

Golder Associates Inc.

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JUL 05 2007

BUREAU OF AIR REGULATION

**TITLE V RENEWAL APPLICATION FOR
NORTHERN STAR GENERATION SERVICES COMPANY
ORANGE COGENERATION FACILITY
BARTOW, FLORIDA**

Prepared for:

*Northern Star Generation Services Company, LLC
2929 Allen Parkway, Suite 2200
Houston, TX 77019*

Prepared by:

*Golder Associates Inc.
5100 West Lemon Street
Suite 114
Tampa, Florida 33609*

July 2007

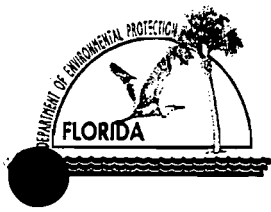
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1 Copy -- Golder Associates, Inc.



Department of Environmental Protection

Division of Air Resource Management

APPLICATION FOR AIR PERMIT - LONG FORM

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BUREAU OF AIR REGULATION

I. APPLICATION INFORMATION

Air Construction Permit – Use this form to apply for any 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/revised/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: Northern Star Generation Services Company, LLC	
2. Site Name: Orange Cogeneration Facility	
3. Facility Identification Number: 1050231	
4. Facility Location... Street Address or Other Locator: 1901 Clear Springs Mine Road City: Bartow County: Polk Zip Code: 33830-7535	
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: Dave Kellermeyer, Vice President, EH&S	
2. Application Contact Mailing Address... Organization/Firm: Northern Star Generation Services Company, LLC Street Address: 2929 Allen Parkway, Suite 2200 City: Houston State: TX Zip Code: 77019	
3. Application Contact Telephone Numbers... Telephone: (713) 580 - 6368 ext. Fax: (713) 580 - 6320	
4. Application Contact Email Address: dave.kellermeyer@northernstargen.com	

Application Processing Information (DEP Use)

1. Date of Receipt of Application:	3. PSD Number (if applicable):
2. Project Number(s): 1050231-010-AV	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

This application is for renewal of the Title V permit No.1050231-009-AV, which is due to expire on December 31, 2007.

This facility consists of two combustion turbines (CT) that each exhaust through a heat recovery steam generator (HRSG) and associated stack. The CT's are natural gas and biogas fired. The facility also includes an auxiliary boiler fired with natural gas and biogas, with a separate stack. Neither HRSG is auxiliary fuel fired or equipped with duct burners. Also included in this permit are miscellaneous unregulated/insignificant emissions units and/or activities.

APPLICATION INFORMATION

Scope of Application

Emissions Unit ID Number	Description of Emissions Unit	Air Permit Type	Air Permit Proc. Fee
001	Combustion Turbine (CT) with HRSG, Unit 1		
002	Combustion Turbine (CT) with HRSG, Unit 2		
003	Auxiliary Boiler		

Application Processing Fee

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

APPLICATION INFORMATION

Owner/Authorized Representative Statement


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

1. Owner/Authorized Representative Name :
2. Owner/Authorized Representative Mailing Address... Organization/Firm: Street Address: City: State: Zip Code:
3. Owner/Authorized Representative Telephone Numbers... Telephone: ext. Fax:
4. Owner/Authorized Representative Email Address:
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 _____ 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: Allen Czerkiewicz, Plant Manager
2. Application Responsible Official Qualification (Check one or more of the following options, as applicable): <input checked="" 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.
3. Application Responsible Official Mailing Address... Organization/Firm: Mulberry Cogeneration Facility Street Address: 3600 County Road 555 City: Bartow State: FL Zip Code: 33831-0824
4. Application Responsible Official Telephone Numbers... Telephone: (863) 533-9073 ext. Fax: (863) 533-4092
5. Application Responsible Official Email Address: <u>allen.czerkiewicz@northernstargen.com</u>
6. Application Responsible Official Certification: <i>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.</i>  Signature _____ Date <u>6/29/07</u>

APPLICATION INFORMATION

Professional Engineer Certification

1. Professional Engineer Name: **Scott Osbourn, Senior Consultant**
 Registration Number: **57557**

2. Professional Engineer Mailing Address...
 Organization/Firm: **Golder Associates, Inc.***
 Street Address: **5100 Lemon Street, Suite 114**
 City: **Tampa** State: **FL** Zip Code: **33609**

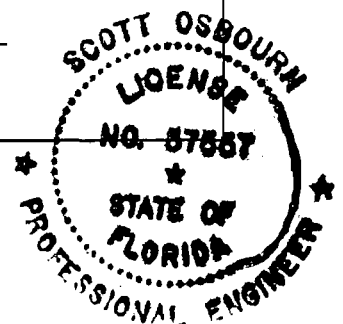
3. Professional Engineer Telephone Numbers...
 Telephone: **(813) 287 - 1717** ext. **211** Fax: **(813) 287 - 1716**

4. Professional Engineer Email Address: **sosbourn@golder.com**

5. Professional Engineer Statement:
I, the undersigned, hereby certify, except as particularly noted herein, that:*
 (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*
 (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.*
 (3) *If the purpose of this application is to obtain a Title V air operation permit (check here , 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.*
 (4) *If the purpose of this application is to obtain an air construction permit (check here , 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 , 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.*
 (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 , 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.*

Signature *Scott Osbourn* Date 6/29/07
 (seal)

* Board of Professional Engineers Certificate of Authorization No. 0000167



II. FACILITY INFORMATION

A. GENERAL FACILITY INFORMATION

Facility Location and Type

1. Facility UTM Coordinates...		2. Facility Latitude/Longitude...	
Zone 17	East (km) 418.7 North (km) 3083.0	Latitude (DD/MM/SS) 27/52/15 Longitude (DD/MM/SS) 81/49/31	
3. Governmental Facility Code:	4. Facility Status Code:	5. Facility Major Group SIC Code:	6. Facility SIC(s):
0	A	49	4911
7. Facility Comment : The facility consists of two combustion turbines (CT) that each exhaust through a heat recovery steam generator (HRSG) and associated stack. The CTs are natural gas and biogas fired. The facility also includes an auxiliary boiler fired with natural gas and biogas, with a separate stack. Neither HRSG is auxiliary fuel fired or equipped with duct burners. Also included in this application are miscellaneous unregulated/insignificant emissions units and/or activities. This facility is <i>not</i> a major source of hazardous air pollutants (HAPs).			

Facility Contact

1. Facility Contact Name: Gwynne L. Johnson, Plant Engineer
2. Facility Contact Mailing Address... Organization/Firm: Orange Cogeneration Facility Street Address: 1901 S. Clear Springs Road City: Bartow State: FL Zip Code: 33830-7535
3. Facility Contact Telephone Numbers: Telephone: (863) 534 - 1141 ext. Fax: (863) 533 - 4152
4. Facility Contact Email Address:

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: Allen Czerkiewicz, Plant Manager
2. Facility Primary Responsible Official Mailing Address... Organization/Firm: Mulberry Cogeneration Facility Street Address: 3600 County Road 555 City: Bartow State: FL Zip Code: 33831-0824
3. Facility Primary Responsible Official Telephone Numbers... Telephone: (713) 580 - 6368 ext. Fax: (713) 580 - 6320
4. Facility Primary Responsible Official Email Address: dave.kellermeyer@northernstargen.com

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 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: The combined cycle gas turbines, Units 1 and 2 are regulated under Acid Rain, Phase II and Rule 62-210.300, F.A.C., Permits Required and are subject to 40 CFR 60, Subpart GG, Standards of Performance for New Stationary Gas Turbines. Each unit underwent a revised BACT Determination dated March 7, 1995. BACT Limits were incorporated into the subsequent PSD permits including AC53-23385 1B (PSD-FL-206B), which superseded previous construction permits. Compliance Assurance Monitoring (CAM) does <i>not apply</i> to these emissions units	

FACILITY INFORMATION

List of Pollutants Emitted by Facility

1. Pollutant Emitted	2. Pollutant Classification	3. Emissions Cap [Y or N]?
NO _x	A	
CO	A	
PM/PM ₁₀	B	
VOC	B	
SO ₂	B	

FACILITY INFORMATION

B. EMISSIONS CAPS

Facility-Wide or Multi-Unit Emissions Caps

1. Pollutant Subject to Emissions Cap	2. Facility Wide Cap [Y or N]? (all units)	3. Emissions Unit ID No.s Under Cap (if not all units)	4. Hourly Cap (lb/hr)	5. Annual Cap (ton/yr)	6. Basis for Emissions Cap

7. Facility-Wide or Multi-Unit Emissions Cap Comment:

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: <u>OC-FI-C1</u> <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 checked="" type="checkbox"/> Attached, Document ID: <u>See EU Sections</u> <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 checked="" type="checkbox"/> Attached, Document ID: <u>OC-FI-C3</u> <input type="checkbox"/> Previously Submitted, Date: _____

Additional Requirements for Air Construction Permit Applications -N/A

1. Area Map Showing Facility Location: <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable (existing permitted facility)
2. Description of Proposed Construction, Modification, or Plant wide Applicability Limit (PAL): <input type="checkbox"/> Attached, Document ID: _____
3. Rule Applicability Analysis: <input type="checkbox"/> Attached, Document ID: _____
4. List of Exempt Emissions Units (Rule 62-210.300(3), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable (no exempt units at facility)
5. Fugitive Emissions Identification: <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
6. Air Quality Analysis (Rule 62-212.400(7), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable
7. Source Impact Analysis (Rule 62-212.400(5), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input 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 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 type="checkbox"/> Not Applicable
10. Alternative Analysis Requirement (Rule 62-212.500(4)(g), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable

FACILITY INFORMATION

Additional Requirements for FESOP Applications – N/A

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

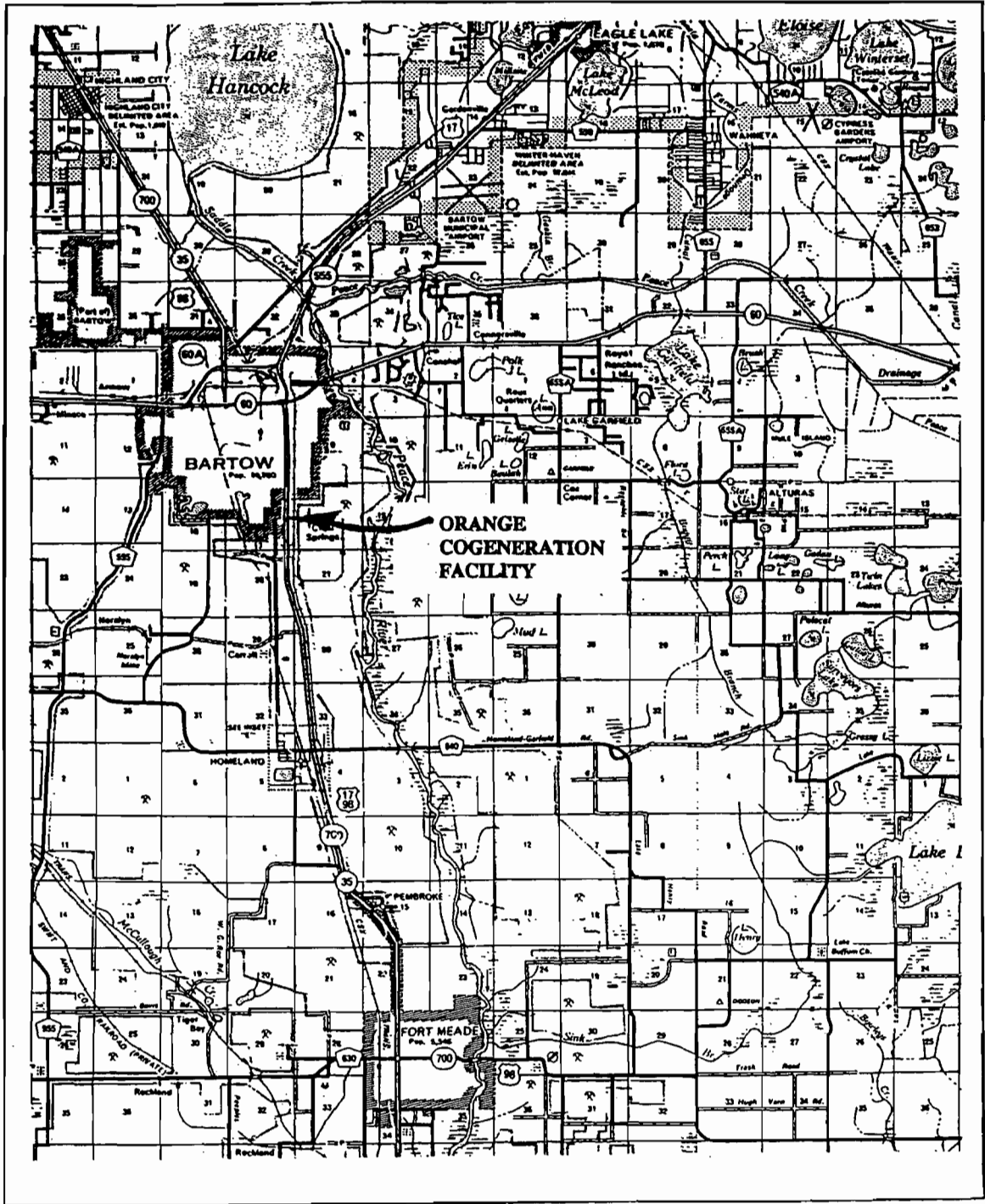
1. List of Insignificant Activities (Required for initial/renewal applications only):
 Attached, Document ID: OC-FI-CV1 Not Applicable (revision application)
2. Identification of Applicable Requirements (Required for initial/renewal applications, and for revision applications if this information would be changed as a result of the revision being sought):
 Attached, Document ID: OC-FI-CV2
 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: OC-FI-CV3
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: OC-FI-CV4
 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: OC-FI-CV6 Not Applicable

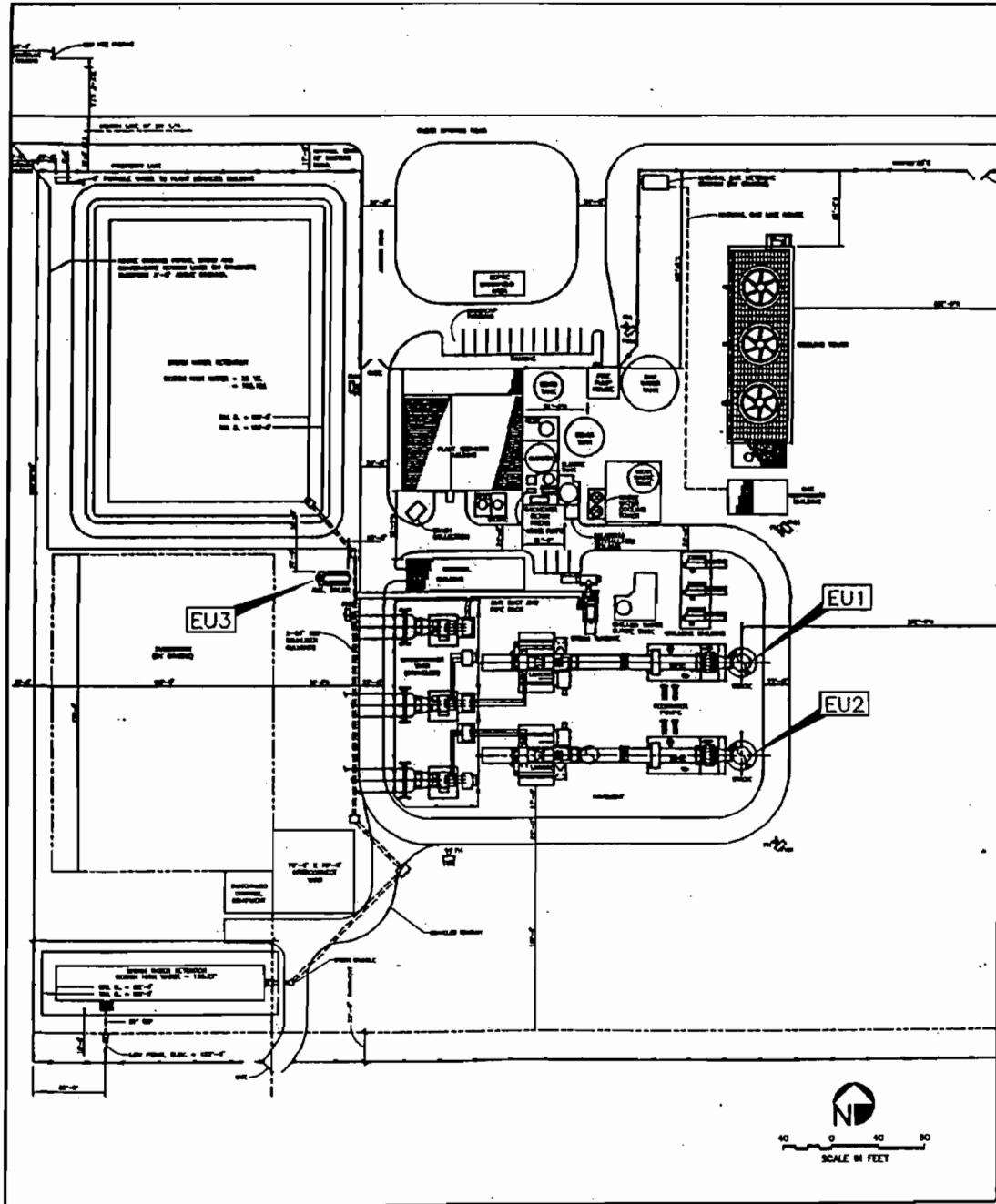
Additional Requirements Comment

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FACILITY ATTACHMENTS

**Attachment OC-FI-C1
Facility Plot Plan**





Attachment OC-FI-C3
Precautions to Prevent Emissions of Unconfined Particulate Matter

Precautions to Prevent Emissions of Unconfined Particulate Matter

Unconfined particulate matter emissions associated with the operation and maintenance of the Orange Cogeneration Facility include the following sources and activities:

- Cooling Tower Drift Losses;
- Abrasive Blast Activities;
- Surface Coating Activities (Spray Painting);
- Dry Chemical Handling & Storage;
- Lawn & Ground Maintenance;
- Parking Areas; and
- Paved & Unpaved Roads.

Reasonable precautions to prevent and/or control unconfined particulate matter emissions include the following:

- Cooling Tower Drift Losses - Maintain proper water chemistry (pH & TDS) and equipment in accordance with the manufacturer's design specifications.
- Abrasive Blast Activities - When practical, use of partial or total enclosures and use of grit materials versus sand. Limit annual activities.
- Surface Coating Activities – When practical, use of partial or total enclosures and limiting outdoor activities to times of favorable weather conditions to avoid off site impacts.
- Dry Chemical Handling & Storage - Clean-up spills immediately, good. Housekeeping practices.
- Lawn & Ground Maintenance – Application of water to non-vegetative areas as needed, landscaping and grass in other areas as necessary.
- Parking Areas - Application of water as needed.
- Paved and Unpaved Roads - As needed, application of water, the removal of particulate matter from paved roads, limited site access to vehicles, and vehicle speed limitations.

Attachment OC-FI-CV1
List of Insignificant Activities

List of Insignificant Emissions Units and/or Activities

The facilities, emissions units, or pollutant-emitting activities listed in Rule 62-210.300(3)(a), F.A.C., Categorical Exemptions, or that meet the criteria specified in Rule 62-210.300(3)(b)1, F.A.C., Generic Emissions Unit Exemption, are exempt from the permitting requirements of Chapters 62-210, 62-212 and 62-4, F.A.C.; provided, however, that the exempt emissions units shall be subject to any applicable emission limiting standards and the emissions from exempt emissions units or activities shall be considered in determining the potential emissions of the facility containing such emissions units. Emissions units and pollutant-emitting activities exempt from permitting under Rules 62-210.300(3)(a) and (b)1., F.A.C., shall not be exempt from the permitting requirements of Chapter 62-213, F.A.C., if they are contained within a Title V source; however, such emissions units and activities shall be considered insignificant for Title V purposes provided they also meet the criteria of Rule 62-213.430(6)(b), F.A.C. No emissions unit shall be entitled to an exemption from permitting under Rules 62-210.300(3)(a) and (b)1., F.A.C., if its emissions, in combination with the emissions of other units and activities at the facility, would cause the facility to emit or have potential to emit any pollutant in such amount as to make the facility a Title V source.

The below listed emissions units and/or activities are considered insignificant pursuant to Rule 62-213.430(6), F.A.C.

Brief Description of Emissions Units and/or Activities
1. Internal Combustion Engines - Vehicles
2. Laboratory Vacuum Pumps
3. Steam Cleaning Equipment
4. Belt and Drum Sanders
5. Laboratory Equipment
6. Brazing, Soldering, Welding Equipment
7. Heating Units, General Purpose Internal Combustion Engines, and other Combustion Sources
8. Surface Coating Operations
9. Degreasing Units (Non-HAP Solvents)
10. Petroleum Lubrication Systems
11. Fungicide, Herbicide, and Pesticide Applications
12. Non-Halogenated Solvent Storage and Cleaning
13. Abrasive Blasting Activities
14. Soda Ash Storage Hopper
15. Primary Cooling Tower
16. Secondary Cooling Tower
17. Evaporator Tower
18. Natural Gas Piping System
19. Water Treatment, Storage, and Handling Activities
20. Lawn and Ground Maintenance
21. Paved and Unpaved Roads
22. Emergency Diesel Fire Pump and Storage Tank

- Deleted: 7. Emergency Gene ... [1]
- Deleted: 8
- Deleted: 9
- Deleted: 10
- Deleted: 1
- Deleted: 2
- Deleted: 13. Asbestos Renovation and Demolition Activities ... [2]
- Deleted: 4
- Deleted: 5
- Deleted: 6
- Deleted: 7
- Deleted: 8
- Deleted: 9
- Deleted: 20
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Attachment OC-FI-CV2
Identification of Applicable Requirements

ATTACHMENT OC-FI-CV2

TITLE V CORE LIST

Effective: 03/01/02

(Updated based on current version of FDEP Air Rules)

[**Note:** The Title V Core List is meant to simplify the completion of the "List of Applicable Regulations" for DEP Form No. 62-210.900(1), Application for Air Permit - Long Form. The Title V Core List is a list of rules to which all Title V Sources are presumptively subject. The Title V Core List may be referenced in its entirety, or with specific exceptions. The Department may periodically update the Title V Core List.]

Federal: (description)

40 CFR 61, Subpart M: NESHAP for Asbestos.

40 CFR 82: Protection of Stratospheric Ozone.

40 CFR 82, Subpart B: Servicing of Motor Vehicle Air Conditioners (MVAC).

40 CFR 82, Subpart F: Recycling and Emissions Reduction.

State: (description)

CHAPTER 62-4, F.A.C.: PERMITS, effective 02-07-06

62-4.030, F.A.C.: General Prohibition.

62-4.040, F.A.C.: Exemptions.

62-4.050, F.A.C.: Procedure to Obtain Permits; Application.

62-4.060, F.A.C.: Consultation.

62-4.070, F.A.C.: Standards for Issuing or Denying Permits; Issuance; Denial.

62-4.080, F.A.C.: Modification of Permit Conditions.

62-4.090, F.A.C.: Renewals.

62-4.100, F.A.C.: Suspension and Revocation.

62-4.110, F.A.C.: Financial Responsibility.

62-4.120, F.A.C.: Transfer of Permits.

62-4.130, F.A.C.: Plant Operation - Problems.

62-4.150, F.A.C.: Review.

62-4.160, F.A.C.: Permit Conditions.

62-4.210, F.A.C.: Construction Permits.

62-4.220, F.A.C.: Operation Permit for New Sources.

CHAPTER 62-210, F.A.C.: STATIONARY SOURCES - GENERAL REQUIREMENTS, effective 05-09-07

62-210.300, F.A.C.: Permits Required.

62-210.300(1), F.A.C.: Air Construction Permits.

62-210.300(2), F.A.C.: Air Operation Permits.

62-210.300(3), F.A.C.: Exemptions.

62-210.300(5), F.A.C.: Notification of Startup.

62-210.300(6), F.A.C.: Emissions Unit Reclassification.

62-210.300(7), F.A.C.: Transfer of Air Permits.

ATTACHMENT OC-FI-CV2

TITLE V CORE LIST

Effective: 03/01/02

(Updated based on current version of FDEP Air Rules)

62-210.350, F.A.C.: Public Notice and Comment.
62-210.350(1), F.A.C.: Public Notice of Proposed Agency Action.
62-210.350(2), F.A.C.: Additional Public Notice Requirements for Emissions Units Subject to Prevention of Significant Deterioration or Nonattainment-Area Preconstruction Review.
62-210.350(3), F.A.C.: Additional Public Notice Requirements for Sources Subject to Operation Permits for Title V Sources.

62-210.360, F.A.C.: Administrative Permit Corrections.
62-210.370(3), F.A.C.: Annual Operating Report for Air Pollutant Emitting Facility.
62-210.400, F.A.C.: Emission Estimates.
62-210.650, F.A.C.: Circumvention.
62-210.700, F.A.C.: Excess Emissions.

62-210.900, F.A.C.: Forms and Instructions.
62-210.900(1), F.A.C.: Application for Air Permit – Title V Source, Form and Instructions.
62-210.900(5), F.A.C.: Annual Operating Report for Air Pollutant Emitting Facility, Form and Instructions.
62-210.900(7), F.A.C.: Application for Transfer of Air Permit – Title V and Non-Title V Source.

CHAPTER 62-212, F.A.C.: STATIONARY SOURCES - PRECONSTRUCTION REVIEW, effective 02-02-06

CHAPTER 62-213, F.A.C.: OPERATION PERMITS FOR MAJOR SOURCES OF AIR POLLUTION, effective 04-14-03

62-213.205, F.A.C.: Annual Emissions Fee.
62-213.400, F.A.C.: Permits and Permit Revisions Required.
62-213.410, F.A.C.: Changes Without Permit Revision.
62-213.412, F.A.C.: Immediate Implementation Pending Revision Process.
62-213.415, F.A.C.: Trading of Emissions Within a Source.
62-213.420, F.A.C.: Permit Applications.
62-213.430, F.A.C.: Permit Issuance, Renewal, and Revision.
62-213.440, F.A.C.: Permit Content.
62-213.450, F.A.C.: Permit Review by EPA and Affected States
62-213.460, F.A.C.: Permit Shield.

62-213.900, F.A.C.: Forms and Instructions.
62-213.900(1), F.A.C.: Major Air Pollution Source Annual Emissions Fee Form.
62-213.900(7), F.A.C.: Statement of Compliance Form.

**ATTACHMENT OC-FI-CV2
TITLE V CORE LIST**

Effective: 03/01/02

(Updated based on current version of FDEP Air Rules)

**CHAPTER 62-296, F.A.C.: STATIONARY SOURCES - EMISSION STANDARDS,
effective 05-09-07**

62-296.320(4)(c), F.A.C.: Unconfined Emissions of Particulate Matter.

62-296.320(2), F.A.C.: Objectionable Odor Prohibited.

**CHAPTER 62-297, F.A.C.: STATIONARY SOURCES - EMISSIONS
MONITORING, effective 2-12-04**

62-297.310, F.A.C.: General Test Requirements.

62-297.310(4), F.A.C.: Applicable Test Procedures.

62-297.310(7), F.A.C.: Frequency of Compliance Tests.

62-297.310(6), F.A.C.: Repaired Stack Sampling Facilities.

62-297.310(5), F.A.C.: Determination of Process Variables.

62-297.510(8), F.A.C.: Test Report.

62-297.620, F.A.C.: Exceptions and Approval of Alternate Procedures and Requirements.

Miscellaneous:

CHAPTER 28-106, F.A.C.: Decisions Determining Substantial Interests

**CHAPTER 62-110, F.A.C.: Exception to the Uniform Rules of Procedure, effective
07-01-98**

**CHAPTER 62-256, F.A.C.: Open Burning and Frost Protection Fires, effective 11-30-
94**

CHAPTER 62-257, F.A.C.: Asbestos Notification and Fee, effective 02-09-99

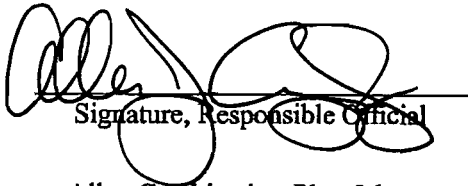
**CHAPTER 62-281, F.A.C.: Motor Vehicle Air Conditioning Refrigerant Recovery and
Recycling, effective 09-10-96**

**Attachment OC-FI-CV3
Compliance Report and Plan**

ATTACHMENT OC-FI-CV3
COMPLIANCE CERTIFICATION

Compliance with the conditions set forth in this operation permit will be certified on an annual basis by the submittal of the Statement of Compliance – Title V Source DEP Form No. 62-213.900(7). The facility and emission units identified in this application are in compliance with the Applicable Regulations identified in the application form and attachments referenced in the section. The compliance report for this facility will be submitted by March 1 of each year for the prior calendar year. The compliance statement is as follows:

I, the undersigned, am the responsible official as defined in Chapter 62-210.200, F.A.C., of the Title V source for which this report is being submitted. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made and data contained in this report are true, accurate, and complete.


Signature, Responsible Official

6/29/07
Date

Allen Czerkiewicz, Plant Manager and Authorized Representative

Attachment OC-FI-CV4
List of Equipment/Activities Regulated Under Title VI

List of Equipment/Activities Regulated – Title VI

The Orange Cogeneration Facility has 14 refrigeration and air conditioning units on the plant grounds. Of these, 3 air cooling units meet the 50-pound threshold established by the Department. These units include the following:

- Three (3) Chiller Units charged with 2,200 pounds of R-123.

**Attachment OC-FI-CV6
Requested Changes to the Current TV Permit**

List of Insignificant Emissions Units and/or Activities

The facilities, emissions units, or pollutant-emitting activities listed in Rule 62-210.300(3)(a), F.A.C., Categorical Exemptions, or that meet the criteria specified in Rule 62-210.300(3)(b)1, F.A.C., Generic Emissions Unit Exemption, are exempt from the permitting requirements of Chapters 62-210, 62-212 and 62-4, F.A.C.; provided, however, that the exempt emissions units shall be subject to any applicable emission limiting standards and the emissions from exempt emissions units or activities shall be considered in determining the potential emissions of the facility containing such emissions units. Emissions units and pollutant-emitting activities exempt from permitting under Rules 62-210.300(3)(a) and (b)1., F.A.C., shall not be exempt from the permitting requirements of Chapter 62-213, F.A.C., if they are contained within a Title V source; however, such emissions units and activities shall be considered insignificant for Title V purposes provided they also meet the criteria of Rule 62-213.430(6)(b), F.A.C. No emissions unit shall be entitled to an exemption from permitting under Rules 62-210.300(3)(a) and (b)1., F.A.C., if its emissions, in combination with the emissions of other units and activities at the facility, would cause the facility to emit or have potential to emit any pollutant in such amount as to make the facility a Title V source.

The below listed emissions units and/or activities are considered insignificant pursuant to Rule 62-213.430(6), F.A.C.

Brief Description of Emissions Units and/or Activities
1. Internal Combustion Engines - Vehicles
2. Laboratory Vacuum Pumps
3. Steam Cleaning Equipment
4. Belt and Drum Sanders
5. Laboratory Equipment
6. Brazing, Soldering, Welding Equipment
7. Heating Units, General Purpose Internal Combustion Engines, and other Combustion Sources
8. Surface Coating Operations
9. Degreasing Units (Non-HAP Solvents)
10. Petroleum Lubrication Systems
11. Fungicide, Herbicide, and Pesticide Applications
12. Non-Halogenated Solvent Storage and Cleaning
13. Abrasive Blasting Activities
14. Soda Ash Storage Hopper
15. Primary Cooling Tower
16. Secondary Cooling Tower
17. Evaporator Tower
18. Natural Gas Piping System
19. Water Treatment, Storage, and Handling Activities
20. Lawn and Ground Maintenance
21. Paved and Unpaved Roads
22. Emergency Diesel Fire Pump and Storage Tank

Deleted: 7. Emergency Gene ... [1]
Deleted: 8
Deleted: 9
Deleted: 10
Deleted: 1
Deleted: 2
Deleted: 13. Asbestos Renovation and Demolition Activities ... [2]
Deleted: 4
Deleted: 5
Deleted: 6
Deleted: 7
Deleted: 8
Deleted: 9
Deleted: 20
Deleted: 21
Deleted: 2
Deleted: 3

List of Unregulated Emissions Units and/or Activities

Unregulated Emissions Units and/or Activities. An emission unit which emits “no emissions-limited pollutant” and which is subject to no unit-specific work practice standard, though it may be subject to regulations applied on a facility-wide basis (e.g., unconfined emissions, odor, general opacity) or to regulations that require only that it be able to prove exemption from unit-specific emissions or work practice standards.

The below listed emissions unit is neither a “regulated emissions unit” nor “insignificant emissions units”.

E.U. No.	ID	Brief Description of Emission Unit(s) and/or Activity
004		Storage of Lube Oil, Waste Oil and Diesel Fuel
005		Lube Oil Vapor Extractor, Lube Oil Air/Oil Separator, Steam Turbine Drain Flash Tank

EMISSIONS UNIT INFORMATION

Section [1] of [2]

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] of [2]

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:
Combined cycle gas turbine with HRSG (Heat Recovery Steam Generator), Units 1 and 2

3. Emissions Unit Identification Number: **EU001, EU002**

4. Emissions Unit Status Code: A	5. Commence Construction Date:	6. Initial Startup Date: 6/16/95	7. Emissions Unit Major Group SIC Code: 49	8. Acid Rain Unit? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
--------------------------------------------	--------------------------------	--------------------------------------------	------------------------------------------------------	----------------------------------------------------------------------------------------------

9. Package Unit:
Manufacturer: **General Electric** Model Number: **LM 6000 DLE**

10. Generator Nameplate Rating: **41.4 MW**

11. Emissions Unit Comment:
Combined cycle gas turbine, rated at 41.4 MW at 47° F, with an associated heat recovery steam generator that services (with Unit 2's HRSG) an electric steam generator rated at 28 MW. Typically, the steam produced by the HRSG is delivered to the steam turbine. Steam is then extracted from the steam turbine and delivered to the Orange Plant, distillation units and the Bartow Ethanol Facility.

EMISSIONS UNIT INFORMATION

Section [1] of [2]

Emissions Unit Control Equipment

1. Control Equipment/Method(s) Description:

Emissions are controlled by a dry-low NO_x combustors and Damp DLE Technology for NO_x emissions coupled with good combustion practices for VOC, CO, and PM/PM₁₀ emissions, and Pipeline Quality Natural Gas for SO₂ emissions. The control strategy ensures compliance with the BACT emission limitations.

2. Control Device or Method Code(s): 025, 028

EMISSIONS UNIT INFORMATION

Section [1] of [2]

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Throughput Rate:
2. Maximum Production Rate:
3. Maximum Heat Input Rate: 377.0 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: Maximum heat input at 47°F and lower heating value of the fuel.

EMISSIONS UNIT INFORMATION

Section [1] of [2]

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:		2. Emission Point Type Code:			
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking:					
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:					
5. Discharge Type Code: V		6. Stack Height: 100 feet		7. Exit Diameter: 11 feet	
8. Exit Temperature: 230°F		9. Actual Volumetric Flow Rate: 298,651 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:					

EMISSIONS UNIT INFORMATION

Section [1] of [2]

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 2

1. Segment Description (Process/Fuel Type): Internal Combustion Engines; Electric Generation; Natural Gas Turbine		
2. Source Classification Code (SCC): 2-01-002-01		3. SCC Units: Million Cubic Feet Burned
4. Maximum Hourly Rate: 0.389	5. Maximum Annual Rate: 3410	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: 946
10. Segment Comment: Maximum hourly and annual rates based on operation at 47°F and the lower heating value of natural gas based on 946 Btu/CF.		

Segment Description and Rate: Segment 2 of 2

1. Segment Description (Process/Fuel Type): Internal Combustion Engines; Electric Generation; Biogas Turbine		
2. Source Classification Code (SCC): 2-01-999-99		3. SCC Units: Million Cubic Feet Burned (all Gaseous Fuels)
4. Maximum Hourly Rate: 0.389	5. Maximum Annual Rate: 3,410	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: 946
10. Segment Comment: Any combination of natural gas and biogas shall be fired in the combustion turbine. Maximum rate at 47°F with a heat content (MMBtu/SCC) based on the lower heating value (LHV). Maximum sulfur content has been limited to 1 grain/100cf.		

EMISSIONS UNIT INFORMATION

Section [1] of [2]

D. SEGMENT (PROCESS/FUEL) INFORMATION (CONTINUED)

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:		

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] of [2]

E. EMISSIONS UNIT POLLUTANTS

List of Pollutants Emitted by Emissions Unit

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
NO _x	025	028	EL
CO			EL
PM/PM ₁₀			EL
VOC			EL
SO ₂			EL

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**

(Optional for unregulated emissions units.)

Potential, Estimated Fugitive, and Baseline & Projected Actual 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: NO _x		2. Total Percent Efficiency of Control: 90% +	
3. Potential Emissions: 22.1 lb/hour 97.0 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: Reference: BACT Determination		7. Emissions Method Code:	
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: Annual NO _x = 22.1 lb/hr x 8,760 hr/yr / 2,000 lb/ton = 96.8 TPY (Set at 97.0 by PSD Permit) <p>22.1 lb/hr emission limit is based on a simple 4-hour moving average commencing with the beginning of a start up or ending at the conclusion of a shut down of the unit.</p>			
11. Potential, Fugitive, and Actual Emissions Comment: Emissions based on allowables as specified in the PSD and Title V permits.			

**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: Rule	2. Future Effective Date of Allowable Emissions: N/A
3. Allowable Emissions and Units: 15 ppmvd at 15% oxygen	4. Equivalent Allowable Emissions: 22.1 lb/hour 97.0 tons/year
5. Method of Compliance: Continuous Emissions Monitor System (CEMS) (EPA Method 20 if Requested by the Department)	
6. Allowable Emissions Comment (Description of Operating Method): Allowable emissions based on the application of BACT as required by Rule 62-212, F.A.C. and as determined by the Department. Excess emissions allowed per condition A.11. of the title V Operating Permit and Rule 62-210.700(1) & (5), F.A.C.	

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):	

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**

(Optional for unregulated emissions units.)

Potential, Estimated Fugitive, and Baseline & Projected Actual 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: CO		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 27.8 lb/hour 127.0 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: Reference: BACT Determination		7. Emissions Method Code:	
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: Annual CO = 27.8 lb/hr x 8,760 hr/yr / 2,000 lb/ton = 121.8 TPY (Set at 127.0 by PSD and Title V Permit)			
11. Potential, Fugitive, and Actual Emissions Comment: Emissions based on allowables as specified in the PSD and Title V permits.			

**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: Rule	2. Future Effective Date of Allowable Emissions: N/A
3. Allowable Emissions and Units: 30 ppmvd at 15% oxygen	4. Equivalent Allowable Emissions: 27.8 lb/hour 127.0 tons/year
5. Method of Compliance: Continuous Emissions Monitor System (CEMS) (EPA Method 20 if Requested by the Department)	
6. Allowable Emissions Comment (Description of Operating Method): Allowable emissions based on the application of BACT as required by Rule 62-212, F.A.C. and as determined by the Department. Excess emissions allowed per condition A.11. of the Title V Operating Permit and Rule 62-210.700(1) & (5), F.A.C.	

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):	

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**

(Optional for unregulated emissions units.)

Potential, Estimated Fugitive, and Baseline & Projected Actual 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/PM₁₀	2. Total Percent Efficiency of Control: N/A
3. Potential Emissions: 5 lb/hour 21.9 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: Reference: PSD Permit	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
<p>10. Calculation of Emissions: All PM is assumed to be PM₁₀.</p> <p>Annual PM = 5 lb/r x 8,760 hr/yr / 2,000 lb/ton = 21.9 TPY</p>	
<p>11. Potential, Fugitive, and Actual Emissions Comment:</p> <p>Emissions based on BACT as specified in the PSD and Title V permits. The reported rates reflect operation at 47°F.</p>	

**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: Rule	2. Future Effective Date of Allowable Emissions: N/A
3. Allowable Emissions and Units: 5 lb/hr	4. Equivalent Allowable Emissions: 5 lb/hour 21.9 tons/year
5. Method of Compliance: EPA Method 5 or 17	
6. Allowable Emissions Comment (Description of Operating Method): Allowable emissions based on the application of BACT as required by Rule 62-212, F.A.C. and as determined by the Department.	

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):	

**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: Rule	2. Future Effective Date of Allowable Emissions: N/A
3. Allowable Emissions and Units: 10 ppmvd @ 15% O₂	4. Equivalent Allowable Emissions: 4 lb/hour 17.4 tons/year
5. Method of Compliance: EPA test methods 18 or 25A	
6. Allowable Emissions Comment (Description of Operating Method): Allowable emissions based on the application of BACT as required by Rule 62-212, F.A.C. and as determined by the Department. Excess emissions allowed per condition A.11. of the Title V Operating Permit and Rule 62-210.700(1) & (5), F.A.C.	

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):	

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
 POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**

(Optional for unregulated emissions units.)

Potential, Estimated Fugitive, and Baseline & Projected Actual 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: SO ₂		2. Total Percent Efficiency of Control: N/A	
3. Potential Emissions: 1.1 lb/hour 4.9 tons/year		4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: Reference: PSD Permit		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: $\text{SO}_2 \text{ (lb/hr)} = 368.3 \times 10^6 \text{ Btu/hr} / 946 \text{ Btu/CF} \times 1 \text{ gr/100CF} / 7,000 \text{ gr/lbm} \times 64/32$ $= 1.11 \text{ lb/hr}$ $\text{Annual SO}_2 = 1.1 \text{ lb/hr} \times 8,760 \text{ hr/yr} / 2,000 \text{ lb/ton}$ $= 4.9 \text{ TPY}$			
11. Potential, Fugitive, and Actual Emissions Comment: Emissions based on sulfur content limitation specified in the PSD and Title V permits.			

**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: N/A
3. Allowable Emissions and Units: Sulfur Content 1 gr/100CF	4. Equivalent Allowable Emissions: 1.11 lb/hour 4.9 tons/year
5. Method of Compliance: Custom Fuel Monitoring Schedule	
6. Allowable Emissions Comment (Description of Operating Method): Allowable emissions based on the requested sulfur content 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):	

EMISSIONS UNIT INFORMATION

Section [1] of [2]

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: VE10	2. Basis for Allowable Opacity: <input checked="" 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: Annual, EPA Method 9	
5. Visible Emissions Comment: Visible emissions based on the Department's BACT determination. Excess emissions allowed per condition A.11. of the Title V Operating Permit and Rule 62-210.700(1) & (5), F.A.C.	

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] of [2]

H. CONTINUOUS MONITOR INFORMATION

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

Continuous Monitoring System: Continuous Monitor 1 of 3

1. Parameter Code: EM	2. Pollutant(s): NO_x
3. CMS Requirement:	<input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: Rosemont Model Number: 951C Serial Number: 1000148	
5. Installation Date: 15 April 1995	6. Performance Specification Test Date: 23 May 1995
7. Continuous Monitor Comment: The NO_x CEMS functions as a surrogate to the monitoring requirements of 40 CFR 60.334 and a requirement of the Acid Rain Program. It is requested that the renewed Title V Operating Permit and revised PSD permit specify the NO_x CEMS as the Reference Method and that it be operated and maintained in accordance with 40 CFR Part 75.	

Continuous Monitoring System: Continuous Monitor 2 of 3

1. Parameter Code: EM	2. Pollutant(s): O₂
3. CMS Requirement:	<input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: Servomex Model Number: 1400 B Serial Number: 01420/B409	
5. Installation Date: 15 April 1995	6. Performance Specification Test Date: 23 May 1995
7. Continuous Monitor Comment: The unit is to be operated and maintained in accordance with 40 CFR Part 75.	

EMISSIONS UNIT INFORMATION

Section [1] of [2]

H. CONTINUOUS MONITOR INFORMATION (CONTINUED)

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

Continuous Monitoring System: Continuous Monitor 3 of 3

1. Parameter Code: EM	2. Pollutant(s): CO ₂
3. CMS Requirement:	<input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
4. Monitor Information... Manufacturer: Siemens Model Number: Ultramat 5E Serial Number: EO-990	
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] of [2]

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: <u>OC-EU1-I1</u> <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 checked="" type="checkbox"/> Attached, Document ID: <u>OC-EU1-I2</u> <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 type="checkbox"/> Attached, Document ID: <u>N/A</u> <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 checked="" type="checkbox"/> Attached, Document ID: <u>OC-EU1-I4</u> <input type="checkbox"/> Previously Submitted, Date _____ <input 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 checked="" type="checkbox"/> Attached, Document ID: <u>OC-EU1-I6</u> 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 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] of [2]

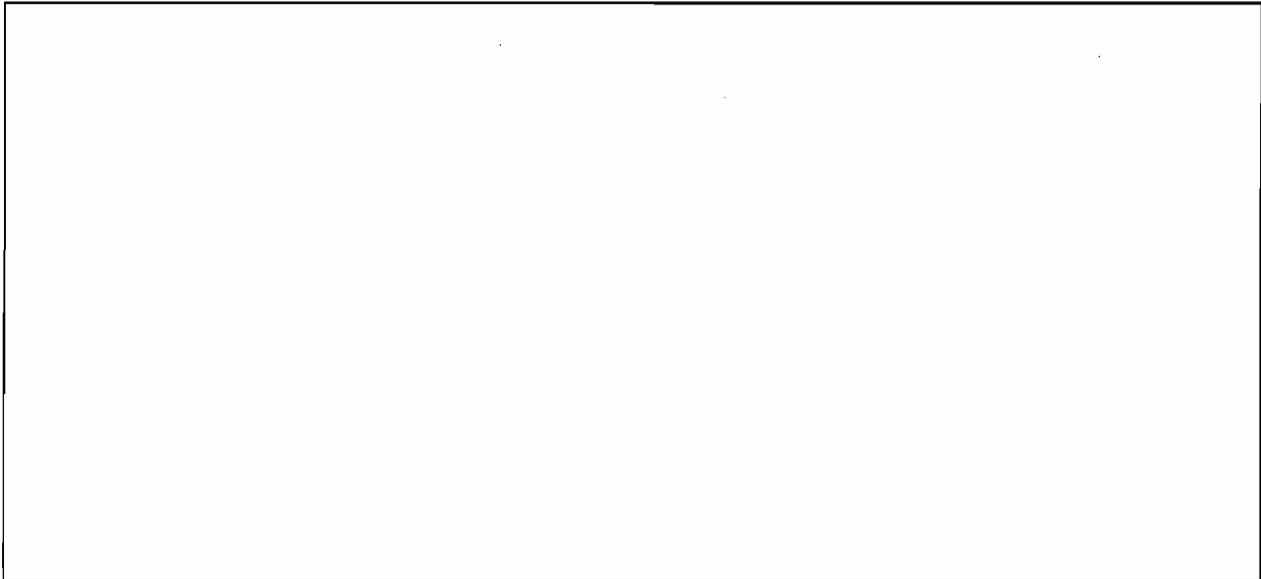
Additional Requirements for Air Construction Permit Applications -N/A

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

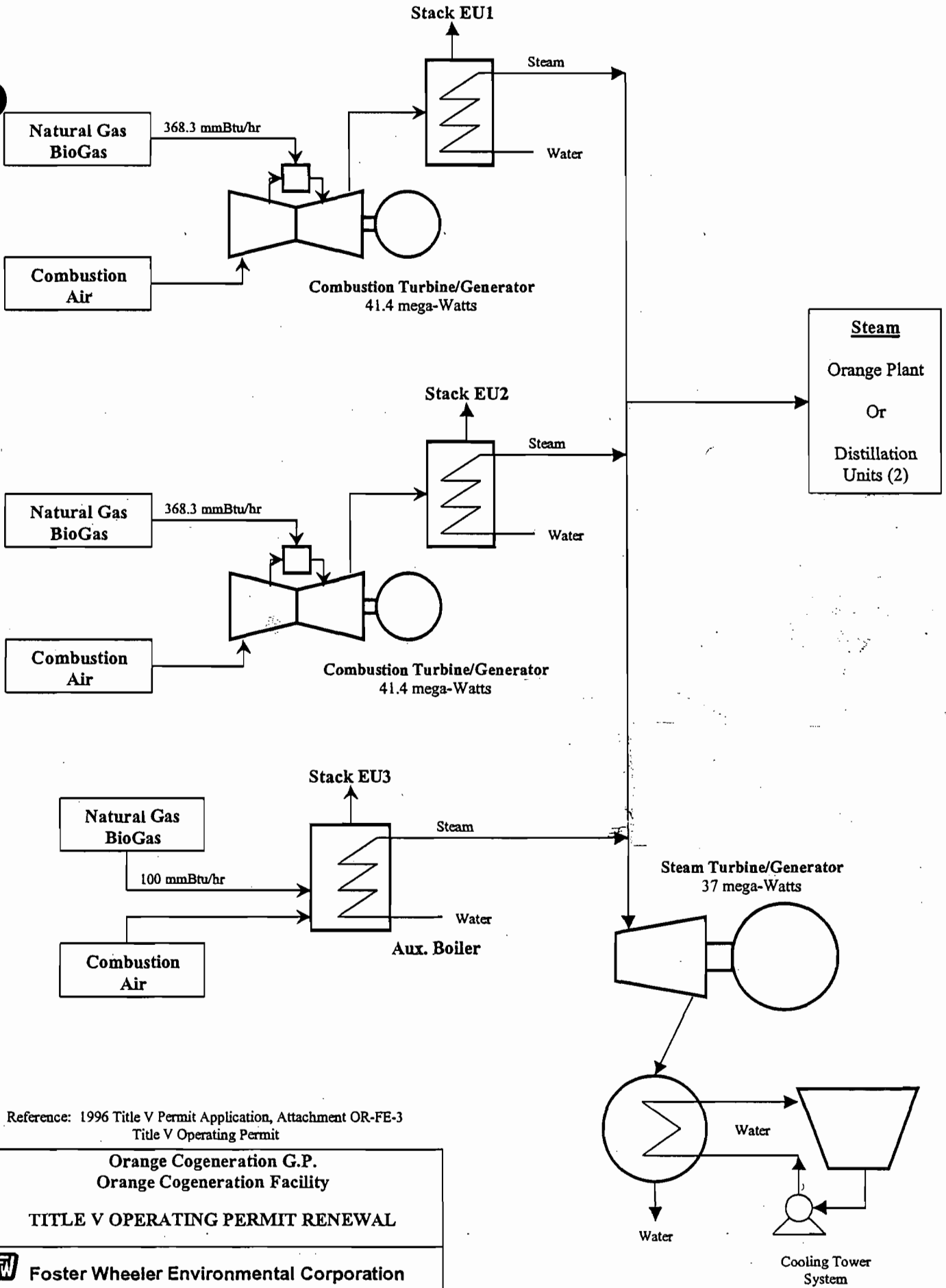
Additional Requirements for Title V Air Operation Permit Applications

1. Identification of Applicable Requirements <input checked="" type="checkbox"/> Attached, Document ID: <u>OC-EU1-IV1</u>
2. Compliance Assurance Monitoring <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
3. Alternative Methods of Operation <input checked="" type="checkbox"/> Attached, Document ID: <u>OC-EU1-IV3</u> <input type="checkbox"/> Not Applicable
4. Alternative Modes of Operation (Emissions Trading) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" 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 checked="" type="checkbox"/> Acid Rain Part (Form No. 62-210.900(1)(a)) <input checked="" type="checkbox"/> Attached, Document ID: <u>OC-EU1-IV4</u> <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

Additional Requirements Comment



**Attachment OC-EU1-I1
Process Flow Diagram**



Reference: 1996 Title V Permit Application, Attachment OR-FE-3
 Title V Operating Permit

Orange Cogeneration G.P.
Orange Cogeneration Facility

TITLE V OPERATING PERMIT RENEWAL

Foster Wheeler Environmental Corporation

Scale: N/A	Prepared: DJG	File: OC-FI-003.doc
Date: 5/20/02	Approved:	Document ID: OC-FI-003

**Attachment OC-EU1-I2
Fuel Analysis or Specification**

Fuel Analysis or Specification Emission Unit 1, 2, and 3 – Natural Gas

Date: July 2, 2007

Station: Perry Stream #1

Source: Florida Gas Transmission Line web site

(<http://www.hottap.panhandleenergy.com/index.jsp?companyName=FGT&pg=dailyAverage>)

Heat Content:	1033 Btu/SCF
Carbon Dioxide:	0.864%
Nitrogen (N):	0.404%
Methane:	95.802%
Ethane:	2.203%
Propane:	0.424%
Iso-Butane:	0.089%
N-Butane:	0.087%
Iso-Pentane:	0.038%
N-Pentane:	0.024%
C6:	0.063%

Total Sulfur: 0.037 gr/hcf

The above analysis is subject to the following disclosures from the FGT website:

The data contained herein is preliminary data and therefore should be used for contemporaneous operational purposes only and may be subject to change at month end. This data is provided to assist out customers in tracking their gas usage as closely as possible on a real time basis. The information contained on this web page is not to be considered billable information. This data will be subject to additional verification and possible modification prior to billing.

Florida Gas makes no warranty or representation whatsoever as to the accuracy of the information provided. This information is provided on a best efforts basis and is an estimate. The information is not used for billing purposes. Florida Gas is not responsible for any reliance on this information by any party.

FGT

Last Updated

6/19/2007 9:00

Station Name	Total Sulfur	
	Previous Day	Avg
	ppm	Grains/hcf
Perry 36" Stream #1	06/18/2007	06/18/2007
Perry 30" Stream #2	0.585	0.037
Perry 24" Stream #3	2.308	0.144
Brooker 24" Stream	2.680	0.167
	3.862	0.241

Florida Gas makes no warranty or representation whatsoever as to the accuracy of the This information is provided on a best efforts basis and is an estimate.
The information is not used for billing purposes.
Florida Gas is not responsible for any reliance on this information by any party.

Stream History

Gas Day	Index	Perry 36"	Perry 36"	Perry 30"	Perry 30"
		Stream #1	Stream #1	Stream #2	Stream #2
		15SA36PSUL.A	15SA30PSUL.A		
		Avg ppm	Avg Grains/hcf	Avg ppm	Avg Grains/h
06/17/2007	33	0.000	0.000	0.000	0.000
06/16/2007	32	0.000	0.000	0.000	0.000
06/15/2007	31	0.000	0.000	0.000	0.000
06/14/2007	30	0.000	0.000	0.000	0.000
06/13/2007	29	0.000	0.000	0.000	0.000
06/12/2007	28	0.000	0.000	0.000	0.000
06/11/2007	27	0.000	0.000	0.000	0.000
06/10/2007	26	0.000	0.000	0.000	0.000
06/09/2007	25	0.000	0.000	0.000	0.000
06/08/2007	24	0.000	0.000	0.000	0.000
06/07/2007	23	0.000	0.000	0.000	0.000
06/06/2007	22	0.000	0.000	0.000	0.000
06/05/2007	21	0.000	0.000	0.000	0.000
06/04/2007	20	0.000	0.000	0.000	0.000
06/03/2007	19	0.000	0.000	0.000	0.000
06/02/2007	18	0.000	0.000	0.000	0.000
06/01/2007	17	0.000	0.000	0.000	0.000
05/31/2007	16	0.000	0.000	0.000	0.000
05/30/2007	15	0.000	0.000	0.000	0.000
05/29/2007	14	0.000	0.000	0.000	0.000
05/28/2007	13	0.585	0.037	2.308	0.144
05/27/2007	12	0.585	0.037	2.308	0.144
05/26/2007	11	0.585	0.037	2.308	0.144
05/25/2007	10	0.585	0.037	2.308	0.144
05/24/2007	9	0.585	0.037	2.308	0.144
05/23/2007	8	0.585	0.037	2.308	0.144
05/22/2007	7	0.585	0.037	2.308	0.144
05/21/2007	6	0.585	0.037	2.308	0.144
05/20/2007	5	0.585	0.037	2.308	0.144
05/19/2007	4	0.585	0.037	2.308	0.144
05/18/2007	3	0.585	0.037	2.308	0.144
05/17/2007	2	0.585	0.037	2.308	0.144
05/16/2007	1	0.585	0.037	2.308	0.144

\\gthou-apgc01p\GCUsers\fgt\fgtscada.txt

**Attachment OC-EU1-I4
Procedures for Startup and Shutdown**

Procedures for Startup/Shutdown – Emission Unit 1 and 2

Start-up for the combustion turbine (CT) begins with "lighting off" of the machine on natural gas. A period of from two to several hours is required to allow metal temperatures in the heat recovery steam generator (HRSG) and in the steam turbine to equilibrate without undue metal stress, during this time the unit is placed "on the line" and begins sending electrical power to the grid at reduced loads to allow equipment to come up to pressures and temperatures.

NO_x emissions are controlled by use of dry-low NO_x combustors during start-up and shutdown and continuously monitored along with O₂ concentrations. If excess emissions occur during start-up or shutdown, the nature and cause of the event are identified and recorded. Corrective actions are taken when necessary to correct problems and preventative measures adopted to avoid future problems. At all times, including start-up and shutdown, Best Operating Practices are adhered to and all efforts to minimize both the level and duration of excess emissions are undertaken.

Shutdown is performed by reducing the unit load (Electrical Production) to a minimum level, opening the breaker, which disconnects the unit from the electrical grid, shutting off the fuel and coasting down to stop.

Reference: 1996 Title V Permit Application

**Attachment OC-EU1-I6
Compliance Demonstration Reports**

SOURCE TEST REPORT
FOR
CONTINUOUS EMISSION MONITOR
RELATIVE ACCURACY TEST AUDITS

COMBUSTION TURBINE - CT-1 (EU 001)
COMBUSTION TURBINE - CT-2 (EU 002)
USING NATURAL GAS FUEL

ORANGE COGENERATION FACILITY
BARTOW, FLORIDA

FDEP PERMIT NUMBER 1050231-009-AV
FACILITY ID No. 1050231

FEBRUARY 26 AND 27, 2007

PREPARED FOR:

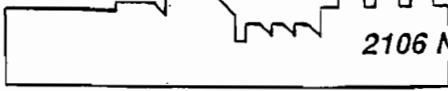
NORTHERN STAR GENERATION
1901 CLEAR SPRINGS ROAD
BARTOW, FLORIDA 33830

PREPARED BY:

AIR CONSULTING AND ENGINEERING, INC.
2106 NW 67TH PLACE, SUITE 4
GAINESVILLE, FLORIDA 32653
(352) 335-1889

436-07-01

ACE
AIR CONSULTING
& ENGINEERING, INC.



2106 N.W. 67th Place • Suite 4 • Gainesville, Florida • 32653
(352) 335-1889 FAX (352) 335-1891

REPORT CERTIFICATION

To the best of my knowledge, all applicable field and analytical procedures comply with the Florida Department of Environmental Protection requirements and all test data and plant operating data are true and correct.

Dagmar Fick

Dagmar Fick, Staff Engineer

3/27/2007

Date

1.0 INTRODUCTION

On February 26 and 27, 2007, Air Consulting and Engineering, Inc. (ACE) performed Relative Accuracy Test Audits (RATA) for the Continuous Emission Monitoring Systems (CEMS) serving Combustion Turbines CT-1 (EU 001) and CT-2 (EU 002) at the Orange Cogeneration Limited Partnership (Orange Cogen) facility in Bartow, Florida.

The United States Environmental Protection Agency (EPA) Reference Methods 7E and 3A were utilized for Oxides of Nitrogen (NO_x) emissions and Oxygen (O_2) content on CT-1 and CT-2.

An Eco Physics Model CLD 70S NO_x analyzer and a Servomex Model 1440 O_2 analyzer were used to conduct the RATA.

Ms. Gwynne Johnson of Northern Star Generation coordinated testing and provided the production data.

2.0 SUMMARY AND DISCUSSION OF RESULTS

Tables 1 and 2 demonstrate the relative accuracy results for CT-1 and CT-2, respectively.

CT-1 and CT-2 CEMS showed relative accuracies of 11.6% and 14.53% with the reference method testing in terms of pounds per million BTU (lbs/MMBTU) of NO_x emission. The bias adjustment factor was 1.000 for both CT-1 and CT-2. The Code of Federal Regulations Title 40 Part 60 Specifications call for a relative accuracy of $\pm 7.5\%$ for annual testing or, for sources with low NO_x emissions rates (≤ 0.200 lbs/MMBTU), when a NO_x-diluent CEMS fails to achieve the relative accuracy of $\leq 7.5\%$, the CEMS pass if the monitoring systems' mean value from the RATA is within ± 0.015 lbs/MMBTU of the reference method mean value. The CEMS demonstrated mean differences from the RM testing of -0.0044 (CT-1) and -0.0055 (CT-2) lbs/MMBTU, which are less than the 0.015 lbs/MMBTU difference necessary to qualify for annual RATA

Both sources qualify as "low emitters" with emissions less than or equal to 0.200 pounds per million BTU (lbs/MMBTU) demonstration.

Both units were operated on natural gas.

Complete emission summaries and data logger records are presented in Appendices B and C.

**Table 1. Relative Accuracy Test Audit Data
 Combined Cycle Combustion Turbine with HRSG - CT-1 (EU 001)
 Orange Cogeneration Facility
 Bartow, Florida
 February 26, 2007**

NOx as ppm dry

Run No.	Time	Reference Method			CEMS NOx lbs/MMBTU	Difference NOx lbs/MMBTU
		NOx ppm	O2 %	lbs/MMBTU		
1	0733-0757	11.70	15.01	0.0432	0.0463	-0.0031
2	0807-0831	11.40	14.92	0.0414	0.0462	-0.0048
3	0839-0903	12.17	14.89	0.0440	0.0482	-0.0042
4	0919-0943	11.56	14.87	0.0417	0.0464	-0.0047
5	0952-1016	11.45	14.89	0.0414	0.0465	-0.0051
6	1028-1052	11.49	14.97	0.0421	0.0464	-0.0043
7	1110-1134	11.69	15.01	0.0431	0.0472	-0.0041
8	1733-1757	11.41	14.95	0.0417	0.0468	-0.0051
9	1807-1831	11.61	14.93	0.0423	0.0468	-0.0045
Averages:				0.0423	0.0468	-0.0044
Number of Runs:						9
Average Difference:						-0.0044
Average Difference of Corrected Runs:						-0.0044
Standard Deviation:						0.0006
Confidence Coefficient:						0.0005
t-Value:						2.306
Relative Accuracy (%):						11.60
Bias Adjustment Factor (BAF):						1.000

Table 2. Relative Accuracy Test Audit Data
 Combined Cycle Combustion Turbine with HRSG - CT-2 (EU-2)
 Orange Cogeneration Facility
 Bartow, Florida
 February 27, 2007

NOx as ppm dry

Run No.	Time	Reference Method			CEMS NOx lbs/MMBTU	Difference NOx lbs/MMBTU
		NOx ppm	O2 %	lbs/MMBTU		
1	0705-0729	10.85	14.95	0.0395	0.0444	-0.0049
2	0742-0806	10.80	14.91	0.0392	0.0447	-0.0055
3	0822-0846	10.77	14.92	0.0391	0.0442	-0.0051
4	0857-0921	8.16	17.04	NA	NA	NA
5	1715-1740	11.02	14.85	0.0396	0.0460	-0.0064
6	1747-1811	10.92	15.04	0.0405	0.0457	-0.0052
7	1818-1843	10.83	15.04	0.0402	0.0460	-0.0058
8	1857-1921	10.93	15.04	0.0406	0.0455	-0.0049
9	1929-1954	10.73	15.07	0.0400	0.0454	-0.0054
10	2001-2025	10.69	14.96	0.0391	0.0452	-0.0061
Averages:				0.0398	0.0452	-0.0055
Number of Runs:						9
Average Difference:						-0.0055
Average Difference of Corrected Runs:						-0.0054
Standard Deviation:						0.0005
Confidence Coefficient:						0.0004
t-Value:						2.306
Relative Accuracy (%):						14.53
Bias Adjustment Factor (BAF):						1.000

Note: Run 4 was not included in RATA because Unit was down

SOURCE TEST REPORT
FOR
PARTICULATE, CARBON MONOXIDE AND VOLATILE ORGANIC
COMPOUNDS EMISSIONS

COMBUSTION TURBINE 1 - CT-1 (EU 001)
USING NATURAL GAS FUEL

ORANGE COGENERATION FACILITY
BARTOW, FLORIDA

FDEP PERMIT NUMBER 1050231-009-AV
FACILITY ID No. 1050231

FEBRUARY 26, 2007

PREPARED FOR:

NORTHERN STAR GENERATION
1901 CLEAR SPRINGS ROAD
BARTOW, FLORIDA 33830

PREPARED BY:

AIR CONSULTING AND ENGINEERING, INC.
2106 NW 67TH PLACE, SUITE 4
GAINESVILLE, FLORIDA 32653
(352) 335-1889

436-07-01



2106 N.W. 67th Place • Suite 4 • Gainesville, Florida • 32653
(352) 335-1889 FAX (352) 335-1891

REPORT CERTIFICATION

To the best of my knowledge, all applicable field and analytical procedures comply with the Florida Department of Environmental Protection requirements and all test data and plant operating data are true and correct.

Dagmar Fick
Dagmar Fick, Staff Engineer

3/28/2007
Date

1.0 INTRODUCTION

On February 26, 2007, Air Consulting and Engineering, Inc. (ACE) performed annual compliance testing for Particulate Matter (PM), Carbon Monoxide (CO) and Volatile Organic Compounds (VOC) emissions on the Combustion Turbines CT-1 (EU 001) at the Orange Cogeneration Facility (Orange Cogen) in Bartow, Florida. Testing was undertaken to satisfy conditions in the Florida Department of Environmental Protection (FDEP) Permit Number 1050231-009-AV (see Appendix A).

Environmental Protection Agency (EPA) Reference Method 5 was utilized for PM testing, EPA Method 10 for CO and EPA 25A for VOC. Oxygen (O₂) was measured using EPA Method 3A. Sulfur Dioxide (SO₂) emissions were calculated from the fuel analysis and the production data.

Ms. Gwynne Johnson of Northern Star Generation coordinated testing and provided production data.

2.0 SUMMARY AND DISCUSSION OF RESULTS

Results of the emission tests are summarized in Tables 1 and 2.

The unit was operated on natural gas.

Particulate emissions (Table 1) averaged 0.0108 pounds per million BTU (lbs/MMBTU) and 4.81 pounds per hour (lbs/hr).

Carbon Monoxide emissions (Table 2) averaged 27.12 ppmvd and 25.23 lbs/hr, which are within the permitted standards of 30 ppmvd and 27.8 lbs/hr.

VOC emissions as propane (Table 2) averaged 4.54 ppmvd and 6.64 lbs/hr. The allowable VOC standards is 10 ppmvd.

Sulfur Dioxide emissions, calculate from the fuel analysis, were 0.04 lbs/hr (see Appendix F).

CO and VOC emission data, data logger copies and particulate data are presented in Appendices B, C, and D.

Best Available Copy

Table 1. Particulate Emissions Summary
Combined Cycle Combustion Turbine - CT-1 (EU 001)
Orange Cogeneration Facility
Bartow, Florida
February 26, 2007

Run Number	Time	Stack Flow Rate dscfm	Particulate Emissions		
			gr/dscf	lbs/MMBTU	lbs/hr
1	0735-0839	226948	0.0024	0.0104	4.65
2	0921-1026	227797	0.0028	0.0121	5.44
3	1048-1150	222280	0.0023	0.0100	4.33
Average	—	225675	0.0025	0.0108	4.81

Natural Gas Fd-Factor = 8710 MMBTU/dscf

Table 2. CO and VOC Emissions Summary
 Combined Cycle Combustion Turbine - CT-1 (EU 001)
 Orange Cogeneration Facility
 Bartow, Florida
 February 26, 2007

Run Number	Time	Gas Flow lbs/hr	Heat Input MMBTUH HHV	Oxygen %	CO Emissions			VOC Emissions as Propane dry		
					ppmvd	lbs/MMBTU	lbs/hr	ppmvd	lbs/MMBTU	lbs/hr
1	0733-0903	17710	418.5	14.9	24.97	0.0554	23.19	4.29	1.50E-02	6.266
2	0921-1026	17773	420.0	14.9	26.92	0.0594	24.97	4.37	1.52E-02	6.373
3	1048-1150	17757	419.6	15.0	29.46	0.0656	27.53	4.96	1.74E-02	7.288
Average	---	17747	419.4	14.9	27.12	0.0602	25.23	4.54	1.58E-02	6.642

Natural Gas Fd-Factor = 8710 MMBTU/dscf

$$\text{lbs/MMBTU} = \text{ppm}(2.595 \times 10^{-9})\text{MW} (20.9/20.9-\%O_2)(Fd)$$

$$\text{lbs/hr} = (\text{lbs/MMBTU})(\text{Heat Input})$$

$$\text{Heat Input (HHV)} = (\text{gas flow})(1028 \text{ dry Btu/cf})/\text{gas density}/10E6$$

$$\text{Heat Input (LHV)} = (\text{gas flow})(929.81 \text{ dry Btu/cf})/\text{gas density}/10E6 = 379.3 \text{ MMBTUH}$$

SO2 Emissions = 0.04 lbs/hr

Osborn, Scott

To: Osborn, Scott

Subject: FW: TV renewals

Attachments: Orange 2007 RATA & NOx Compliance Test.pdf; Orange 2002 CO,VOC, VE Compliance Test Units 1&2.pdf; Orange 2007 CO,PM,VOC Compliance Test Unit 1.pdf

From: Johnson, Gwynne [mailto:gwynne.johnson@northernstargen.com]

Sent: Wednesday, June 13, 2007 7:39 AM

To: Osborn, Scott

Subject: RE: TV renewals

Scott,

Find attached:

- Orange 2007 NOx RATA & Compliance Tests Units 1 & 2
- Orange 2007 CO, VOC, PM Compliance Test Unit 1
- Orange 2002 CO, VOC, VE Compliance Test Units 1 & 2

We have not done a compliance test on Unit 2, because we were waiting for our engine to return from the Depot. Please call me and I can explain further. Use my cell – 863-860-5428.

Gwynne

6/30/2007

SOURCE TEST REPORT
FOR
OXIDES OF NITROGEN, CARBON MONOXIDE, VOLATILE
ORGANIC COMPOUNDS
AND VISIBLE EMISSIONS

COMBUSTION TURBINE 1 - CT-1 (EU 001)
COMBUSTION TURBINE 2 - CT-2 (EU 002)
USING NATURAL GAS FUEL

ORANGE COGENERATION LIMITED PARTNERSHIP
BARTOW, FLORIDA

FDEP PERMIT NUMBER 1050231-001-AV
FACILITY ID No. 1050231

FEBRUARY 26 AND 27, 2002

PREPARED FOR:

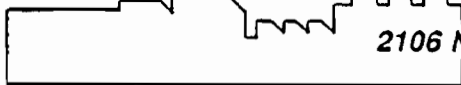
CSW ENERGY, INC.
1901 CLEAR SPRINGS ROAD
BARTOW, FLORIDA 33830

PREPARED BY:

AIR CONSULTING AND ENGINEERING, INC.
2106 NW 67TH PLACE, SUITE 4
GAINESVILLE, FLORIDA 32653
(352) 335-1889

436-02-02

ACE
AIR CONSULTING
& ENGINEERING, INC.



2106 N.W. 67th Place • Suite 4 • Gainesville, Florida • 32653
(352) 335-1889 FAX (352) 335-1891

REPORT CERTIFICATION

To the best of my knowledge, all applicable field and analytical procedures comply with the Florida Department of Environmental Protection requirements and all test data and plant operating data are true and correct.

Dagmar Fick

Dagmar Fick, Mechanical Engineer

3/10/2002

Date

1.0 INTRODUCTION

On February 26 and 27, 2002, Air Consulting and Engineering, Inc. (ACE) performed annual compliance testing for Oxides of Nitrogen (NO_x), Carbon Monoxide (CO), Volatile Organic Compounds (VOC) and Visible Emissions (VE) on Combustion Turbines CT-1 (EU 001) and CT-2 (EU 002) at the Orange Cogeneration Limited Partnership (Orange Cogen) facility in Bartow, Florida. Testing was undertaken to satisfy conditions in the Florida Department of Environmental Protection (FDEP) Permit Number 1050231-001-AV (see Appendix A).

Environmental Protection Agency (EPA) Reference Method 20 (CTs) was utilized for NO_x testing, EPA Method 10 for CO and EPA 25A for VOC. Oxygen (O₂) was measured using EPA Method 3A. Visible emissions evaluations were performed using EPA Method 9. Sulfur Dioxide (SO₂) emissions were calculated from the fuel analysis and the production data.

Ms. Gwynne Johnson of CSW Energy, Inc. coordinated testing and provided production data.

2.0 SUMMARY AND DISCUSSION OF RESULTS

Results of the emission tests are summarized in Tables 1 (CT-1) and 2 (CT-2).

All units were operated on natural gas.

Oxides of Nitrogen emissions from CT-1 averaged 12.10 ppmvd corrected to 15 % O₂ and 16.90 pounds per hour (lbs/Hr). CT-2 averaged 14.29 ppmvd corrected to 15% O₂ and 20.46 lbs/Hr. Permitted emissions are 25 ppmvd @ 15% O₂ and 37.0 lbs/hr for each turbine at present.

Carbon Monoxide emissions averaged 7.16 ppmvd and 6.35 lbs/hr for CT-1 and 9.57 ppmvd and 8.63 lbs/hr for CT-2, which are within the permitted standards of 30 ppmvd and 27.3 lbs/hr.

VOC emissions as propane on a wet basis averaged 0.482 ppmvd and 0.666 lbs/hr for CT-1 and 1.063 ppmvd and 1.508 lbs/hr for CT-2. The allowable standards are 10 ppmvd and 4 lbs/hr.

Average Sulfur Dioxide and Visible Emissions from all units are as follows:

Unit	SO ₂ Emissions* (lbs/hr)	SO ₂ Standard (lbs/hr)	VE Emissions (%)	VE Standard (%)
CT-1	0.029	1.11	0.0	10
CT-2	0.031	1.11	0.0	10

*See Appendix F for calculations

NO_x emission data, strip chart copies with data logger entries and Visible Emission data are presented in Appendices B, C, and D.

Table 1. Oxides of Nitrogen Emissions Summary
 Combined Cycle Combustion Turbine - CT-1 (EU 001)
 Orange Cogeneration Limited Partnership
 Bartow, Florida
 February 26-27, 2002

Run Number	Time	Gas Flow lbs/hr	Heat Input MMBTUH HHV	Oxygen %	NOx Emissions				CO Emissions			VOC Emissions (as Propane)			
					ppmvd	ppmvd 15% O2	lbs/MMBTU	lbs/hr	ppmvd	lbs/MMBTU	lbs/hr	ppm wet	ppmvd	lbs/MMBTU	lbs/hr
1	1341-1511	15716	382.5	15.31	11.32	11.96	0.044	16.83	6.90	0.016	6.24	0.230	0.248	9.22E-04	0.353
2	1526-1710 2/27/02	15699	379.0	15.32	11.46	12.12	0.045	17.06	6.84	0.016	6.14	0.340	0.366	1.37E-03	0.518
3	0711-0844	17518	373.8	15.15	11.91	12.22	0.045	16.82	7.74	0.018	6.66	0.773	0.833	3.01E-03	1.126
Average	---	16311	378.4	15.26	11.56	12.10	0.045	16.90	7.16	0.017	6.35	0.448	0.482	1.77E-03	0.666

Natural Gas Fd-Factor = 8710 MMBTU/dscf

ppmvd = ppmwet/FDA, FDA = 0.928

lbs/MMBTU = ppm(2.595 x 10⁻⁹)/MW (20.9/20.9-%O2)(Fd)

lbs/hr = (lbs/MMBTU)(Heat Input)

MW NOx = 46 lb/lb-mole

MW CO = 28 lb/lb-mole

MW VOC = 44.03 lb/lb-mole

Heat Input (HHV) = (gas flow)(1029 dry Btu/cf)/gas density

Heat Input (LHV) = (gas flow)(930.74 dry Btu/cf)/gas density = 343.5 MMBTUH

SO2 Emissions = 0.029 lbs/hr

Table 2. Oxides of Nitrogen Emissions Summary
 Combined Cycle Combustion Turbine - CT-2 (EU 002)
 Orange Cogeneration Limited Partnership
 Bartow, Florida
 February 27, 2002

Run Number	Time	Gas Flow lbs/hr	Heat Input MMBTUH HHV	Oxygen %	NOx Emissions				CO Emissions			VOC Emissions (as Propane)			
					ppmvd	ppmvd 15% O2	lbs/MMBTU	lbs/hr	ppmvd	lbs/MMBTU	lbs/hr	ppm wet	ppmvd	lbs/MMBTU	lbs/hr
1	0929-1059	16431	382.9	15.30	13.97	14.73	0.055	21.06	8.16	0.019	7.38	0.930	1.002	3.72E-03	1.425
2	1111-1246	16280	379.4	15.35	13.16	14.37	0.056	21.25	9.17	0.022	8.29	0.960	1.034	3.88E-03	1.471
3	1300-1432	16056	374.2	15.39	12.85	13.77	0.051	19.08	11.38	0.027	10.22	1.070	1.153	4.35E-03	1.629
Average	--	16256	378.8	15.35	13.33	14.29	0.054	20.46	9.57	0.023	8.63	0.987	1.063	3.98E-03	1.508

Natural Gas Fd-Factor = 8710 MMBTU/dscf

ppmvd = ppmwet/FDA, FDA = 0.928

lbs/MMBTU = ppm(2.595 x 10⁻⁹)/MW (20.9/20.9-%O2)(Fd)

lbs/hr = (lbs/MMBTU)(Heat Input)

MW NOx = 46 lb/lb-mole

MW CO = 28 lb/lb-mole

MW VOC = 44.03 lb/lb-mole

Heat Input (HHV) = (gas flow)(1030 dry Btu/cf)/gas density

Heat Input (LHV) = (gas flow)(931.72 dry Btu/cf)/gas density = 342.7 MMBTUH

SO2 Emissions = 0.031 lbs/hr

Attachment OC-EU1-IV1
Identification of Applicable Requirements

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
NOTICE OF REVISED PERMITS

In the matter of an
Application for Revised Permits by:

DEF File Nos. AC 53-233852A
AC 53-233851B
PSD-FL-206AGB
Polk County

Mr. William R. Malanius
Director of Project Development
Orange Cogeneration Limited Partnership
23046 Avenida De La Carlota
Laguna Hills, CA 92653

Enclosed are revised permits, Nos. AC 53-233852A & AC 53-233851B and PSD-FL-206GB, and the revised Best Available Control Technology (BACT) determination for two gas combustion turbines and one auxiliary boiler to be located in Bartow, Polk County, Florida. These revised permits and BACT determination change the nitrogen oxides emission standard concentration from 15 parts per million by volume dry, corrected to 15 percent oxygen and ISO ambient standard conditions (15 ppmvd @ 15% O₂ @ ISO) to the observed concentration of 15 ppmvd @ 15% O₂. These revised permits and BACT determination are issued pursuant to Section 403, Florida Statutes.

Any party to this Order (revised permits) has the right to seek judicial review of the revised permits pursuant to Section 120.68, Florida Statutes, by filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 14 days from the date this Notice is filed with the Clerk of the Department.

Executed in Tallahassee, Florida:

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

[Signature]
C. H. Fandy, P.E., Chief
Bureau of Air Regulation
2600 Blair Stone Road
Tallahassee, Florida 32399-2400
904-488-1344

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this NOTICE OF REVISED PERMITS and all copies were mailed by certified mail before the close of business on 3-7-95 to the listed persons:

Clerk Stamp

FILED AND ACKNOWLEDGMENT
FILED on this date, pursuant to
§120.52(11), Florida Statutes,
with the designated Department
Clerk, receipt of which is hereby
acknowledged.

[Signature] 3-7-95
Clerk Date

Copies furnished to:

- B. Thomas, SWD
- J. Harper, EPA
- J. Busyak, NPS
- L. Novak, PCESD
- K. Kosky, P.E., KRM
- T. Donovan, OCLP

FINAL DETERMINATION

Orange Cogeneration L.P.

AC 53-233852A & AC 53-233851B

PSD-FL-206GB

An Intent to Issue Revised Permits for Orange Cogeneration Limited Partnership proposed combustion turbines and auxiliary boiler to be located in Bartow, Polk County, Florida, was distributed on December 29, 1994. The Notice of Intent to Issue Revised Permits was published in the Polk County Democrat on January 5, 1995.

Orange Cogeneration Limited Partnership submitted a comment in a letter dated January 26, 1995. It was noted that the nitrogen oxides emission standard in Specific Condition No. 19 had the ISO condition listed and not been revised, which was the purpose of the request. The Department agrees with this comment and has corrected the condition.

The final action of the Department will be to issue the revised permits and BACT as proposed in the Intent to Issue Revised Permits, except for the change noted above.



Department of Environmental Protection

Lawton Chiles
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Virginia B. Wetherell
Secretary

PERMITTEE:
Orange Cogeneration Limited
Partnership
23046 Avenida De La Carlota
Suite 400
Laguna Hills, CA 92653

Permit Number: AC53-233851B
PSD-FL-206B
Expiration Date: April 1, 1998
County: Polk
Latitude/Longitude: 27°52'15"N
81°49'31"W
Project: Two Combustion Turbines

This revised permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Chapters 62-212 and 62-4, Florida Administrative Code (F.A.C.). The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawings, plans and other documents attached hereto and specifically described as follows:

Installation of two natural gas/biogas fired GE LM 6000 (or equivalent) combustion turbines (CT), two heat recovery steam generators and one steam turbine. An auxiliary boiler (AC53-233852) is being permitted separately. The CTs will be equipped with a staged combustion technology dry low-NO_x system to control nitrogen oxides (NO_x) emissions. Each CT will be equipped with a 100 ft. high, 11 ft. diameter stack that will handle approximately 300,000 actual cubic feet per minute of flue gas at 230°F. The cogeneration facility will be located on Clear Springs Road, Bartow, Polk County, Florida.

The UTM coordinates of this facility are Zone 17, 418.75 km East and 3083.0 km North.

The emissions unit(s)/sources shall be constructed in accordance with the permit application, plans, documents, amendments and drawings, except as otherwise noted in the General and Specific Conditions.

Attachments are listed below:

1. Application received July 1, 1993.
2. Department's July 22, 1993 letter.
3. KBN's August 5, 1993 letter.
4. KBN's August 29, 1993 letter.
5. Tables 1 and 2, Allowable Emission Rates.
6. KBN's October 28, 1993 letter.
7. KBN's October 29, 1993 letter.
8. Department's February 18, 1994 letter.
9. KBN's March 11, 1994 letter.
10. Department's March 29, 1994 letter.
11. KBN's June 22, 1994 letter.
12. KBN's October 10, 1994 letter.

Page 1 of 9

Protect, Conserve and Manage Florida's Environment and Natural Resources

Printed on recycled paper.

PERMITTEE:
Orange Cogeneration Limited
Partnership

Permit Number: AC53-233851B
(PSD-FL-206B)
Expiration Date: April 1, 1998

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, F.S. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in Subsections 403.087(6) and 403.722(5), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgement of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of F.S. and Department rules, unless specifically authorized by an order from the Department.
6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

Page 2 of 9

PERMITTEE:
Orange Cogeneration Limited
Partnership

Permit Number: AC53-233851B
(PSD-FL-206B)
Expiration Date: April 1, 1998

GENERAL CONDITIONS:

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:

- a. Have access to and copy any records that must be kept under the conditions of the permit;
- b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and,
- c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:

- a. a description of and cause of non-compliance; and,
- b. the period of noncompliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the F.S. or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and F.S. after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by F.S. or Department rules.

PERMITTEE:
Orange Cogeneration Limited
Partnership

Permit Number: AC53-233851B
(PSD-FL-206B)
Expiration Date: April 1, 1998

GENERAL CONDITIONS:

11. This permit is transferable only upon Department approval in accordance with Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit or a copy thereof shall be kept at the work site of the permitted activity.

13. This permit also constitutes:

- (x) Determination of Best Available Control Technology (BACT)
- (x) Determination of Prevention of Significant Deterioration (PSD)
- (x) Compliance with New Source Performance Standards (NSPS)

14. The permittee shall comply with the following:

a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.

b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.

c. Records of monitoring information shall include:

- the date, exact place, and time of sampling or measurements;
- the person responsible for performing the sampling or measurements;
- the dates analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used; and,
- the results of such analyses.

PERMITTEE:
Orange Cogeneration Limited
Partnership

Permit Number: AC53-233851B
(PSD-FL-206B)
Expiration Date: April 1, 1998

ORANGE COGENERATION LIMITED PARTNERSHIP
AC53-233851B (PSD-FL-206B)
42 MW COMBINED CYCLE GAS TURBINES

GENERAL CONDITIONS:

15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

SPECIFIC CONDITIONS:

This permit replaces permit No. AC53-233851/PSD-FL-206 and amended construction permit No. AC53-233851A/PSD-FL-206A.

Construction Requirements

1. Dry low-NO_x combustion technology systems shall be installed and operated on each combustion turbine (CT).
2. A system to continuously monitor the fuel consumption, nitrogen oxides emissions, and oxygen content of the flue gas shall be installed on each CT.
3. The heat recovery steam generator (HRSG) installed on each CT shall not be equipped with an auxiliary duct burner.
4. Each CT stack shall be equipped with stack sampling facilities (sample ports, work platforms, access, and electrical power) that meet the specifications given in Rule 62-297.345, F.A.C.

Operation Limitations

5. The CTs shall comply with all requirements of 40 CFR 60, Subpart GG (July, 1993), Standard of Performance for Stationary Gas Turbines, which is adopted by reference in Rule 62-296.800(2)(a), F.A.C.
6. The facility is allowed to operate continuously, 8760 hours per year.
7. Only natural gas/biogas fuel shall be used for fuel at this facility.
8. Each CT shall have a maximum heat input of 368.3 MMBtu/hr, when using dry low NO_x technology to control NO_x emissions.
9. The operation of this facility shall not create a nuisance or discharge air pollutants that cause or contribute to objectionable odors pursuant to Rule 62-296.320(2), F.A.C.

Table 1 - Allowable Emission Rates^b for each Combustion Turbine

Pollutant ^a	Control ^c	Concentration	Date	Maximum Corrected ^e	Basis for Limit	
NO _x	DLN	25 ppavd	Initial	37.0	161.9	BACT
		at 15% O ₂				
NO _x	DLN	15 ppavd	1/1/98	22.1	97.0	BACT
		at 15% O ₂				
CO	GC ^f	30 ppavd		27.8	127.0	BACT
PM/PM ₁₀	GC ^f			5	21.9	BACT
VOC	GC ^f	10 ppavd		3.98	17.4	BACT

- a Pollutant emissions are based on 8,760 hours per year operation firing natural gas or biogas.
- b Allowable emissions, lbs/hr, at different inlet temperatures shall not exceed the rates given in the manufacturer's data required by specific condition No. 15.
- c Maximum emission rates not to be exceeded.
- d The NO_x maximum concentration will be lowered to 15 ppavd at 15% O₂ by 1/1/98 using appropriate combustion technology improvements. Should this level of control not be achieved when the initial compliance demonstration stack tests are performed, the permittee must provide the Department with a plan and schedule to meet this standard. NO_x emission concentrations are to be corrected to 15 percent oxygen to demonstrate compliance with the NO_x emissions standard.
- e Dry Low-NO_x (DLN) combustors.
- f Good Combustion.

PERMITTEE:
Orange Cogeneration Limited
Partnership

Permit Number: AC53-233851B
(PSD-FL-206B)
Expiration Date: April 1, 1998

SPECIFIC CONDITIONS:

Emission Limitation

10. Prior to January 1, 1998, the maximum NO_x concentration, 1-hour average, from each CT/HRSG unit, shall not exceed 25 parts per million by volume dry corrected to 15 percent oxygen (25 ppmvd @ 15% O₂), as determined by the procedures in Specific Conditions Nos. 16, 17 and 18.

11. After December 31, 1997, the maximum NO_x concentration, 1-hour average, from each CT/HRSG unit, shall not exceed 15 ppmvd @ 15% O₂, as determined by the procedures in Specific Conditions Nos. 16, 17 and 18. Should the NO_x standard of 15 ppmvd @ 15% O₂ not be achieved during the initial compliance tests, the permittee will provide the Department with a plan and schedule to meet this standard. The permittee shall obtain prior approval from the Department for any air pollution control equipment not addressed in this permit that is needed to meet the NO_x emission standard.

12. The maximum emission rates for particulate matter (PM/PM₁₀), volatile organic compounds (VOC), NO_x, and Carbon monoxide (CO) shall not exceed any of the rates listed in Table 1, Allowable Emission Rates.

13. Visible emissions shall not exceed 10 percent opacity, 6 minute average.

14. The emission rates for sulfur dioxide (SO₂) and sulfuric acid (H₂SO₄) mist, listed in the following table shall be used for inventory purposes only.

Maximum Emission Rates for Each Combustion Turbine
For Inventory and PSD Tracking Purposes Only

Pollutant	Combustion Turbine Dry Low NO _x Combustion	
	lb/hr	TPY
SO ₂	1.11	4.87
H ₂ SO ₄ mist	0.085	0.37

15. Manufacturer's curves for the emission rate correction to other temperatures at different loads shall be provided to DEP for review by January 1, 1998. Until new curves are approved by the Department or the combustion turbines meet the NO_x emission standard of 15 ppmvd @ 15% (whichever occurs first), the stack, operator, and emission data for the proposed combustion turbines in

PERMITTEE:
Orange Cogeneration Limited
Partnership

Permit Number: AC53-233851B
(PSD-FL-206B)
Expiration Date: April 1, 1998

SPECIFIC CONDITIONS:

Table 2-4 (October 28, 1993) will be used. The data will be used to determine compliance with the maximum allowable emission rates of the regulated air pollutants at different air inlet temperatures for these turbines.

Compliance Determination

16. Testing of emissions shall be conducted at 95-100% of the manufacturer's rated heat input based on the average air inlet temperature for the CT during the test. Compliance for NO_x emission limits shall be determined by calculating the concentration of NO_x (ppmvd at 15% O₂) and using the turbine manufacturer's thermal throughput rating for the average air inlet temperature by multiplying the permitted emission limit by the ratio of the tested heat input to the maximum heat input (MMBtu/hr) at this temperature. Compliance with the visible emissions, NO_x, SO₂, CO, PM/PM₁₀, and VOC emission standards shall be determined within 60 days of achieving maximum production but not later than 180 days after initial firing of each CT (40 CFR 60.8). Compliance with the visible emissions limitation and the NO_x and SO₂ emission standards shall be determined annually thereafter. Tests shall be conducted on both natural gas and biogas fuels. If the initial tests or fuel analyses show the emissions of air pollutants from the combustion turbines are independent of the fuel (natural gas or biogas fuel), then annual compliance tests can be conducted while the combustion turbines are burning either fuel.

17. Compliance shall be determined by the following test methods listed in 40 CFR 60, Appendix A (July, 1993).

Pollutant	EPA Method
PM/PM ₁₀ *	5 or 17**
NO _x	20
CO	10
VOC	18 or 25A
Visible Emissions	9

NOTE: No other test methods may be used for compliance testing unless prior Department written approval has been received.

* Assumption is that all PM is PM₁₀.

** Stack flue gas temperature must be less than 320°F to use Method 17.

PERMITTEE:
Orange Cogeneration Limited
Partnership

Permit Number: AC53-233851B
(PSD-FL-206B)
Expiration Date: April 1, 1998

SPECIFIC CONDITIONS:

Monitoring

18. NO_x and oxygen monitoring to meet the requirements of 40 CFR 60, Subpart Gg, shall be accomplished using a continuous emission monitoring (CEM) system. The CEM system shall meet the requirements of 40 CFR 60, Appendix B. The requirements of 40 CFR 75, Appendices A and B, can be substituted for those of 40 CFR 60 provided the minimum criteria of 40 CFR 60 are met. NO_x monitoring to indicate compliance with the BACT limit shall be based on one hour average emissions determined on ppmvd @ 15% O₂.

Administrative Requirement

19. Prior to January 1, 1998, the permittee shall provide a report showing how the allowable NO_x emissions of 15 ppmvd @ 15% O₂ is achieved by the CRTs.

20. The permittee shall provide the Southwest District office with the following notifications required by 40 CFR 60.7:

- When construction commenced within 30 days of commencement of construction
- Anticipated date of initial starting 30 to 60 days prior to startup
- Actual date of startup up within 15 days after the starting.
- Notification of the date of the compliance tests not less than 30 days prior to the test

21. Pursuant to Rule 62-210.370(2), F.A.C., Air Operating Reports, the permittee is required to submit annual reports on the actual operating rates and emissions from this facility. These reports shall include, but are not limited to the following: sulfur content and the lower heating value of the fuel being fired, fuel usage, hours of operation, and air emissions. Annual reports shall be sent to the Department's Southwest District office by March 1 of each calendar year.

22. The permittee, for good cause, may request that this construction permit be extended. Such a request shall be submitted to the Department's Bureau of Air Regulation prior to 60 days before the expiration of the permit (Rule 62-4.090, F.A.C.).

23. An application for an operation permit must be submitted to the Department's Southwest District office at least 90 days prior to the expiration date of this construction permit. To properly apply for an operation permit, the applicant shall submit the appropriate application form, fee, certification that construction was completed noting any deviations from the conditions in the

PERMITTEE:
Orange Cogeneration Limited
Partnership

Permit Number: AC53-233851B
(PSD-FL-206B)
Expiration Date: April 1, 1998

SPECIFIC CONDITIONS:

construction permit, and compliance test reports as required by this permit (Rules 62-4.055 and 62-4.220, F.A.C.).

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

David W. Wetherell
Virginia B. Wetherell, Secretary



Department of Environmental Protection

Lawton Chiles
Governor

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Virginia B. Wetherell
Secretary

PERMITTEE: Orange Cogeneration Limited Partnership
23046 Avenida De La Carlota, Suite 400
Laguna Hills, CA 92653

Permit Number: AC53-233852A
PFD-FL-206B
Expiration Date: April 1, 1996
Latitude/Longitude: 27°52'15"N
81°49'31"W

Project: Auxiliary Boiler
County: Polk

This revised permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Chapters 62-212 and 62-4, Florida Administrative Code (F.A.C.). The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawings, plans, and other documents attached hereto and specifically described as follows:

Installation of a 100 million British thermal unit per hour (MMBtu/hr) natural gas/equivalent biogas fired tube boiler equipped with a 65 foot high, 3.67 foot diameter stack designed to produce approximately 83,000 pounds per hour of saturated steam at 205 pounds per square inch gauge (psig) pressure. The heat input is based on the High Heating Value (HHV) of the fuel. The auxiliary boiler will be located on Clear Springs Road, Bartow, Polk County, Florida 33830.

The UTM coordinates of this facility are Zone 17, 418.75 kmE and 3083.0 kmN.

The emission unit/source shall be constructed in accordance with the permit application, plans, documents, amendments and drawings, except as otherwise noted in the General and Specific Conditions.

Attachments are listed below:

1. Application received July 1, 1993.
2. Department's July 22, 1993 letter.
3. KBN's August 5, 1993 letter.

PERMITTEE:
Orange Cogeneration Limited
Partnership

Permit Number: AC53-233852A
Expiration Date: April 1, 1996

GENERAL CONDITIONS:

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, F.S. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in Subsections 403.087(6) and 403.722(5), F.S., the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgement of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of F.S. and Department rules, unless specifically authorized by an order from the Department.
6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

PERMITTEE:
Orange Cogeneration Limited
Partnership

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Expiration Date: April 1, 1996

GENERAL CONDITIONS:

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:

- a. Have access to and copy any records that must be kept under the conditions of the permit;
- b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and,
- c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:

- a. A description of and cause of non-compliance; and,
- b. The period of non-compliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the F.S. or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, F.S. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

PERMITTEE:
Orange Cogeneration Limited
Partnership

Permit Number: AC53-233852A
Expiration Date: April 1, 1996

GENERAL CONDITIONS:

10. The permittee agrees to comply with changes in Department rules and F.S. after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by F.S. or Department rules.

11. This permit is transferable only upon Department approval in accordance with Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.

12. This permit or a copy thereof shall be kept at the work site of the permitted activity.

13. This permit also constitutes:

- (X) Determination of Best Available Control Technology (BACT)
- (X) Determination of Prevention of Significant Deterioration (PSD)
- (X) Compliance with New Source Performance Standards (NSPS)

14. The permittee shall comply with the following:

a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.

b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rules.

PERMITTEE:
Orange Cogeneration Limited
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Expiration Date: April 1, 1996

GENERAL CONDITIONS:

c. Records of monitoring information shall include:

- the date, exact place, and time of sampling or measurements;
- the person responsible for performing the sampling or measurements;
- the dates analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used; and,
- the results of such analyses.

15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

SPECIFIC CONDITIONS:

Construction Requirements

1. The auxiliary boiler shall be equipped with low-NO_x burners.
2. The boiler stack shall be equipped with stack sampling facilities (sample ports, work platforms, access, electrical power) that meet the specifications given in Rule 62-297.345, F.A.C.

Operation Limitations

3. The auxiliary boiler shall comply with all applicable requirements of 40 CFR 60, Subpart Dc.
4. The boiler is allowed to operate continuously, 8760 hours per year.
5. Only natural gas/equivalent biogas fuel shall be burned in this boiler.
6. The maximum heat input to the boiler, which is based on the high heating value (HHV) of the fuel, shall not exceed 100 MMBtu/hr.
7. The maximum allowable sulfur content (total) of the natural gas/biogas burned in the boiler shall not exceed 1 grain per 100 cubic feet (1 gr/100 CF) of gas.

PERMITTEE:
Orange Cogeneration Limited
Partnership

Permit Number: AC53-233852A
Expiration Date: April 1, 1996

SPECIFIC CONDITIONS:

8. The operation of this boiler shall not emit air pollutants that cause or contribute to objectionable odors.

9. Visible emissions shall not exceed 15 percent opacity.

10. Emissions from the boiler shall not exceed any of the following limits:

Pollutant	lb/MMBtu	lbs/hr	TPY
NO _x	0.13	13.0	56.9
CO	0.10	10.0	43.8
VOC	0.04	4.3	18.8

11. Sulfur dioxide (SO₂) emissions from the boiler shall not exceed 0.003 lb/MMBtu, 0.30 lb/hr, and 1.3 TPY. An analysis of the fuel showing the sulfur content does not exceed 1 grain of total sulfur per 100 cubic feet of gas will be accepted as proof of compliance with the sulfur dioxide emission limit. Total sulfur content of the gas shall be determined by test method ASTM D 1072-80 (40 CFR 60.17 (July, 1993)).

12. Particulate matter (PM/PM₁₀) emissions from the boiler shall not exceed 0.01 lb/MMBtu, 1.0 lb/hr, and 4.4 TPY. No PM/PM₁₀ stack test is required if the visible emissions limitation is less than 15 percent opacity.

Testing Requirements

13. Testing of emissions shall be conducted with the source operating at permitted capacity. Capacity is defined as 90-100% of the maximum operating rate allowed by the permit. If it is impracticable to test at permitted capacity, then sources may be tested at less than 90% of the maximum operating rate allowed by the permit. In this case, subsequent source operation is limited to 110% of the test load until a new test is conducted. Once the unit is so limited, then operation at higher capacities is allowed for no more than fifteen days for purposes of additional compliance testing to regain the rated capacity in the permit, with prior notification to the Department. Compliance with the visible emissions limitation and the NO_x, CO, and VOC emission standards shall be determined within 60 days of achieving maximum production, but not later than 180 days after initial firing of the boiler. Compliance with the visible emissions limitation and the NO_x emission standards shall be determined annually thereafter.

PERMITTEE: Orange Cogeneration Limited Partnership
Permit Number: AC53-233852A
Expiration Date: April 1, 1996

SPECIFIC CONDITIONS:

14. Compliance shall be determined by the following test methods listed in 40 CFR 60, Appendix A (July, 1993).

Pollutant	EPA Method
PM/PM ₁₀ *	5 or 17**
NO _x	7E
CO	10
VOC	18 or 25A
Visible Emissions	9

NOTE: No other test methods may be used for compliance testing unless prior Department written approval has been received.

* Assumption is that all PM is PM₁₀.

** Stack flue gas temperature must be less than 320°F for Method 17.

15. The permittee shall provide the Department's Southwest District office with the following notifications required by 40 CFR 60.7:

- When construction commenced within 30 days of commencement of construction.
- Anticipated date of initial startup, 30 to 60 days prior to startup.
- Actual date of startup within 15 days after the startup.
- Notification of the date of the compliance tests not less than 30 days prior to the tests.

16. Pursuant to Rule 62-210.370(2), F.A.C., Air Operating Reports, the permittee is required to submit annual reports on the actual operating rates and emissions from this facility. These reports shall include, but are not limited to the following: sulfur content and the lower heating value of the fuel being fired, fuel usage, hours of operation, air emission limits, etc. Annual reports shall be sent to the Department's Southwest District office by March 1 of each calendar year.

17. The permittee, for good cause, may request that this construction permit be extended. Such a request shall be submitted to the Department's Bureau of Air Regulation prior to 60 days before the expiration of the permit (Rule 62-4.090, F.A.C.).

18. An application for an operation permit must be submitted to the Department's Southwest District office at least 90 days prior to the expiration date of this construction permit. To properly apply for an operation permit, the applicant shall submit the

PERMITTEE: Orange Cogeneration Limited Partnership
Permit Number: AC53-233852A
Expiration Date: April 1, 1996

SPECIFIC CONDITIONS:

appropriate application form, fee, certification that construction was completed noting any deviations from the conditions in the construction permit, and compliance test reports as required by this permit (Rules 62-4.055 and 62-4.220, F.A.C.).

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

Virginia B. Wetherell
Virginia B. Wetherell, Secretary

Revised Best Available Control Technology (BACT) Determination
 Orange Cogeneration Limited Partnership
 Polk County
 AC53-233852A and AC53-233851B (PSD-FL-206B)

The applicant proposes to construct a 103 gross megawatt (MW) natural gas/biogas fired cogeneration facility in Bartow, Polk County, Florida. Major components of the cogeneration facility are: two combustion turbines (CT), each with a heat recovery steam generator (HRSG), an auxiliary boiler, steam turbine generator, and associated equipment. Both CTs will consume up to 776 million British thermal units per hour (MMBtu/hr) of gas fuel based on the lower heating value (LHV) of the fuel and produce 78 MW of electricity. The HRSGs, which do not use supplemental fuel, produce approximately 100,000 lbs/hr of steam and generate 25 MW of electricity. The fire-tube auxiliary boiler will consume 100 MMBtu/hr of gaseous fuel and produce approximately 83,000 lbs/hr of steam.

The following table lists the estimated maximum emissions from the cogeneration facility.

Pollutant	Two CTs		Auxiliary Boiler	
	lbs/hr	TPY	lbs/hr	TPY
Sulfur dioxide (SO ₂)	2.34	10.3	0.3	1.3
Particulate Matter (PM/PM ₁₀)	10	43.8	1.0	4.4
Nitrogen Oxide (NO _x)	77.0	336.9	13.0	56.9
Carbon Monoxide (CO)	55.6	243.9	10.0	43.8
Volatile Organic Compounds (VOC)	7.96	34.9	4.3	18.8
Sulfuric Acid Mist	0.18	0.79	0.023	0.1

The cogeneration facility requires a BACT determination for NO_x, CO, PM, and VOC. In addition, the auxiliary boiler requires a BACT determination for PM and SO₂.

Date of Receipt of a BACT Application

July 1, 1993

BACT Requested by the Applicant

Pollutant Control	Proposed Limit	Air Pollution Control
-------------------	----------------	-----------------------

Combustion Turbine

PM	0.01 gr/scf*	Clean Fuel (gas) and
NO _x	25 ppmvd @ 15%*	Dry Low-NO _x Combustors
	15 ppmvd @ 15%*	

CO	30 ppmvd	Combustion Controls
VOC	10 ppmvd	Combustion Controls

Auxiliary Boiler

PM	0.01 lbs/MMBtu	Clean Fuel (gas)
NO _x	0.13 lbs/MMBtu	Low-NO _x burners
SO ₂	1 grain/100 CF natural gas	Clean Fuel (natural gas)
CO	0.10 lbs/MMBtu	Combustion Control
VOC	0.043 lbs/MMBtu	Combustion Control

*grains per standard cubic foot
 *parts per million by volume dry at 15 percent oxygen
 Applicant is committed to meeting 15 ppmvd @ 15% O₂ with dry low-NO_x combustors after December 31, 1997.

BACT Determination Procedure

In accordance with Florida Administrative Code Chapter 62-212, this BACT determination is based on the maximum degree of reduction of each pollutant emitted which the Department, on a case by case basis, taking into account energy, environmental and economic impacts, and other costs, determines is achievable through application of production processes and available methods, systems, and techniques. In addition, the regulations state that in making the BACT determination the Department shall give consideration to:

- Any Environmental Protection Agency determination of Best Available Control Technology pursuant to Section 169, and any emission limitation contained in 40 CFR Part 60 (Standards of Performance for New Stationary Sources) or 40 CFR Part 61 (National Emission Standards for Hazardous Air Pollutants).
- All scientific, engineering, and technical material and other information available to the Department.
- The emission limiting standards or BACT determinations of any other state.
- The social and economic impact of the application of such technology.

The EPA currently stresses that BACT should be determined using the "top-down" approach. The first step in this approach is to determine for the emission source in question the most stringent control available for a similar or identical source or source category. If it is shown that this level of control is technically or economically infeasible for the source in question, then the next most stringent level of control is determined and similarly

evaluated. This process continues until the BACT level under consideration cannot be eliminated by any substantial or unique technical, environmental, or economic objections.

The air pollutant emissions from cogeneration facilities can be grouped into categories based upon what control equipment and techniques are available to control emissions from these facilities. Using this approach, the emissions can be classified as follows:

- o Combustion Products (e.g., particulates matter). Controlled generally by good combustion of clean fuels.
- o Products of Incomplete Combustion (e.g., CO). Control is largely achieved by proper combustion techniques.
- o Acid Gases (e.g., NO_x). Controlled generally by gaseous control devices.

Although all of the pollutants addressed in the BACT analysis may be subjected to a specific emission limiting standard as a result of PSD review, the control of "nonregulated" air pollutants is considered in imposing a more stringent BACT limit on a "regulated" pollutant (i.e., particulates, sulfur dioxide, sulfuric acid mist, etc.), if a reduction in "nonregulated" air pollutants can be directly attributed to the control device selected as BACT for the abatement of the "regulated" pollutants.

BACT Pollutant Analysis for the Combustion Turbines (CTs)

Nitrogen Oxides (NO_x)

The emissions of nitrogen oxides represent a significant proportion of the total emissions generated by this project, and need to be controlled if deemed appropriate. As such, the applicant presented an extensive analysis of the different available technologies for NO_x control. The control technologies evaluated were selective catalytic reduction (SCR), wet injection (WI), dry low-NO_x combustor, NO_xOUT process, thermal DeNO_x, and selective noncatalytic reduction (SNCR).

NO_xOUT (urea with catalyst), thermal DeNO_x (ammonia with catalyst), and selective noncatalytic reduction system (ammonia without catalyst) to reduce NO_x emissions from the CT were not feasible because of process constraints (flue gas temperature too low and oxygen content too high).

SCR, dry low-NO_x combustor technology, and wet injection controls were considered feasible.

The applicant has stated that BACT for nitrogen oxides will be met

by using advanced combustor design to limit emissions to 25 ppmvd @ 15% O₂, when burning natural gas/biogas. After December 31, 1997, a limit of 15 ppmvd @ 15% O₂ will be met. Should 15 ppmvd NO_x @ 15% O₂ not be achieved during the initial compliance tests, the permittee will provide the Department with a plan and schedule to meet this standard.

A review of the EPA's BACT/LAER Clearinghouse indicates that the lowest NO_x emission limit established to date for a combustion turbine is 4.5 ppmvd at 15% oxygen. This level of control was accomplished through the use of water injection and a SCR system.

SCR is a post-combustion method for control of NO_x emissions. The SCR process combines vaporized ammonia with NO_x in the presence of a catalyst to form nitrogen and water. The vaporized ammonia is injected into the exhaust gases prior to passage through the catalyst bed. With a new catalyst, the SCR process can achieve up to 90% reduction of NO_x. As the catalyst ages, the maximum NO_x reduction will decrease.

The effect of exhaust gas temperature on NO_x reduction depends on the specific catalyst formulation and reactor design. Generally, SCR units can be designed to achieve effective NO_x control over a 100-300°F operating window within the bounds of 450-800°F, although recently developed zeolite-based catalysts are claimed to be capable of operating at temperatures as high as 950°F.

Most commercial SCR systems operate over a temperature range of about 600-750°F. At levels above and below this window, the specific catalyst formulation will not be effective and NO_x reduction will decrease. Operating at high temperatures can permanently damage the catalyst through sintering of surfaces.

Increased water vapor content in the exhaust gas (as would result from water or steam injection in the gas turbine combustor) can shift the operating temperature window of the SCR reactor to slightly higher levels.

Although technically feasible, the applicant has rejected using SCR on the combined cycle because of economic, energy, and environmental impacts. The applicant has identified the following limitations:

- a) Reduced power output.
- b) Emissions of unreacted ammonia (slip).
- c) Disposal of hazardous waste generated (spent catalyst).
- d) Ammonium bisulfate and ammonium sulfate particulate emissions (ammonium salts) due to the reaction of NH₃ with SO₃ present in the exhaust gases.
- e) The energy impacts of SCR will reduce potential electrical power generation by 0.8 percent.

- f) Incremental cost effectiveness for the application of SCR technology to the Orange Cogeneration L.P. project was considered to be \$7,970 when emissions are at 25 ppm and \$23,510 when emissions are at 15 ppm. Since SCR has been determined to be BACT for gas turbines, the EPA has clearly stated that there must be unique circumstances to consider the rejection of such control on the basis of economics.

In a letter from EPA Region IV to the Department regarding the permitting of a combined cycle facility (Tropicana Products, Inc.), the following statement was made:

"In order to reject a control option on the basis of economic considerations, the applicant must show why the costs associated with the control are significantly higher for this specific project than for other similar projects that have installed this control system or in general for controlling the pollutant."

The cost associated with controlling NO_x emissions must take into account the potential operating problems that can occur with using SCR.

A concern associated with the use of SCR on combustion turbines is the formation of ammonium bisulfate. For the SCR process, ammonium bisulfate can be formed due to the reaction of sulfur in the fuel and the ammonia injected. The ammonium bisulfate formed has a tendency to plug the tubes of the heat recovery steam generator leading to operational problems. As this is the case, SCR has been judged to be technically infeasible in some previous BACT determinations. This salt also increases particulate matter (PM/PM₁₀) emissions.

For natural gas/equivalent biogas firing operation, NO_x emissions can be controlled with up to a 90 percent efficiency using a 1 to 1 or greater ammonia injection ratio. When the injection ratio is lowered, there is not a problem with ammonium bisulfate formation since essentially all of the ammonia is able to react with the nitrogen oxides present in the combustion gases. Based on this strategy, SCR has been both proposed and established as BACT with NO_x emission limits ranging from 11.7 to 25 ppmvd depending on the efficiency of control established.

The applicant has indicated that the total levelized annual operating cost to install SCR on two CTs for this project at 100 percent capacity factor and burning natural gas/equivalent biogas is \$1,648,000. A SCR would reduce the NO_x emissions by 207 TPY during the first 2 years of operation when the CTs emit 25 ppmvd @ 15% O₂. Thereafter, when dry-low NO_x controls are used, a SCR would reduce NO_x emissions by 120 TPY. When these reductions are taken into consideration, the total cost with SCR is \$21,900 per

ton of NO_x removed. This calculated cost is higher than has previously been approved as BACT.

A review of the latest Department BACT determinations show limits of 15 ppmvd (natural gas) using dry low-NO_x combustor technology for gas turbines. Most combustion turbine manufacturers are currently developing programs using both steam/water injection and dry low-NO_x combustor technology to achieve a NO_x emission control level of 9 ppm when firing natural gas. Therefore, this technology will likely be available by 1998.

BACT Determination for NO_x for the CTs by the Department

NO_x Control

The information that the applicant presented and Department calculation indicate that the cost per ton of controlling NO_x for this turbine (\$21,900 per ton) is high compared to other BACT determinations which require SCR. Based on the information presented by the applicant, the Department believes that the use of SCR for NO_x control is not justifiable as BACT at this time.

A review of the permitting activities for combustion turbine proposals across the nation indicates that SCR has been required and most recently proposed for installations with a variety of operating conditions (i.e., natural gas, fuel oil, and various capacity factors). Although the cost and other concerns expressed by the applicant are valid, the Department, in this case, is willing to accept water/steam injection and dry low-NO_x combustor technology design as BACT for this project for a limited time (up to 12/31/97).

It is the Department's understanding that combustion turbine manufacturers are developing programs using either steam/water injection or dry low NO_x combustor technology to achieve a NO_x emission control level of 9 ppm when firing natural gas.

Based on this, the Department has determined to revise and lower the allowable BACT limit for this project to 15 ppmvd at 15% O₂ and is to be achieved no later than 1/1/98.

Carbon Monoxide (CO)

CO emissions are caused by incomplete combustion of the fossil fuel. The applicant investigated the use of combustion control and catalytic oxidation to control CO emission. With combustion control, CO emissions would be 30 ppmvd (236 TPY). With catalytic oxidation, CO emissions would be 10 ppmvd (78 TPY). The annualized cost of the catalyst system is \$834,700 or \$5,280 per ton of CO removed.

BACT Determination for CO for the CTs by the Department

Because catalytic oxidation would increase operation cost by \$5,280 per ton of CO removed, and have no significant reduction in ambient air quality, the Department accepts an emission limit for CO of 30 ppmvd obtained through combustion control as BACT for these CTs.

Volatile Organic Compounds (VOC)

VOC emissions are caused by incomplete combustion of fossil fuel. The applicant proposes to meet an emission limit of 10 ppmvd through the use of clean fuel (natural gas) and combustion controls. This is similar to the BACT applied to other similar sources.

BACT Determinations for VOC for the CTs by the Department

The Department accepts an emission limit for VOC of 10 ppmvd obtained through the use of clean fuel (natural gas) and combustion control as BACT for these CTs.

Particulate Matter (PM/PM₁₀)

PM/PM₁₀ emissions are caused by incomplete combustion and traces of solids in the fuel. Proper combustion of clean fuel will emit only trace amounts of PM/PM₁₀. Each proposed CT will emit 5 lbs/hr of PM/PM₁₀ or about 0.01 grains per standard cubic foot (gr/dscf). This is similar to the PM/PM₁₀ emissions that can be met with the best air pollution control device, a baghouse.

BACT Determination for PM/PM₁₀ for the CTs by the Department

The Department accepts an emission limit for PM/PM₁₀ of 5 lbs/hr and a visible emissions limit of 10 percent opacity as BACT for each CT.

BACT Pollutant Analysis for the Auxiliary Boiler

Nitrogen Oxides (NO_x)

Nitrogen oxide emissions from boilers can be controlled by selective catalytic reduction (SCR), flue gas recirculation (FGR), and low-NO_x combustors.

The applicant proposes to meet a NO_x emission limit of 0.13 lbs/MMBtu through the use of low-NO_x combustors. This emission limit is below the new source performance standard for large boilers. The cost of using SCR or FGR would exceed \$5,000 per ton NO_x removed.

BACT Determination for NO_x for the Auxiliary Boiler by the Department

The Department accepts an emission limit for NO_x of 0.13 lbs/MMBtu as BACT for this auxiliary boiler.

Particulate Matter (PM/PM₁₀), Carbon Monoxide (CO), and Volatile Organic Compounds (VOC)

PM/PM₁₀, CO and VOC are the products of incomplete combustion of fossil fuel. The applicant proposes to meet emission limits of 0.01 lbs PM/MMBtu, 0.10 lbs CO/MMBtu, 0.04 lbs VOC/MMBtu through the use of clean fuel (natural gas/biogas) and good combustion control. Visible emissions shall not exceed 15 percent opacity.

BACT Determination for PM/PM₁₀, CO, and VOC for the Auxiliary Boiler by the Department

The Department accepts the use of clean fuel (natural gas/biogas) and good combustion controls to meet the proposed emission limits for PM/PM₁₀, CO, and VOC as BACT for this auxiliary boiler.

Sulfur Dioxide (SO₂)

Sulfur dioxide emissions are caused by the oxidation of sulfur in the fuel. Natural gas/biogas contains only trace amounts of sulfur - 1 grain per 100 cubic feet (gr/100 CF). This will result in an estimated sulfur dioxide emission of 0.30 lbs/hr. Cleaner fuel is not available and add on controls for SO₂ are not justified at this low emission rate.

BACT Determination for SO₂ for the Auxiliary Boiler by the Department

Natural gas/equivalent biogas fuel containing a maximum of 1 gr/100 CF is accepted as BACT for SO₂ control for this auxiliary boiler.

Summary of the Revised BACT Determination by Department

Pollutant	Emission Limits	EPA Test Methods
COMBUSTION TURBINE		
NO _x	25 ppmvd @ 15% O ₂ until Dec. 31, 1997	20
	15 ppmvd @ 15% O ₂ after Dec. 31, 1997	20
CO	30 ppmvd	10
VOC	10 ppmvd	18 or 25A

PM/PM ₁₀ *	5 lbs/hr	5 or 17**
Visible Emissions	10% Opacity	9
AUXILIARY BOILER		
NO _x	0.13 lbs/MMBtu	7E
PM/PM ₁₀ *	0.01 lbs/MMBtu	5 or 17**
CO	0.10 lbs/MMBtu	10
VOC	0.04 lbs/MMBtu	18 or 25A
SO ₂	1 gr sulfur/100 CF gas	fuel sulfur analysis
Visible Emissions	15% Opacity	9

* Assumption is that all PM is PM₁₀.

** Stack flue gas temperature must be less than 320°F.

Details of the Analysis May be Obtained by Contacting:

Martin Costello, P.E., BACT Coordinator
Department of Environmental Protection
Bureau of Air Regulation
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Recommended by:

Approved by:

C. H. Fancy
C. H. Fancy, P.E., Chief
Bureau of Air Regulation

Date

2/24/95

Virginia B. Wetherell
Virginia B. Wetherell, Secretary
Dept. of Environmental Protection

Date

B-7-95



Jeb Bush
Governor

Department of Environmental Protection

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Colleen M. Castille
Secretary

NOTICE OF FINAL PERMIT

In the Matter of an
Application for Permit by:

Mr. David Kellermeyer
Vice President, EH&S
Northern Star Generation Services Co. LLC
2929 Allen Parkway
Suite 2200
Houston, TX 77019

Title V Permit Revision No. **1050231-009-AV**
Orange Cogeneration Facility
Facility ID **1050231**; ORIS Code: **54365**

Enclosed is FINAL Title V Permit Revision Number 1050231-009-AV for the operation of the Orange Cogeneration Facility, located at 1901 Clear Springs Mine Road, Bartow, Polk County, issued pursuant to Chapter 403, Florida Statutes (F.S.).

Any party to this order (permit) has the right to seek judicial review of the permit pursuant to Section 120.68, F.S., by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Legal Office, and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 (thirty) days from the date this Notice is filed with the Clerk of the permitting authority.

Executed in Tallahassee, Florida.

Trina L. Vielhauer, Chief
Bureau of Air Regulation

"More Protection, Less Process"

Printed on recycled paper.

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF FINAL PERMIT (including the FINAL permit) was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on 2/24/06 to the person(s) listed or as otherwise noted:

David Kellermeyer*
Scott Osbourn, P.E., Golder Associates, Inc.
Mara Nasca, Southwest District Office
U.S. EPA, Region 4 (INTERNET E-mail Memorandum)

Clerk Stamp

FILED AND ACKNOWLEDGMENT FILED,
on this date, pursuant to Section 120.52(7), Florida
Statutes, with the designated agency Clerk, receipt
of which is hereby acknowledged.

Barbara J. Friday 2/24/06
(Clerk) (Date)

FINAL PERMIT DETERMINATION

I. Comment(s).

No comments were received from U.S. EPA, Region 4, concerning the PROPOSED Title V Permit Revision that was posted on the Department's web site on December 22, 2005.

II. Conclusion.

The permitting authority hereby issues the FINAL Permit Revision No. 1050231-009-AV with no changes.

SENDER: COMPLETE THIS SECTION

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

Mr. David Kellermeier
 Vice President, EH&S
 Northern Star Generation Services
 Co. LLC
 2929 Allen Parkway
 Suite 2200
 Houston, TX 77019

2. Article Number

(Transfer from service label)

7005 1160 0004 3034 3250

PS Form 3811, February 2004

Domestic Return Receipt

102595-02-M-1540

COMPLETE THIS SECTION ON DELIVERY

A. Signature

X

T. Ross

 Agent Addressee

B. Received by (Printed Name)

TARIN ROSS

C. Date of Delivery

D. Is delivery address different from item 1? YesIf YES, enter delivery address below: No

3. Service Type

 Certified Mail Express Mail Registered Return Receipt for Merchandise Insured Mail C.O.D.

4. Restricted Delivery? (Extra Fee)

 Yes

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For delivery information visit our website at www.usps.com

Mr. David Kellermeier, Vice President, EH&S

Postage	\$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	\$

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Here

Sent To

Mr. David Kellermeier, Vice President, EH&S

Street, Apt. No.,

or PO Box No. 2929 Allen Parkway

City, State, ZIP+4

Houston, TX 77019

PS Form 3800, June 2002

See Reverse for Instructions

Statement of Basis

Title V Air Operation Permit Revision No. 1050231-009-AV
Northern Star Generation Services Company LLC
Orange Cogeneration Facility
Polk County

This Title V air operation permit revision is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, 62-213, and 62-214. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents, attached hereto or on file with the permitting authority, in accordance with the terms and conditions of this permit.

This facility consists of two combustion turbines (CT) that each exhaust through a heat recovery steam generator (HRSG) and associated stack. The CTs are natural gas and biogas fired. The facility also includes an auxiliary boiler fired with natural gas and biogas, with a separate stack. Neither HRSG is auxiliary fuel fired or equipped with duct burners.

Also included in this permit are miscellaneous unregulated/insignificant emissions units and/or activities.

Compliance Assurance Monitoring (CAM) *does not apply* to these emissions units.

Based on the Title V permit renewal application received July 3, 2002, this facility is *not* a major source of hazardous air pollutants (HAPs). The facility holds ORIS code 54365 under the Federal Acid Rain Program.

This permit revision implements Applicant requests for: 1) incorporation of alternate startup and shutdown emissions limits utilizing a simple 4-hour moving average, 2) revisions to the NOx emission limit averaging time, 3) definition of excess emissions, and 4) recognition of the operational state of "combustor tuning session" for the emission units and the corresponding definition of allowed excess emissions. The revision also removes the auxiliary boiler from the Acid Rain Part of the Title V permit due to its cogeneration status under 40 CFR Part 72.

Changes to the Title V Air Operation Permit follow:

- Specific Condition A.6.

From:

A.6. Emission Limits. The maximum allowable emissions from each unit shall not exceed the emission limitations listed below.

Pollutant	Emission Limits			Basis
	Natural Gas or Biogas	lb/hr	Tons/Year	
NOx	15 ppmvd at 15% oxygen	22.1	97.0	BACT
CO	30 ppmvd	27.8	127.0	BACT
PM/PM ₁₀ *		5**	21.9**	BACT
VOC	10 ppmvd	4**	17.4**	BACT

*All PM is assumed to be PM₁₀.

**For informational purposes only.

{Note: The limitations of Specific Condition A.6. are more stringent than the NSPS nitrogen oxides limitation and thus ensure compliance with 40 CFR 60.332 and 60.334.}

[AC53-233851B (PSD-FL-206B); 1050231-002-AC; and 1050231-007-AC (PSD-FL-206(D), Table 1.)]

To:

A.6. Emission Limits.

- (a) The maximum allowable emissions from each unit shall not exceed the emission limitations listed below.
- (b) The maximum allowable nitrogen oxide emissions resulting from a startup or shutdown of either CT shall not exceed 22.1 lbs/hr, based on a simple 4-hour moving average commencing with the beginning of a start up or ending at the conclusion of a shut down of the unit. The simple 4-hour moving average shall be based on all available data excluding calibration data and periods of emissions due to malfunction during the start up or shut down period.

Pollutant	Emission Limits			Basis
	Natural Gas or Biogas	lb/hr	Tons/Year	
NOx	15 ppmvd at 15% oxygen ***	22.1***	97.0	BACT
CO	30 ppmvd	27.8	127.0	BACT
PM/PM ₁₀ *		5**	21.9**	BACT
VOC	10 ppmvd	4**	17.4**	BACT

*All PM is assumed to be PM₁₀.

**For informational purposes only.

*** Based on a simple 4-hour moving average per Specific Condition A.11.

{Note: The limitations of Specific Condition A.6. are more stringent than the NSPS nitrogen oxides limitation and thus ensure compliance with 40 CFR 60.332 and 60.334.}

[AC53-233851B (PSD-FL-206B); 1050231-002-AC; and 1050231-007-AC (PSD-FL-206(D), Table 1., and 1050231-008-AC, Table 1.)

- Specific Condition A.9.

From:

A.9. Additional Test Requirements. Test results shall be the average of three valid runs. Testing of emissions shall be conducted with the emissions unit operating at permitted capacity, which is defined as 95-100 percent of the maximum heat input rate allowed by this permit, achievable for the average inlet air temperature during the test. If it is impracticable to test at permitted capacity, the emissions unit may be tested at less than permitted capacity. In such cases, subsequent operation is limited by adjusting downward the entire heat input vs. inlet temperature curve by the increment equal to the difference between the maximum permitted heat input value and 105 percent of the value reached during the test. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. Data, curves, and calculations necessary to demonstrate the heat input rate correction at both design and test conditions shall be submitted to the Department with the compliance test report.

Tests shall be conducted on both natural gas and biogas fuels (provided biogas fuels become available) unless previous test results or fuel analysis documents that emissions are independent of fuel fired, in which case tests may be conducted on either fuel.

[AC53-233851B (PSD-FL-206B) and 1050231-002-AC; note that this condition is intended to simplify the requirements of Specific Condition 16. of AC53-233851B]

To:

A.9. Additional Test Requirements. Test results shall be the average of three valid runs. Testing of emissions shall be conducted with the emissions unit operating at permitted capacity, which is defined as 90-100 percent of the maximum heat input rate allowed by this permit, achievable for the average inlet air

temperature during the test. If it is impracticable to test at permitted capacity, the emissions unit may be tested at less than permitted capacity. In such cases, subsequent operation is limited by adjusting downward the entire heat input vs. inlet temperature curve by the increment equal to the difference between the maximum permitted heat input value and 110 percent of the value reached during the test. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. Data, curves, and calculations necessary to demonstrate the heat input rate correction at both design and test conditions shall be submitted to the Department with the compliance test report.

Tests shall be conducted on both natural gas and biogas fuels (provided biogas fuels become available) unless previous test results or fuel analysis documents that emissions are independent of fuel fired, in which case tests may be conducted on either fuel.

[Rules 62-297.310(2) & (2)(b), F.A.C.; AC53-233851B (PSD-FL-206B) and 1050231-002-AC; note that this condition is intended to simplify the requirements of Specific Condition 16. of AC53-233851B.]

- Specific Condition A.10.

From:

A.10. Continuous Monitoring Required. A continuous monitoring system shall be maintained to record fuel consumption. A continuous monitoring system shall be maintained to record oxygen content and emissions of nitrogen oxides in accordance with the requirements of 40 CFR 75 (Acid Rain Program Monitoring). NO_x emissions shall be reported in terms of ppmvd corrected to 15% oxygen.
[Rules 62-4.070(3) and 62-213.440, F.A.C.; AC53-233851B (PSD-FL-206B); and 1050231-007-AC (PSD-FL-206(D)), Specific Condition 18.]

To:

A.10. Alternate Monitoring Plan: Use of NO_x CEMS For Continuous Compliance. Pursuant to 40 CFR 64.2(b)(1)(vi), the applicant has elected to use the existing certified Acid Rain NO_x continuous emissions monitors for continuous compliance in order to be exempted from the Compliance Assurance Monitoring (CAM) requirements contained in 40 CFR 64. The following alternate monitoring may be used to demonstrate compliance with the ppmvd and the lbs/hr standards for NO_x.

- (a) The NO_x CEM data shall be used in lieu of the monitoring system for water-to-fuel ratio and the reporting of excess emissions in accordance with 40 CFR 60.334(b), Subpart GG (CFR dated 2004). The calibration of the water-to-fuel ratio-monitoring device required in 40 CFR 60.335(c)(2) (CFR dated 2004) will be replaced by the 40 CFR 75 certification tests of the NO_x CEMS.
- (b) When requested by the Department, the CEMS emission rates for NO_x on these units shall be corrected to ISO conditions to demonstrate compliance with the NO_x standards established in 40 CFR 60.332. With regard to NSPS Subpart GG, the NO_x CEMS data shall also be used to report excess emissions in accordance with 40 CFR 60.334(j)(1)(iii) and 40 CFR 60.7(c).

{Permitting Note: The purpose of this permit condition is to authorize the use of the existing NO_x CEMS to demonstrate compliance with the applicable NO_x standards. Pursuant to 40 CFR 64.2(b)(1)(vi), this will allow each unit to avoid a Compliance Assurance Monitoring (CAM) Plan for NO_x emissions.}

Alternate Standards and NO_x CEMS Data Exclusion: The following permit conditions establish alternate standards or allow the exclusion of monitoring data for specifically defined periods of startup, shutdown, and documented malfunction of a gas turbine. These conditions apply only if operators employ the best operational practices to minimize the amount and duration of emissions during such episodes. For the following identified operational periods, 1-hour NO_x emissions rate values may be excluded from the 4-hour moving compliance averages in accordance with the corresponding requirements.

- (1) Startup, Shutdown, and Malfunction: CEMS data of startup/shutdown or malfunction

shall not be used to calculate emission averages for compliance pursuant to 40 CFR 60.8(c). Note: A fuel-switch is not considered "startup".

NO_x CEMS Requirements: For each gas turbine, the permittee shall keep calibrated, maintain, and operate continuous emissions monitors (CEMS) to measure and record emissions of nitrogen oxides (NO_x) and oxygen (O₂) in a manner sufficient to demonstrate compliance with the standards of this permit. A monitor for carbon dioxide (CO₂) may be used in place of the oxygen monitor, but the system shall comply with 40 CFR 60.334(b) (CFR dated 2004) for correcting the emissions to 15% oxygen.

- (a) **Performance Specifications.** Each monitor shall be installed in a location that will provide emissions measurements representative of actual stack emissions. Each CEMS shall comply with the corresponding performance specifications that identify location, installation, design, performance, and reporting requirements.
Each NO_x monitor shall be certified pursuant to 40 CFR Part 75 and shall be operated and maintained in accordance with the applicable requirements of 40 CFR Part 75, Subparts B and C. Record keeping and reporting shall be conducted pursuant to 40 CFR Part 75, Subparts F and G. The RATA tests required for the NO_x monitor shall be performed using EPA Method 7E or 20 as defined in Appendix A of 40 CFR 60. .
- (b) **Data Collection.** Each CEMS shall be designed and operated to sample, analyze, and record emissions data evenly spaced over a 1-hour period during all periods of operation. Each 1-hour average shall be computed using at least one data point in each fifteen-minute quadrant of the 1-hour block during which the unit combusted fuel. If the NO_x CEMS measures concentration on a wet basis, the permittee shall use DEP approved methods for correction of measured emissions to a dry basis (0% moisture). The O₂ (or CO₂) CEMS shall express the 1-hour emission rate values in terms of "percent oxygen by volume". The NO_x CEMS shall express the 1-hour emission averages in terms of "ppmvd corrected to 15% oxygen" for compliance with the BACT standard and, when requested by the Department, ISO corrected at 15% oxygen for the NSPS standard.
- (c) **Compliance Averages.** Compliance with the simple 4-hour moving average NO_x emissions standards shall be based on data collected by each required CEMS. For purposes of determining compliance with the emission standards of this permit, missing data shall not be substituted. If monitoring data is authorized for exclusion (due to startup, shutdown, malfunction, or tuning), the simple 4-hour moving average shall be the average of the remaining valid 1-hour emission averages collected during actual operation. A 1-hour emissions average that includes any amount of oil firing shall only be included in the compliance average for oil firing. The CEMS used shall comply with 40 CFR 60.334(B)(2) (CFR dated 2004) which requires a minimum of 1 data point for each quadrant of a full unit operating hour or at least 2 data points (one in each of the two quadrants) when required quality assurance or maintenance activities are performed on the system.
- (d) **Data Exclusion.** Except for continuous monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, each CEMS shall record emissions data at all times including episodes of startup, shutdown, and malfunction. Emissions data recorded during periods of startup, shutdown, or malfunction may only be excluded from the compliance averages in accordance with the requirements previously specified in this permit. To the extent practicable, the permittee shall minimize the duration of data excluded for startup, shutdown and malfunctions, unless specifically authorized in writing by the department's district office for longer periods. Data recorded during startup, shutdown or malfunction shall not be excluded if the episode was caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure, which may reasonably be prevented. Best operational practices shall be used to minimize hourly emissions that occur during startup, shutdown and malfunction. Emissions of any quantity or duration that occur entirely or in part from poor maintenance, poor operation, or any other equipment or process failure, which may reasonably be prevented, shall be prohibited. Excluded emissions data shall be summarized in the required quarterly report.

- (e) **Monitor Availability.** Monitor availability shall not be less than 95% in any calendar quarter. In the event 95% availability is not achieved, the permittee shall provide the Department with a report identifying the problems in achieving 95% availability and a plan of corrective actions that will be taken to achieve 95% availability. The permittee shall implement the reported corrective actions within the next calendar quarter. Failure to take corrective actions or continued failure to achieve the minimum monitor availability shall be violations of this permit.

[Rules 62-204.800, 62-210.700, 62-213.440, 62-4.070(3), 62-4.130, 62-4.160(8), F.A.C.; 40 CFR 60.7; ACS3-233851B (PSD-FL-206B); and 1050231-007-AC (PSD-FL-206(D)), Specific Condition 18; and Applicant request.]

- Specific Condition A.11.

From:

A.11. Excess Emissions by CEMS. The CEMS for NO_x shall be used to determine periods of excess emissions. Excess emissions are defined for this emissions unit as any 60-minute period during which the average emissions exceed the emission limits of Specific Condition A.6. of this permit. Periods of startup, shutdown, malfunction shall be monitored, recorded and reported with excess emissions following the format and requirements of 40 CFR 60.7.

{Note: The requirements of Specific Condition A.11. are more stringent than the NSPS monitoring provisions and thus assure compliance with 40 CFR 60.334 and 60.335.}

[Rules 62-4.070(3) and 62-213.440, F.A.C.]

To:

A.11. Excess Emissions by CEMS. The CEMS for NO_x shall be used to determine periods of excess emissions. Excess emissions are defined for this emissions unit as any simple 4-hour moving average period during which the average emissions exceed the emission limits of Specific Condition A.6. of this permit. Periods of malfunction and other excess emission events shall be monitored, recorded and reported with excess emissions following the format and requirements of 40 CFR 60.7.

Excess emissions resulting from a combustor tuning session shall be permitted provided the tuning session is performed in accordance with the manufacturer's specifications and in no case shall exceed 72 hours in any calendar year. A "tuning session" would occur after a combustor change-out, a repair to a combustor, or as required to maintain compliance. Prior to performing any tuning session, the permittee shall provide the Compliance Authority with an advance notice that details the activity and proposed tuning schedule. The notice may be made by telephone, facsimile transmittal, or electronic mail.

[Rule 62-210.700(1) & (5), F.A.C.; and Applicant request.]

- Subsection B. Narrative.

From:

{Permitting notes: This emissions unit is regulated under Acid Rain, Phase II and Rule 62-210.300, F.A.C., Permits Required. This emissions unit is subject to only the record keeping requirements of 40 CFR 60, Subpart Dc, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units, because it combusts only natural gas or biogas. This unit underwent a revised BACT Determination dated March 7, 1995. BACT Limits were incorporated into the subsequent PSD permits including ACS3-233852A (PSD-FL-206B), which superseded previous construction permits. Exhaust is vented through a 65 ft. stack. Emissions are controlled with low NO_x burners. The boiler began commercial operation in 1995.}

Compliance Assurance Monitoring (CAM) *does not apply* to this emissions unit.

To:

{Permitting notes: This emissions unit is regulated under Rule 62-210.300, F.A.C., Permits Required. This emissions unit is subject to only the record keeping requirements of 40 CFR 60, Subpart Dc, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units, because it combusts only natural gas or biogas. This unit underwent a revised BACT Determination dated March 7, 1995. BACT Limits were incorporated into the subsequent PSD permits including AC53-233852A (PSD-FL-206B), which superseded previous construction permits. Therefore, only the NSPS, Subpart Dc requirements for notification and record keeping apply. The firing of natural gas shall be considered as BACT for the emissions of particulate matter and sulfur dioxide [Applicant request; Design; Rule 62-210.200(PTE), F.A.C.]. Exhaust is vented through a 65 ft. stack. Emissions are controlled with low NOx burners. The boiler began commercial operation in 1995.} Compliance Assurance Monitoring (CAM) *does not apply* to this emissions unit.

- Specific Condition B.7.

From:

B.7. Annual Compliance Tests. Emission testing for visible emissions and nitrogen oxides shall be performed annually, no later than March 31st of each year, in accordance with Specific Condition B.9., with the fuel(s) used for more than 400 hours in the preceding 12-month period. Tests shall be conducted using the following EPA reference methods in accordance with 40 CFR 60, Appendix A:

- a. Method 9 for VE;
- b. Method 7E for NOx.

If the unit is not operating because of scheduled maintenance outages and emergency repairs, it shall be tested within thirty days of returning to service.

[Rules 62-4.070(3) and 62-213.440, F.A.C., and AC53-233852A (PSD-FL-206B)]

To:

B.7. Annual Compliance Tests. By this permit, annual emissions compliance testing for visible emissions is not required for these emissions units while burning:

- a. only gaseous fuel(s); or
 - b. gaseous fuel(s) in combination with any amount of liquid fuel(s) for less than 400 hours per year;
- or
- c. only liquid fuel(s) for less than 400 hours per year.

[Rule 62-297.310(7)(a)4., F.A.C.]

If the unit is not operating because of scheduled maintenance outages and emergency repairs, it shall be tested within thirty days of returning to service.

[Rules 62-4.070(3) and 62-213.440, F.A.C.; and AC53-233852A (PSD-FL-206B).]

- Specific Condition B.8.

From:

B.8. Testing for PM, CO, VOC. Emission testing for emissions of particulate matter, carbon monoxide and VOC shall be performed in the year prior to renewal of this permit, in accordance with Specific Condition B.9. Particulate matter tests shall be conducted using EPA test methods 5 or 17. Method 17 may be used if the stack flue gas temperature is less than 320°F. Testing for particulate matter is not required if visible emissions are not greater than 15% opacity. Carbon monoxide tests shall be conducted using EPA test method 10. VOC tests shall be conducted using EPA test methods 18 or 25A.

[Rules 62-4.070(3) and 62-213.440, F.A.C., and AC53-233852A (PSD-FL-206B)]

To:

B.8. Testing for NO_x, PM, CO, VOC. Emission testing for emissions of nitrogen oxides, particulate matter, carbon monoxide and VOC shall be performed in the year prior to renewal of this permit, in accordance with Specific Condition B.9. Particulate matter tests shall be conducted using EPA test methods 5 or 17. Method 17 may be used if the stack flue gas temperature is less than 320°F. Testing for particulate matter is not required if visible emissions are not greater than 15% opacity. Carbon monoxide tests shall be conducted using EPA test method 10. VOC tests shall be conducted using EPA test methods 18 or 25A.

[Rules 62-4.070(3) and 62-213.440, F.A.C., and AC53-233852A (PSD-FL-206B).]

- Specific Condition C.2.1.

Added:

C.2.1. Excess emissions resulting from a combustor tuning session shall be permitted provided the tuning session is performed in accordance with the manufacturer's specifications and in no case shall exceed 72 hours in any calendar year. A "tuning session" would occur after a combustor change-out, a repair to a combustor, or as required to maintain compliance. Prior to performing any tuning session, the permittee shall provide the Compliance Authority with an advance notice that details the activity and proposed tuning schedule. The notice may be made by telephone, facsimile transmittal, or electronic mail.

[Rule 62-210.700(1) & (5), F.A.C.; and Applicant request.]

- Acid Rain Part Subsection A.

From:

The emissions units listed below are regulated under Phase II of the Federal Acid Rain Program.

E.U. ID No.	Brief Description
001	Combined cycle gas turbine, Unit 1
002	Combined cycle gas turbine, Unit 2
003	Auxiliary boiler

A.1. The Phase II Part application submitted for this facility, as approved by the Department, is a part of this permit. The owners and operators of these Phase II acid rain unit(s) must comply with the standard requirements and special provisions set forth in the application(s) listed below:

a. DEP Form No. 62-210.900(1)(a), version dated 4/16/01, and signed by the Designated Representative on 7/2/02.

[Chapter 62-213, F.A.C. and Rule 62-214.320, F.A.C.]

A.2. Sulfur dioxide (SO₂) allowance allocations for each Acid Rain unit are as follows:

E.U. ID No.	EPA ID	Year	2003	2004	2005	2006	2007
001	01	SO ₂ allowances, under Table 2 of 40 CFR Part 73	0*	0*	0*	0*	0*
002	02		0*	0*	0*	0*	0*
003	03		0*	0*	0*	0*	0*

*The number of allowances held by an Acid Rain source in a unit account may differ from the number allocated by the USEPA under Table 2 of 40 CFR 73.

A.3. Emission Allowances. Emissions from sources subject to the Federal Acid Rain Program (Title IV) shall not exceed any allowances that the source lawfully holds under the Federal Acid Rain Program. Allowances shall not be used to demonstrate compliance with a non-Title IV applicable requirement of the Act.

1. No permit revision shall be required for increase in emissions that are authorized by allowances acquired pursuant to the Federal Acid Rain Program, provided that such increases do not require a permit revision pursuant to Rule 62-213.400(3), F.A.C.

2. No limit shall be placed on the number of allowances held by the source under the Federal Acid Rain Program.

3. Allowances shall be accounted for under the Federal Acid Rain Program.

[Rule 62-213.440(1)(c), F.A.C.]

To:

The emissions units listed below are regulated under Phase II of the Federal Acid Rain Program.

E.U. ID No.	Brief Description
001	Combined cycle gas turbine, Unit 1
002	Combined cycle gas turbine, Unit 2

A.1. The Phase II Part application submitted for this facility, as approved by the Department, is a part of this permit. The owners and operators of these Phase II acid rain unit(s) must comply with the standard requirements and special provisions set forth in the application(s) listed below:

a. DEP Form No. 62-210.900(1)(a), version dated 6/16/03, and signed by the Designated Representative on October 25, 2005.

[Chapter 62-213, F.A.C. and Rule 62-214.320, F.A.C.]

A.2. Sulfur dioxide (SO₂) allowance allocations for each Acid Rain unit are as follows:

E.U. ID No.	EPA ID	Year	2003	2004	2005	2006	2007
001	01	SO ₂ allowances, under Table 2 of 40 CFR Part 73	0*	0*	0*	0*	0*
002	02		0*	0*	0*	0*	0*

*The number of allowances held by an Acid Rain source in a unit account may differ from the number allocated by the USEPA under Table 2 of 40 CFR 73.

A.3. Emission Allowances. Emissions from sources subject to the Federal Acid Rain Program (Title IV) shall not exceed any allowances that the source lawfully holds under the Federal Acid Rain Program. Allowances shall not be used to demonstrate compliance with a non-Title IV applicable requirement of the Act.

1. No permit revision shall be required for increase in emissions that are authorized by allowances acquired pursuant to the Federal Acid Rain Program, provided that such increases do not require a permit revision pursuant to Rule 62-213.400(3), F.A.C.

2. No limit shall be placed on the number of allowances held by the source under the Federal Acid Rain Program.

3. Allowances shall be accounted for under the Federal Acid Rain Program.

[Rule 62-213.440(1)(c), F.A.C.]

Northern Star Generation Services Company LLC
Orange Cogeneration Facility
Facility ID No. 1050231
Polk County

Title V Air Operation Permit Revision
FINAL Permit Project No. 1050231-009-AV

Permitting Authority:

State of Florida

Department of Environmental Protection
Division of Air Resource Management
Bureau of Air Regulation
Permitting South Section

Mail Station #5505
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Telephone: 850/488-0114
Fax: 850/922-6979

Title V Air Operation Permit Revision
Permit Project No. 1050231-009-AV

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FINAL Permit Revision No. 1050231-009-AV
Facility ID No. 1050231
SIC Nos.: 49, 4911
Project: Title V Air Operation Permit Revision

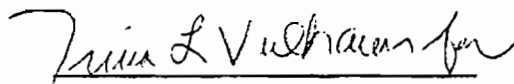
The purpose of this permit is to revise Title V Air Operation Permit No. 1050231-006-AV, issued on January 1, 2003, for the operation of the Orange Cogeneration Facility. This facility is located at 1901 Clear Springs Mine Road, Bartow, Polk County; UTM Coordinates: Zone 17, 418.7 km East and 3083.0 km North; Latitude: 27° 52' 15" North and Longitude: 81° 49' 31" West.

This Title V air operation permit revision is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, 62-213, and 62-214. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents, attached hereto or on file with the permitting authority, in accordance with the terms and conditions of this permit.

Referenced attachments made a part of this permit:

Appendix U-1, List of Unregulated Emissions Units and/or Activities
Appendix I-1, List of Insignificant Emissions Units and/or Activities
Appendix TV-4, Title V Conditions (version dated 2/12/02)
Appendix SS-1, Stack Sampling Facilities (version dated 10/07/96)
Appendix M, Custom Fuel Monitoring Schedule for Natural Gas
Table 297.310-1, Calibration Schedule (version dated 10/07/96)
Figure 1 - Summary Report-Gaseous And Opacity Excess Emission And Monitoring System Performance Report (version dated 7/96)
Phase II Acid Rain Part Renewal Application, version dated 4/16/01, signed by the Designated Representative on 7/2/02.
Approval of Custom Fuel Monitoring Schedule Dated October 28, 1997.

Effective Date: January 1, 2003
Revision Effective Date: February 15, 2006
Renewal Application Due Date: July 5, 2007
Expiration Date: December 31, 2007


Michael G. Cooke, Director
Division of Air Resource Management

"More Protection, Less Process"

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Section I. Facility Information.

Subsection A. Facility Description.

This facility consists of two combustion turbines (CT) that each exhaust through a heat recovery steam generator (HRSG) and associated stack. The CTs are natural gas and biogas fired. The facility also includes an auxiliary boiler fired with natural gas and biogas, with a separate stack. Neither HRSG is auxiliary fuel fired or equipped with duct burners. Also included in this permit are miscellaneous unregulated/insignificant emissions units and/or activities. Based on the Title V permit renewal application received July 3, 2002, this facility is *not* a major source of hazardous air pollutants (HAPs). The facility holds ORIS code 54365 under the Federal Acid Rain Program.

Subsection B. Summary of Emissions Unit ID No(s). and Brief Description(s).

E.U. ID No.	Brief Description
001	Combustion Turbine (CT) with HRSG, Unit 1
002	Combustion Turbine (CT) with HRSG, Unit 2
003	Auxiliary Boiler

Unregulated Emissions Units and/or Activities	
004	Storage of Lube Oil, Waste Oil and Diesel Fuel
005	Lube Oil Vapor Extractor, Lube Oil Air/Oil Separator, Steam Turbine Drain Flash Tank

Please reference the Permit No., Facility ID No., and appropriate Emissions Unit(s) ID No(s). on all correspondence, test report submittals, applications, etc.

Subsection C. Relevant Documents.

The documents listed below are not a part of this permit; however, they are specifically related to this permitting action.

These documents are provided to the permittee for information purposes only:

Appendix A-1. Abbreviations, Acronyms, Citations, and Identification Numbers.

Appendix H-1. Permit History/ID Number Changes.

Table 1-1. Summary of Air Pollutant Standards and Terms.

Table 2-1. Summary of Compliance Requirements.

Statement of Basis.

These documents are on file with the permitting authority:

Application for a Title V Air Operation Permit Revision received on September 19, 2005.

Letter from the Department requesting additional information dated October 7, 2005.

Response from the Applicant received on October 14, 2005.

DRAFT Title V Air Operation Permit clerked on November 10, 2005.

PROPOSED Title V Air Operation Permit posted for EPA review on December 22, 2005.

These documents are on file with USEPA:

The Responsible Official has certified that the Risk Management Plan was submitted to the RMP Reporting Center.

Section II. Facility-wide Conditions.

The following conditions apply facility-wide:

1. Appendix TV-4, Title V Conditions, is a part of this permit.
{Permitting note: Appendix TV-4, Title V Conditions, is distributed to the permittee only.
Other persons requesting copies of these conditions shall be provided a copy when requested or otherwise appropriate.}

2. General Pollutant Emission Limiting Standards. Objectionable Odor Prohibited. The permittee shall not cause, suffer, allow, or permit the discharge of air pollutants which cause or contribute to an objectionable odor.
[Rule 62-296.320(2), F.A.C.; and PSD-FL-206B]

3. General Particulate Emission Limiting Standards. General Visible Emissions Standard. Except for emissions units that are subject to a particulate matter or opacity limit set forth or established by rule and reflected by conditions in this permit, no person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density of which is equal to or greater than that designated as Number 1 on the Ringelmann Chart (20 percent opacity). EPA Method 9 is the method of compliance pursuant to Chapter 62-297, F.A.C.
[Rule 62-296.320(4)(b)1. & 4, F.A.C.]

4. Prevention of Accidental Releases (Section 112(r) of CAA).
 - a. As required by Section 112(r)(7)(B)(iii) of the CAA and 40 CFR 68, the owner or operator shall submit an updated Risk Management Plan (RMP) to the Chemical Emergency Preparedness and Prevention Office (CEPPO) RMP Reporting Center.
 - b. As required under Section 252.941(1)(c), F.S., the owner or operator shall report to the appropriate representative of the Department of Community Affairs (DCA), as established by department rule, within one working day of discovery of an accidental release of a regulated substance from the stationary source, if the owner or operator is required to report the release to the United States Environmental Protection Agency under Section 112(r)(6) of the CAA.
 - c. The owner or operator shall submit the required annual registration fee to the DCA on or before April 1, in accordance with Part IV, Chapter 252, F.S., and Rule 9G-21, F.A.C.

Any required written reports, notifications, certifications, and data required to be sent to the DCA, should be sent to:

Department of Community Affairs
Division of Emergency Management
2555 Shumard Oak Boulevard
Tallahassee, FL 32399-2100
Telephone: 850/413-9921, Fax: 850/488-1739

Any Risk Management Plans, original submittals, revisions or updates to submittals, should be sent to:

RMP Reporting Center
Post Office Box 3346
Merrifield, VA 22116-3346
Telephone: 703/816-4434

Any required reports to be sent to the National Response Center, should be sent to:

National Response Center
EPA Office of Solid Waste and Emergency Response
USEPA (5305 W)
401 M Street, SW
Washington, D.C. 20460
Telephone: 1/800/424-8802

Send the required annual registration fee using approved forms made payable to:

Cashier
Department of Community Affairs
State Emergency Response Commission
2555 Shumard Oak Boulevard
Tallahassee, FL 32399-2149

[Part IV, Chapter 252, F.S.; and, Rule 9G-21, F.A.C.]

5. Unregulated Emissions Units and/or Activities. Appendix U-1, List of Unregulated Emissions Units and/or Activities, is a part of this permit.
[Rule 62-213.440(1), F.A.C.]

6. Insignificant Emissions Units and/or Activities. Appendix I-1, List of Insignificant Emissions Units and/or Activities, is a part of this permit.
[Rules 62-213.440(1), 62-213.430(6), and 62-4.040(1)(b), F.A.C.]

7. [Reserved.]

8. **Not Federally Enforceable.** General Pollutant Emission Limiting Standards. Volatile Organic Compounds (VOC) Emissions or Organic Solvents (OS) Emissions. The permittee shall allow no person to store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds (VOC) or organic solvents (OS) without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department. The owner or operator shall:

- a. Tightly cover or close all VOC or OS containers when they are not in use.
- b. Tightly cover all open tanks which contain VOC or OS when they are not in use.
- c. Maintain all pipes, valves, fittings, etc., which handle VOC or OS in good operating condition.
- d. Immediately confine and clean up VOC or OS spills and make sure wastes are placed in closed containers for reuse, recycling or proper disposal.

[Rule 62-296.320(1)(a), F.A.C.]

9. **Not Federally Enforceable.** No person shall cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any activity without taking reasonable precautions to prevent such emissions. Reasonable precautions to prevent emissions of unconfined particulate matter at this facility include:

- a. Paved areas shall be maintained, and water applied to unpaved roads as needed.
- b. The permittee shall perform regular mowing of grass and proper care of vegetation.
- c. Access to plant property by unnecessary vehicles shall be limited.
- d. Bagged chemical products shall be stored in weather-tight buildings until they are used.
- e. Spills of powdered chemical products shall be cleaned up as soon as practicable.

- f. Proper maintenance of water chemistry and equipment to minimize cooling tower drift losses shall be performed.
- g. Partial or total enclosures shall be used where practical for abrasive blast activities and surface coating operations.

[Rule 62-296.320(4)(c)2., F.A.C.; and proposed by the applicant in the Title V permit renewal application received July 3, 2002.]

10. When appropriate, any recording, monitoring or reporting requirements that are time-specific shall be in accordance with the effective date of this permit, which defines day one.
[Rule 62-213.440, F.A.C.]

11. Statement of Compliance. The annual statement of compliance pursuant to Rule 62-213.440(3)(a)2., F.A.C., shall be submitted to the Department and EPA within 60 (sixty) days after the end of the calendar year using DEP Form No. 62-213.900(7), F.A.C.
[Rules 62-213.440(3) and 62-213.900, F.A.C.]

{Permitting Note: This condition implements the requirements of Rules 62-213.440(3)(a)2. & 3., F.A.C. (see Condition 51. of Appendix TV-4, Title V Conditions).}

12. The permittee shall submit all compliance related notifications and reports required of this permit to the Department's Southwest District office:

Department of Environmental Protection
Southwest District Office
3804 Coconut Palm Drive
Tampa, FL 33619-8218
Telephone: 813/744-6100
Fax: 813/744-6084

13. Any reports, data, notifications, certifications and requests required to be sent to the United States Environmental Protection Agency, Region 4, should be sent to:

United States Environmental Protection Agency
Region 4
Air, Pesticides & Toxics Management Division
Air and EPCRA Enforcement Branch
61 Forsyth Street
Atlanta, Georgia 30303-8960
Telephone: 404/562-9155
Fax: 404/562-9163

14. Certification by Responsible Official (RO). In addition to the professional engineering certification required for applications by Rule 62-4.050(3), F.A.C., any application form, report, compliance statement, compliance plan and compliance schedule submitted pursuant to Chapter 62-213, F.A.C., shall contain a certification signed by a responsible official that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. Any responsible official who fails to submit any required information or who has submitted incorrect information shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary information or correct information.

[Rule 62-213.420(4), F.A.C.]

Section III. Emissions Unit(s) and Conditions.

Subsection A. This section addresses the following emissions units.

001	Combined cycle gas turbine, Unit 1, a GE LM 6000 DLE unit, rated at 41.4 MW at 47°F, with an associated heat recovery steam generator that services (with Unit 2's HRSG) an electric steam generator rated at 37 MW. Typically, the steam produced by the HRSG is delivered to the steam turbine. Steam is then extracted from the steam turbine and delivered to a juice processing facility. The HRSG is not fired with auxiliary fuel. The turbine's heat input is 377.0 mmBtu/hr for natural gas or biogas, and is capable of burning only natural gas or biogas, and is capable of burning only natural gas or biogas, with emissions exhausted through a 100 ft. stack.
002	Combined cycle gas turbine, Unit 2, a GE LM 6000 DLE unit, rated at 41.4 MW at 47°F, with an associated heat recovery steam generator that services (with Unit 1's HRSG) an electric steam generator rated at 37 MW. Typically, the steam produced by the HRSG is delivered to the steam turbine. Steam is then extracted from the steam turbine and delivered to a juice processing facility. The HRSG is not fired with auxiliary fuel. The turbine's heat input is 377.0 mmBtu/hr for natural gas or biogas, and is capable of burning only natural gas or biogas, and is capable of burning only natural gas or biogas, with emissions exhausted through a 100 ft. stack.

{Permitting notes: These emissions units are regulated under Acid Rain, Phase II and Rule 62-210.300, F.A.C., Permits Required and are subject to 40 CFR 60, Subpart GG, Standards of Performance for New Stationary Gas Turbines. The affected facilities to which this subpart applies are the combined cycle gas turbines, Units 1 and 2. Each unit underwent a revised BACT Determination dated March 7, 1995. BACT Limits were incorporated into the subsequent PSD permits including AC53-233851B (PSD-FL-206B), which superseded previous construction permits. The requirements of construction permit 1050231-002-AC, which extends the date that lower NOx limits are imposed, has been incorporated into this permit. Exhaust is vented through the heat recovery steam generator that is not equipped with duct burners and then through a 100 ft. stack. Emissions are controlled by dry low-NOx combustors. The turbines began commercial operation in 1995.}

Compliance Assurance Monitoring (CAM) *does not apply* to these emissions units.

The following specific conditions apply to the emissions units listed above:

Essential Potential to Emit (PTE) Parameters

A.1. **Permitted Capacity.** The maximum operation heat input rates are as follows:

Unit No.	mmBtu/hr Heat Input	Fuel Type
001	377.0*	Natural Gas or Biogas
002	377.0*	Natural Gas or Biogas

* Maximum heat input at 47°F and lower heating value of the fuel.
 [Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; and 1050231-007-AC (PSD-FL-206(D)), Specific Condition 8.]

A.2. **Emissions Units Operating Rate Limitation After Testing.** See Specific Condition A.9.
 [Rule 62-297.310(2), F.A.C.]

A.3. Methods of Operation - Fuels. Any combination of natural gas and biogas shall be fired in the combustion turbine.

{Note: The limitations of Specific Conditions A.3. and A.5. are more stringent than the NSPS sulfur dioxide limitation and thus assure compliance with 40 CFR 60.333 and 60.334.}

[Rule 62-213.410, F.A.C.]

Emission Limitations and Standards

{Permitting note: Unless otherwise specified, the averaging times for Specific Conditions A.5. and A.6. are based on the specified averaging time of the applicable test method.}

A.4. [Reserved.]

A.5. Sulfur Dioxide - Sulfur Content. The natural gas and biogas sulfur content shall not exceed 1 grain per hundred cubic feet (standard conditions). See specific condition A.12.

{Note: The limitations of Specific Conditions A.3. and A.5. are more stringent than the NSPS sulfur dioxide limitation and thus assure compliance with 40 CFR 60.333 and 60.334. The sulfur limitation on natural gas and biogas have been added to assure compliance with 40 CFR 60.333.}

[Rules 62-4.070(3) and 62-213.440, F.A.C., and AC53-233851B (PSD-FL-206(B)).]

A.6. Emission Limits.

- (a) The maximum allowable emissions from each unit shall not exceed the emission limitations listed below.
- (b) The maximum allowable nitrogen oxide emissions resulting from a startup or shutdown of either CT shall not exceed 22.1 lbs/hr, based on a simple 4-hour moving average commencing with the beginning of a start up or ending at the conclusion of a shut down of the unit. The simple 4-hour moving average shall be based on all available data excluding calibration data and periods of emissions due to malfunction during the start up or shut down period.

Pollutant	Emission Limits			Basis
	Natural Gas or Biogas	lb/hr	Tons/Year	
NOx	15 ppmvd at 15% oxygen ***	22.1***	97.0	BACT
CO	30 ppmvd	27.8	127.0	BACT
PM/PM ₁₀ *		5**	21.9**	BACT
VOC	10 ppmvd	4**	17.4**	BACT

*All PM is assumed to be PM₁₀.

**For informational purposes only.

*** Based on a simple 4-hour moving average per Specific Condition A.11.

{Note: The limitations of Specific Condition A.6. are more stringent than the NSPS nitrogen oxides limitation and thus ensure compliance with 40 CFR 60.332 and 60.334.}

[AC53-233851B (PSD-FL-206B); 1050231-002-AC; and 1050231-007-AC (PSD-FL-206(D)), Table 1., and 1050231-008-AC, Table 1.]

Test Methods and Procedures

A.7. Testing for Nitrogen Oxides. Compliance with the NO_x limits shall be determined using the CEMs data.

[1050231-007-AC (PSD-FL-206(D), Specific Condition 16.)]

A.8. Testing for PM, CO, VOC. Emission testing for emissions of particulate matter, carbon monoxide and VOC shall be performed in the *year prior to renewal* of this permit, in accordance with Specific Condition A.9. Particulate matter tests shall be conducted using EPA test methods 5 or 17. Method 17 may be used if the stack flue gas temperature is less than 320°F. Carbon monoxide tests shall be conducted using EPA test method 10. VOC tests shall be conducted using EPA test methods 18 or 25A.

[Rules 62-4.070(3) and 62-213.440, F.A.C.; and AC53-233851B (PSD-FL-206B).]

A.9. Additional Test Requirements. Test results shall be the average of three valid runs. Testing of emissions shall be conducted with the emissions unit operating at permitted capacity, which is defined as 90-100 percent of the maximum heat input rate allowed by this permit, achievable for the average inlet air temperature during the test. If it is impracticable to test at permitted capacity, the emissions unit may be tested at less than permitted capacity. In such cases, subsequent operation is limited by adjusting downward the entire heat input vs. inlet temperature curve by the increment equal to the difference between the maximum permitted heat input value and 110 percent of the value reached during the test. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. Data, curves, and calculations necessary to demonstrate the heat input rate correction at both design and test conditions shall be submitted to the Department with the compliance test report.

Tests shall be conducted on both natural gas and biogas fuels (provided biogas fuels become available) unless previous test results or fuel analysis documents that emissions are independent of fuel fired, in which case tests may be conducted on either fuel.

[Rules 62-297.310(2) & (2)(b), F.A.C ; AC53-233851B (PSD-FL-206B) and 1050231-002-AC; note that this condition is intended to simplify the requirements of Specific Condition 16. of AC53-233851B.]

Monitoring of Operations

A.10. Alternate Monitoring Plan: Use of NO_x CEMS For Continuous Compliance. Pursuant to 40 CFR 64.2(b)(1)(vi), the applicant has elected to use the existing certified Acid Rain NO_x continuous emissions monitors for continuous compliance in order to be exempted from the Compliance Assurance Monitoring (CAM) requirements contained in 40 CFR 64. The following alternate monitoring may be used to demonstrate compliance with the ppmvd and the lbs/hr standards for NO_x.

- (a) The NO_x CEM data shall be used in lieu of the monitoring system for water-to-fuel ratio and the reporting of excess emissions in accordance with 40 CFR 60.334(b), Subpart GG (CFR dated 2004). The calibration of the water-to-fuel ratio-monitoring device required in 40 CFR 60.335(c)(2) (CFR dated 2004) will be replaced by the 40 CFR 75 certification tests of the NO_x CEMS.
- (b) When requested by the Department, the CEMS emission rates for NO_x on these units shall be corrected to ISO conditions to demonstrate compliance with the NO_x standards

established in 40 CFR 60.332. With regard to NSPS Subpart GG, the NO_x CEMS data shall also be used to report excess emissions in accordance with 40 CFR 60.334(j)(1)(iii) and 40 CFR 60.7(c).

{Permitting Note: The purpose of this permit condition is to authorize the use of the existing NO_x CEMS to demonstrate compliance with the applicable NO_x standards. Pursuant to 40 CFR 64.2(b)(1)(vi), this will allow each unit to avoid a Compliance Assurance Monitoring (CAM) Plan for NO_x emissions.}

Alternate Standards and NO_x CEMS Data Exclusion: The following permit conditions establish alternate standards or allow the exclusion of monitoring data for specifically defined periods of startup, shutdown, and documented malfunction of a gas turbine. These conditions apply only if operators employ the best operational practices to minimize the amount and duration of emissions during such episodes. For the following identified operational periods, 1-hour NO_x emissions rate values may be excluded from the 4-hour moving compliance averages in accordance with the corresponding requirements.

- (1) **Startup, Shutdown, and Malfunction:** CEMS data of startup/shutdown or malfunction shall not be used to calculate emission averages for compliance pursuant to 40 CFR 60.8(c). Note: A fuel-switch is not considered "startup".

NO_x CEMS Requirements: For each gas turbine, the permittee shall keep calibrated, maintain, and operate continuous emissions monitors (CEMS) to measure and record emissions of nitrogen oxides (NO_x) and oxygen (O₂) in a manner sufficient to demonstrate compliance with the standards of this permit. A monitor for carbon dioxide (CO₂) may be used in place of the oxygen monitor, but the system shall comply with 40 CFR 60.334(b) (CFR dated 2004) for correcting the emissions to 15% oxygen.

- (a) **Performance Specifications.** Each monitor shall be installed in a location that will provide emissions measurements representative of actual stack emissions. Each CEMS shall comply with the corresponding performance specifications that identify location, installation, design, performance, and reporting requirements.
Each NO_x monitor shall be certified pursuant to 40 CFR Part 75 and shall be operated and maintained in accordance with the applicable requirements of 40 CFR Part 75, Subparts B and C. Record keeping and reporting shall be conducted pursuant to 40 CFR Part 75, Subparts F and G. The RATA tests required for the NO_x monitor shall be performed using EPA Method 7E or 20 as defined in Appendix A of 40 CFR 60.
- (b) **Data Collection.** Each CEMS shall be designed and operated to sample, analyze, and record emissions data evenly spaced over a 1-hour period during all periods of operation. Each 1-hour average shall be computed using at least one data point in each fifteen-minute quadrant of the 1-hour block during which the unit combusted fuel. If the NO_x CEMS measures concentration on a wet basis, the permittee shall use DEP approved methods for correction of measured emissions to a dry basis (0% moisture). The O₂ (or CO₂) CEMS shall express the 1-hour emission rate values in terms of "percent oxygen by volume". The NO_x CEMS shall express the 1-hour emission averages in terms of "ppmv corrected to 15% oxygen" for compliance with the BACT standard and, when requested by the Department, ISO corrected at 15% oxygen for the NSPS standard.
- (c) **Compliance Averages.** Compliance with the simple 4-hour moving average NO_x emissions standards shall be based on data collected by each required CEMS. For purposes of determining compliance with the emission standards of

this permit, missing data shall not be substituted. If monitoring data is authorized for exclusion (due to startup, shutdown, malfunction, or tuning), the simple 4-hour moving average shall be the average of the remaining valid 1-hour emission averages collected during actual operation. A 1-hour emissions average that includes any amount of oil firing shall only be included in the compliance average for oil firing. The CEMS used shall comply with 40 CFR 60.334(B)(2) (CFR dated 2004) which requires a minimum of 1 data point for each quadrant of a full unit operating hour or at least 2 data points (one in each of the two quadrants) when required quality assurance or maintenance activities are performed on the system.

- (d) **Data Exclusion.** Except for continuous monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments, each CEMS shall record emissions data at all times including episodes of startup, shutdown, and malfunction. Emissions data recorded during periods of startup, shutdown, or malfunction may only be excluded from the compliance averages in accordance with the requirements previously specified in this permit. To the extent practicable, the permittee shall minimize the duration of data excluded for startup, shutdown and malfunctions, unless specifically authorized in writing by the department's district office for longer periods. Data recorded during startup, shutdown or malfunction shall not be excluded if the episode was caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure, which may reasonably be prevented. Best operational practices shall be used to minimize hourly emissions that occur during startup, shutdown and malfunction. Emissions of any quantity or duration that occur entirely or in part from poor maintenance, poor operation, or any other equipment or process failure, which may reasonably be prevented, shall be prohibited. Excluded emissions data shall be summarized in the required quarterly report.
- (e) **Monitor Availability.** Monitor availability shall not be less than 95% in any calendar quarter. In the event 95% availability is not achieved, the permittee shall provide the Department with a report identifying the problems in achieving 95% availability and a plan of corrective actions that will be taken to achieve 95% availability. The permittee shall implement the reported corrective actions within the next calendar quarter. Failure to take corrective actions or continued failure to achieve the minimum monitor availability shall be violations of this permit.

[Rules 62-204.800, 62-210.700, 62-213.440, 62-4.070(3), 62-4.130, 62-4.160(8), F.A.C.; 40 CFR 60.7; AC53-233851B (PSD-FL-206B); and 1050231-007-AC (PSD-FL-206(D)), Specific Condition 18; and Applicant request.]

A.11. Excess Emissions by CEMS. The CEMS for NO_x shall be used to determine periods of excess emissions. Excess emissions are defined for this emissions unit as any simple 4-hour moving average period during which the average emissions exceed the emission limits of Specific Condition A.6. of this permit. Periods of malfunction and other excess emission events shall be monitored, recorded and reported with excess emissions following the format and requirements of 40 CFR 60.7.

Excess emissions resulting from a combustor tuning session shall be permitted provided the tuning session is performed in accordance with the manufacturer's specifications and in no case shall exceed 72 hours in any calendar year. A "tuning session" would occur after a combustor change-out, a repair to a combustor, or as required to maintain compliance. Prior to performing any tuning session, the permittee shall provide the Compliance Authority with an advance notice

that details the activity and proposed tuning schedule. The notice may be made by telephone, facsimile transmittal, or electronic mail.

[Rule 62-210.700(1) & (5), F.A.C.; and Applicant request.]

{Note: The requirements of Specific Condition A.11. are more stringent than the NSPS monitoring provisions and thus assure compliance with 40 CFR 60.334 and 60.335.}

[Rules 62-4.070(3) and 62-213.440, F.A.C.]

Recordkeeping and Reporting Requirements

A.12. Fuel Sulfur Content Records Required. The owner or operator shall monitor and maintain records of sulfur content of natural gas (and biogas fuel, whenever such fuel becomes available and is burned) pursuant to the custom fuel monitoring schedule attached as Appendix M. The records shall report total sulfur content in terms of grains of sulfur per hundred cubic feet (standard conditions).

[Rules 62-4.070(3) and 62-213.440, F.A.C., 40 CFR 60.334(b)(2)]

A.13. Additional Reports Required. The owner or operator shall report the following with the Air Operating Report (AOR): sulfur content and lower heating value of the fuel being fired, annual fuel consumption of natural gas and biogas, and hours of operation per fuel usage.

The owner or operator shall provide the Department quarterly reports regarding the progress toward attaining the allowable NO_x emission limit of 15 ppmvd at 15% oxygen until such emission limit is attained. Reports shall be submitted to the Southwest District Air Section with a copy to the Department's Bureau of Air Regulation.

[Rule 62-210.370(3), F.A.C., AC53-233851B (PSD-FL-206B) and 1050231-002-AC]

NSPS Conditions

{Permitting Notes: The emissions units above are subject to the following conditions from 40 CFR 60 Subpart A, General Provisions. The affected facilities to which this subpart applies are the combined cycle gas turbines, Units 1 and 2. To the extent allowed by law, the "Administrator" shall mean the "Department".}

The following conditions apply to the NSPS emissions units listed above:

A.14. Pursuant to 40 CFR 60.7 Notification And Record Keeping.

(a) Any owner or operator subject to the provisions of this part shall furnish the Administrator written notification as follows:

(4) A notification of any physical or operational change to an existing facility which may increase the emission rate of any air pollutant to which a standard applies, unless that change is specifically exempted under an applicable subpart or in 40 CFR 60.14(e). This notice shall be postmarked 60 days or as soon as practicable before the change is commenced and shall include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change. The Administrator may request additional relevant information subsequent to this notice.

(b) The owner or operator subject to the provisions of this part shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected

facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.

(c) The owner or operator required to install a continuous monitoring system (CMS) or monitoring device shall submit an excess emissions and monitoring systems performance report (excess emissions are defined in applicable subparts) and/or a summary report form (see 40 CFR 60.7(d)) to the Administrator semiannually, except when: more frequent reporting is specifically required by an applicable subpart; or the CMS data are to be used directly for compliance determination, in which case quarterly reports shall be submitted; or the Administrator, on a case-by-case basis, determines that more frequent reporting is necessary to accurately assess the compliance status of the source. All reports shall be postmarked by the 30th day following the end of each calendar half (or quarter, as appropriate). Written reports of excess emissions shall include the following information:

(1) The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h), any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions. The process operating time during the reporting period.

(2) Specific identification of each period of excess emissions that occurs during startups, shutdowns, and malfunctions of the affected facility. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted.

(3) The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.

(4) When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.

(d) The summary report form shall contain the information and be in the format shown in Figure 1 unless otherwise specified by the Administrator. One summary report form shall be submitted for each pollutant monitored at each affected facility.

(1) If the total duration of excess emissions for the reporting period is less than 1 percent of the total operating time for the reporting period and CMS downtime for the reporting period is less than 5 percent of the total operating time for the reporting period, only the summary report form shall be submitted and the excess emission report described in 40 CFR 60.7(c) need not be submitted unless requested by the Administrator.

(2) If the total duration of excess emissions for the reporting period is 1 percent or greater of the total operating time for the reporting period or the total CMS downtime for the reporting period is 5 percent or greater of the total operating time for the reporting period, the summary report form and the excess emission report described in 40 CFR 60.7(c) shall both be submitted.

[See Attached Figure 1-Summary Report-Gaseous and Opacity Excess Emission and Monitoring System Performance]

(e)(1) Notwithstanding the frequency of reporting requirements specified in paragraph (c) of this section, an owner or operator who is required by an applicable subpart to submit excess emissions and monitoring systems performance reports (and summary reports) on a quarterly (or more frequent) basis may reduce the frequency of reporting for that standard to semiannual if the following conditions are met:

(i) For one full year (e.g., four quarterly or twelve monthly reporting periods) the affected facility's excess emissions and monitoring systems reports submitted to comply with a standard under this part continually demonstrate that the facility is in compliance with the applicable standard;

(ii) The owner or operator continues to comply with all recordkeeping and monitoring requirements specified in this subpart and the applicable standard; and

(iii) The Administrator does not object to reduced frequency of reporting for the affected facility, as provided in paragraph (e)(2) of this section.

(2) The frequency of reporting of excess emissions and monitoring systems performance (and summary) reports may be reduced only after the owner or operator notifies the Administrator in writing of his or her intention to make such a change and the Administrator does not object to the intended change. In deciding whether to approve a reduced frequency of reporting, the Administrator may review information concerning the source's entire previous performance history during the required recordkeeping period prior to the intended change, including performance test results, monitoring data, and evaluations of an owner or operator's conformance with operation and maintenance requirements. Such information may be used by the Administrator to make a judgment about the source's potential for noncompliance in the future. If the Administrator disapproves the owner or operator's request to reduce the frequency of reporting, the Administrator will notify the owner or operator in writing within 45 days after receiving notice of the owner or operator's intention. The notification from the Administrator to the owner or operator will specify the grounds on which the disapproval is based. In the absence of a notice of disapproval within 45 days, approval is automatically granted.

(3) As soon as monitoring data indicate that the affected facility is not in compliance with any emission limitation or operating parameter specified in the applicable standard, the frequency of reporting shall revert to the frequency specified in the applicable standard, and the owner or operator shall submit an excess emissions and monitoring systems performance report (and summary report, if required) at the next appropriate reporting period following the noncomplying event. After demonstrating compliance with the applicable standard for another full year, the owner or operator may again request approval from the Administrator to reduce the frequency of reporting for that standard as provided for in paragraphs (e)(1) and (e)(2) of this section.

(f) The owner or operator subject to the provisions of this part shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by this part recorded in a permanent form suitable for inspection. The file shall be retained for at least five years following the date of such measurements, maintenance, reports, and records.

[40 CFR 60.7 and Rule 62-213.440(1)(b)2.b., F.A.C.]

A.15. Pursuant to 40 CFR 60.8 Performance Tests.

(b) Performance tests shall be conducted and data reduced in accordance with the test methods and procedures contained in each applicable subpart, except as otherwise authorized by an approved alternative method.

(c) Performance tests shall be conducted under such conditions as the Administrator shall specify to the plant operator based on representative performance of the affected facility. The owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard.

(f) Unless otherwise specified in the applicable subpart, each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the applicable standard. For the purpose of determining compliance with an applicable standard, the arithmetic means of results of the three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the

three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances, beyond the owner or operator's control, compliance may, upon the Administrator's approval, be determined using the arithmetic mean of the results of the two other runs.

[40 CFR 60.8]

A.16. Pursuant to 40 CFR 60.11 Compliance With Standards And Maintenance Requirements.

(a) Compliance with standards in this part, other than opacity standards, shall be determined only by performance tests established by 40 CFR 60.8, unless otherwise specified in the applicable standard.

(b) Compliance with opacity standards in this part shall be determined by conducting observations in accordance with Reference Method 9 in appendix A of this part, any alternative method that is approved by the Administrator, or as provided in 40 CFR 60.11(e)(5). For purposes of determining initial compliance, the minimum total time of observations shall be 3 hours (30 6-minute averages) for the performance test or other set of observations (meaning those fugitive-type emission sources subject only to an opacity standard).

(c) The opacity standards set forth in this part shall apply at all times except during periods of startup, shutdown, malfunction, and as otherwise provided in the applicable standard.

(d) At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

(e)(5) The owner or operator of an affected facility subject to an opacity standard may submit, for compliance purposes, continuous opacity monitoring system (COMS) data results produced during any performance test required under 40 CFR 60.8 in lieu of Method 9 observation data. If an owner or operator elects to submit COMS data for compliance with the opacity standard, he shall notify the Administrator of that decision, in writing, at least 30 days before any performance test required under 40 CFR 60.8 is conducted. Once the owner or operator of an affected facility has notified the Administrator to that effect, the COMS data results will be used to determine opacity compliance during subsequent tests required under 40 CFR 60.8 until the owner or operator notifies the Administrator, in writing, to the contrary. For the purpose of determining compliance with the opacity standard during a performance test required under 40 CFR 60.8 using COMS data, the minimum total time of COMS data collection shall be averages of all 6-minute continuous periods within the duration of the mass emission performance test. Results of the COMS opacity determinations shall be submitted along with the results of the performance test required under 60.8. The owner or operator of an affected facility using a COMS for compliance purposes is responsible for demonstrating that the COMS meets the requirements specified in 40 CFR 60.13(c), that the COMS has been properly maintained and operated, and that the resulting data have not been altered in any way. If COMS data results are submitted for compliance with the opacity standard for a period of time during which Method 9 data indicates noncompliance, the Method 9 data will be used to determine opacity compliance.
[40 CFR 60.11]

A.17. Pursuant to 40 CFR 60.12 Circumvention.

No owner or operator subject to the provisions of this part shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would

otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous diluents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere.

[40 CFR 60.12]

A.18. Pursuant to 40 CFR 60.13 Monitoring Requirements.

(a) For the purposes of this section, all continuous monitoring systems required under applicable subparts shall be subject to the provisions of this section upon promulgation of performance specifications for continuous monitoring systems under appendix B of 40 CFR 60 and, if the continuous monitoring system is used to demonstrate compliance with emission limits on a continuous basis, appendix F to 40 CFR 60, unless otherwise specified in an applicable subpart or by the Administrator. Appendix F is applicable December 4, 1987.

(c) If the owner or operator of an affected facility elects to submit continuous opacity monitoring system (COMS) data for compliance with the opacity standard as provided under 40 CFR 60.11(e)(5), he/she shall conduct a performance evaluation of the COMS as specified in Performance Specification 1, appendix B, of 40 CFR 60 before the performance test required under 40 CFR 60.8 is conducted. Otherwise, the owner or operator of an affected facility shall conduct a performance evaluation of the COMS or continuous emission monitoring system (CEMS) during any performance test required under 40 CFR 60.8 or within 30 days thereafter in accordance with the applicable performance specification in appendix B of 40 CFR 60. The owner or operator of an affected facility shall conduct COMS or CEMS performance evaluations at such other times as may be required by the Administrator under section 114 of the Act.

(1) The owner or operator of an affected facility using a COMS to determine opacity compliance during any performance test required under 40 CFR 60.8 and as described in 40 CFR 60.11(e)(5), shall furnish the Administrator two or, upon request, more copies of a written report of the results of the COMS performance evaluation described in 40 CFR 60.13(c) at least 10 days before the performance test required under 40 CFR 60.8 is conducted.

(2) Except as provided in 40 CFR 60.13(c)(1), the owner or operator of an affected facility shall furnish the Administrator within 60 days of completion two or, upon request, more copies of a written report of the results of the performance evaluation.

(d)(1) Owners and operators of all continuous emission monitoring systems installed in accordance with the provisions of this part shall check the zero (or low-level value between 0 and 20 percent of span value) and span (50 to 100 percent of span value) calibration drifts at least once daily in accordance with a written procedure. The zero and span shall, as a minimum, be adjusted whenever the 24-hour zero drift or 24-hour span drift exceeds two times the limits of the applicable performance specifications in appendix B. The system must allow the amount of excess zero and span drift measured at the 24-hour interval checks to be recorded and quantified, whenever specified. For continuous monitoring systems measuring opacity of emissions, the optical surfaces exposed to the effluent gases shall be cleaned prior to performing the zero and span drift adjustments except that for systems using automatic zero adjustments. The optical surfaces shall be cleaned when the cumulative automatic zero compensation exceeds 4 percent opacity.

(2) Unless otherwise approved by the Administrator, the following procedures shall be followed for continuous monitoring systems measuring opacity of emissions. Minimum procedures shall include a method for producing a simulated zero opacity condition and an upscale (span) opacity condition using a certified neutral density filter or other related technique to produce a known obscuration of the light beam. Such procedures shall provide a system check of the analyzer internal optical surfaces and all electronic circuitry including the lamp and photo detector assembly.

(e) Except for system breakdowns, repairs, calibration checks, and zero and span adjustments required under 40 CFR 60.13(d), all continuous monitoring systems shall be in continuous operation and shall meet minimum frequency of operation requirements as follows:

(1) All continuous monitoring systems referenced by 40 CFR 60.13(c) for measuring opacity of emissions shall complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.

(2) All continuous monitoring systems referenced by 40 CFR 60.13(c) for measuring emissions, except opacity, shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.

(f) All continuous monitoring systems or monitoring devices shall be installed such that representative measurements of emissions or process parameters from the affected facility are obtained. Additional procedures for location of continuous monitoring systems contained in the applicable Performance Specifications of appendix B of 40 CFR 60 shall be used.

(g) When the effluents from a single affected facility or two or more affected facilities subject to the same emission standards are combined before being released to the atmosphere, the owner or operator may install applicable continuous monitoring systems on each effluent or on the combined effluent. When the affected facilities are not subject to the same emission standards, separate continuous monitoring systems shall be installed on each effluent. When the effluent from one affected facility is released to the atmosphere through more than one point, the owner or operator shall install an applicable continuous monitoring system on each separate effluent unless the installation of fewer systems is approved by the Administrator. When more than one continuous monitoring system is used to measure the emissions from one affected facility (e.g., multiple breechings, multiple outlets), the owner or operator shall report the results as required from each continuous monitoring system.

(h) Owners or operators of all continuous monitoring systems for measurement of opacity shall reduce all data to 6-minute averages and for continuous monitoring systems other than opacity to 1-hour averages for time periods as defined in 40 CFR 60.2. Six-minute opacity averages shall be calculated from 36 or more data points equally spaced over each 6-minute period. For continuous monitoring systems other than opacity, 1-hour averages shall be computed from four or more data points equally spaced over each 1-hour period. Data recorder during periods of continuous monitoring system breakdowns, repairs, calibration checks, and zero and span adjustments shall not be included in the data averages computed under this paragraph. An arithmetic or integrated average of all data may be used. The data may be recorded in reduced or non reduced form (e.g., ppm pollutant and percent O₂ or ng/J of pollutant). All excess emissions shall be converted into units of the standard using the applicable conversion procedures specified in subparts. After conversion into units of the standard, the data may be rounded to the same number of significant digits as used in the applicable subparts to specify the emission limit (e.g., rounded to the nearest 1 percent opacity).

[40 CFR 60.13]

A.19. Pursuant to 40 CFR 60.17 Incorporations by Reference.

The materials listed below are incorporated by reference in the corresponding sections noted.

[Note: The remainder of this section has not been reproduced in this permit for brevity. See 40 CFR 60.17 for materials incorporated by reference.]

[40 CFR 60.17]

Other Conditions

A.20. These emissions units are also subject to conditions C.1 through C.13 contained in **Subsection C. Common Conditions.**

Subsection B. This section addresses the following emissions unit(s).

003	This emissions unit consists of an auxiliary boiler, a two drum bent tube boiler, manufactured by Zurn Nepco, with a maximum heat input of 100 mmBtu/hr for natural gas or biogas, capable of burning either natural gas or biogas.
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{Permitting notes: This emissions unit is regulated under Rule 62-210.300, F.A.C., Permits Required. This emissions unit is subject to only the record keeping requirements of 40 CFR 60, Subpart Dc, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units, because it combusts only natural gas or biogas. This unit underwent a revised BACT Determination dated March 7, 1995. BACT Limits were incorporated into the subsequent PSD permits including AC53-233852A (PSD-FL-206B), which superseded previous construction permits. Therefore, only the NSPS, Subpart Dc requirements for notification and record keeping apply. The firing of natural gas shall be considered as BACT for the emissions of particulate matter and sulfur dioxide [Applicant request; Design; Rule 62-210.200(PTE), F.A.C.]. Exhaust is vented through a 65 ft. stack. Emissions are controlled with low NOx burners. The boiler began commercial operation in 1995.}

Compliance Assurance Monitoring (CAM) *does not apply* to this emissions unit.

The following specific conditions apply to the emissions units listed above:

Essential Potential to Emit (PTE) Parameters

B.1. Permitted Capacity. The maximum operation heat input rates are as follows:

Unit No.	mmBtu/hr Heat Input	Fuel Type
003	100*	Natural Gas or Biogas

* Based on the higher heating value of the fuel.

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C., and AC53-233852A (PSD-FL-206B)]

B.2. Emissions Unit Operating Rate Limitation After Testing. See Specific Condition B.9. [Rule 62-297.310(2), F.A.C.]

B.3. Methods of Operation - Fuels. The auxiliary boiler shall be fired with any combination of natural gas and biogas. [Rule 62-213.410, F.A.C., and AC53-233852A (PSD-FL-206B)]

Emission Limitations and Standards

{Permitting note: Unless otherwise specified, the averaging times for Specific Conditions B.4. through B.6. are based on the specified averaging time of the applicable test method.}

B.4. Visible Emissions Visible emissions shall not exceed 15% opacity. [AC53-233852A (PSD-FL-206B)]

B.5. Sulfur Dioxide - Sulfur Content. The natural gas and biogas sulfur content shall not exceed 1 grain per hundred cubic feet (standard conditions). See Specific Condition B.10. [Rules 62-4.070(3) and 62-213.440, F.A.C., and AC53-233852A (PSD-FL-206B)]

B.6. Emission Limits. The maximum allowable emissions from each unit shall not exceed the emission limitations listed below.

Pollutant	Emission Limits		
	Natural Gas or Biogas	lb/hr	Tons/Year
NOx	0.13 lb/mmBtu	13.0	56.9
CO	0.10 lb/mmBtu	10.0	43.8
VOC	0.04 lb/mmBtu	4.3	18.8
PM/PM ₁₀ *	0.01 lb/mmBtu	1.0	4.4
SO ₂ **	0.003 lb/mmBtu	0.3	1.3

* All PM is assumed to be PM₁₀; the PM limitation shall be considered to be met if visible emissions are not greater than 15% opacity.

** The sulfur dioxide limitation shall be considered to be met if the total sulfur content of the natural gas and biogas fuels does not exceed 1 grain per hundred cubic feet (standard conditions).
[AC53-233851B (PSD-FL-206B)]

Test Methods and Procedures

B.7. Annual Compliance Tests. By this permit, annual emissions compliance testing for visible emissions is not required for these emissions units while burning:

- a. only gaseous fuel(s); or
- b. gaseous fuel(s) in combination with any amount of liquid fuel(s) for less than 400 hours per year; or
- c. only liquid fuel(s) for less than 400 hours per year.

[Rule 62-297.310(7)(a)4., F.A.C.]

If the unit is not operating because of scheduled maintenance outages and emergency repairs, it shall be tested within thirty days of returning to service.

[Rules 62-4.070(3) and 62-213.440, F.A.C.; and AC53-233852A (PSD-FL-206B).]

B.8. Testing for NOx, PM, CO, VOC. Emission testing for emissions of nitrogen oxides, particulate matter, carbon monoxide and VOC shall be performed in the year prior to renewal of this permit, in accordance with Specific Condition B.9. Particulate matter tests shall be conducted using EPA test methods 5 or 17. Method 17 may be used if the stack flue gas temperature is less than 320°F. Testing for particulate matter is not required if visible emissions are not greater than 15% opacity. Carbon monoxide tests shall be conducted using EPA test method 10. VOC tests shall be conducted using EPA test methods 18 or 25A.

[Rules 62-4.070(3) and 62-213.440, F.A.C., and AC53-233852A (PSD-FL-206B).]

B.9. Additional Test Requirements. Test results shall be the average of three valid runs. Testing of emissions shall be conducted with the emissions unit operating at permitted capacity, which is defined as 90-100 percent of the maximum heat input rate allowed by this permit. If it is impracticable to test at permitted capacity, the emissions unit may be tested at less than permitted capacity. In such cases, subsequent operation is limited to 110 percent of the test load until a new test is conducted. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity, with prior notification to the Department.

Tests shall be conducted on both natural gas and biogas fuels (provided biogas fuels become available) unless previous test results or fuel analysis documents that emissions are independent of fuel fired, in which case tests may be conducted on either fuel.

[Rules 62-297.310(2) & (2)(b), F.A.C., and AC53-233852A (PSD-FL-206B)]

Recordkeeping and Reporting Requirements

B.10. Fuel Sulfur Content Records Required. The owner or operator shall monitor and maintain records of sulfur content of natural gas (and biogas fuel whenever such fuel becomes available and is burned), as measured by ASTM method D1072-80, ASTM D3031-81, ASTM D3246-81, ASTM D4084-82 or other applicable ASTM test methods, at minimum once each calendar quarter. The records shall report total sulfur content in terms of grains of sulfur per hundred cubic feet (standard conditions). The owner or operator may comply with this requirement by receiving such records provided by the natural gas supplier, and, if applicable, the supplier of the biogas fuel (when available).

[Rules 62-4.070(3) and 62-213.440, F.A.C.]

B.11. Fuel Usage Records Required. The owner or operator shall record and maintain records of the amounts of each fuel combusted during each day. The owner or operator shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and all other information required by this part recorded in a permanent form suitable for inspection. The file shall be retained for at least five years following the date of such measurements, maintenance, reports, and records.

[40 CFR 60.7 and 60.48c(g), and Rule 62-213.440(1)(b)2.b., F.A.C.]

B.12. Additional Reports Required. The owner or operator shall report the following with the Air Operating Report (AOR): sulfur content and higher heating value of the fuel being fired, annual fuel consumption of natural gas and biogas, and hours of operation per fuel usage.

[Rule 62-210.370(3), F.A.C., and AC53-233852A (PSD-FL-206B)]

Other Conditions

B.13. These emissions units are also subject to Specific Conditions C.1. through C.13. contained in Subsection C. **Common Conditions.**

Subsection C. Common Conditions.

E.U. ID No.	Brief Description
001	Combined cycle gas turbine, Unit 1
002	Combined cycle gas turbine, Unit 2
003	Auxiliary boiler

The following conditions apply to the emissions unit(s) listed above:

Essential Potential to Emit (PTE) Parameters

C.1. Hours of Operation. The emissions units may operate continuously, i.e., 8,760 hours/year.
[Rule 62-210.200(PTE), F.A.C.]

Emission Limitations and Standards

{Permitting note: Table 1-1, Summary of Air Pollutant Standards and Terms, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

Excess Emissions

{Permitting note: The Excess Emissions Rule at Rule 62-210.700, F.A.C., cannot vary any requirement of an NSPS or NESHAP provision.}

C.2. Excess emissions resulting from malfunctions shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration.
[Rule 62-210.700(1), F.A.C.]

C.2.1. Excess emissions resulting from a combustor tuning session shall be permitted provided the tuning session is performed in accordance with the manufacturer's specifications and in no case shall exceed 72 hours in any calendar year. A "tuning session" would occur after a combustor change-out, a repair to a combustor, or as required to maintain compliance. Prior to performing any tuning session, the permittee shall provide the Compliance Authority with an advance notice that details the activity and proposed tuning schedule. The notice may be made by telephone, facsimile transmittal, or electronic mail.
[Rule 62-210.700(1) & (5), F.A.C.; and Applicant request.]

C.3. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited.
[Rule 62-210.700(4), F.A.C.]

Monitoring of Operations

C.4. Determination of Process Variables.

(a) Required Equipment. The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine

process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.

(b) Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.

[Rule 62-297.310(5), F.A.C.]

C.5. Frequency of Compliance Tests. The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.

(a) General Compliance Testing.

3. The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to Rule 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:

- a. Did not operate; or
- b. In the case of a fuel burning emissions unit, burned liquid fuel for a total of no more than 400 hours.

4. During each federal fiscal year (October 1 -- September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:

- a. Visible emissions, if there is an applicable standard;
- b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; 30 tons per year or more of acrylonitrile; or 100 tons per year or more of any other regulated air pollutant; and

5. An annual compliance test for particulate matter emissions shall not be required for any fuel burning emissions unit that, in a federal fiscal year, does not burn liquid and/or solid fuel, other than during startup, for a total of more than 400 hours.

8. Any combustion turbine that does not operate for more than 400 hours per year shall conduct a visible emissions compliance test once per each five-year period, coinciding with the term of its air operation permit.

9. The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.

(b) Special Compliance Tests. When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.

(c) Waiver of Compliance Test Requirements. If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the

procedure established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a bag house or specifying a fuel analysis for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of Rule 62-297.310(7)(b), F.A.C., shall apply.
[Rule 62-297.310(7), F.A.C., SIP approved]

Test Methods and Procedures

{Permitting Note: The attached Table 2-1, Summary of Compliance Requirements, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

C.6. Visible Emissions. The test method for visible emissions shall be EPA Method 9, adopted and incorporated by reference in Rule 62-204.800, F.A.C., and referenced in Chapter 62-297, F.A.C.

[Rules 62-204.800 and 62-297.401, F.A.C.]

C.7. Required Number of Test Runs. For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five day period allowed for the test, the Secretary or his or her designee may accept the results of the two complete runs as proof of compliance, provided that the arithmetic mean of the results of the two complete runs is at least 20 percent below the allowable emission limiting standards.

[Rule 62-297.310(1), F.A.C.]

C.8. Calculation of Emission Rate. The indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the separate test runs unless otherwise specified in a particular test method or applicable rule.

[Rule 62-297.310(3), F.A.C.]

C.9. Applicable Test Procedures.

(a) Required Sampling Time.

1. Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes.

2. Opacity Compliance Tests. When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate

matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:

- c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.
- (b) Minimum Sample Volume. Unless otherwise specified in the applicable rule, the minimum sample volume per run shall be 25 dry standard cubic feet.
- (c) Required Flow Rate Range. For EPA Method 5 particulate sampling, acid mist/sulfur dioxide, and fluoride sampling which uses Greenburg Smith type impingers, the sampling nozzle and sampling time shall be selected such that the average sampling rate will be between 0.5 and 1.0 actual cubic feet per minute, and the required minimum sampling volume will be obtained.
- (d) Calibration of Sampling Equipment. Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1.
- (e) Allowed Modification to EPA Method 5. When EPA Method 5 is required, the following modification is allowed: the heated filter may be separated from the impingers by a flexible tube. [Rule 62-297.310(4), F.A.C.]

C.10. Required Stack Sampling Facilities. When a mass emissions stack test is required, the permittee shall comply with the requirements contained in Appendix SS-I, Stack Sampling Facilities, attached to this permit.
[Rule 62-297.310(6), F.A.C.]

Recordkeeping and Reporting Requirements

C.11. Malfunctions - Notification. In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the Southwest District Air Section in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Southwest District Air Section.
[Rule 62-210.700(6), F.A.C.]

C.12. Excess Emissions - Report. Submit to the Southwest District Air Section a written report of emissions in excess of emission limiting standards as set forth in this permit, for each calendar quarter. The nature and cause of the excess emissions shall be explained. This report does not relieve the owner or operator of the legal liability for violations.
[Rule 62-213.440, F.A.C.]

C.13. Test Reports

- (a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Southwest District Air Section on the results of each such test.
- (b) The required test report shall be filed with the Southwest District Air Section as soon as practical but no later than 45 days after the last sampling run of each test is completed.
- (c) The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Southwest District Air Section to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information:
 - 1. The type, location, and designation of the emissions unit tested.
 - 2. The facility at which the emissions unit is located.
 - 3. The owner or operator of the emissions unit.
 - 4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.

5. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.
 6. The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
 7. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
 8. The date, starting time and duration of each sampling run.
 9. The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.
 10. The number of points sampled and configuration and location of the sampling plane.
 11. For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
 12. The type, manufacturer and configuration of the sampling equipment used.
 13. Data related to the required calibration of the test equipment.
 14. Data on the identification, processing and weights of all filters used.
 15. Data on the types and amounts of any chemical solutions used.
 16. Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.
 17. The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.
 18. All measured and calculated data required to be determined by each applicable test procedure for each run.
 19. The detailed calculations for one run that relate the collected data to the calculated emission rate.
 20. The applicable emission standard, and the resulting maximum allowable emission rate for the emissions unit, plus the test result in the same form and unit of measure.
 21. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.
- [Rules 62-213.440 and 62-297.310(8), F.A.C.]

Section IV. This section is the Acid Rain Part.

Operated by: Orange Cogeneration Facility
ORIS code: 54365

Subsection A. This subsection addresses Acid Rain, Phase II.

The emissions units listed below are regulated under Phase II of the Federal Acid Rain Program.

E.U. ID No.	Brief Description
001	Combined cycle gas turbine, Unit 1
002	Combined cycle gas turbine, Unit 2

A.1. The Phase II Part application submitted for this facility, as approved by the Department, is a part of this permit. The owners and operators of these Phase II acid rain unit(s) must comply with the standard requirements and special provisions set forth in the application(s) listed below:

a. DEP Form No. 62-210.900(1)(a), version dated 6/16/03, and signed by the Designated Representative on October 25, 2005.

[Chapter 62-213, F.A.C. and Rule 62-214.320, F.A.C.]

A.2. Sulfur dioxide (SO₂) allowance allocations for each Acid Rain unit are as follows:

E.U. ID No.	EPA ID	Year	2003	2004	2005	2006	2007
001	01	SO ₂ allowances, under Table 2 of 40 CFR Part 73	0*	0*	0*	0*	0*
002	02		0*	0*	0*	0*	0*

*The number of allowances held by an Acid Rain source in a unit account may differ from the number allocated by the USEPA under Table 2 of 40 CFR 73.

A.3. Emission Allowances. Emissions from sources subject to the Federal Acid Rain Program (Title IV) shall not exceed any allowances that the source lawfully holds under the Federal Acid Rain Program. Allowances shall not be used to demonstrate compliance with a non-Title IV applicable requirement of the Act.

1. No permit revision shall be required for increase in emissions that are authorized by allowances acquired pursuant to the Federal Acid Rain Program, provided that such increases do not require a permit revision pursuant to Rule 62-213.400(3), F.A.C.

2. No limit shall be placed on the number of allowances held by the source under the Federal Acid Rain Program.

3. Allowances shall be accounted for under the Federal Acid Rain Program.

[Rule 62-213.440(1)(c), F.A.C.]

Appendix I-1, List of Insignificant Emissions Units and/or Activities

The facilities, emissions units, or pollutant-emitting activities listed in Rule 62-210.300(3)(a), F.A.C., Categorical Exemptions, or that meet the criteria specified in Rule 62-210.300(3)(b)1., F.A.C., Generic Emissions Unit Exemption, are exempt from the permitting requirements of Chapters 62-210, 62-212 and 62-4, F.A.C.; provided, however, that exempt emissions units shall be subject to any applicable emission limiting standards and the emissions from exempt emissions units or activities shall be considered in determining the potential emissions of the facility containing such emissions units. Emissions units and pollutant-emitting activities exempt from permitting under Rules 62-210.300(3)(a) and (b)1., F.A.C., shall not be exempt from the permitting requirements of Chapter 62-213, F.A.C., if they are contained within a Title V source; however, such emissions units and activities shall be considered insignificant for Title V purposes provided they also meet the criteria of Rule 62-213.430(6)(b), F.A.C. No emissions unit shall be entitled to an exemption from permitting under Rules 62-210.300(3)(a) and (b)1., F.A.C., if its emissions, in combination with the emissions of other units and activities at the facility, would cause the facility to emit or have the potential to emit any pollutant in such amount as to make the facility a Title V source.

The below listed emissions units and/or activities are considered insignificant pursuant to Rule 62-213.430(6), F.A.C.

Brief Description of Emissions Units and/or Activities
1. Internal Combustion Engines -- Vehicles.
2. Laboratory Vacuum Pumps.
3. Steam Cleaning Equipment.
4. Belt and Drum Sanders.
5. Laboratory Equipment.
6. Brazing, Soldering, and Welding Equipment.
7. Emergency Generators.
8. Heating Units, General Purpose Internal Combustion Engines, and other Combustion Sources.
9. Surface Coating Operations.
10. Degreasing Units (Non-HAP Solvents).
11. Petroleum Lubrication Systems.
12. Fungicide, Herbicide, and Pesticide Applications.
13. Asbestos Renovation and Demolition Activities.
14. Non-Halogenated Solvent Storage and Cleaning.
15. Abrasive Blasting Activities.
16. Soda Ash Storage Hopper.
17. Primary Cooling Tower.
18. Secondary Cooling Tower.
19. Evaporator Tower.
20. Natural Gas Piping System.
21. Water Treatment, Storage, and Handling Activities.
22. Lawn and Ground Maintenance.
23. Paved and Unpaved Roads.

Appendix H-1. Permit History/ID Number Changes.

Permit History (for tracking purposes):

E.U. ID No.	Description	Permit No.	Issue Date	Expiration Date	Extended Date	Revised Date(s)
001	42 MW Combustion Turbine	AC53-233851B/ PSD-FL-206B AC53-233851	03/07/95 12/30/93	04/01/98 04/01/96		*
002	42 MW Combustion Turbine	AC53-233851B/ PSD-FL-206B AC53-233851	03/07/95 12/30/93	04/01/98 04/01/96		*
003	100 MMBtu Auxiliary Boiler	AC53-233852A/ PSD-FL-206B AC53-233852	03/07/95 12/30/93	04/01/96 04/01/96		
	All of the above.	1050231-001-AV 1050231-006-AV (Permit Renewal) 1050231-008-AC	1/1/98 1/1/03	12/31/02 12/31/07		

Note: Permits AC53-233851B/PSD-FL-206B and AC53-233852A/PSD-FL-206B superseded permits AC53-233851/PSD-FL-206 and AC53-233852/PSD-FL-206, respectively.

* Construction permit 1050231-002-AC extends the date that lower NOx limits are imposed on the turbines. The intent is to issue that permit was issued by the Department on June 23, 1997. The requirements of that permit have been incorporated into this permit.

ID Number Changes (for tracking purposes):

From: Facility ID No.: 40TPA530231

To: Facility ID No.: 1050231

Appendix U-1, List of Unregulated Emissions Units and/or Activities

Unregulated Emissions Units and/or Activities. An emissions unit which emits no "emissions-limited pollutant" and which is subject to no unit-specific work practice standard, though it may be subject to regulations applied on a facility-wide basis (e.g., unconfined emissions, odor, general opacity) or to regulations that require only that it be able to prove exemption from unit-specific emissions or work practice standards.

The below listed emissions units and/or activities are neither 'regulated emissions units' nor 'insignificant emissions units'.

E.U. ID No.	Brief Description of Emissions Units and/or Activity
004	Storage of Lube Oil, Waste Oil and Diesel Fuel
005	Lube Oil Vapor Extractor, Lube Oil Air/Oil Separator, Steam Turbine Drain Flash Tank

Appendix S
Permit Summary Tables

Table 1-1, Summary of Air Pollutant Emission Standards

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

Emissions Unit	Brief Description
001	Combined cycle gas turbine, Unit 1
002	Combined cycle gas turbine, Unit 2

Pollutant	Fuel(s)	Hours per Year	Allowable Emissions (Each Unit)			Equivalent Emissions		Regulatory Citations	Sec Permit Condition(s)
			Standard(s)	lb/hour	TPY	lb/hour	TPY		
NO _x	"	8760	15 ppmvd at 15% oxygen	22.1	97.0			BACT	A.6.
CO	"	8760	30 ppmvd	27.8	127.0			BACT	A.6.
PM/PM ₁₀ *	"	8760		5**	21.9**			BACT	A.6.
VOC	"	8760	10 ppmvd	4**	17.4**			BACT	A.6.
SO ₂	"	8760	1 grain S per 100 cubic feet of gas			1.11	4.87	BACT	A.5.

*All PM is assumed to be PM₁₀.

**For informational purposes only.

Appendix S
 Permit Summary Tables

Table 1-1, Continued

Emissions Unit	Brief Description
003	Auxiliary boiler

Pollutant	Fuel(s)	Hours per Year	Allowable Emissions			Equivalent Emissions		Regulatory Citations	See Permit Condition(s)
			Standard(s)	lb/hour	TPY	lb/hour	TPY		
VE	Natural Gas or Biogas	8760	15% opacity					BACT	B.4.
NO _x	"	8760	0.13 lb/mmBtu	13.0	56.9			BACT	B.6.
CO	"	8760	0.10 lb/mmBtu	10.0	43.8			BACT	B.6.
VOC	"	8760	0.04 lb/mmBtu	4.3	18.8			BACT	B.6.
PM/PM ₁₀ *	"	8760	0.01 lb/mmBtu	1.0	4.4			BACT	B.6.
SO ₂ **	"	8760	0.003 lb/mmBtu	0.30	1.3			BACT	B.5., B.6.

*All PM is assumed to be PM₁₀; the PM limitation shall be considered to be met if visible emissions are not greater than 15% opacity.

**The sulfur dioxide limitation shall be considered to be met if the total sulfur content of the natural gas and biogas fuels does not exceed 1 grain per hundred cubic feet (standard conditions).

Notes:

¹ The "Equivalent Emissions" listed are for informational purposes only.

Appendix S
Permit Summary Tables

Table 2-1, Summary of Compliance Requirements

This table summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.

Emissions Unit	Brief Description
001	Combined cycle gas turbine, Unit 1
002	Combined cycle gas turbine, Unit 2

Pollutant or Parameter	Fuel(s)	Compliance Method	Testing Frequency	Frequency Base Date ¹	Minimum Compliance Test Duration	CMS ²	See Permit Condition(s)
NOx	"	CEMs data				Yes*	A.7, A.9, A.10
PM	"	EPA Methods 5 or 17	Prior to renewal		3 hours	No	A.8, A.9
CO	"	EPA Method 10	Prior to renewal		3 hours	No	A.8, A.9
VOC	"	EPA Methods 18 or 25A	Prior to renewal		3 hours	No	A.8, A.9
Fuel Sulfur	"	Analysis and record keeping	As fired			Yes**	A.10, A.12

*NOx and oxygen CMS required.

**Fuel consumption monitoring required.

Appendix S
Permit Summary Tables

Table 2-1, Continued

Emissions Unit		Brief Description					
003		Auxiliary boiler					
Pollutant or Parameter	Fuel(s)	Compliance Method	Testing Frequency	Frequency Base Date ¹	Minimum Compliance Test Duration	CMS ²	See Permit Condition(s)
VE	Natural Gas or Biogas	EPA Method 9	Annual	March 31	30 minutes	No	B.7, B.9
NOx	"	EPA Method 7E	Prior to renewal		3 hours	No	B.7, B.9
PM	"	EPA Methods 5 or 17	Prior to renewal		3 hours	No	B.8, B.9
CO	"	EPA Method 10	Prior to renewal		3 hours	No	B.8, B.9
VOC	"	EPA Methods 18 or 25A	Prior to renewal		3 hours	No	B.8, B.9
Fuel Sulfur	"	Analysis and record keeping	As fired			No	B.10

Notes:

¹ Frequency base date established for planning purposes only; see Rule 62-297.310, F.A.C.

² CMS = continuous monitoring system

Appendix M, Custom Fuel Monitoring Schedule for Natural Gas

Pursuant to 40 CFR 60.334(b)(2), a custom fuel monitoring schedule shall be followed for the natural gas fired at this facility and shall be as follows:

1. Monitoring of fuel nitrogen content shall not be required when natural gas is the only fuel being fired in the turbines.
2. Sulfur Monitoring
 - a. Analysis for fuel sulfur content of the natural gas fired at this facility shall be conducted using one of the approved ASTM reference methods for the measurement of sulfur in gaseous fuels, or an approved alternate method. The reference methods are ASTM D1072-80, ASTM D3031-81, ASTM D3246-81 and ASTM D4084-82, as referenced in 40 CFR 60.335(b)(2).
 - b. This custom fuel monitoring schedule shall become effective on the date this permit is effective. Effective the date of this custom schedule, sulfur monitoring of natural gas fired at the facility shall be conducted twice monthly for six months. If this monitoring shows little variability in the fuel sulfur content and indicates consistent compliance with the sulfur limits of 40 CFR 60.333, then sulfur monitoring shall be conducted once per quarter for six quarters.
 - c. If, after monitoring required in item 2.b. above, the sulfur content shows little variability and, calculated as sulfur dioxide, represents consistent compliance with the sulfur dioxide emission limits specified under 40 CFR 60.333, and the fuel sulfur limits of this permit, sample analysis shall be conducted twice per year. This monitoring shall be conducted during the first and third quarters of each calendar year.
 - d. Should any sulfur analysis, as required in items 2.b. or 2.c. above indicate noncompliance with the sulfur limits of 40 CFR 60.333 or this permit, the owner or operator shall notify the Department of such excess emissions and the custom schedule shall be re-examined by the Environmental Protection Agency (EPA). Sulfur monitoring shall be conducted weekly during the interim period when this custom schedule is being re-examined.
3. If there is a change in fuel supply, the owner or operator shall notify the Department and EPA of such change for re-examination of this custom schedule. A substantial change in fuel quality shall be considered as a change in fuel supply. Sulfur monitoring shall be conducted weekly during the interim period when this custom schedule is being re-examined.
4. Records of sample analysis and fuel supply pertinent to this custom fuel monitoring schedule for natural gas shall be retained for a period of five years, and shall be available at the facility for inspection by personnel of the Department or EPA.

MEMORANDUM

TO: Michael G. Cooke

FROM: Trina L. Vielhauer

DATE: ^{TC}_{way} February 21, 2006

SUBJECT: FINAL Permit Revision No. 1050231-009-AV

Northern Star Generation Services Company LLC
Orange Cogeneration Facility

This permit is a revision of Title V Air Operation Permit No. 1050231-006-AV.

No comments were received from U.S. EPA, Region 4, concerning the PROPOSED Title V Permit that was posted on the Department's web site on December 22, 2005.

I recommend your signature.

Friday, Barbara

From: System Administrator
To: Nasca, Mara
Sent: Friday, February 24, 2006 9:56 AM
Subject: Delivered:FINAL Title V Permit Revision No.: 1050231-009-AV - Norther Star Generation Company LLC - Orange Cogeneration Facility

Your message

To: 'sosboum@golder.com'; Nasca, Mara
Cc: Cascio, Tom
Subject: FINAL Title V Permit Revision No.: 1050231-009-AV - Norther Star Generation Company LLC - Orange Cogeneration Facility
Sent: 2/24/2006 9:56 AM

was delivered to the following recipient(s):

Nasca, Mara on 2/24/2006 9:56 AM

Friday, Barbara

From: Exchange Administrator
Sent: Friday, February 24, 2006 9:56 AM
To: Friday, Barbara
Subject: Delivery Status Notification (Relay)

Attachments: ATT563763.txt; FINAL Title V Permit Revision No.: 1050231-009-AV - Norther Star
Generation Company LLC - Orange Cogeneration Facility



ATT563763.txt (286 B)
FINAL Title V Permit
Revision ...

This is an automatically generated Delivery Status Notification.

Your message has been successfully relayed to the following recipients, but the requested delivery status notifications may not be generated by the destination.

sosbourn@golder.com

Friday, Barbara

To: 'sosbourn@golder.com'; Nasca, Mara
Cc: Cascio, Tom
Subject: FINAL Title V Permit Revision No.: 1050231-009-AV - Norther Star Generation Company LLC
- Orange Cogeneration Facility
Attachments: 1050231-009-AV-F.zip

Attached for your records is a zip file for the subject FINAL Title V Permit Revision.

If I may be of further assistance, please feel free to contact me.

Barbara J. Friday
Planner II
Bureau of Air Regulation
(850)921-9524
Barbara.Friday@dep.state.fl.us

2/24/2006

**Attachment OC-EU1-IV3
Alternative Methods of Operation**

Alternative Methods of Operation – Emission Unit 1 and 2

The alternative methods of operation include the following:

- Natural Gas Firing
- Biogas Firing

The alternative methods of operation have all been addressed within the construction permits and the initial Title V Operating Permit.

**Attachment OC-EU1-IV4
Acid Rain Part Application**

Acid Rain Part Application

For more information, see instructions and refer to 40 CFR 72.30 and 72.31 and Chapter 62-214, F.A.C.

This submission is: New Revised

STEP 1

Identify the source by plant name, State, and ORIS code

Plant Name: Orange Cogeneration	State: Florida	ORIS Code: 54365
----------------------------------------	-----------------------	-------------------------

STEP 2

Enter the unit ID# for every Acid Rain unit at the Acid Rain source in column "a." For new units, enter the requested information in columns "c" and "d."

a Unit ID#	b Unit will hold allowances in accordance with 40 CFR 72.9(c)(1)	c New Units Commence Operation Date	d New Units Monitor Certification Deadline
001	Yes	06/16/1995	
002	Yes	06/16/1995	
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		
	Yes		

Plant Name (from Step 1) Orange Cogeneration

STEP 3
Read the standard requirements

Acid Rain Part Requirements

- (1) The designated representative of each Acid Rain source and each Acid Rain unit at the source shall:
 - (i) Submit a complete Acid Rain part application (including a compliance plan) under 40 CFR part 72 and Rules 62-214.320 and 330, F.A.C., in accordance with the deadlines specified in Rule 62-214.320, F.A.C.; and
 - (ii) Submit in a timely manner any supplemental information that the Department determines is necessary in order to review an Acid Rain part application and issue or deny an Acid Rain part;
- (2) The owners and operators of each Acid Rain source and each Acid Rain unit at the source shall:
 - (i) Operate the unit in compliance with a complete Acid Rain part application or a superseding Acid Rain part issued by the Department; and
 - (ii) Have an Acid Rain Part.

Monitoring Requirements

- (1) The owners and operators and, to the extent applicable, designated representative of each Acid Rain source and each Acid Rain unit at the source shall comply with the monitoring requirements as provided in 40 CFR part 75, and Rule 62-214.420, F.A.C.
- (2) The emissions measurements recorded and reported in accordance with 40 CFR part 75 shall be used to determine compliance by the unit with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program.
- (3) The requirements of 40 CFR part 75 shall not affect the responsibility of the owners and operators to monitor emissions of other pollutants or other emissions characteristics at the unit under other applicable requirements of the Act and other provisions of the operating permit for the source.

Sulfur Dioxide Requirements

- (1) The owners and operators of each source and each Acid Rain unit at the source shall:
 - (i) Hold allowances, as of the allowance transfer deadline, in the unit's compliance subaccount (after deductions under 40 CFR 73.34(c)), or in the compliance subaccount of another Acid Rain unit at the same source to the extent provided in 40 CFR 73.35(b)(3), not less than the total annual emissions of sulfur dioxide for the previous calendar year from the unit; and
 - (ii) Comply with the applicable Acid Rain emissions limitations for sulfur dioxide.
- (2) Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Act.
- (3) An Acid Rain unit shall be subject to the requirements under paragraph (1) of the sulfur dioxide requirements as follows:
 - (i) Starting January 1, 2000, an Acid Rain unit under 40 CFR 72.6(a)(2); or
 - (ii) Starting on the later of January 1, 2000 or the deadline for monitor certification under 40 CFR part 75, an Acid Rain unit under 40 CFR 72.6(a)(3).
- (4) Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.
- (5) An allowance shall not be deducted in order to comply with the requirements under paragraph (1) of the sulfur dioxide requirements prior to the calendar year for which the allowance was allocated.
- (6) An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain part application, the Acid Rain part, or an exemption under 40 CFR 72.7 or 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.
- (7) An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right.

Nitrogen Oxides Requirements The owners and operators of the source and each Acid Rain unit at the source shall comply with the applicable Acid Rain emissions limitation for nitrogen oxides.

Excess Emissions Requirements

- (1) The designated representative of an Acid Rain unit that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR part 77.
- (2) The owners and operators of an Acid Rain unit that has excess emissions in any calendar year shall:
 - (i) Pay without demand the penalty required, and pay upon demand the interest on that penalty, as required by 40 CFR part 77; and
 - (ii) Comply with the terms of an approved offset plan, as required by 40 CFR part 77.

Recordkeeping and Reporting Requirements

- (1) Unless otherwise provided, the owners and operators of the source and each Acid Rain unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the EPA or the Department:
 - (i) The certificate of representation for the designated representative for the source and each Acid Rain unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with Rule 62-214.350, F.A.C.; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative;
 - (ii) All emissions monitoring information, in accordance with 40 CFR part 75, provided that to the extent that 40 CFR part 75 provides for a 3-year period for recordkeeping, the 3-year period shall apply;
 - (iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and,

Plant Name (from Step 1) **Orange Cogeneration**

STEP 3,
Cont'd.

Recordkeeping and Reporting Requirements (cont)

- (iv) Copies of all documents used to complete an Acid Rain part application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program.
- (2) The designated representative of an Acid Rain source and each Acid Rain unit at the source shall submit the reports and compliance certifications required under the Acid Rain Program, including those under 40 CFR part 72 subpart I and 40 CFR part 75.

Liability

- (1) Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, a complete Acid Rain part application, an Acid Rain part, or an exemption under 40 CFR 72.7 or 72.8, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to section 113(c) of the Act.
- (2) Any person who knowingly makes a false, material statement in any record, submission, or report under the Acid Rain Program shall be subject to criminal enforcement pursuant to section 113(c) of the Act and 18 U.S.C. 1001.
- (3) No permit revision shall excuse any violation of the requirements of the Acid Rain Program that occurs prior to the date that the revision takes effect.
- (4) Each Acid Rain source and each Acid Rain unit shall meet the requirements of the Acid Rain Program.
- (5) Any provision of the Acid Rain Program that applies to an Acid Rain source (including a provision applicable to the designated representative of an Acid Rain source) shall also apply to the owners and operators of such source and of the Acid Rain units at the source.
- (6) Any provision of the Acid Rain Program that applies to an Acid Rain unit (including a provision applicable to the designated representative of an Acid Rain unit) shall also apply to the owners and operators of such unit. Except as provided under 40 CFR 72.44 (Phase II repowering extension plans) and 40 CFR 76.11 (NO_x averaging plans), and except with regard to the requirements applicable to units with a common stack under 40 CFR part 75 (including 40 CFR 75.16, 75.17, and 75.18), the owners and operators and the designated representative of one Acid Rain unit shall not be liable for any violation by any other Acid Rain unit of which they are not owners or operators or the designated representative and that is located at a source of which they are not owners or operators or the designated representative.
- (7) Each violation of a provision of 40 CFR parts 72, 73, 75, 76, 77, and 78 by an Acid Rain source or Acid Rain unit, or by an owner or operator or designated representative of such source or unit, shall be a separate violation of the Act.

Effect on Other Authorities

No provision of the Acid Rain Program, an Acid Rain part application, an Acid Rain part, or an exemption under 40 CFR 72.7 or 72.8 shall be construed as:

- (1) Except as expressly provided in title IV of the Act, exempting or excluding the owners and operators and, to the extent applicable, the designated representative of an Acid Rain source or Acid Rain unit from compliance with any other provision of the Act, including the provisions of title I of the Act relating to applicable National Ambient Air Quality Standards or State Implementation Plans;
- (2) Limiting the number of allowances a unit can hold; *provided*, that the number of allowances held by the unit shall not affect the source's obligation to comply with any other provisions of the Act;
- (3) Requiring a change of any kind in any State law regulating electric utility rates and charges, affecting any State law regarding such State regulation, or limiting such State regulation, including any prudence review requirements under such State law;
- (4) Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or
- (5) Interfering with or impairing any program for competitive bidding for power supply in a State in which such program is established.

STEP 4

Read the certification statement, sign, and date

Certification

I am authorized to make this submission on behalf of the owners and operators of the Acid Rain source or Acid Rain units for which the submission is made. I certify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Name	
Signature	Date

Acid Rain Program

Instructions for Acid Rain Part Application

(40 CFR 72.30 - 72.31 and Rule 62-214.320, F.A.C.)

The Acid Rain Program requires the designated representative to submit an Acid Rain part application for each source with an Acid Rain unit. A complete Certificate of Representation must be received by EPA before the part application is submitted to the title V permitting authority. A complete Acid Rain part application, once submitted, is binding on the owners and operators of the Acid Rain source and is enforceable in the absence of an Acid Rain part until the title V permitting authority either issues an Acid Rain part to the source or disapproves the application.

Please type or print. The alternate designated representative may sign in lieu of the designated representative. If assistance is needed, contact the title V permitting authority.

STEP 1 Use the plant name and ORIS Code listed on the Certificate of Representation for the plant. An ORIS code is a 4 digit number assigned by the Energy Information Agency (EIA) at the U.S. Department of Energy to power plants owned by utilities. If the plant is not owned by a utility but has a 5 digit facility code (also assigned by EIA), use the facility code. If no code has been assigned or if there is uncertainty regarding what the code number is, contact EIA at (202) 287-1730 (for ORIS codes), or (202) 287-1927 (for facility codes).

STEP 2 For column "a," identify each Acid Rain unit at the Acid Rain source by providing the appropriate unit identification numbers, consistent with the unit identification numbers entered on the Certificate of Representation and with unit identification numbers used in reporting to DOE and/or EIA. For new units without identification numbers, owners and operators may assign such numbers consistent with EIA and DOE requirements.

For columns "c" and "d," enter the commence operation date(s) and monitor certification deadline(s) for new units in accordance with 40 CFR 72.2 and 75.4, respectively.

Submission Deadlines

For new units, an initial Acid Rain part application must be submitted to the title V permitting authority 24 months before the date the unit commences operation. Acid rain part renewal applications must be submitted at least 6 months in advance of the expiration of the acid rain portion of a title V permit, or such longer time as provided for under the title V permitting authority's operating permits regulation.

Submission Instructions

Submit this form to the appropriate title V permitting authority. If you have questions regarding this form, contact your local, State, or EPA Regional acid rain contact, or call EPA's Acid Rain Hotline at (202) 564-9620.

EMISSIONS UNIT INFORMATION

Section [2] of [2]

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 [2] of [2]

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:
Auxiliary Boiler

3. Emissions Unit Identification Number: **003**

4. Emissions Unit Status Code: A	5. Commence Construction Date:	6. Initial Startup Date: 6/16/1995	7. Emissions Unit Major Group SIC Code: 49	8. Acid Rain Unit? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
--------------------------------------------	--------------------------------	----------------------------------------------	------------------------------------------------------	----------------------------------------------------------------------------------------------

9. Package Unit:
Manufacturer: **Zurn Nepco** Model Number: **2 drum bent tube boiler**

10. Generator Nameplate Rating:

11. Emissions Unit Comment:
This emission unit consists of an auxiliary boiler, two drum bent tube boiler, with a maximum heat input of 100 MMBtu/hr for natural gas or biogas, capable of burning either natural gas or biogas.

EMISSIONS UNIT INFORMATION

Section [2] of [2]

Emissions Unit Control Equipment

1. Control Equipment/Method(s) Description:

Natural Gas & Biogas Firing: Emissions control strategy includes the use of a Low NO_x burner for NO_x emissions coupled with good combustion practices for VOC, CO, and PM/PM₁₀ emissions, and Clean Pipeline Quality Natural Gas for SO₂ emissions. The control strategy ensures compliance with the BACT emission limitations.

2. Control Device or Method Code(s): **024**

EMISSIONS UNIT INFORMATION

Section [2] of [2]

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

1. Maximum Process or Throughput Rate:
2. Maximum Production Rate:
3. Maximum Heat Input Rate: 100 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: The auxiliary boiler shall be fired with any combination of natural gas and biogas. The heat input is based on higher heating value (HHV).

EMISSIONS UNIT INFORMATION

Section [2] of [2]

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:		2. Emission Point Type Code: 1	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking: Single stack serving the Auxiliary Boiler.			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:			
5. Discharge Type Code: V	6. Stack Height: 65 feet	7. Exit Diameter: 3.7 feet	
8. Exit Temperature: 305 °F	9. Actual Volumetric Flow Rate: 29,731 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:			

EMISSIONS UNIT INFORMATION

Section [2] of [2]

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 2

1. Segment Description (Process/Fuel Type): Internal Combustion Boiler; Industrial Natural Gas; 10-100 MMBtu/hr		
2. Source Classification Code (SCC): 1-02-006-02		3. SCC Units: Million Cubic Feet Burned
4. Maximum Hourly Rate: 0.1057	5. Maximum Annual Rate: 926	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: 946
10. Segment Comment: Maximum heat input rate is limited by a federally-enforceable permit condition. Sulfur content limited to 1 grain per 100 cf of gas.		

Segment Description and Rate: Segment 2 of 2

1. Segment Description (Process/Fuel Type): Internal Combustion Boiler; Industrial Biogas; 10-100 MMBtu/hr		
2. Source Classification Code (SCC): 1-02-999-99		3. SCC Units: Million Cubic Feet Burned
4. Maximum Hourly Rate: 0.1057	5. Maximum Annual Rate: 926	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: 946
10. Segment Comment: Maximum heat input rate is limited by a federally-enforceable permit condition. Sulfur content limited to 1 grain per 100 cf of gas.		

EMISSIONS UNIT INFORMATION

Section [2] of [2]

D. SEGMENT (PROCESS/FUEL) INFORMATION (CONTINUED)

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:		

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 [2] of [2]

E. EMISSIONS UNIT POLLUTANTS

List of Pollutants Emitted by Emissions Unit

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
NO _x			EL
CO			EL
VOC			EL
PM/PM ₁₀			EL
SO ₂			EL

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
 POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**

(Optional for unregulated emissions units.)

Potential, Estimated Fugitive, and Baseline & Projected Actual 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: NO_x	2. Total Percent Efficiency of Control: 90%
3. Potential Emissions: 13.0 lb/hour 56.9 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: 0.13 lb/MMBtu Reference: PSD Permit	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: $\text{lb/hr} = 0.13 \text{ lb/MMBtu} \times 100 \text{ MMBtu/hr}$ $= 13.0 \text{ lb/hr}$ $\text{TPY} = 13.0 \text{ lb/hr} \times 8,760 \text{ hr/yr} / 2,000 \text{ lb/ton}$ $= 56.9 \text{ TPY}$	
11. Potential, Fugitive, and Actual Emissions Comment:	

**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: Rule - BACT	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.13 lb/MMBtu	4. Equivalent Allowable Emissions: 13 lb/hour 56.9 tons/year
5. Method of Compliance: EPA Reference Method 7E	
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):	

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
 POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**

(Optional for unregulated emissions units.)

Potential, Estimated Fugitive, and Baseline & Projected Actual 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: CO		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 10.0 lb/hour 43.8 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: 0.10 lb/MMBtu Reference: PSD Permit		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: $\text{lb/hr} = 0.10 \text{ lb/MMBtu} \times 100 \text{ MMBtu/hr}$ $= 10.0 \text{ lb/hr}$ $\text{TPY} = 10.0 \text{ lb/hr} \times 8,760 \text{ hr/yr} / 2,000 \text{ lb/ton}$ $= 43.8 \text{ TPY}$			
11. Potential, Fugitive, and Actual Emissions Comment:			

**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: Rule - BACT	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.10 lb/MMBtu	4. Equivalent Allowable Emissions: 10.0 lb/hour 43.8 tons/year
5. Method of Compliance: EPA Reference Method 10, Renewal Testing Only	
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):	

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**

(Optional for unregulated emissions units.)

Potential, Estimated Fugitive, and Baseline & Projected Actual 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: VOC		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 4.3 lb/hour 18.8 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: 0.043 lb/MMBtu Reference: PSD Permit		7. Emissions Method Code:	
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: $\text{lb/hr} = 0.043 \text{ lb/MMBtu} \times 100 \text{ MMBtu/hr}$ $= 4.3 \text{ lb/hr}$ $\text{TPY} = 4.3 \text{ lb/hr} \times 8,760 \text{ hr/yr} / 2,000 \text{ lb/ton}$ $= 18.8 \text{ TPY}$			
11. Potential, Fugitive, and Actual Emissions Comment:			

**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: Rule - BACT	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.043 lb/MMBtu	4. Equivalent Allowable Emissions: 4.3 lb/hour 18.8 tons/year
5. Method of Compliance: EPA Reference Method 18 or 25, Renewal Testing Only	
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):	

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**

(Optional for unregulated emissions units.)

Potential, Estimated Fugitive, and Baseline & Projected Actual 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/PM₁₀		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 1.0 lb/hour		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: 0.01 lb/MMBtu Reference: PSD Permit		7. Emissions Method Code:	
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: $\text{lb/hr} = 0.01 \text{ lb/MMBtu} \times 100 \text{ MMBtu/hr}$ $= 1.0 \text{ lb/hr}$ $\text{TPY} = 1.0 \text{ lb/hr} \times 8,760 \text{ hr/yr} / 2,000 \text{ lb/ton}$ $= 4.4 \text{ TPY}$			
11. Potential, Fugitive, and Actual Emissions Comment: All PM is assumed to be PM₁₀; the PM limitation shall be considered to be met if visible emissions are not greater than 15% opacity.			

**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: Rule - BACT	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.01 lb/MMBtu	4. Equivalent Allowable Emissions: 1.0 lb/hour 4.4 tons/year
5. Method of Compliance: EPA Reference Method 5 or 17, Renewal Testing Only	
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):	

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
 POTENTIAL, FUGITIVE, AND ACTUAL EMISSIONS**

(Optional for unregulated emissions units.)

Potential, Estimated Fugitive, and Baseline & Projected Actual 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: SO₂		2. Total Percent Efficiency of Control:	
3. Potential Emissions: 0.3 lb/hour		4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
5. Range of Estimated Fugitive Emissions (as applicable): to tons/year			
6. Emission Factor: 0.003 lb/MMBtu Reference: PSD Permit		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: $\text{lb/hr} = 0.003 \text{ lb/MMBtu} \times 100 \text{ MMBtu/hr}$ $= 0.3 \text{ lb/hr}$ $\text{TPY} = 0.3 \text{ lb/hr} \times 8,760 \text{ hr/yr} / 2,000 \text{ lb/ton}$ $= 1.3 \text{ TPY}$			
11. Potential, Fugitive, and Actual Emissions Comment: The sulfur dioxide limitation shall be considered to be met if the total sulfur content of the natural gas and biogas fuels does not exceed 1 grain per hundred cubic feet (standard conditions). [AC53-233851B (PSD-FL-206B)]			

**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: Rule - BACT	2. Future Effective Date of Allowable Emissions:
3. Allowable Emissions and Units: 0.003 lb/MMBtu	4. Equivalent Allowable Emissions: 0.3 lb/hour 1.3 tons/year
5. Method of Compliance: Fuel analysis for sulfur content, Renewal Testing only.	
6. Allowable Emissions Comment (Description of Operating Method): Per the permit, a fuel sulfur content of 1 grain per 100 cubic foot of gas fired or less is deemed compliant with the emission 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):	

EMISSIONS UNIT INFORMATION

Section [2] of [2]

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: VE15	2. Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other
3. Allowable Opacity: Normal Conditions: 15 % Exceptional Conditions: 100 % Maximum Period of Excess Opacity Allowed: (2hrs in any 24-hr period) min/hour	
4. Method of Compliance: EPA Method 9	
5. Visible Emissions Comment: Excess emission Rule 62-210.700(1), F.A.C.	

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 [2] of [2]

H. CONTINUOUS MONITOR INFORMATION

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

Continuous Monitoring System: Continuous Monitor 1 of 2

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 2 of 2

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 [2] of [2]

H. CONTINUOUS MONITOR INFORMATION (CONTINUED)

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 [2] of [2]

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: <u>OC-EU1-I1</u> <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 checked="" type="checkbox"/> Attached, Document ID: <u>OC-EU1-I2</u> <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 type="checkbox"/> Attached, Document ID: <u>N/A</u> <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 checked="" type="checkbox"/> Attached, Document ID: <u>OC-EU3-I4</u> <input type="checkbox"/> Previously Submitted, Date _____ <input 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 [2] of [2]

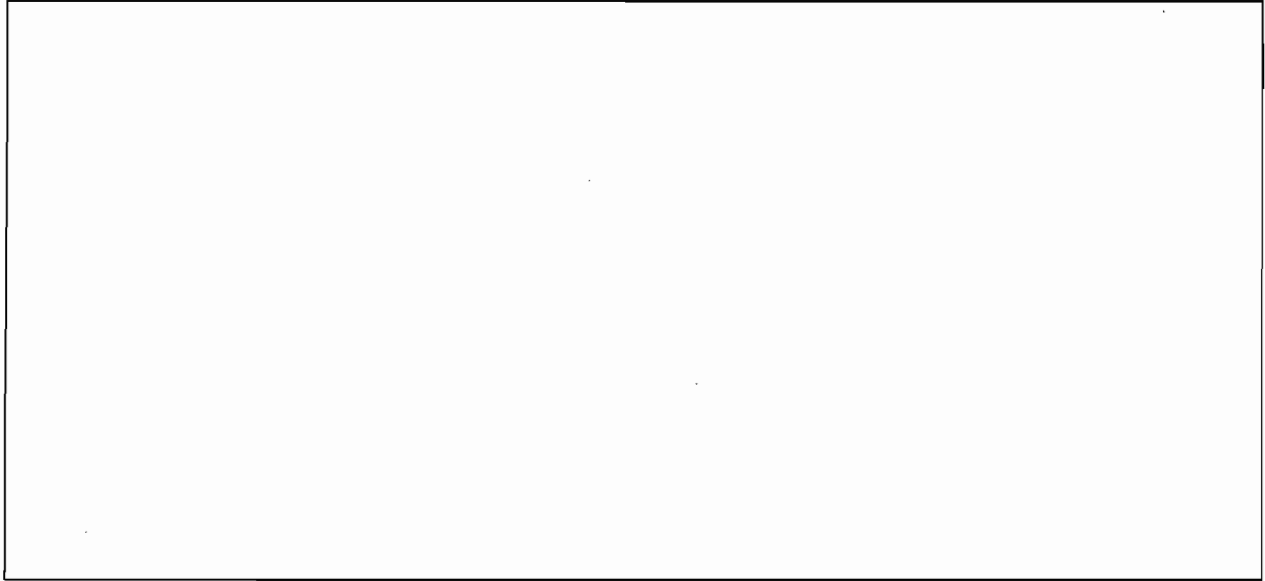
Additional Requirements for Air Construction Permit Applications – N/A

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 checked="" type="checkbox"/> Attached, Document ID: <u>OC-EU1-IV1</u>
2. Compliance Assurance Monitoring <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable
3. Alternative Methods of Operation <input checked="" type="checkbox"/> Attached, Document ID: <u>OC-EU1-IV3</u> <input type="checkbox"/> Not Applicable
4. Alternative Modes of Operation (Emissions Trading) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" 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 checked="" type="checkbox"/> Not Applicable

Additional Requirements Comment



**Attachment OC-EU3-I4
Procedures for Startup and Shutdown**

Procedures for Startup/Shutdown – Emission Unit 3

Startup of the Auxiliary Boiler begins by introducing and igniting natural gas or biogas within the unit. Start-up is complete and steady-state operation begins when the combustion process has stabilized.

Shutdown begins when the steam load is decreased to below 10 percent of maximum and continues until the burner is removed from service.

Best Operating Practices to reduce or eliminate excess emissions include the following:

- Proper Excess Air Adjustments
- Shutdown of the Unit, if necessary.
- Reduction of Steam Load.

Knowledge of the Best Operating Practices to reduce or eliminate excess emissions is part of the training provided to the boiler operators.

Reference: 1996 Title V Permit Application