

Department of Environmental Protection

Jeb Bush
Governor

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

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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

FILING 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 Kellermeyer
 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

COMPLETE THIS SECTION ON DELIVERY

A. Signature Agent Addressee
T. Ross

B. Received by (Printed Name) *TATYIN ROSS* C. Date of Delivery

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PS Form 3811, February 2004

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Mr. David Kellermeyer, Vice President, EH&S

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Sent To
 Mr. David Kellermeyer, 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	
NO _x	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; AC53-233851B (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 NOx 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 NOx 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 AC53-233852A (PSD-FL-206B), which superseded previous construction permits. 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.

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	0*	0*	0*	0*	0*
002	02	allowances,	0*	0*	0*	0*	0*
003	03	under Table 2 of 40 CFR Part 73	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	SO2 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
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Title V Air Operation Permit Revision
Permit Project No. 1050231-009-AV

Table of Contents

Section	Page Number
Placard Page	1
I. Facility Information	2
A. Facility Description.	
B. Summary of Emissions Unit ID No(s). and Brief Description(s).	
C. Relevant Documents.	
II. Facility-wide Conditions	3
III. Emissions Unit(s) and Conditions	
A. Emissions Units 001 & 002, Combustion Turbines	6
B. Emissions Unit 003, Auxiliary Boiler	17
C. Common Conditions	20
IV. Acid Rain Part	
A. Acid Rain, Phase II	25



Department of Environmental Protection

Jeb Bush
Governor

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

Colleen M. Castille
Secretary

Permittee: Northern Star Generation Company LLC
2929 Allen Parkway, Suite 2200
Houston, TX 77019

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

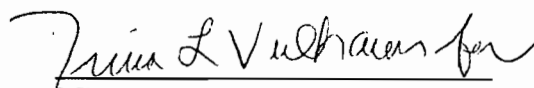
The purpose of this permit is to revise Title V Air Operation Permit No. 1050231-006-AV, issued on January 1, 2003, for the operation of the Orange Cogeneration Facility. This facility is located at 1901 Clear Springs Mine Road, Bartow, Polk County; UTM Coordinates: Zone 17, 418.7 km East and 3083.0 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 "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; 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 NOx 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
NO _x	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 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).]

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-1, 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 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 ¹		Regulatory Citations	See 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 ¹		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.
NOx	"	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: 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: '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
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