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FUEL OIL ALTERNATIVE REQUEST

Shady Hills Generating Station
Pasco County, Florida

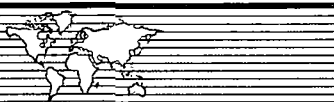
Prepared For: New Source Review Section
Bureau of Air Regulation
Florida Department of Environmental Protection
111 South Magnolia Drive, Suite 4
Tallahassee, FL 32301

Submitted By: Golder Associates Inc.
5100 W. Lemon Street, Suite 208
Tampa, FL 33609 USA

Distribution: 1 Copy to FDEP New Source Review Section
1 Copy to GE Financial Services
1 Copy to Golder Associates Inc.

May 2011

103-89556



REPORT

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May 25, 2011

103-89556

Mr. Robert Bull, PE
New Source Review Section
Bureau of Air Regulation
Florida Department Environmental Protection
111 South Magnolia Drive, Suite 4
Tallahassee, Florida 32301

**Re: Fuel Oil Alternative Request
Shady Hills Power Company, LLC; Facility ID No: 1010373
Air Permit No. 1010373-007-AC / PSD-FL-402**

Dear Mr. Bull:

On July 13, 2010, GE Energy Financial Services submitted an air construction permit application for the expansion of Shady Hills Generating Station located at 14240 Merchant Energy Way, Shady Hills Pasco County, Florida to install two new combustion turbines. This additional correspondence provides a discussion of operational and contractual constraints related to the proposed combustion turbine simple cycle operation. Based on these site specific constraints, GE Energy Financial Services is proposing a modified oil firing operation representative of BACT as detailed in the following report.

GE Energy Financial Services looks forward to working with you on this permitting effort. If you would like to discuss any issues regarding this application, please contact Mr. Roy Belden at (203) 357-6820 or me at (813) 287-1717 in Tampa.

Sincerely,

GOLDER ASSOCIATES INC.

Scott Osbourn, PE
Associate and Tampa Operations Manager

Dave Larocca
Senior Project Engineer

cc: Ms. Cindy Zhang-Torres, PE FDEP SW District, Air Permitting Section
Roy Belden, Shady Hills Power Company, LLC

Enclosure: Fuel Oil Alternative Request Report

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Table of Contents

Part I - FDEP Application Report

1.0	BACKGROUND	1
1.1	Site Specific Operational and Contractual Constraints	1
1.2	Proposed Operating Limitations	1
1.2.1	Construction of One Unit Only	1
1.2.2	Construction of Two Units	2
1.3	NOx BACT – SCR Cost Analysis	2
1.4	Air Quality Impacts	2
2.0	CLOSING	4

List of Tables

Table 1	Shady Hills Expansion – Proposed Operating Hour Trade Off Mechanism
Table 2	SCR Cost Effectiveness

Part II - FDEP Application For Air Permit



PART I

FDEP APPLICATION REPORT



1.0 BACKGROUND

On July 13, 2010, GE Energy Financial Services submitted an air construction permit application for the expansion of Shady Hills Generating Station located at 14240 Merchant Energy Way, Shady Hills Pasco County, Florida to install two new combustion turbines. This additional correspondence provides a discussion of operational and contractual constraints related to the proposed combustion turbine simple cycle operation. Based on these site specific constraints, GE Energy Financial Services is proposing a modified oil firing operation representative of BACT as detailed in the following sections.

Current Permit Application Structure (Consistent with Prior Construction Permit PSD-FL-402):

- Sources: 2 new CTs operating in simple cycle (among other new permitted sources)
- Fuel: Primary – NG; Secondary – Ultra Low Sulfur Distillate Fuel Oil (FO)
- NOx BACT: 9ppm NOx on NG; 42ppm on FO
- Hours: Average of 3,390 hours per year per turbine for the two CTs; a combined total of 1,000 hours of operation on FO per calendar year

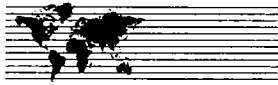
1.1 Site Specific Operational and Contractual Constraints

The combustion turbines will operate as peaking units, and the project will negotiate a tolling agreement(s) with offtaker(s) whereby the offtaker(s) will provide all the fuel for the units. The project will not be procuring its own natural gas and distillate fuel supply. The offtaker will also control when and for how long the units are dispatched and what fuel will be used to generate power in order to meet the electricity demands of its customers. This project needs the flexibility to use ULSDO as directed by the offtaker. Use of ULSDO will not necessarily be tied to natural gas availability. It is the project's understanding that for a peaking plant, offtakers will not dedicate firm natural gas transportation to the project, and instead, will operate the units on natural gas when interruptible natural gas transportation service is available. In the event that interruptible natural gas transportation is not available and customer load demand is high, the offtaker would likely dispatch the units on fuel oil.

1.2 Proposed Operating Limitations

1.2.1 Construction of One Unit Only

If only one CT is constructed, it is proposed to be operated for 3,390 hours/yr on NG, of which 500 hours/yr may fire ultra low distillate fuel oil (FO), and once 500 hours is achieved, an operating hour trade-off mechanism (NG v. FO at 5:1 ratio) will apply for the next 250 hours to allow increased FO operation up to 750 hours/yr and decreasing the natural gas operation to 1,640 hours per year. If natural gas usage hits a certain level, then we would forfeit the increased firing on gas, e.g., if we have fired 2,500 hrs on NG and 500 hrs on FO, the offtaker would either have 390 hours left on NG or only 78 hours on FO, or alternatively a combination of reduced NG hours and some hours on FO in line with the 5:1 ratio.



The operating hour trade-off mechanism, trading natural gas hours of operation at a ratio of 5:1, is proposed to provide necessary fuel oil firing to meet our potential offtaker's desire for greater fuel flexibility under the contractual requirements. Table 1 provides the comparison of emissions of all pollutants resulting from 750 hours/yr of FO firing. As shown in Table 1, NO_x emissions increase by only 2.93 TPY and all other pollutants decrease compared to the maximum annual emissions allowed under the currently proposed operation. Emissions of CO, VOC, PM₁₀, and SO₂ are reduced by a total of 21 TPY. As a result the offsetting proposal results in a cumulative emission reduction of 18.1 TPY of criteria pollutant emissions if our offtaker were to exercise the tradeoff and generate up to 750 hours/yr on FO.

1.2.2 Construction of Two Units

The CTs would be authorized to operate an average of 3,390 hours/yr/CT with a cap of 1,000 hours on FO for both units and up to 5,000 hours/yr for a single unit. This operation results in emissions consistent with the current proposed permit language. In other words, once the second CT is constructed and commences operation, the permit language reverts back to the language in the prior construction permit and current air permit application.

1.3 NO_x BACT – SCR Cost Analysis

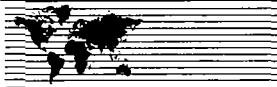
The following SCR cost analysis supplements the July 13, 2010, air construction permit application and provides documentation that the proposed operational flexibility meets BACT.

As shown in Table 2, the total capital costs of SCR for the proposed project are over \$9,000,000 per CT. The total annualized cost of applying SCR with dry low-NO_x combustion is over \$1,400,000. Based on the proposed operating hour trade-off resulting in a maximum of 750 hours per year of FO firing and resulting maximum natural gas firing restriction of 1,640 hours per year, the incremental cost effectiveness of adding SCR to the dry low-NO_x combustors and water injection (for oil firing) is estimated at \$10,973 per ton of NO_x removed. If two units are constructed the SCR cost effectiveness is the same as that presented in the permit application.

The proposed operating scenario of up to 750 hours/yr of oil with a natural gas trade off at a rate of (5:1) for the incremental FO usage between 500 and 750 hours/yr (if only one unit is constructed) results in SCR cost that is considered not cost effective. As a result, this operating scenario is proposed as BACT for the project.

1.4 Air Quality Impacts

Table 1 provides the comparison of emissions of all pollutants resulting from 750 hours/yr of FO firing. As shown in Table 1, annual NO_x emissions increase by only 2.93 TPY compared to the maximum annual emission allowed under the currently proposed operation. Emissions of all other pollutants decrease compared to the existing proposed 3,390 hours of operation with 500 hours of FO firing. Therefore, there



will not be any additional ambient impact, on either a short-term or long-term averaging period, as a result of the requested permit revision. In fact, as summarized in Table 1, all other pollutants, except for NO_x, would show a decrease in emissions and associated ambient impacts.



2.0 CLOSING

This correspondence provides a discussion of operational and contractual constraints related to the proposed combustion turbine simple cycle operation. Based on these site specific constraints, GE Energy Financial Services is proposing a modified oil firing operation scenario that remains representative of BACT. The proposed permit language and operating conditions, either in the event that only one CT is constructed or in the event both CTs are ultimately constructed, will not result in a different determination regarding BACT or air quality impacts for the project.

Table 1. Shady Hills Expansion - Proposed Operating Hour Trade Off Mechanism

I Combustion Turbine Emissions (7FA.05)

A. Natural Gas, Base Load 100% Load 59deg.F w/Evap Cooling

Pollutant	lb/hr
NOx	69.5
CO	22.3
SO2	8.74
VOC	3.3
PM/PM10	18

B. Fuel Oil, Base Load 100% Load 59deg.F

Pollutant	lb/hr
NOx	370.9
CO	47.7
SO2	3.5
VOC	8.2
PM/PM10	34

II. Proposed Alternate Oil Firing/Natural Gas Operation Scenario

Scenario 1. Maximum Permitted Natural Gas Firing

Fuel	# units	hours	NOx			CO			SO2			VOC			PM/PM10		
			lb/yr	TPY	Total	lb/yr	TPY	Total	lb/yr	TPY	Total	lb/yr	TPY	Total	lb/yr	TPY	Total
NG	1	3,390	235,605	117.8	117.8	75,597	37.8	37.8	29,629	14.8	14.8	11,187	5.6	5.6	61,020	30.5	30.5
FO	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total		3,390	235,605	117.8	117.8	75,597	37.8	37.8	29,629	14.8	14.8	11,187	5.6	5.6	61,020	30.5	30.5

Scenario 2. Maximum Permitted Oil Firing + Natural Gas Combustion

Fuel	# units	hours	NOx			CO			SO2			VOC			PM/PM10		
			lb/yr	TPY	Total	lb/yr	TPY	Total	lb/yr	TPY	Total	lb/yr	TPY	Total	lb/yr	TPY	Total
NG	1	2,890	200,855	100.4	100.4	64,447	32.2	32.2	25,259	12.6	12.6	9,537	4.8	4.8	52,020	26.0	26.0
FO	1	500	185,450	92.7	92.7	23,850	11.9	11.9	1,750	0.9	0.9	4,100	2.1	2.1	17,000	8.5	8.5
Total		3,390	386,305	193.2	193.2	88,297	44.1	44.1	27,009	13.5	13.5	13,637	6.8	6.8	69,020	34.5	34.5

Scenario 3. Proposed Higher Oil Firing with Offsetting Natural Gas Reduction (5:1, (Natural Gas Hours):(Fuel Oil Hours >500))

Fuel	# units	hours	NOx			CO			SO2			VOC			PM/PM10		
			lb/yr	TPY	Total	lb/yr	TPY	Total	lb/yr	TPY	Total	lb/yr	TPY	Total	lb/yr	TPY	Total
NG	1	1,640	113,980	57.0	57.0	36,572	18.3	18.3	14,334	7.2	7.2	5,412	2.7	2.7	29,520	14.8	14.8
FO	1	750	278,175	139.1	139.1	35,775	17.9	17.9	2,625	1.3	1.3	6,150	3.1	3.1	25,500	12.8	12.8
Total		2,390	392,155	196.1	196.1	72,347	36.2	36.2	16,959	8.5	8.5	11,562	5.8	5.8	55,020	27.5	27.5

Emissions Increases and Decreases of Proposed Offsetting Scenario to the Maximum Permitted Oil Firing Scenario

Scenario 3 - Scenario 2	NOx			CO			SO2			VOC			PM/PM10		
	lb/yr	TPY	Total	lb/yr	TPY	Total	lb/yr	TPY	Total	lb/yr	TPY	Total	lb/yr	TPY	Total
	5,850	2.92	2.93	-15,950	-7.98	-7.97	-10,050	-5.03	-5.03	-2,075	-1.04	-1.04	-14,000	-7.00	-7.00

Table 2. Capital Cost for Selective Catalytic Reduction for General Electric Frame 7F Simple Cycle Combustion Turbine
Based on 1640 hr/yr Gas Firing and 750 hr/yr Oil Firing.

Cost Component	Costs	Basis of Cost Component
<u>Direct Capital Costs</u>		
SCR Associated Equipment	5,832,666.67	Vendor Estimate; Includes Cooling System
Ammonia Storage Tank	included	Vendor Estimate
Flue Gas Ductwork	included	Vendor Estimate
Instrumentation	included	Vendor Estimate
Emission Monitoring	\$291,633	5% of SCR Associated Equipment
Freight	\$291,633	5% of SCR Associated Equipment
Total Direct Capital Costs (TDCC)	\$6,415,933	
<u>Direct Installation Costs</u>		
Foundation and supports	\$513,275	8% of TDCC and RCC;OAQPS Cost Control Manual
Handling & Erection	\$898,231	14% of TDCC and RCC;OAQPS Cost Control Manual
Electrical	\$256,637	4% of TDCC and RCC;OAQPS Cost Control Manual
Piping (Ammonia Injection Grid)	included	Vendor Estimate
Insulation for ductwork	\$64,159	1% of TDCC and RCC;OAQPS Cost Control Manual
Painting	\$64,159	1% of TDCC and RCC;OAQPS Cost Control Manual
Site Preparation (General Facilities)	\$320,797	5% of TDCC and RCC;OAQPS Cost Control Manual
Project Contingencies	\$641,593	10% of TDCC and RCC;OAQPS Cost Control Manual
Total Direct Installation Costs (TDIC)	\$2,758,851	
Total Capital Costs (TCC)	\$9,174,785	Sum of TDCC and TDIC
<u>Indirect Costs</u>		
Engineering	included	Vendor Estimate
PSM/RMP Plan	\$50,000	Engineering Estimate
Construction and Field Expense	\$458,739	5% of Total Capital Costs; OAQPS Cost Control Manual
Contractor Fees	\$917,478	10% of Total Capital Costs; OAQPS Cost Control Manual
Start-up	\$183,496	2% of Total Capital Costs; OAQPS Cost Control Manual
Performance Tests	\$91,748	1% of Total Capital Costs; OAQPS Cost Control Manual
Total Indirect Capital Cost (TInCC)	\$1,701,461	
Total Direct, Indirect and Capital Costs (TDICC)	\$10,876,246	Sum of TCC and TInCC

Table 2 Continued. Annualized Cost for Selective Catalytic Reduction for General Electric Frame 7F Simple Cycle Operation
Based on 1640 hr/yr Gas Firing and 750 hr/yr Oil Firing

Cost Component	Costs	Basis of Cost Component
<u>Direct Annual Costs</u>		
Operating Personnel	\$21,840	28 hours/week at \$15/hr
Supervision	\$3,276	15% of Operating Personnel; OAQPS Cost Control Manual
Ammonia	\$87,244	\$517 per ton for anhydrous NH ₃ , 67.5 lb/hr, 5,000 hr/year
PSM/RMP Update	\$25,000	Engineering Estimate
Inventory Cost	\$10,589	Capital Recovery (9.44%) for 1/3 catalyst for SCR
Catalyst Cost	\$84,125	4 years catalyst life; Based on Vendor Budget Estimate
Contingency	\$6,962	3% of Direct Annual Costs
Total Direct Annual Costs (TDAC)	\$239,035	
<u>Energy Costs</u>		
Electrical (SCR and Cooling)	\$66,000	330kW/h for SCR system @ \$0.04/kWh, 3,390 hr/yr
MW Loss and Heat Rate Penalty	\$102,579	0.5% of MW output; EPA, 1993 (Page 6-20) ^a
Total Energy Costs (TEC)	\$168,579	
<u>Indirect Annual Costs</u>		
Overhead	\$0	0% of Operating/Supervision Labor and Ammonia
Property Taxes	\$0	0% of Total Capital Costs
Insurance	\$0	0% of Total Capital Costs
Annualized Total Direct Capital	\$1,026,718	9.44% Capital Recovery Factor of 7% over 20 years times sum of TDICC of TDICC
Total Indirect Annual Costs (TIAC)	\$1,026,718	
Total Annualized Costs	\$1,434,332	Sum of TDAC, TEC and TIAC
Incremental Cost Effectiveness(9 to 3 ppmvd gas and 42 to 14 oil)	\$10,973	NO _x Reduction Only
	\$15,031	Net Emission Reduction



PART II
FDEP APPLICATION FOR AIR PERMIT



Department of Environmental Protection

Division of Air Resource Management

APPLICATION FOR AIR PERMIT - LONG FORM

I. APPLICATION INFORMATION

Air Construction Permit – Use this form to apply for an air construction permit:

- For any required purpose at a facility operating under a federally enforceable state air operation permit (FESOP) or Title V air operation permit;
- For a proposed project subject to prevention of significant deterioration (PSD) review, nonattainment new source review, or maximum achievable control technology (MACT);
- To assume a restriction on the potential emissions of one or more pollutants to escape a requirement such as PSD review, nonattainment new source review, MACT, or Title V; or
- To establish, revise, or renew a plantwide applicability limit (PAL).

Air Operation Permit – Use this form to apply for:

- An initial federally enforceable state air operation permit (FESOP); or
- An initial, revised, or renewal Title V air operation permit.

To ensure accuracy, please see form instructions.

Identification of Facility

1. Facility Owner/Company Name: Shady Hills Power Company, LLC	
2. Site Name: Shady Hills Generating Station	
3. Facility Identification Number: 1010373	
4. Facility Location... Street Address or Other Locator: 14240 Merchant Energy Way City: Spring Hill County: Pasco Zip Code: 34610	
5. Relocatable Facility? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	6. Existing Title V Permitted Facility? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No

Application Contact

1. Application Contact Name: Roy S. Belden	
2. Application Contact Mailing Address... Organization/Firm: Shady Hills Power Company, LLC Street Address: 120 Long Ridge Rd. City: Stamford State: CT Zip Code: 06927	
3. Application Contact Telephone Numbers... Telephone: 203) 357-6820 ext. Fax: 203) 961-5116	
4. Application Contact E-mail Address: Roy.Belden@GE.com	

Application Processing Information (DEP Use)

1. Date of Receipt of Application:	3. PSD Number (if applicable):
2. Project Number(s):	4. Siting Number (if applicable):

Purpose of Application

This application for air permit is being submitted to obtain: (Check one)

Air Construction Permit

- Air construction permit.
- Air construction permit to establish, revise, or renew a plantwide applicability limit (PAL).
- Air construction permit to establish, revise, or renew a plantwide applicability limit (PAL), and separate air construction permit to authorize construction or modification of one or more emissions units covered by the PAL.

Air Operation Permit

- Initial Title V air operation permit.
- Title V air operation permit revision.
- Title V air operation permit renewal.
- Initial federally enforceable state air operation permit (FESOP) where professional engineer (PE) certification is required.
- Initial federally enforceable state air operation permit (FESOP) where professional engineer (PE) certification is not required.

Air Construction Permit and Revised/Renewal Title V Air Operation Permit (Concurrent Processing)

- Air construction permit and Title V permit revision, incorporating the proposed project.
- Air construction permit and Title V permit renewal, incorporating the proposed project.

Note: By checking one of the above two boxes, you, the applicant, are requesting concurrent processing pursuant to Rule 62-213.405, F.A.C. In such case, you must also check the following box:

- I hereby request that the department waive the processing time requirements of the air construction permit to accommodate the processing time frames of the Title V air operation permit.

Application Comment

On July 13, 2010, GE Energy Financial Services submitted an air construction permit application for the expansion of Shady Hills Generating Station located at 14240 Merchant Energy Way, Shady Hills Pasco County, Florida to install two new combustion turbines. This additional correspondence provides a discussion of operational and contractual constraints related to the proposed combustion turbine simple cycle operation. Based on these site specific constraints, GE Energy Financial Services is proposing a modified oil firing operation representative of BACT as detailed in attached Fuel Oil Alternative Request Report.

If only one CT is constructed, it would operate up to 3,390 hours/yr on NG of which 500 hours/yr may be firing ultra low distillate fuel oil (FO). It's proposed that once 500 hours is achieved, an operating hour trade-off mechanism (NG v. FO at 5:1 ratio will apply for the next 250 hours to allow increased FO operation up to 750 hours/yr and decreasing the natural gas operation to 1,640 hours per year (i.e. no more than 2,390 total operating hours per year).

If both CTs are constructed, they would be authorized to operate an average of 3,390 hours/yr/CT with a cap of 1,000 hours on FO for both units and up to 5,000 hours/yr for a single unit. This operation results in emissions consistent with the current proposed permit language. In other words, once the second CT is constructed and commences operation, the permit language reverts back to the language in the prior construction permit and current air permit application.

Scope of Application

Emissions Unit ID Number	Description of Emissions Unit	Air Permit Type	Air Permit Processing Fee
005	221.2 Megawatt Simple-Cycle Combustion Turbine	AC1A	
006	221.2 Megawatt Simple-Cycle Combustion Turbine	AC1A	
007	Emergency Generator	AC1E	
008	Natural Gas Heater	AC1F	
009	Distillate Fuel Oil Storage Tank	AC1F	

Application Processing Fee

Check one: Attached - Amount: \$ _____ Not Applicable

Owner/Authorized Representative Statement

Complete if applying for an air construction permit or an initial FESOP.


1. Owner/Authorized Representative Name : Roy S. Belden, Vice President
2. Owner/Authorized Representative Mailing Address... Organization/Firm: Shady Hills Power Company, LLC Street Address: 120 Long Ridge Rd. City: Stamford State: CT Zip Code: 06927
3. Owner/Authorized Representative Telephone Numbers... Telephone: (203) 357-6820 ext. Fax: (203) 961-5116
4. Owner/Authorized Representative E-mail Address: Roy.Belden@GE.com
5. Owner/Authorized Representative Statement: <i>I, the undersigned, am the owner or authorized representative of the corporation, partnership, or other legal entity submitting this air permit application. To the best of my knowledge, the statements made in this application are true, accurate and complete, and any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department.</i> <p><u>Roy S. Belden</u> Signature</p> <p><u>5/23/11</u> Date</p>

Application Responsible Official Certification

Complete if applying for an initial, revised, or renewal Title V air operation permit or concurrent processing of an air construction permit and revised or renewal Title V air operation permit. If there are multiple responsible officials, the “application responsible official” need not be the “primary responsible official.”

1. Application Responsible Official Name:
2. Application Responsible Official Qualification (Check one or more of the following options, as applicable): <input type="checkbox"/> For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C. <input type="checkbox"/> For a partnership or sole proprietorship, a general partner or the proprietor, respectively. <input type="checkbox"/> For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official. <input type="checkbox"/> The designated representative at an Acid Rain source or CAIR source.
3. Application Responsible Official Mailing Address... Organization/Firm: Street Address: City: State: Zip Code:
4. Application Responsible Official Telephone Numbers... Telephone: () - ext. Fax: () -
5. Application Responsible Official E-mail Address:
6. Application Responsible Official Certification: <p>I, the undersigned, am a responsible official of the Title V source addressed in this air permit application. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof and all other applicable requirements identified in this application to which the Title V source is subject. I understand that a permit, if granted by the department, cannot be transferred without authorization from the department, and I will promptly notify the department upon sale or legal transfer of the facility or any permitted emissions unit. Finally, I certify that the facility and each emissions unit are in compliance with all applicable requirements to which they are subject, except as identified in compliance plan(s) submitted with this application.</p> <p>_____ Signature</p> <p>_____ Date</p>

Professional Engineer Certification

1. Professional Engineer Name: Scott H. Osbourn Registration Number: 57557
2. Professional Engineer Mailing Address... Organization/Firm: Golder Associates Inc.** Street Address: 5100 West Lemon St., Suite 208 City: Tampa State: FL Zip Code: 33609
3. Professional Engineer Telephone Numbers... Telephone: (813) 287-1717 ext. 53304 Fax: (813) 287-1716
4. Professional Engineer E-mail Address: sosbourn@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></u> Date: <u>5/24/11</u> (seal)

* Attach any exception to certification statement. ** Board of Professional Engineers Certificate of Approval #00004837

