

Indiantown Cogeneration, L.P.

Indiantown Cogeneration, L.P.
P.O. Box 1799
13303 SW Silver Fox Lane
Indiantown, FL 34956

772.597.6500
Fax: 772.597.6210

March 12, 2007

Trina Vielhauer, Bureau Chief
Florida Department of Environmental Protection
Division of Air Resource Management
Bureau of Air Regulation
2600 Blair Stone Road MS 5500
Tallahassee, Florida 32399-2400

RECEIVED

MAR 13 2007

BUREAU OF AIR REGULATION

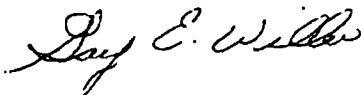
Dear Ms. Vielhauer

Indiantown Cogeneration LP is submitting herewith four (4) copies of the air construction permit application for Lime unloading system to be located at the Indiantown Cogeneration Plant.

Indiantown Cogeneration LP is proposing to add the capability of having lime delivered to the facility by railcar. In order to implement this, the facility will need to install a railcar unloading system. The lime would be unloaded from the railcars through a vacuum and pneumatic transfer system, and a bag house to control the particulate matter emissions.

If you have any questions concerning the enclosed permit application, please do not hesitate to contact Nicholas Laryea at 772-597-6500 extension 19.

Sincerely yours,



Gary E. Willer
General Manager

Cc Lauren Billheimer
File

RECEIVED

MAR 13 2007

BUREAU OF AIR REGULATION

**APPLICATION FOR
AIR CONSTRUCTION PERMIT
FOR LIME UNLOADING SYSTEM
INDLANTOWN COGENERATION
INDLANTOWN, FLORIDA**

**Prepared For:
Indiantown Cogeneration, L.P.
13303 SW Silver Fox Lane
Indiantown, Florida 34956**

**Prepared By:
Golder Associates Inc.
6241 NW 23rd Street, Suite 500
Gainesville, Florida 32653-1500**

March 2007

07387554

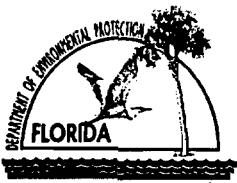
DISTRIBUTION:

4 Copies – FDEP

2 Copies – Indiantown Cogeneration, L.P.

1 Copy – Golder Associates Inc.

APPLICATION FOR AIR PERMIT – LONG 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 at a facility operating under a federally enforceable state air operation permit (FESOP) or Title V air permit. Also use this form to apply for an air construction permit:

- For a proposed project subject to prevention of significant deterioration (PSD) review, nonattainment area (NAA) new source review, or maximum achievable control technology (MACT) review; or
- Where the applicant proposes to assume a restriction on the potential emissions of one or more pollutants to escape a federal program requirement such as PSD review, NAA new source review, Title V, or MACT; or
- Where the applicant proposes 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/revise/renewal Title V air operation permit.

Air Construction Permit & Title V Air Operation Permit (Concurrent Processing Option) – Use this form to apply for both an air construction permit and a revised or renewal Title V air operation permit incorporating the proposed project.

To ensure accuracy, please see form instructions.

Identification of Facility

1. Facility Owner/Company Name: Indiantown Cogeneration, L.P.	
2. Site Name: Indiantown Cogeneration Plant	
3. Facility Identification Number: 0850102	
4. Facility Location...: Street Address or Other Locator: 13303 SW Silver Fox Lane City: Indiantown County: Martin Zip Code: 34956	
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: Nicholas Laryea, Environmental Manager	
2. Application Contact Mailing Address... Organization/Firm: Indiantown Cogeneration, L.P. Street Address: 13303 SW Silver Fox Lane City: Indiantown State: FL Zip Code: 34956	
3. Application Contact Telephone Numbers... Telephone: (772) 597-6500 ext.19 Fax: (772) 597-6210	
4. Application Contact Email Address: NicholasLaryea@cogentrix.com	

Application Processing Information (DEP Use)

1. Date of Receipt of Application: 3/13/09	3. PSD Number (if applicable):
2. Project Number(s): 0850102-009-AL	4. Siting Number (if applicable):

APPLICATION INFORMATION

Purpose of Application

This application for air permit is 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

Indiantown Cogeneration, L.P. is proposing to add the capability of having lime delivered to the facility by railcar. In order to implement this, a railcar unloading system will be installed. The lime would be unloaded from the railcars through a vacuum and pneumatic transfer system, and baghouses would control the particulate matter emissions.

APPLICATION INFORMATION

Owner/Authorized Representative Statement

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

1. Owner/Authorized Representative Name : Gary E. Willer, General Manager
2. Owner/Authorized Representative Mailing Address... Organization/Firm: Indiantown Cogeneration, L.P. Street Address: P.O. Box 1799 City: Indiantown State: FL Zip Code: 34956
3. Owner/Authorized Representative Telephone Numbers... Telephone: (772) 597-6500 ext. Fax: (772) 597-6210
4. Owner/Authorized Representative Email Address: GaryWiller@cogentrix.com
5. Owner/Authorized Representative Statement: <i>I, the undersigned, am the owner or authorized representative of the facility 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 requirements identified in this application to which the facility 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.</i>  Signature <u>3/12/2007</u> Date

APPLICATION INFORMATION

Application Responsible Official Certification

Complete if applying for an initial/revised/renewal Title V permit or concurrent processing of an air construction permit and a revised/renewal Title V 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):

- 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.
- For a partnership or sole proprietorship, a general partner or the proprietor, respectively.
- For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official.
- The designated representative at an Acid Rain 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 Email Address:

6. Application Responsible Official Certification:

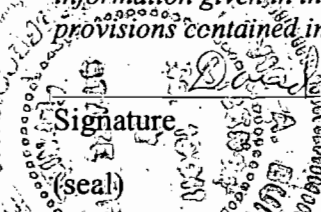
I, the undersigned, am a responsible official of the Title V source addressed in this air permit application. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, 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: David A. Buff Registration Number: 19011
2. Professional Engineer Mailing Address... Organization/Firm: Golder Associates Inc.** Street Address: 6241 NW 23rd Street, Suite 500 City: Gainesville State: FL Zip Code: 32653
3. Professional Engineer Telephone Numbers... Telephone: (352) 336-5600 ext. 545 Fax: (352) 336-6603
4. Professional Engineer Email 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>3/9/07</u>

* Attach any exception to certification statement.

** Board of Professional Engineers Certificate of Authorization #00001670

FACILITY INFORMATION

II. FACILITY INFORMATION

A. GENERAL FACILITY INFORMATION

Facility Location and Type

1. Facility UTM Coordinates... Zone 17 East (km) 422.3 North (km) 2952.9		2. Facility Latitude/Longitude... Latitude (DD/MM/SS) 27 / 02 / 20 Longitude (DD/MM/SS) 80 / 30 / 45	
3. Governmental Facility Code: 0	4. Facility Status Code: A	5. Facility Major Group SIC Code: 49	6. Facility SIC(s): 4911
7. Facility Comment :			

Facility Contact

1. Facility Contact Name: Nicholas Laryea, Environmental Manager
2. Facility Contact Mailing Address... Organization/Firm: Indiantown Cogeneration, L.P. Street Address: P.O. Box 1799 City: Indiantown State: FL Zip Code: 34956
3. Facility Contact Telephone Numbers: Telephone: (772) 597-6500 ext. Fax: (772) 597-6210
4. Facility Contact Email Address: NicholasLaryea@cogentrix.com

Facility Primary Responsible Official

Complete if an "application responsible official" is identified in Section I. that is not the facility "primary responsible official."

1. Facility Primary Responsible Official Name:
2. Facility Primary Responsible Official Mailing Address... Organization/Firm: Street Address: City: State: Zip Code:
3. Facility Primary Responsible Official Telephone Numbers... Telephone: () - ext. Fax: () -
4. Facility Primary Responsible Official Email Address:

FACILITY INFORMATION

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 type="checkbox"/> One or More Emissions Units Subject to Emission Guidelines (40 CFR Part 60)	
10. <input 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:	

FACILITY INFORMATION

List of Pollutants Emitted by Facility

1. Pollutant Emitted	2. Pollutant Classification	3. Emissions Cap [Y or N]?
PM – Particulate Matter Total	A	N
PM ₁₀	A	N
SO ₂ – Sulfur Dioxide	A	N
NO _x – Nitrogen Oxides	A	N
CO – Carbon Monoxide	A	N
VOC – Volatile Organic Compounds	B	N
SAM – Sulfuric Acid Mist	B	N
H021 – Beryllium Compounds	B	N
H114 – Mercury Compounds	B	N
Pb – Lead	B	N
FL – Fluorides	B	N
AS – Arsenic	B	N
Ammonia	B	N
HAPs – Total Hazardous Air Pollutants	A	N

FACILITY INFORMATION

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 checked="" type="checkbox"/> Attached, Document ID: IC-FI-C1 <input type="checkbox"/> Previously Submitted, Date: _____
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 type="checkbox"/> Previously Submitted, Date: _____
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 type="checkbox"/> Previously Submitted, Date: _____

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: See Attachment A
3. Rule Applicability Analysis: <input checked="" type="checkbox"/> Attached, Document ID: See Attachment A
4. List of Exempt Emissions Units (Rule 62-210.300(3), F.A.C.): <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

FACILITY INFORMATION

Additional Requirements for FESOP Applications

1. List of Exempt Emissions Units (Rule 62-210.300(3)(a) or (b)1., F.A.C.):
 Attached, Document ID: _____ Not Applicable (no exempt units at facility)

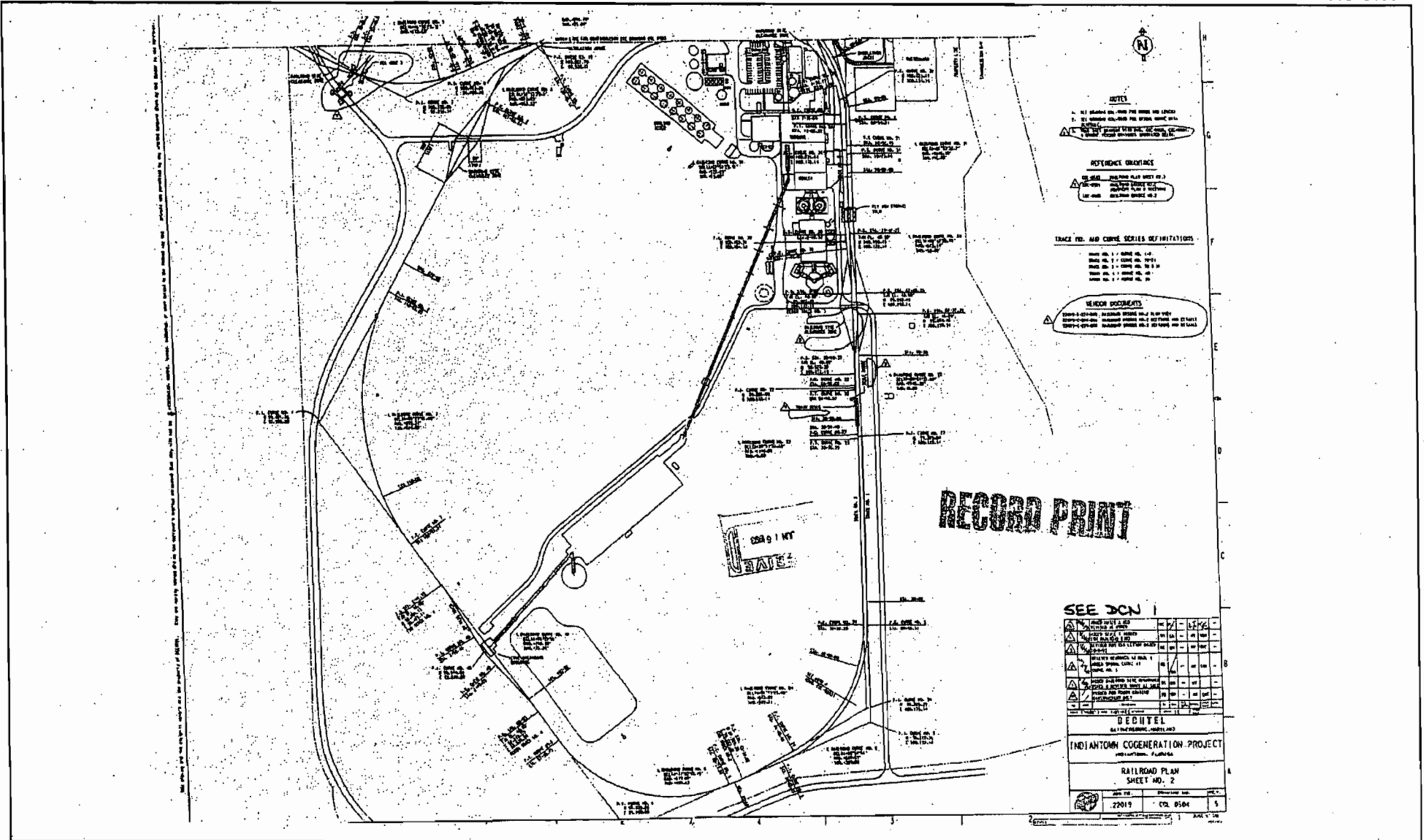
Additional Requirements for Title V Air Operation Permit Applications

1. List of Insignificant Activities (Required for initial/renewal applications only):
 Attached, Document ID: _____ Not Applicable (revision application)
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):
 Attached, Document ID: _____
 Not Applicable (revision application with no change in applicable requirements)
3. Compliance Report and Plan (Required for all initial/revision/renewal applications):
 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.
4. List of Equipment/Activities Regulated under Title VI (If applicable, required for initial/renewal applications only):
 Attached, Document ID: _____
 Equipment/Activities On site but Not Required to be Individually Listed
 Not Applicable
5. Verification of Risk Management Plan Submission to EPA (If applicable, required for initial/renewal applications only):
 Attached, Document ID: _____ Not Applicable
6. Requested Changes to Current Title V Air Operation Permit:
 Attached, Document ID: _____ Not Applicable

Additional Requirements Comment

ATTACHMENT IC-FI-C1

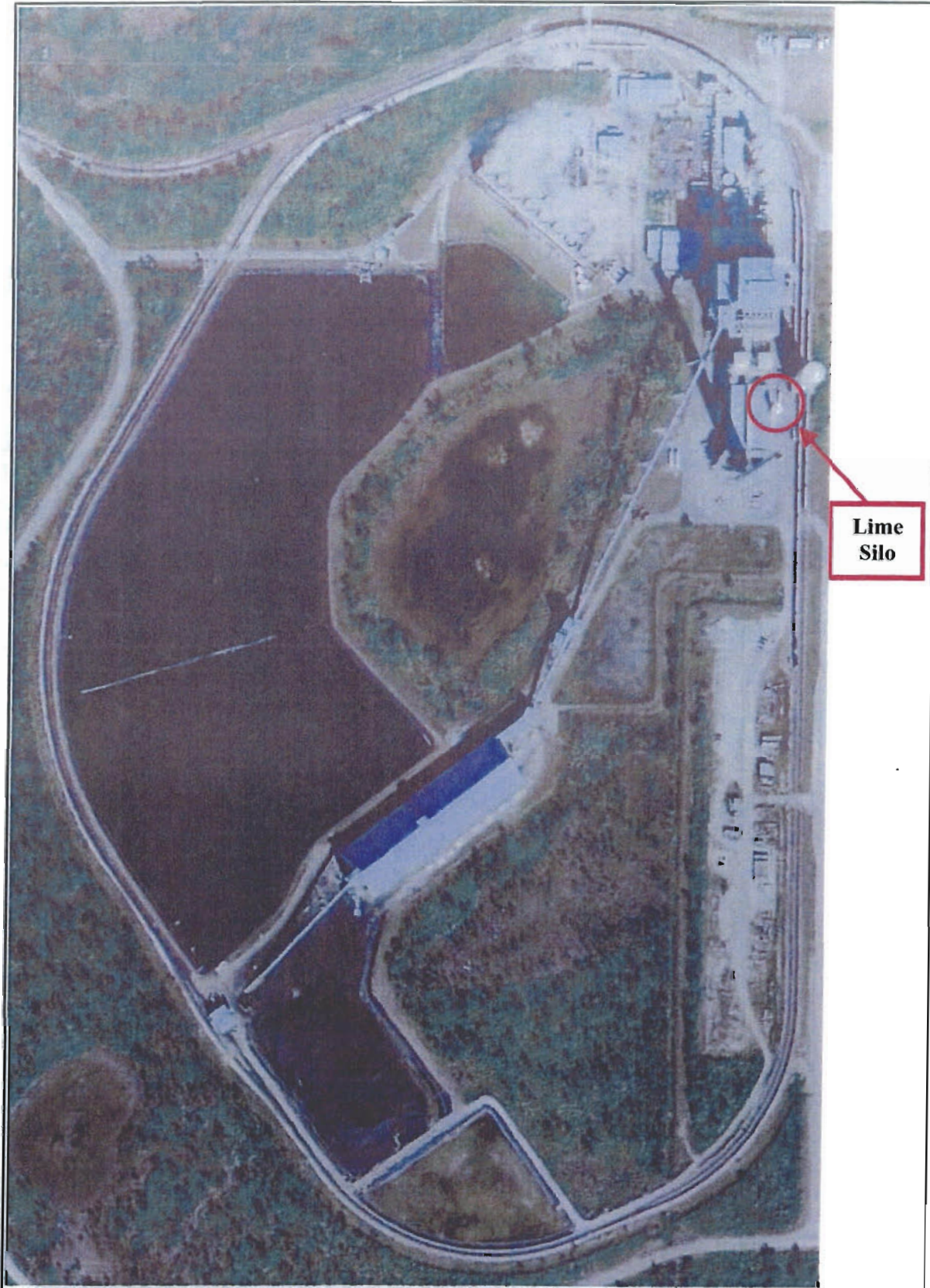
FACILITY PLOT PLAN



Attachment IC-FI-C1a
 Facility Plot Plan
 07387554/4.4/IC-FI-C1

Source: Golder, 2006.





**Lime
Silo**

Attachment IC-FI-C1b
Aerial Photo with Lime Silo Identified
07387554/4.4/IC-FI-C1b

Source: Golder, 2006.

REV.	SCALE:
DESIGN	
CADD	
CHECK	
REVIEW	



EMISSIONS UNIT INFORMATION

Section [1]
Lime Handling System

III. EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Application - For Title V air operation permitting only, emissions units are classified as regulated, unregulated, or insignificant. If this is an application for Title V air operation permit, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each regulated and unregulated emissions unit addressed in this application for air permit. Some of the subsections comprising the Emissions Unit Information Section of the form are optional for unregulated emissions units. Each such subsection is appropriately marked. Insignificant emissions units are required to be listed at Section II, Subsection C.

Air Construction Permit or FESOP Application - For air construction permitting or federally enforceable state air operation permitting, emissions units are classified as either subject to air permitting or exempt from air permitting. The concept of an "unregulated emissions unit" does not apply. If this is an application for air construction permit or FESOP, a separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit subject to air permitting addressed in this application for air permit. Emissions units exempt from air permitting are required to be listed at Section II, Subsection C.

Air Construction Permit and Revised/Renewal Title V Air Operation Permit Application - Where this application is used to apply for both an air construction permit and a revised/renewal Title V air operation permit, each emissions unit is classified as either subject to air permitting or exempt from air permitting for air construction permitting purposes and as regulated, unregulated, or insignificant for Title V air operation permitting purposes. **The air construction permitting classification must be used to complete the Emissions Unit Information Section of this application for air permit.** A separate Emissions Unit Information Section (including subsections A through I as required) must be completed for each emissions unit subject to air permitting addressed in this application for air permit. Emissions units exempt from air construction permitting and insignificant emissions units are required to be listed at Section II, Subsection C.

If submitting the application form in hard copy, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application must be indicated in the space provided at the top of each page.

EMISSIONS UNIT INFORMATION

Section [1]
Lime Handling System

A. GENERAL EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Emissions Unit Classification

1. Regulated or Unregulated Emissions Unit? (Check one, if applying for an initial, revised or renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.)
- The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.
- The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in this Section: (Check one)
- This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).
- This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.
- This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Description of Emissions Unit Addressed in this Section:

Lime Handling System

3. Emissions Unit Identification Number: **006**

4. Emissions Unit Status Code: A	5. Commence Construction Date:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code: 49	8. Acid Rain Unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
--	--------------------------------	--------------------------	--	--

9. Package Unit:
Manufacturer:

Model Number:

10. Generator Nameplate Rating: **MW**

11. Emissions Unit Comment:

The existing lime handling system will be modified to allow for the receiving of lime by railcar. The existing lime silo will be used.

EMISSIONS UNIT INFORMATION

**Section [1]
Lime Handling System**

Emissions Unit Control Equipment

1. Control Equipment/Method(s) Description:

2 Fabric Filters (Baghouses)

2. Control Device or Method Code(s): **127**

EMISSIONS UNIT INFORMATION

**Section [1]
Lime Handling System**

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Throughput Rate: 25 tons/hour lime		
2. Maximum Production Rate:		
3. Maximum Heat Input Rate:	million Btu/hr	
4. Maximum Incineration Rate:	pounds/hr tons/day	
5. Requested Maximum Operating Schedule:		
	24 hours/day	7 days/week
	52 weeks/year	8,760 hours/year
6. Operating Capacity/Schedule Comment:		
Represents the total hourly lime throughput through the lime system.		

EMISSIONS UNIT INFORMATION

Section [1]
Lime Handling System

C. EMISSION POINT (STACK/VENT) INFORMATION
 (Optional for unregulated emissions units.)

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram: Lime Silo		2. Emission Point Type Code: 3	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking: Filter Receiver Baghouse Lime Silo Baghouse			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:			
5. Discharge Type Code: D	6. Stack Height: 115 feet	7. Exit Diameter: 0.25 feet	
8. Exit Temperature: 75°F	9. Actual Volumetric Flow Rate: 2000 acfm	10. Water Vapor: %	
11. Maximum Dry Standard Flow Rate: dscfm		12. Nonstack Emission Point Height: feet	
13. Emission Point UTM Coordinates... Zone: East (km): North (km):		14. Emission Point Latitude/Longitude... Latitude (DD/MM/SS) Longitude (DD/MM/SS)	
15. Emission Point Comment: Downward discharge of vent filter located on the top of the lime silo. Exit temperature is at ambient conditions. Baghouse for railcar unloading filter receiver has the equivalent exit diameter, exit temperature, and flow rate, but a release height of approximately 16 to 24 feet.			

EMISSIONS UNIT INFORMATION

Section [1]
Lime Handling System

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment **1** of **1**

1. Segment Description (Process/Fuel Type): Industrial Processes; Mineral Products; Bulk Materials Storage Bins; Minerals; Lime		
2. Source Classification Code (SCC): 3-05-102-98		3. SCC Units: Tons Processed
4. Maximum Hourly Rate: 25	5. Maximum Annual Rate: 36,500	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment: Lime unloading and storage. Lime may be unloaded into the facility's 900-ton silo via railcar or truck. Maximum hourly rate is based on one 25-ton truck unloading in approximately one hour. A 100-ton railcar will unload at a rate of approximately 20 tons/hour. Maximum annual rate is based on facility lime usage of approximately 100 tons/day and 365 days/year operation.		

Segment Description and Rate: Segment ____ of ____

1. Segment Description (Process/Fuel Type):		
2. Source Classification Code (SCC):		3. SCC Units:
4. Maximum Hourly Rate:	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment:		

EMISSIONS UNIT INFORMATION

Section [1]
Lime Handling System

POLLUTANT DETAIL INFORMATION

Page [1] of [2]
Particulate Matter Total – PM

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL/ESTIMATED FUGITIVE EMISSIONS**

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: PM		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 0.34 lb/hour 1.50 tons/year		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: 0.010 grain/acf Reference: PSD-FL-168, Specific Condition No. 11		7. Emissions Method Code: 0	
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From: To:	
9.a. Projected Actual Emissions (if required): tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: See Attachment IC-EU1-F1.10.			
11. Potential Fugitive and Actual Emissions Comment: Potential emissions take into account emissions from both the silo and railcar unloading.			

EMISSIONS UNIT INFORMATION

Section [1]
Lime Handling System

POLLUTANT DETAIL INFORMATION

Page [1] of [2]
Particulate Matter Total – PM

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
ALLOWABLE EMISSIONS**

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: OTHER	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.010 grains/acf	4. Equivalent Allowable Emissions: 0.34 lb/hour 1.50 tons/year
5. Method of Compliance: EPA Method 9	
6. Allowable Emissions Comment (Description of Operating Method): Allowable emissions and method of compliance based on PSD-FL-168, Specific Condition Nos. 8, 11, and 19.	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

EMISSIONS UNIT INFORMATION

POLLUTANT DETAIL INFORMATION

Section [1]
Lime Handling System

Page [2] of [2]
Particulate Matter – PM₁₀

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL/ESTIMATED FUGITIVE EMISSIONS**

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

1. Pollutant Emitted: PM₁₀		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 0.34 lb/hour 1.50 tons/year		4. Synthetically Limited? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: 0.010 grains/acf Reference: PSD-FL-168, Specific Condition No. 11		7. Emissions Method Code: 5	
8.a. Baseline Actual Emissions (if required): tons/year		8.b. Baseline 24-month Period: From: To:	
9.a. Projected Actual Emissions (if required): tons/year		9.b. Projected Monitoring Period: <input type="checkbox"/> 5 years <input type="checkbox"/> 10 years	
10. Calculation of Emissions: See Attachment IC-EU1-F1.10			
11. Potential Fugitive and Actual Emissions Comment: Potential emissions take into account emissions from both the silo and railcar unloading.			

EMISSIONS UNIT INFORMATION

POLLUTANT DETAIL INFORMATION

Section [1]
Lime Handling System

Page [2] of [2]
Particulate Matter – PM₁₀

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
ALLOWABLE EMISSIONS**

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation.

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

Allowable Emissions Allowable Emissions ____ of ____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance:	
6. Allowable Emissions Comment (Description of Operating Method):	

EMISSIONS UNIT INFORMATION

Section [1]
Lime Handling System

G. VISIBLE EMISSIONS INFORMATION

Complete if this emissions unit is or would be subject to a unit-specific visible emissions limitation.

Visible Emissions Limitation: Visible Emissions Limitation 1 of 1

1. Visible Emissions Subtype: VE05	2. Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions: 5 % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: EPA Method 9	
5. Visible Emissions Comment: Limit based on PSD-FL-168, Specific Condition No. 11.	

Visible Emissions Limitation: Visible Emissions Limitation ____ of ____

1. Visible Emissions Subtype:	2. Basis for Allowable Opacity: <input type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions: % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance:	
5. Visible Emissions Comment:	

EMISSIONS UNIT INFORMATION

Section [1]

Lime Handling System

H. CONTINUOUS MONITOR INFORMATION

Complete if this emissions unit is or would be subject to continuous monitoring.

Continuous Monitoring System: Continuous Monitor ____ of ____

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	<input type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: Model Number:	Serial Number:
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment:	

Continuous Monitoring System: Continuous Monitor ____ of ____

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	<input type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: Model Number:	Serial Number:
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment:	

EMISSIONS UNIT INFORMATION

Section [1]

Lime Handling System

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

1. Process Flow Diagram (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 checked="" type="checkbox"/> Attached, Document ID: IC-EU1-11 <input type="checkbox"/> Previously Submitted, Date _____
2. Fuel Analysis or Specification (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 type="checkbox"/> Previously Submitted, Date _____
3. Detailed Description of Control Equipment (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 checked="" type="checkbox"/> Attached, Document ID: IC-EU1-13 <input type="checkbox"/> Previously Submitted, Date _____
4. Procedures for Startup and Shutdown (Required for all operation 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 type="checkbox"/> Previously Submitted, Date _____ <input checked="" type="checkbox"/> Not Applicable (construction application)
5. Operation and Maintenance 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 type="checkbox"/> Previously Submitted, Date _____ <input checked="" type="checkbox"/> Not Applicable
6. Compliance Demonstration Reports/Records <input type="checkbox"/> Attached, Document ID: _____ Test Date(s)/Pollutant(s) Tested: _____ <input type="checkbox"/> Previously Submitted, Date: _____ Test Date(s)/Pollutant(s) Tested: _____ <input type="checkbox"/> To be Submitted, Date (if known): _____ Test Date(s)/Pollutant(s) Tested: _____ <input checked="" type="checkbox"/> Not Applicable Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application.
7. Other Information Required by Rule or Statute <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable

EMISSIONS UNIT INFORMATION

Section [1]

Lime Handling System

Additional Requirements for Air Construction Permit Applications

1. Control Technology Review and Analysis (Rules 62-212.400(10) and 62-212.500(7), F.A.C.; 40 CFR 63.43(d) and (e)) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
2. Good Engineering Practice Stack Height Analysis (Rule 62-212.400(4)(d), F.A.C., and Rule 62-212.500(4)(f), F.A.C.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
3. Description of Stack Sampling Facilities (Required for proposed new stack sampling facilities only) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable

Additional Requirements for Title V Air Operation Permit Applications

1. Identification of Applicable Requirements <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
2. Compliance Assurance Monitoring <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
3. Alternative Methods of Operation <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
4. Alternative Modes of Operation (Emissions Trading) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
5. Acid Rain Part Application <input type="checkbox"/> Certificate of Representation (EPA Form No. 7610-1) <input type="checkbox"/> Copy Attached, Document ID: _____ <input type="checkbox"/> Acid Rain Part (Form No. 62-210.900(1)(a)) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> New Unit Exemption (Form No. 62-210.900(1)(a)2.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Phase II NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Not Applicable

EMISSIONS UNIT INFORMATION

Section [1]

Lime Handling System

Additional Requirements Comment

ATTACHMENT IC-EU1-F1.10

CALCULATION OF EMISSIONS

ATTACHMENT IC-EU1-F1.10

CALCULATION OF EMISSIONS

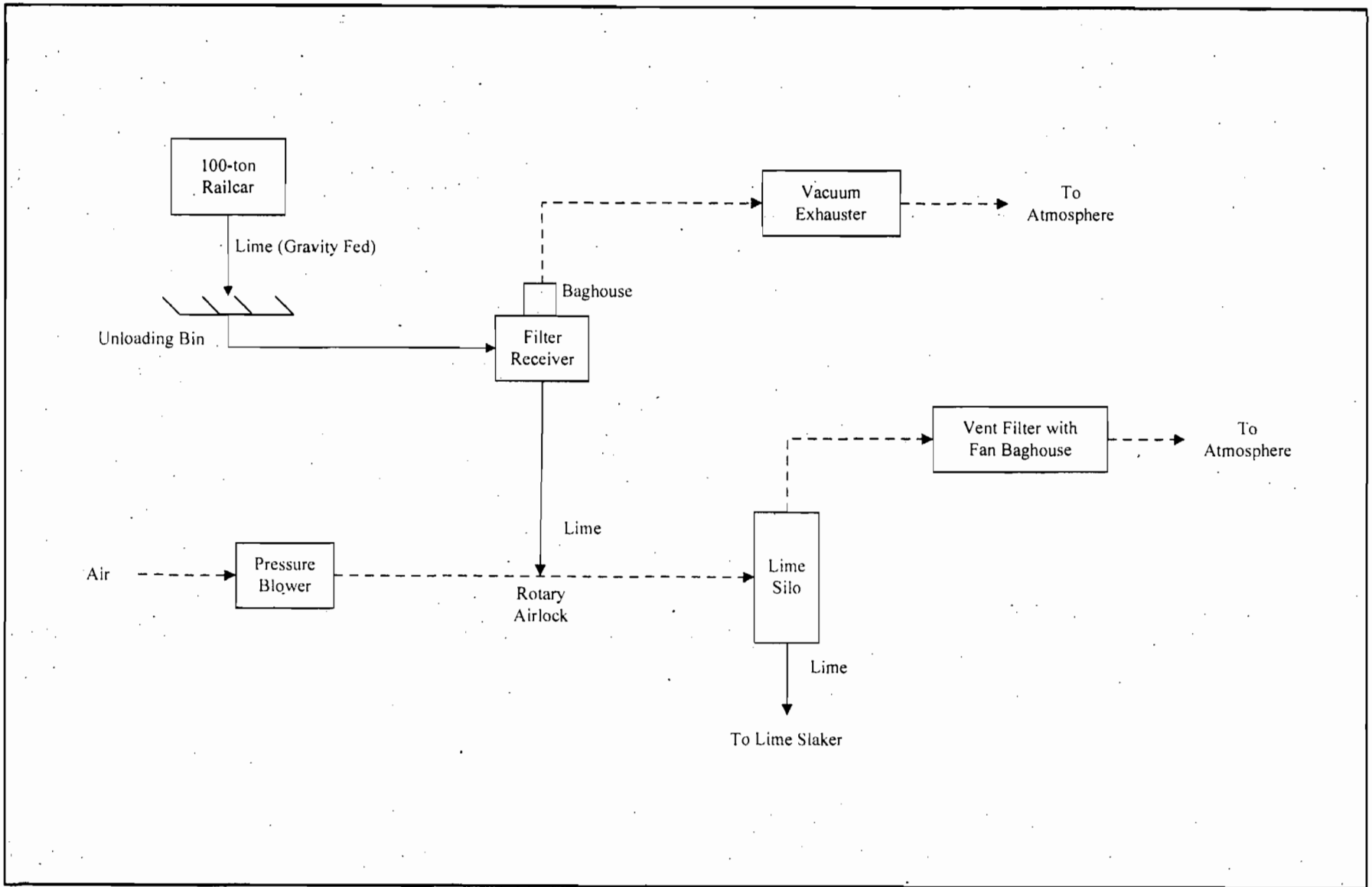
**Summary of PM/PM₁₀ Maximum Potential Emission Rate
for Railcar Unloading and Lime Storage Silo
Indiantown Cogeneration**

Source	Control Equipment	Exhaust Flow (acfm)	Exhaust Grain Loading (gr/acf)	Operating Hours (hr/yr)	PM/PM ₁₀ Emission Rate	
					lb/hour	TPY
Lime Silo	Baghouse	2,000	0.010	8,760	0.17	0.75
Railcar Unloading Receiver Filter	Baghouse	2,000	0.010	8,760	0.17	0.75
Total:					0.34	1.50

Note: acfm = actual cubic feet per minute.
 gr/acf = grains per actual cubic feet.
 lb/hr = pounds per hour.
 TPY = tons per year.

ATTACHMENT IC-EU1-I1

PROCESS FLOW DIAGRAM



Attachment IC-EU1-II
 Lime Handling System
 Process Flow Diagram
 Indiantown Cogeneration, L.P.
 Indiantown, Florida

Process Flow Legend	
Solid/Liquid	—————▶
Gas	- - - - -▶
Steam	⋯⋯⋯▶

Filename: 07387554/IC-EU1-II.VSD
 Date: -03/09/07



ATTACHMENT IC-EU1-I3

DETAILED DESCRIPTION OF CONTROL EQUIPMENT

ATTACHMENT IC-EU1-I3a
CONTROL EQUIPMENT PARAMETERS FOR THE
LIME SILO BAGHOUSE AT THE INDIANTOWN COGENERATION FACILITY

Manufacturer and Model No.	BHA, Model JP-H14
Outlet Gas Temp (°F)	75
Outlet Gas Flow Rate (acfm)	2,000
Cleaning Method	Reverse Jet
No. of bags	12
Bag Material	Spun Bonded Polyester
Total Area of Filter Media (sq. ft)	516
Air to Cloth Ratio	3.88
Manufacturer's Guaranteed Outlet Loading (grains/acf)	0.010
Pollutants	Outlet Loading
Particulate Matter (lb/hr)	0.17

Note: Parameters based on manufacturers design specifications as shown on the following page.

Sample calculations:

Outlet loading rate (lb/hr) = outlet gas flow rate (acfm) X outlet loading rate (grains/acf) ÷ 7000 grains/lb X 60 min/hr

ATTACHMENT IC-EU1-13b
CONTROL EQUIPMENT PARAMETERS FOR THE
RAILCAR UNLOADING FILTER RECEIVER BAGHOUSE AT THE INDIANTOWN COGENERATION FACILITY

Manufacturer and Model No.	AVR Air Vent Filter, Model 72AVR32, Style III
Outlet Gas Temp (°F)	75
Outlet Gas Flow Rate (acfm)	2,000
Bag Material	Mineral Reinforced Nylon
Total Area of Filter Media (sq. ft)	291
Air to Cloth Ratio	6.87
Manufacturer's Guaranteed Outlet Loading (grains/acf)	0.010
Pollutants	Outlet Loading
Particulate Matter (lb/hr)	0.17

Note: Parameters based on manufacturers design specifications as shown on the following page.

Sample calculations:

$$\text{Outlet loading rate (lb/hr)} = \text{outlet gas flow rate (acfm)} \times \text{outlet loading rate (grains/acf)} \div 7000 \text{ grains/lb} \times 60 \text{ min/hr}$$

ATTACHMENT A

ATTACHMENT A**SUPPLEMENTAL INFORMATION FOR
CONSTRUCTION PERMIT APPLICATION**

Indiantown Cogeneration, L.P. (Indiantown Cogeneration) owns and operates a cogeneration plant located in Indiantown, Martin County, Florida. The plant currently operates under Title V Operating Permit No. 0850102-007-AV. The facility generates electricity for sale and exports steam to the Louis Dreyfus Citrus Processing Plant.

The Indiantown facility currently uses lime as a reactant in its boiler flue gas desulfurization (FGD) systems. Lime in powdered form is delivered to the facility by truck. The lime is then off-loaded into the existing 900-ton storage silo. Lime from the trucks is transported to the silos via pneumatic discharge at a rate of 25 tons per hour (TPH) (i.e., 1 hour to unload a 25-ton truck) by using the on-board blowers to transfer the lime to the top of the silo. The stored lime is then slaked into a slurry for use in the two boilers (EU 001) spray dryer absorbers. The lime silo has a bin vent fabric filter baghouse. The lime-handling system is enclosed to the extent practical.

Indiantown Cogeneration is proposing to add the capability to receive lime by railcar. Unloading of the gravity flow-type railcars will be accomplished through a dilute phase, combination vacuum and pressure pneumatic transfer system at a rate of 20 TPH. It will take approximately 5 hours to unload a 100-ton railcar.

The lime will be unloaded into a bin via gravity-fed, bottom dump railcars. The bin will be located below ground level, and unloading will occur inside a building (open on either end to allow railcars to pass through). This design minimizes fugitive dust emissions from the unloading.

The lime will then enter a vacuum-type unloading system that transports the lime from the railcar to a filter receiver. The filter receiver acts both as a collection bin and also as a mechanism to clean the transport air of dust particles, since it has an integral baghouse. A rotary air lock will then feed the lime into the air stream created from a from a transporter blower, which transports the lime pneumatically to the existing lime silo. The existing silo already has a dust collector, and this will continue to be used in the future.

Total throughput of lime into the system is approximately 100 tons per day, or 36,500 tons per year (TPY) based on 365 days per year operation.

As described above, a baghouse (AVR Air Vent Filter, Model 72AVR32) is integral to the filter receiver on the railcar unloading system, which reduces PM emissions associated with unloading the railcars. The existing bin vent filter baghouse (BHA Model JP-H14) on the lime silo will continue to serve to reduce the PM emission associated from loading the silo.

Maximum PM and particulate matter less than 10 microns in diameter (PM_{10}) emissions from each baghouse are 0.17 pound per hour (lb/hr) and 0.75 TPY. Total PM/ PM_{10} emissions from both baghouses are 0.34 lb/hr and 1.50 TPY. The PM/ PM_{10} emissions are based on a maximum actual flow rate from each baghouse of 2,000 actual cubic feet per minute and a design grain loading rate of 0.01 grain per actual cubic feet per baghouse. Hours of operation are assumed continuous. Details of each bin vent filter baghouse, including emissions estimates, are included in this application for an air construction permit.