 3-Hour		Modeled In AAQS
				X (m)	Y (m)	Height		Diameter		Temperature		Velocity		(lb/hr)	(g/sec)	
						ft	m	ft	m	°F	K	ft/s	m/s			
0430008	South Florida Thermal Services, Inc. Thermal Soil Treatment Plant with Afterburner & E	001	ATI01	489,200	2,966,600	23.0	7.01	3.2	0.98	1400	1033.2	123.0	37.49	19.5	2.45	Yes
0110351	South Florida Water Management District - Pump Str Five diesel engines		SFWMDS8	522,260	2,912,270	12	3.66	2.0	0.61	660.0	622.0	31.6	9.63	4.76	0.60	Yes
0990026	Sugar Cane Growers Co-Op ^{a, b} On-crop season															
	Boiler No. 1	001	SCBLR1N	534,900	2,953,300	150.0	45.72	7.0	2.13	156.0	342.0	49.6	15.12	599.10	75.49	Yes
	Boiler No. 2	002	SCBLR2N	534,900	2,953,300	150.0	45.72	7.0	2.13	156.0	342.0	51.1	15.58	567.57	71.51	Yes
	Boiler No. 3	003	SCBLR3N	534,900	2,953,300	180.0	54.86	5.3	1.62	156.0	342.0	40.3	12.28	0.00	0.00	Yes
	Boiler No. 4	004	SCBLR4N	534,900	2,953,300	180.0	54.86	8.9	2.72	162.0	345.4	54.1	16.49	0.00	0.00	Yes
	Boiler No. 5	005	SCBLR5N	534,900	2,953,300	150.0	45.72	7.0	2.13	160.0	344.3	77.1	23.50	0.00	0.00	Yes
	Boiler No. 8	008	SCBLR8N	534,900	2,953,300	155.0	47.24	9.5	2.90	154.0	340.9	37.6	11.46	0.00	0.00	Yes
	Off-crop season															
	Boiler No. 1	001	SCBLR1F	534,900	2,953,300	150.0	45.72	7.0	2.13	156.0	342.0	49.6	15.12	599.10	75.49	Yes
	Boiler No. 4	004	SCBLR4F	534,900	2,953,300	180.0	54.86	8.9	2.72	162.0	345.4	54.1	16.49	567.57	71.51	Yes
0990019	Osceola Farms ^a															
	Unit 2	--	OSBLR2	544,200	2,968,000	90.0	27.4	5.0	1.52	155.9	342.0	40.7	12.41	228.90	28.84	Yes
	Unit 3	--	OSBLR3	544,200	2,968,000	90.0	27.4	6.25	1.91	154.0	340.9	38.8	11.84	229.20	28.88	Yes
	Unit 4	--	OSBLR4	544,200	2,968,000	90.0	27.4	6.0	1.83	153.6	340.7	59.5	18.14	228.90	28.84	Yes
	Unit 5a	--	OSBLR5A	544,200	2,968,000	90.0	27.4	5.0	1.52	150.0	338.7	56.9	17.33	115.90	14.60	Yes
	Unit 5b	--	OSBLR5B	544,200	2,968,000	90.0	27.4	5.0	1.52	150.0	338.7	46.7	14.23	115.90	14.60	Yes
	Unit 6	--	OSBLR6	544,200	2,968,000	90.0	27.4	6.17	1.88	151.0	339.3	53.0	16.14	250.10	31.51	Yes
	Units 2-6		OSBLR5B	544,200	2,968,000	90.0	27.4	5.0	1.52	150.0	338.7	46.7	14.23	1168.90	147.28	Yes
0990016	Atlantic Sugar ^{a, e}															
	Unit 1	--	ATLSUG1	552,900	2,945,200	90.0	27.4	6.0	1.83	163.1	346.0	58.9	17.97	67.00	8.44	Yes
	Unit 2	--	ATLSUG2	552,900	2,945,200	90.0	27.4	6.0	1.83	170.3	350.0	76.6	23.36	67.00	8.44	Yes
	Unit 3	--	ATLSUG3	552,900	2,945,200	90.0	27.4	6.0	1.83	170.3	350.0	70.7	21.56	65.80	8.29	Yes
	Unit 4	--	ATLSUG4	552,900	2,945,200	90.0	27.4	6.0	1.83	159.5	344.0	82.5	25.16	65.50	8.25	Yes
	Units 1-4		ATLSUG14	552,900	2,945,200	90.0	27.4	6.0	1.83	163.1	346.0	58.9	17.97	265.30	33.43	Yes
	Unit 5 PSD ^b	--	ATLSUG5	552,900	2,945,200	90.0	27.4	5.5	1.68	150.5	339.0	63.1	19.24	48.40	6.10	Yes

TABLE F-5
SRF SUMMARY OF SO₂ 3-HOUR SOURCES INCLUDED IN THE AAQS MODELING ANALYSES

Facility ID	Facility Name Emission Unit Description	EU ID	Modeling ID Name	UTM Location		Height		Stack Parameters				SO ₂ Emission Rate 3-Hour		Modeled In AAQS		
				X (m)	Y (m)	ft	m	Diameter	Temperature	Velocity	(lb/hr)	(g/sec)				
								ft	m	°F	K	ft/s	m/s			
0850102	Indiantown Cogeneration LP - Indiantown Plant Pulverized Coal Main Boiler Two Auxiliary Boilers	001	INDTOWN1	547,650	2,990,700	495.0	150.9	16.0	4.88	140.0	333.2	93.2	28.41	582.00	73.33	Yes
		007	INDTOWN3	547,650	2,990,700	210.0	64.0	5.0	1.52	350.0	449.8	87.5	26.67	18.00	2.27	Yes
0850001	FPL - Martin Power Plant Units 1&2 Units 3&4 Aux Boiler Diesel Generator Unit 8 (EUs 11, 12, 17, &18)	1-2	MART12	542,680	2,992,650	499.0	152.1	26.2	8.0	338.0	443.2	68.7	20.94	13840.00	1743.84	Yes
		3-6	MART34	542,680	2,992,650	213.0	64.9	20.0	6.1	280.0	410.9	62.0	18.90	3680.00	463.68	Yes
		7	MARTAUX	542,680	2,992,650	60.0	18.3	3.6	1.1	504.1	535.4	50.0	15.24	102.38	12.90	Yes
		9	MARTGEN	542,680	2,992,650	25.0	7.6	1.0	0.3	955.0	785.9	130.0	39.62	4.05	0.51	Yes
		--	MART8OIL	542,680	2,992,650	120.0	36.6	19.0	5.8	296.3	420.0	73.5	22.40	412.40	51.96	Yes
0710119	Lee County Resource Recovery Municipal Waste Combustion Units #1 & #2	1	LECORRF	424,210	2,945,700	274.9	83.8	6.2	1.89	239.7	388.6	64.6	19.69	82.00	10.33	Yes
0710002	Fort Myers Power Plant CT No. 1 - 12 250MW Combined Cycle CT - 2A - 2F 170 MW Simple Cycle CT No. 1 & 2 (3A & 3B)	3-14	FMPCT112	422,300	2,952,000	32.0	9.8	11.4	3.5	975.0	797.0	189.4	57.7	4800	604.80	Yes
		18-23	FMPCT2AF	422,300	2,953,030	125.0	38.1	19	5.8	220.0	377.6	70.3	21.4	30.6	3.86	Yes
		27-28	FMPCT3AB	422,300	2,952,900	80.0	24.4	20.5	6.2	1116.0	875.4	120.7	36.8	206.2	25.98	Yes
0112120	North Broward RRF PSD Main Stack (All boilers operating)		NBRRF	583,600	2,907,600	195	59.44	15.0	4.57	300.0	422.0	63.8	19.45	131.20	16.53	Yes
0990045	City of Lake Worth Utilities Diesel Generator Units 1-5 Gas Turbine No.1 Unit 3, S-3 Combined Cycle Unit, S-5	001-005	LAKWTHDG	592,800	2,943,700	17.0	5.2	1.8	0.6	667.0	625.9	121.7	37.09	38.0	4.78	Yes
		006	LAKWTHHR	592,800	2,943,700	46.0	14.0	16.0	4.9	837.0	720.4	81.5	24.84	109.0	13.73	Yes
		009	LAKWTHU3	592,800	2,943,700	113.0	34.4	7.0	2.1	293.0	418.2	51.4	15.70	832.0	104.83	Yes
		011	LAKWTHU5	592,800	2,943,700	75.0	22.9	10.0	3.0	404.0	479.8	87.5	27.80	286.0	36.04	Yes
0990042	FPL -Riviera Beach Units 3&4	--	RIVU34	593,270	2,960,620	298	90.8	16.0	4.88	263.0	401.5	88.1	26.9	14800.4	1864.85	Yes
0112119	Wheelabrator South Broward, Inc. MSW Combustor & Auxiliary Burners- Units 1, 2, & 3		SBCRRF	578,870	2,883,390	195	59.4	13.0	3.96	226.1	381.0	59.1	18.01	105.30	13.27	Yes
0110037	Florida Power & Light (PFL) - Fort Lauderdale CTs 1-4 GT 1-12 (0.5% fuel oil) GT 13-24 (0.5% fuel oil)	--	LAUDU45	579,390	2,883,360	150	45.7	18.0	5.5	330.0	438.7	158.7	48.37	2152.00	271.15	Yes
		--	LDGT1_12	579,390	2,883,360	45	13.7	15.6	4.8	860.0	733.2	93.3	28.44	770.80	97.12	No
		--	LDGT1324	579,390	2,883,360	45	13.7	15.6	4.8	860.0	733.2	93.3	28.44	770.80	97.12	No

^a Facilities or sources within facilities that operate only during the October 1 through April 31 crop season. For sources identified operating during off-crop season, the season is May through September.

^b Facility-wide SO₂ emission limit of 14 tons/day (1,166,7) lb/hr). Only Boilers 1 and 4 operate during off-crop season.

**TABLE F-7
SUMMARY OF NO_x SOURCES INCLUDED IN THE AAQS MODELING ANALYSES**

Facility ID	Facility Name Emission Unit Description	EU ID	Modeling ID Name	UTM Location		Height		Stack Parameters				NO _x Emission Rate		Modeled Source?		
				X (m)	Y (m)	ft	m	Diameter		Temperature		Velocity			1-Hour (lb/hr)	(g/sec)
0510003	U.S. Sugar Clewiston Mill and Refinery															
	<u>On-crop season^a</u>															
	Boiler No. 1	001	USSBLR1N	506,100	2,956,900	213.0	64.92	8.0	2.44	150.0	338.7	82.9	25.27	50.7	6.39	Yes
	Boiler No. 2	002	USSBLR2N	506,100	2,956,900	213.0	64.92	8.0	2.44	150.0	338.7	82.9	25.27	50.7	6.39	Yes
	Boiler No. 4	009	USSBLR4N	506,100	2,956,900	150.0	45.72	8.2	2.50	160.0	344.3	88.7	27.04	126.6	15.95	Yes
	Boiler No. 7	014	USSBLR7N	506,100	2,956,900	225.0	68.58	8.0	2.44	335.0	441.5	94.5	28.80	185.0	23.31	Yes
	Boiler No. 8	028	USSBLR8N	506,100	2,956,900	199.0	60.66	10.9	3.32	315.0	430.4	75.7	23.07	165.9	20.90	Yes
	<u>Off-crop season^a</u>															
	Boiler No. 7	014	USSBLR7F	506,100	2,956,900	225.0	68.58	8.0	2.44	335.0	441.5	94.5	28.80	185.0	23.31	No
	Boiler No. 8	028	USSBLR8F	506,100	2,956,900	199.0	60.66	10.9	3.32	315.0	430.4	75.7	23.07	131.0	16.51	No
	<u>Sugar Refinery Sources</u>															
	Granular Carbon Furnace S-12	017	S12	506,100	2,956,900	30.0	9.14	2.00	0.61	160.0	344.3	22.8	6.95	3.00	0.38	Yes
0990332	New Hope Power Partnership Cogeneration Boilers A, B; & C	1	OKCOGENF	524,920	2,939,440	199.0	60.7	10.0	3.05	352.0	450.9	67.7	20.63	342	43.09	Yes
0110351	SFWMD Pump Station S-8 & G-404 Four 800 bhp and three 440 bhp Diesel Engines	1-2	SFWMD12	522,300	2,912,200	12.0	3.7	2.0	0.61	660.0	622.0	31.6	9.63	176.2	22.20	Yes
0990026	Sugar Cane Growers Co-Op															
	<u>On-crop season^a</u>															
	Unit 1	1	SCBLR1N	534,900	2,953,300	150.0	45.72	7.0	2.13	156.0	342.0	49.6	15.12	159.2	20.05	Yes
	Unit 2	2	SCBLR2N	534,900	2,953,300	150.0	45.72	7.0	2.13	156.0	342.0	51.1	15.58	128.6	16.20	Yes
	Unit 3	3	SCBLR3N	534,900	2,953,300	180.0	54.86	5.3	1.62	156.0	342.0	40.3	12.28	102.9	12.97	Yes
	Unit 4	4	SCBLR4N	534,900	2,953,300	180.0	54.86	8.9	2.72	162.0	345.4	54.1	16.49	257.0	32.38	Yes
	Unit 5	5	SCBLR5N	534,900	2,953,300	150.0	45.72	7.0	2.13	160.0	344.3	77.1	23.50	188.6	23.76	Yes
	Unit 8	8	SCBLR8N	534,900	2,953,300	155.0	47.24	9.5	2.90	154.0	340.9	37.6	11.46	123.0	15.50	Yes
	<u>Off-crop season^a</u>															
	Unit 1	1	SCBLR1F	534,900	2,953,300	150.0	45.72	7.0	2.13	156.0	342.0	49.6	15.12	159.2	20.05	No
	Unit 4	4	SCBLR4F	534,900	2,953,300	180.0	54.86	8.9	2.72	162.0	345.4	54.1	16.49	257.0	32.38	No
0990019	Osceola Farms ^a															
	Boiler #2	2	OSBLR2	544,200	2,968,000	90	27.43	5.0	1.52	155.9	342.0	40.7	12.41	126	15.88	Yes
	Boiler #3	3	OSBLR3	544,200	2,968,000	90	27.43	6.25	1.91	154.0	340.9	38.8	11.84	64.6	8.14	Yes
	Boiler #4	4	OSBLR4	544,200	2,968,000	90	27.43	6.0	1.83	153.6	340.7	59.5	18.14	126	15.88	Yes
	Boiler #5 East	5	OSBLR5E	544,200	2,968,000	90	27.43	5.0	1.52	150.0	338.7	56.9	17.33	148.5	18.71	Yes
	Boiler #5 West	5	OSBLR5W	544,200	2,968,000	90	27.43	5.0	1.52	150.0	338.7	46.7	14.23	148.5	18.71	Yes
	Boiler #6	6	OSBLR6	544,200	2,968,000	90	27.43	6.17	1.88	151.0	339.3	53.0	16.14	78.6	9.90	Yes
	Units 2-6		OSBLR5W	544,200	2,968,000	90	27.43	5.0	1.52	150.0	338.7	46.7	14.23	692.2	87.22	Yes
0990016	Atlantic Sugar Association ^a															
	Boiler 1	1	ATLSUG1	552,900	2,945,200	90	27.43	6	1.83	180	355.4	61.1	18.62	126	15.88	Yes
	Boiler 2	2	ATLSUG2	552,900	2,945,200	90	27.43	6	1.83	180	355.4	60.1	18.32	126	15.88	Yes
	Boiler 3	3	ATLSUG3	552,900	2,945,200	90	27.43	6	1.83	197	364.8	59.7	18.20	112	14.11	Yes
	Boiler 4	4	ATLSUG4	552,900	2,945,200	90	27.43	6	1.83	158	343.2	62.7	19.11	111.6	14.06	Yes
	Units 1-4		ATLSUG14	552,900	2,945,200	90	27.4	6	1.83	158	343.2	62.7	19.11	475.6	59.93	Yes
	Boiler 5 ^b	5	ATLSUG5	552,900	2,945,200	90	27.43	5.5	1.68	150	338.7	63.1	19.23	44.6	5.62	Yes

**TABLE F-7
SUMMARY OF NO_x SOURCES INCLUDED IN THE AAQS MODELING ANALYSES**

Facility ID	Facility Name Emission Unit Description	EU ID	Modeling ID Name	UTM Location		Stack Parameters				NO _x Emission Rate		Modeled Source?				
				X (m)	Y (m)	Height		Diameter		Temperature			Velocity		1-Hour (lb/hr)	(g/sec)
0850102	Indiantown Cogeneration, L.P. Pulverized Coal Main Boiler Aux Boilers (2)	1	INDTOWN1	547,650	2,990,700	495	150.88	16	4.88	140	333.2	93.2	28.41	582	73.33	Yes
		7	INDTOWN3	547,650	2,990,700	210	64.01	5	1.52	551	561.5	124.4	37.92	7.99	1.01	No
0850001	Florida Power & Light, Martin (PMR) Units 1 & 2 CT Units 3 - 6 Units 8A - 8D Auxiliary Boiler	1-2	MART12	542,680	2,992,650	499	152.10	36	10.97	338	443.2	43.1	13.14	5190	653.94	Yes
		3-6	MART36	542,680	2,992,650	213	64.92	20	6.10	280	410.9	128.4	39.14	1844	232.34	Yes
		11-12 & 17-18	MART8	542,680	2,992,650	120	36.58	19	5.79	202	367.6	59	17.98	1279.2	161.18	Yes
		7	MARTAUX	542,680	2,992,650	60	18.29	3.6	1.10	490	527.6	50	15.24	4.88	0.61	No
0710002	FP&L Fort Myers Power Plant CT No. 1 - 12 250MW Combined Cycle CT - 2A - 2F 170 MW Simple Cycle CT No. 1 & 2 (3A & 3B)	3-14	FMPCT112	422,300	2,952,000	32.0	9.8	11.4	3.5	975.0	797.0	189.4	57.7	6360.0	801.36	Yes
		18-23	FMPCT2AF	422,300	2,953,030	125.0	38.1	19	5.8	220.0	377.6	70.3	21.4	390.0	49.14	Yes
		27-28	FMPCT3AB	422,300	2,952,900	80.0	24.4	20.5	6.2	1116.0	875.4	120.7	36.8	640.0	80.64	Yes
0990234	Solid Waste Authority Of PBC Municipal Solid Waste Boiler #1 - potential Municipal Solid waste boiler #2 - potential Boilers 1 and 2	1	PBCRRF1	584,490	2,961,260	250	76.20	6.7	2.04	450	505.4	81	24.69	284.8	35.88	Yes
		2	PBCRRF2	584,490	2,961,260	250	76.20	6.7	2.04	450	505.4	81	24.69	284.8	35.88	Yes
			PBCRRF12	584,490	2,961,260	250	76.20	6.7	2.04	450	505.4	81	24.69	569.6	16.40	Yes
	Class III Landfill with Flare	4	PBCRRF3	584,490	2,961,260	23	7.01	0.5	0.15	1400	1033.2	152.8	46.57	6.4	0.81	Yes
0990045	City of Lake Worth Utilities Diesel Generator Units 1-5 Gas Turbine No.1 Unit 3, S-3 Unit 4, S-4 Combined Cycle Unit, S-5	1-5	LAKWTHDG	592,800	2,943,700	17.0	5.2	1.83	0.6	667.0	625.9	121.7	37.09	499.0	62.87	Yes
		6	LAKWTHGT	592,800	2,943,700	46.0	14.0	16.0	4.9	837.0	720.4	81.5	24.84	392.0	49.39	Yes
		9	LAKWTHU3	592,800	2,943,700	113.0	34.4	7.0	2.1	293.0	418.2	51.4	15.70	163.0	20.54	Yes
		10	LAKWTHU4	592,800	2,943,700	115.0	35.1	7.5	2.3	293.0	418.2	55.8	17.00	209.6	26.41	Yes
		11	LAKWTHU5	592,800	2,943,700	75.0	22.9	10.0	3.0	404.0	479.8	87.5	27.80	286.0	36.04	Yes
0990042	Florida Power & Light, Riviera (PRV) Units 3&4 Potential		RIVU34	593,270	2,960,620	298	90.8	16.0	4.88	263.0	401.5	88.1	26.9	3782.0	476.53	Yes
0110037	Florida Power & Light, Fort Lauderdale (PFL) CTs (Units 4A, 4B, 5A, 5B) Potential GTs 1-12 (0.5% fuel oil) potential GTs 13-24 (0.5% fuel oil) potential	35-38	LAUDU45	557,490	2,852,050	150	45.7	18.0	5.5	330.0	438.7	158.7	48.37	1688.00	212.69	Yes
		3	LDGT1_12	557,490	2,852,050	45	13.7	15.6	4.8	860.0	733.2	93.3	28.44	631.00	79.51	Yes
		15	LDGT1324	557,490	2,852,050	45	13.7	15.6	4.8	860.0	733.2	93.3	28.44	631.00	79.51	Yes

^a Facilities or sources within facilities that operate only during the October 1 through April 31 crop season. For sources identified operating during off-crop season, the season is May through September.
^b Sugar mill sources that operate all year.
^c Stack height was assumed to be 20 ft, no data was available in query or in permit.