



September 12, 2012

Mr. Jeff Koerner, Program Administrator  
Office of Permitting and Compliance  
Division of Air Resource Management  
Florida Department of Environmental Protection  
2600 Blair Stone Road  
Tallahassee, FL 32399-2400

RE: Progress Energy Florida  
Crystal River Power Plant Units 1 and 2  
Minor Air Construction Permit Application for  
Installation/Operation of SCR Systems

Dear Mr. Koerner:

Progress Energy Florida (PEF) hereby submits the enclosed application for a Minor Source Air Construction Permit to allow for SCR system installations to occur at the Crystal River Power Plant Units 1 and 2.

Should you have any questions concerning this matter, please contact Jamie Hunter at [John.Hunter@PGNmail.com](mailto:John.Hunter@PGNmail.com) or at 727-820-5764.

Sincerely,

A handwritten signature in black ink, appearing to read 'R. A. Odom', with a long horizontal flourish extending to the right.

Robby A. Odom  
Manager, Crystal River Fossil Plant & Fuel Operation  
(Title V Responsible Official)

enclosure



REPORT

# CRYSTAL RIVER SOUTH POWER PLANT APPLICATION FOR A MINOR SOURCE AIR CONSTRUCTION PERMIT FOR SCR INSTALLATION

Progress Energy Florida, Inc.

**Prepared For:** Progress Energy Florida, Inc.  
Environmental Services Section  
299 First Avenue North, PEB PEF-903  
St. Petersburg, FL 33701

**Submitted By:** Golder Associates Inc.  
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September 2012

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## Application Forms

FDEP Form No. 62 210.900(1), Application for Air Permit — Long Form.



## 1.0 INTRODUCTION

Progress Energy Florida (PEF) plans to install necessary air pollution reduction equipment on Crystal River Units 1 and 2 by 2018, or cease to continue operations of these units as coal-fired units beyond December 31, 2020. The FDEP recently issued final Air Permit No. 0170004-036-AC that contemplates both of these scenarios. In the event that PEF chooses to install BART controls, compliance for SO<sub>2</sub> and PM was recently determined by issuance of final Air Permit No. 0170004-036-AC. NO<sub>x</sub> was not addressed in the recently issued permit due to the default reliance on the EPA's determination that the Cross State Air Pollution Rule (CSAPR) equals BART for NO<sub>x</sub> for these units. However, based on the court's recent vacature of the CSAPR, Golder has prepared this application, which serves to request authorization for the installation of a suitable NO<sub>x</sub> emission control system on these units. To this end, PEF submits this application for a minor source air construction permit (or modification of Permit No. 0170004-036-AC) to authorize the installation and operation of an SCR system on Crystal River Units 1 and 2.



## 2.0 PROJECT DESCRIPTION

Crystal River Units 1 and 2 each consist of a pulverized coal-fired, tangentially fired, dry bottom, single reheat, and balanced draft steam generator. For each unit, the flue gas from the boiler currently passes through an air heater and electrostatic precipitator before being discharged to the atmosphere through the chimney.

If PEF chooses to install the air pollution control equipment (specified in Permit No. 0170004-036-AC, and requested in this application) to address the Regional Haze Program requirements, the modified flue gas path for each unit will exit the boiler and be ducted to an SCR to remove NO<sub>x</sub> before entering the air heater. The flue gas from each unit will exit the air heater and travel through the dry flue gas desulfurization (DFGD) system and pulse jet fabric filter (PJFF) systems before being discharged to the chimney.

The SCR systems would be designed to achieve nominal operating conditions of 80 to 90 percent NO<sub>x</sub> reduction with 2 to 5 ppm residual ammonia (ammonia slip) in the flue gas leaving the SCR system. Each unit would have a single SCR reactor configured after the economizer. The SCR process operates in the temperature range of about 600 to 750°F. Operation above the upper temperature limit can lead to sintering of the SCR catalyst. Operation below the lower temperature limit can lead to ammonium bisulfate (ABS) fouling of the catalyst. Review of operating data, for the load range to be controlled by the SCR process, indicates that economizer gas outlet temperatures routinely operate below these load levels. Therefore, a means of increasing the gas temperature entering the SCR reactor is needed in order to achieve effective NO<sub>x</sub> removal. The method assumed most practical is the installation of partial economizer bypass ductwork. This ductwork would tie into the boiler above the economizer and connect to the SCR inlet ductwork, mixing with the balance of the gas stream exiting the economizer to achieve a gas mixture that is above the minimum required temperature. Further study is needed to optimize the sizes and locations of the bypass ductwork. Possible alternative means of boosting the gas temperature entering the SCR reactor, such as a feed water bypass around the economizer, may be investigated as part of preliminary engineering. All of these factors have an effect on the SCR control efficiency, which is why a range of 80 to 90 percent is cited for this project. Efficiencies in this range would result in controlled NO<sub>x</sub> levels of approximately 0.09 lb/MMBtu for each unit.



### 3.0 AIR QUALITY REVIEW REQUIREMENTS AND APPLICABILITY

The following discussion pertains to air regulatory requirements and their applicability to the Project. These requirements must be satisfied before the proposed facility can begin construction and/or operation.

#### 3.1 PSD Applicability

The Department regulates major stationary sources in accordance with Florida's PSD program pursuant to Rule 62-212.400(PSD), F.A.C. PSD preconstruction review is required in areas that are currently in attainment with the state and federal ambient air quality standards (AAQS) or areas designated as "unclassifiable" for these regulated pollutants. The project is located in Citrus County, which is in an area that is currently in attainment with the state and federal AAQS or otherwise designated as unclassifiable.

Commonly addressed PSD pollutants in the power industry include: CO, SO<sub>2</sub>, NO<sub>x</sub>, PM, PM smaller than 10 micrometers ( $\mu\text{m}$ ) (PM<sub>10</sub>), PM smaller than 2.5  $\mu\text{m}$  (PM<sub>2.5</sub>), volatile organic compounds (VOC) and sulfuric acid mist (SAM).

As defined in Rule 62-210.200 (Definitions), F.A.C., a stationary source is a "major stationary source" (major PSD source) if it emits or has the potential to emit (PTE): 250 tons per year (tons/year) or more of any PSD pollutant; or 100 tons/year or more of any PSD pollutant and the facility belongs to one of the 28 listed PSD major facility categories. The list includes the category of "fossil fuel-fired steam electric plants of more than 250 million British thermal units per hour heat input". The given category applies to the Crystal River Energy Complex. The Crystal River Energy Complex is a major stationary source based on actual emissions of and potential to emit 100 tons/year or more of several individual PSD pollutants.

For major stationary sources such as the Crystal River Energy Complex, PSD applicability for modification projects is based on thresholds known as the significant emission rates (SER) as defined in Rule 62-210.200 (Definitions), F.A.C. Any "net emissions increase" as defined in Rule 62-210.200 (Definitions), F.A.C. of a PSD pollutant from the project that equals or exceeds the respective SER is considered "significant". The corresponding significant emission rates are given in Table 3-1.

##### 3.1.1 Methodology for Calculations of Emissions

To determine whether the project causes net emissions increases equal to or greater than the respective SER (triggering PSD) requires a comparison of recent "baseline actual emissions" with future "projected actual emissions". According to Rule 62-210.200(Definitions), F.A.C., for any existing electric utility steam generating unit:



*“Baseline actual emissions” means the average rate, in tons per year, at which the unit actually emitted the pollutant during any consecutive 24-month period selected by the owner or operator within the 5-year period immediately preceding the date a complete permit application is received by the Department. The Department shall allow the use of a different time period upon a determination that it is more representative of normal source operation”.*

According to Rule 62-210.200(Definitions), F.A.C., for an existing unit:

*“Projected Actual Emissions” means the maximum annual rate, in tons/year, at which an existing emissions unit is projected to emit a PSD pollutant in any one of the 5 years following the date the unit resumes regular operation after the project, or in any one of the 10 years following that date, if the project involves increasing the emissions unit’s design capacity or its potential to emit that PSD pollutant and full utilization of the unit would result in a significant emissions increase or a significant net emissions increase at the major stationary source. One year is one 12-month period.*

Notwithstanding the expected reductions in NO<sub>x</sub>, as well as the reductions in SO<sub>2</sub> and PM from the present and recent permitting actions, this application serves to demonstrate that neither NSPS nor PSD would be triggered for certain collateral emissions as a result of this action. Therefore, the following sections assess regulatory applicability on a pollutant-specific basis as a result of the installation of an SCR system on Units 1 and 2.

### **3.1.2 Regulatory Applicability Assessment**

As described in the previous section, pollutant-specific baselines were established based on the highest 2-year average (calendar years 2007 and 2008) in the previous 5-year period. Table 3-1 presents the net emission changes resulting from the Project, compared to the PSD significant emission rate (SER) thresholds. PSD review is required for emissions of a pollutant greater than the listed PSD SER thresholds. Any “net emissions increase” as defined in Rule 62-210.200 (Definitions), F.A.C. of a PSD pollutant from the Project that equals or exceeds the respective SER is considered “significant”. As shown in Table 3-1, the net emission changes for the proposed Project are less than the PSD SERs for all pollutants. Therefore, PSD review is not required. The follow provides a brief discussion of the major pollutants of concern.

SO<sub>2</sub> - For Units 1 and 2, Air Permit No. 0170004-036-AC authorizes PEF to install a dry flue gas desulfurization (FGD) system to control emissions of SO<sub>2</sub> to 0.15 pounds per million of heat input (lb/MMBtu) or 5 percent of the potential combustion concentration (95 percent reduction) on a 30-day rolling average basis, whichever is less stringent. Therefore, there is no reasonable scenario under which a future SO<sub>2</sub> control project including dry scrubbers and baghouses on Units 1 and 2 can possibly trigger PSD for SO<sub>2</sub>.



NO<sub>x</sub> - Since this application is for the proposed installation of an SCR system for Units 1 and 2, there could only be additional significant reductions of NO<sub>x</sub>. The SCR retrofit factors previously discussed result in an estimated control efficiency range of 80 to 90 percent, resulting in controlled NO<sub>x</sub> levels of approximately 0.09 lb/MMBtu for each unit.

PM/PM<sub>10</sub>/PM<sub>2.5</sub> - To provide reasonable assurance that PSD is not triggered for PM/PM<sub>10</sub> under the dry FGD option, the Department chose to limit PM in the BART permit (Air Permit No. 0170004-036-AC) to 0.015 lb PM/MMBtu at both units and limit visible emissions to 15 percent opacity at both units and 20 percent under soot blowing and load change operations. The installation of an SCR system would not affect the impact of these pollutants or the resulting applicability determination.

CO - CO emissions will be unaffected, as the current burners will be retained and used in combination with the proposed installation of an SCR system.

SAM - The formation of SAM is a result of gaseous SO<sub>3</sub> formed in the combustion process and SO<sub>3</sub> formed by oxidation in the SCR catalyst. Typical oxidation rates are 0.25 percent per catalyst layer. To predict the amount of SAM generated in each portion of the unit, from the combustion process to the scrubber exhaust, a method was used that is based on test data from a variety of coal-fired units, as developed by the Southern Company, and is widely accepted within the industry and industry organizations. Table 3-2 presents the calculation of SAM emissions at various points in the exhaust gas stream from the combustion in the boiler to the stack exhaust. The basis of the calculations is a comparison of the current plant configuration and operating conditions to projected future operation with an SCR, a DFGD and a PJFF system. This table provides backup for the SAM estimates that are presented in the overall emissions summary Table 3-1.

### **3.2 New Source Performance Standards**

The NSPS are a set of national emission standards that apply to specific categories of new sources. As stated in the 1977 CAA Amendments, these standards “shall reflect the degree of emission limitation and the percentage reduction achievable through application of the best technological system of continuous emission reduction the Administrator determines has been adequately demonstrated.”

Crystal River Units 1 and 2 are not subject to the NSPS of 40 CFR 60, nor will the installation of air pollution controls trigger any NSPS requirements.



## **TABLES**

**Table 3-1: Summary of Baseline and Projected Actual Emissions from the Project**

Projected Actual Emissions (TPY)		Netting Calculations			Is PSD Triggered?	
Pollutant	CR Units 1 and 2	Maximum 2-Year Avg from Existing Units (TPY)	Change (TPY)	PSD Significant Emission Rate (TPY)		
VOC	60.5	a	60.5	0	40	N
SO <sub>2</sub>	4,911	b	35,545	-30,634	40	N
NO <sub>x</sub>	2,946	c	9,102	-6,156	40	N
CO	505	d	505	0	100	N
PM	491	e	940	-449	25	N
PM <sub>10</sub>	389	e	630	-241	15	N
PM <sub>2.5</sub>	131	e	262	-131	10	N
SAM	249	f	419	-170	7	N

**Notes:**

- a Emission rate is unaffected by the SCR installation and would only be higher than the baseline due to demand growth
- b Emissions based on combined heat input of 8,305 MMBtu/hr, an SO<sub>2</sub> rate of 0.15 lb/MMBtu and a 90% CF
- c Emissions based on combined heat input of 8,305 MMBtu/hr, a NO<sub>x</sub> rate of 0.09 lb/MMBtu and a 90% CF
- d Emission rate is unaffected by the SCR installation and would only be higher than the baseline due to demand growth
- e Emissions based on combined heat input of 8,305 MMBtu/hr, a PM rate of 0.015 lb/MMBtu and a 90% CF

**Table 3-2: Baseline and Projected Actual SAM Emissions**

Category	Units	Baseline	Future SCR-Dry Scrubber
Coal Sulfur Content	%	1.0	1.0
Coal Heat Content	Btu/lb	12,000	12,000
Uncontrolled SO <sub>2</sub> Emissions <sup>a</sup>	lb/MMBtu	1.7	1.7
Combustion Factor <sup>b</sup>		0.008	0.008
SAM from Combustion	lb/MMBtu	0.021	0.021
SCR SO <sub>2</sub> Oxidation Rate Factor <sup>c</sup>		0.000	0.015
SAM produced by SCR	lb/MMBtu	0.000	0.039
SAM Leaving SCR	lb/MMBtu	0.021	0.060
Air Heater Factor <sup>e</sup>		0.850	0.850
SAM Leaving Air Heater	lb/MMBtu	0.018	0.051
Spray Dry Scrubber + Baghouse <sup>f</sup>		0.000	0.150
SAM Leaving Baghouse	lb/MMBtu	0.018	0.008
Heat Input	MMBtu/hr	8,305	8,305
Capacity Factor <sup>g</sup>		65%	90%
SAM Emissions	lb/MMBtu	0.018	0.008
	lb/hr	147	63
	TPY	419	249

**Notes:**

- <sup>a</sup> Assumes 100% of sulfur converted to SO<sub>2</sub>
- <sup>b</sup> Table 5-1; Factor for low/medium S bituminous coal (Southern Company, 2005).
- <sup>c</sup> Section 4; 1.5 percent SO<sub>3</sub> produced from SO<sub>2</sub> oxidation. (Southern Company, 2005).
- <sup>d</sup> Table 4-1; 0.85 for medium sulfur eastern bituminous (Southern Company, 2005).
- <sup>e</sup> 85% control assumed, though 99% is cited for Dry FGD and Baghouse (Table 4-3 SCo, 2005).
- <sup>f</sup> CF based on CY 2007-2008 and projected future use

**APPLICATION FORM**



# 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: <b>FLORIDA POWER CORPORATION DBA PROGRESS ENERGY, INC.</b>	
2. Site Name: <b>CRYSTAL RIVER POWER PLANT</b>	
3. Facility Identification Number: <b>0170004</b>	
4. Facility Location... Street Address or Other Locator: <b>NORTH OF CRYSTAL RIVER, WEST OF U.S. 19</b> City: <b>CRYSTAL RIVER</b> County: <b>CITRUS</b> Zip Code: <b>34428</b>	
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: <b>JAMIE HUNTER, LEAD ENVIRONMENTAL SPECIALIST</b>	
2. Application Contact Mailing Address... Organization/Firm: <b>PROGRESS ENERGY FLORIDA</b> Street Address: <b>299 FIRST AVENUE, NORTH, PEF 903</b> City: <b>ST. PETERSBURG</b> State: <b>FL</b> Zip Code: <b>33701</b>	
3. Application Contact Telephone Numbers... Telephone: <b>(727) 820-5764</b> ext.                      Fax: <b>(727) 820-5292</b>	
4. Application Contact E-mail Address: <b>John.Hunter@PGNmail.com</b>	

#### 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):

## APPLICATION INFORMATION

### 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


**Progress Energy Florida is applying for a minor source air construction permit (or modification of Permit No. 0170004-036-AC) for authorization to install and operate an SCR system on Crystal River Units 1 and 2.**



**APPLICATION INFORMATION**

**Owner/Authorized Representative Statement**

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

1. Owner/Authorized Representative Name : <b>ROBBY ODOM, PLANT MANAGER</b>
2. Owner/Authorized Representative Mailing Address... Organization/Firm: <b>PROGRESS ENERGY FLORIDA</b> Street Address: <b>299 FIRST AVENUE, NORTH, CN77</b> City: <b>ST PETERSBURG</b> State: <b>FLORIDA</b> Zip Code: <b>33701</b>
3. Owner/Authorized Representative Telephone Numbers... Telephone: <b>(352) 501-5682</b> ext. Fax: <b>(352) 501-5787</b>
4. Owner/Authorized Representative E-mail Address: <b>ROBBY.ODOM@PGNMAIL.COM</b>
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>   _____ Signature  9/13/12 _____ Date



## APPLICATION INFORMATION

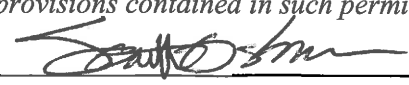
### Application Responsible Official Certification

**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.”**

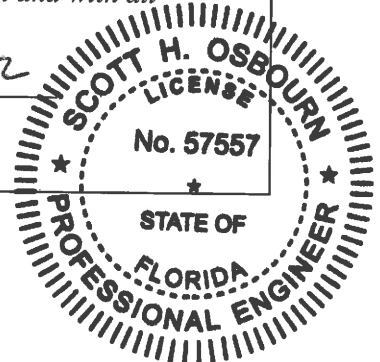
1. Application Responsible Official Name:
2. Application Responsible Official Qualification (Check one or more of the following options, as applicable): <input type="checkbox"/> For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business 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: 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.  _____ Signature  _____ Date

**APPLICATION INFORMATION**

**Professional Engineer Certification**

1. Professional Engineer Name: <b>Scott H. Osbourn</b> Registration Number: <b>57557</b>
2. Professional Engineer Mailing Address... Organization/Firm: <b>Golder Associates Inc.*</b> Street Address: <b>5100 West Lemon St., Suite 208</b> City: <b>Tampa</b> State: <b>FL</b> Zip Code: <b>33609</b>
3. Professional Engineer Telephone Numbers... Telephone: <b>(813) 287-1717</b> ext. <b>53304</b> Fax: <b>(813) 287-1716</b>
4. Professional Engineer E-mail Address: <b>sosbourn@golder.com</b>
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  (seal)  Date <u>9/13/12</u>

\* Board of Professional Engineers Certificate of Authorization # 00001670





**Facility Regulatory Classifications**

**Check all that would apply *following* completion of all projects and implementation of all other changes proposed in this application for air permit. Refer to instructions to distinguish between a “major source” and a “synthetic minor source.”**

1. <input type="checkbox"/> Small Business Stationary Source	<input type="checkbox"/> Unknown
2. <input type="checkbox"/> Synthetic Non-Title V Source	
3. <input checked="" type="checkbox"/> Title V Source	
4. <input checked="" type="checkbox"/> Major Source of Air Pollutants, Other than Hazardous Air Pollutants (HAPs)	
5. <input type="checkbox"/> Synthetic Minor Source of Air Pollutants, Other than HAPs	
6. <input checked="" type="checkbox"/> Major Source of Hazardous Air Pollutants (HAPs)	
7. <input type="checkbox"/> Synthetic Minor Source of HAPs	
8. <input checked="" type="checkbox"/> One or More Emissions Units Subject to NSPS (40 CFR Part 60)	
9. <input checked="" type="checkbox"/> One or More Emissions Units Subject to Emission Guidelines (40 CFR Part 60)	
10. <input checked="" type="checkbox"/> One or More Emissions Units Subject to NESHAP (40 CFR Part 61 or Part 63)	
11. <input type="checkbox"/> Title V Source Solely by EPA Designation (40 CFR 70.3(a)(5))	
12. Facility Regulatory Classifications Comment:	

**List of Pollutants Emitted by Facility**

1. Pollutant Emitted	2. Pollutant Classification	3. Emissions Cap [Y or N]?
<b>PM/PM<sub>10</sub>/PM<sub>2.5</sub></b>	<b>A</b>	<b>N</b>
<b>CO</b>	<b>A</b>	<b>N</b>
<b>VOC</b>	<b>A</b>	<b>N</b>
<b>SO<sub>2</sub></b>	<b>A</b>	<b>N</b>
<b>NO<sub>x</sub></b>	<b>A</b>	<b>N</b>
<b>SAM</b>	<b>A</b>	<b>N</b>



### C. FACILITY ADDITIONAL INFORMATION

#### Additional Requirements for All Applications, Except as Otherwise Stated

1.	Facility Plot Plan: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Previously Submitted, Date: <b>May 20, 2009</b>
2.	Process Flow Diagram(s): (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Previously Submitted, Date: <b>May 20, 2009</b>
3.	Precautions to Prevent Emissions of Unconfined Particulate Matter: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Previously Submitted, Date: <b>May 20, 2009</b>

#### Additional Requirements for Air Construction Permit Applications

1.	Area Map Showing Facility Location: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable (existing permitted facility)
2.	Description of Proposed Construction, Modification, or Plantwide Applicability Limit (PAL): <input checked="" type="checkbox"/> Attached, Document ID: <b>See Report</b>
3.	Rule Applicability Analysis: <input type="checkbox"/> Attached, Document ID: <b>NA</b>
4.	List of Exempt Emissions Units: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable (no exempt units at facility)
5.	Fugitive Emissions Identification: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
6.	Air Quality Analysis (Rule 62-212.400(7), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
7.	Source Impact Analysis (Rule 62-212.400(5), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
8.	Air Quality Impact since 1977 (Rule 62-212.400(4)(e), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
9.	Additional Impact Analyses (Rules 62-212.400(8) and 62-212.500(4)(e), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
10.	Alternative Analysis Requirement (Rule 62-212.500(4)(g), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

**C. FACILITY ADDITIONAL INFORMATION (CONTINUED)**

**Additional Requirements for FESOP Applications -- NA**

1. List of Exempt Emissions Units: <input type="checkbox"/> Attached, Document ID:_____ <input type="checkbox"/> Not Applicable (no exempt units at facility)
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**Additional Requirements for Title V Air Operation Permit Applications - NA**

1. List of Insignificant Activities: (Required for initial/renewal applications only) <input type="checkbox"/> Attached, Document ID:_____ <input type="checkbox"/> Not Applicable (revision application)
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2. Identification of Applicable Requirements: (Required for initial/renewal applications, and for revision applications if this information would be changed as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID:_____ <input type="checkbox"/> Not Applicable (revision application with no change in applicable requirements)
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3. Compliance Report and Plan: (Required for all initial/revision/renewal applications) <input type="checkbox"/> Attached, Document ID:_____ Note: A compliance plan must be submitted for each emissions unit that is not in compliance with all applicable requirements at the time of application and/or at any time during application processing. The department must be notified of any changes in compliance status during application processing.
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4. List of Equipment/Activities Regulated under Title VI: (If applicable, required for initial/renewal applications only) <input type="checkbox"/> Attached, Document ID:_____ <input type="checkbox"/> Equipment/Activities Onsite but Not Required to be Individually Listed <input type="checkbox"/> Not Applicable
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5. Verification of Risk Management Plan Submission to EPA: (If applicable, required for initial/renewal applications only) <input type="checkbox"/> Attached, Document ID:_____ <input type="checkbox"/> Not Applicable
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6. Requested Changes to Current Title V Air Operation Permit: <input type="checkbox"/> Attached, Document ID:_____ <input type="checkbox"/> Not Applicable
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**C. FACILITY ADDITIONAL INFORMATION (CONTINUED)**

**Additional Requirements for Facilities Subject to Acid Rain, CAIR, or Hg Budget Program**

1. Acid Rain Program Forms:

Acid Rain Part Application (DEP Form No. 62-210.900(1)(a)):

Attached, Document ID: \_\_\_\_\_  Previously Submitted, Date: May 20, 2009

Not Applicable (not an Acid Rain source)

Phase II NO<sub>x</sub> Averaging Plan (DEP Form No. 62-210.900(1)(a)1.):

Attached, Document ID: \_\_\_\_\_  Previously Submitted, Date: May 20, 2009

Not Applicable

New Unit Exemption (DEP Form No. 62-210.900(1)(a)2.):

Attached, Document ID: \_\_\_\_\_  Previously Submitted, Date: \_\_\_\_\_

Not Applicable

2. CAIR Part (DEP Form No. 62-210.900(1)(b)):

Attached, Document ID: \_\_\_\_\_  Previously Submitted, Date: May 20, 2009

Not Applicable (not a CAIR source)

**Additional Requirements Comment**

At Golder Associates we strive to be the most respected global group of companies specializing in ground engineering and environmental services. Employee owned since our formation in 1960, we have created a unique culture with pride in ownership, resulting in long-term organizational stability. Golder professionals take the time to build an understanding of client needs and of the specific environments in which they operate. We continue to expand our technical capabilities and have experienced steady growth with employees now operating from offices located throughout Africa, Asia, Australasia, Europe, North America and South America.

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