



Department of Environmental Protection

Jeb Bush
Governor

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

David B. Struhs
Secretary

November 14, 2003

Mr. Donald K. Day
Plant Manager
Orlando CoGen Limited, L.P.
8275 Exchange Drive
Orland, Florida 32809

Re: Title V Air Operation Permit Renewal
PROPOSED Permit Project No.: 0950203-002-AV
Renewal of Title V Air Operation Permit No.: 0950203-001-AV
Orlando CoGen Facility

Dear Mr. Day:

One copy of the "PROPOSED PERMIT DETERMINATION" for the Orlando CoGen Facility located at 8275 Exchange Drive, Orlando, Orange County, is enclosed. This letter is only a courtesy to inform you that the DRAFT permit has become a PROPOSED permit.

An electronic version of the DRAFT Permit has been posted on the Division of Air Resource Management's World Wide Web site for the United States Environmental Protection Agency (USEPA) Region 4 office's review. The web site address is:

"http://www.dep.state.fl.us/air/permitting/airpermits/AirSearch_ltd.asp".

Pursuant to Section 403.0872(6), Florida Statutes, if no objection to the PROPOSED permit is made by the USEPA within 45 days, the PROPOSED permit will become a FINAL permit no later than 55 days after the date on which the PROPOSED permit was mailed (posted) to USEPA. If USEPA has an objection to the PROPOSED permit, the FINAL permit will not be issued until the permitting authority receives written notice that the objection is resolved or withdrawn.

If you should have any questions, please contact Jonathan Holtom, P.E., at 850/921-9531.

Sincerely,

Trina L. Vielhauer, Chief
Bureau of Air Regulation

TV/h
Enclosures

E-mail Copy furnished to:
Thomas W. Davis, P.E., ECT, Inc.
Len Kozlov, CD
U.S. EPA, Region 4 (INTERNET E-mail Memorandum)

"More Protection, Less Process"

PROPOSED PERMIT DETERMINATION

Orlando CoGen Limited, L.P.
Orlando CoGen Facility
Proposed Permit No.: 0950203-002-AV

I. Public Notice.

An "INTENT TO ISSUE TITLE V AIR OPERATION PERMIT" to Orlando CoGen Limited, L.P., for the Orlando CoGen Facility located at 8275 Exchange Drive, Orlando, Orange County was clerked on September 29, 2003. The "PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT" was published in The Orlando Sentinel on October 3, 2003. The DRAFT Title V Air Operation Permit was available for public inspection at the permitting authority's office in Tallahassee. Proof of publication of the "PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT" was received on October 10, 2003.

II. Public Comment(s).

No Public Comments were received during the 30 (thirty)-day public comment period, however, comments were received from the Permittee. The comments were not considered significant enough to reissue the DRAFT Title V Permit and require another Public Notice; therefore, the DRAFT Title V Operation Permit was changed. Those comments are addressed below.

A. Letter from Mr. Donald K. Day dated October 31, 2003, and received on November 3, 2003.

1. Comment:

Comments were submitted in the form of a marked-up copy of the DRAFT Title V permit. All of the requested changes (that were hi-lighted in color) were evaluated, however, not all resulted in a change to the PROPOSED permit. For the items that were not changed as requested, the prevailing reason was because doing so would create a conflict with the underlying construction permit condition.

As a result of our review of the submitted comments, the following changes have been made to the DRAFT permit:

Section I. Subsection B.; Appendix U-1, Unregulated Emissions Units.

1. The unregulated emergency generator(s) was/were given the emission unit number -003.

Section III. Subsection A.

2. EU Description. The "ABB" abbreviation was added after Asea Brown Boveri. A definition of ISO standard conditions was added to the permitting note following the emission unit description.
3. A portion of the requested permitting note about heat input limitations was added following condition A.1. The entire permitting note was not added as requested because it is not consistent with similarly permitted emissions units.
4. For clarification purposes, the following permitting note was added after condition A.5.:

[Permitting Note: For purposes of CAM, continuous compliance with the NO_x emission limits is being demonstrated through the use of the continuous emissions monitor that is required in Specific Condition C.22.]

5. Added the clarification about 40 CFR 60, Appendix A in condition A.14.
6. For clarification purposes, added “[40 CFR 60.332(a)(1)]” and corrected formatting error [©] in condition A.17.
7. Added “(See Specific Condition A.21.)” at end of condition A.20.

Section III. Subsection B.

8. EU Description. Corrected reference to Rule 62-204.800(8), F.A.C.
9. A portion of the requested permitting note about heat input limitations was added following condition B.1. The entire permitting note was not added as requested because it is not consistent with similarly permitted emissions units.
10. For clarification purposes, the following permitting note was added after condition B.5.:
[Permitting Note: For purposes of CAM, continuous compliance with the NO_x emission limits is being demonstrated through the use of the continuous emissions monitor that is required in Specific Condition C.22.]

Section III. Subsection C.

11. The version date for Appendix A was removed from condition C.16.
12. Condition C.31. was deleted since the emergency generators are now listed as unregulated.
- 12.0. Added Condition C.0.:
C.0. When both the CT and DB are operating, NO_x emissions shall not exceed 69.6 lbs/hr.
[Permitting Note: For purposes of CAM, continuous compliance with the NO_x emission limits is being demonstrated through the use of the continuous emissions monitor that is required in Specific Condition C.22.]
[AC48-206720; and, BACT Determination dated August 17, 1992]

The following requested changes were not made to the DRAFT permit for the reasons specified:

Section III. Subsection A.

13. No changes were made to condition A.5. because the request conflicts with the requirements of permit number AC48-206720.
14. No changes were made to condition A.6. because the request conflicts with the requirements of permit number AC48-206720. The requested change constitutes a modification.
15. No changes were made to condition A.11. because the requested increase in excess emissions periods conflicts with the construction permit and constitutes a modification.
16. Condition A.15. was not deleted because it is an applicable requirement that pertains to all fuels, not just to fuel oil.
17. While the NO_x CEM specified in condition C.22. is being used for compliance purposes, the requested addition to condition A.16. is not appropriate, as it is not part of that rule language. To help clarify this issue, a permitting note was added after condition A.5. See comment 4, above.
18. Except as stated in comment 6, above, the requested changes to condition A.16. were not made in order to avoid creating a conflict with the construction permit language.
19. The requested addition to condition A.18. is not appropriate, as it is not part of that rule language.
20. The requested addition to condition A.19. is not appropriate, as it is not part of that rule language.
21. The requested addition to condition A.20. is not appropriate, as it is not part of that rule language.

22. The requested addition to condition A.21. is not appropriate, as it is not part of the language contained in the approved Custom Fuel Monitoring Schedule found in permit number AC48-206720.

Section III. Subsection B.

23. The requested change to condition B.4. is not appropriate because it conflicts with the language found in permit number AC48-206720.
24. No changes were made to condition B.5. because the request conflicts with the requirements of permit number AC48-206720.
25. No changes were made to condition B.7. because the request conflicts with the requirements of permit number AC48-206720.
26. No changes were made to condition B.10. because the requested increase in excess emissions periods conflicts with the construction permit and constitutes a modification.
27. The requested addition to condition B.12. is not appropriate, as it is not part of that rule language.

Section III. Subsection C.

28. The requested deletion of condition C.5. was not approved because the Department does not agree that this condition is obsolete. Its absence from the initial Title V permit was an oversight that is being corrected.
29. Except as noted in comment 11, above, the requested changes to condition C.16. were not made because they alter the language contained in the construction permit. It should be noted that "conducted concurrently" does not mean that the individual pollutant tests for the duct burner and the CT be conducted at the same time, rather, it means that dependent tests shall be conducted at the same time, i.e., VE with PM (when required), CO with NO_x (in order to calibrate the CEM), etc. Concurrent testing for the duct burner and the CT can not be done because one of the tests is required to be conducted with the duct burner turned off. Nothing in this condition prohibits testing at the HRSG outlet.
30. No changes were made to condition C.17. because the request conflicts with the requirements of permit number AC48-206720.
31. No changes were made to condition C.18. because the request conflicts with the requirements of permit number AC48-206720.

III. Conclusion.

The enclosed PROPOSED Title V Air Operation Permit includes the aforementioned changes to the DRAFT Title V Air Operation Permit.

The permitting authority will issue the PROPOSED Permit Number 0950203-0002-AV, with the changes noted above.

Orlando CoGen Limited, L.P.

Facility ID No.: 0950203

Orange County

Title V Air Operation Permit Renewal

PROPOSED Permit Project No.: 0950203-002-AV

Renewal of Title V Air Operation Permit No.: 0950203-001-AV

Permitting Authority:

State of Florida

Department of Environmental Protection

Division of Air Resources Management

Bureau of Air Regulation

Title V Section

2600 Blair Stone Road, Mail Station #5505

Tallahassee, Florida 32399-2400

Telephone: 850/488-0114

Fax: 850/922-6979

Compliance Authority:

Orange County Environmental Protection Department

800 Mercy Drive, Suite 4

Orlando, Florida 32808

Telephone: 407/836-1400

Fax: 407/836-1499

Title V Air Operation Permit Renewal

Table of Contents

<u>Section</u>	<u>Page Number</u>	
Placard Page	1	
I. Facility Information.		
A. Facility Description.....	2	
B. Summary of Emissions Unit ID No. and Brief Description.....	2	
C. Relevant Documents.....	3	
Section II. Facility-wide Conditions.....	4	
Section III. Emissions Units.		
A. Combustion Turbine (EU 001).....	7	
B. Duct Burner and HRSG (EU 002).....	16	Deleted: 16
Subsection C. Common Conditions.....	19	Inserted: 16
Section IV. This section is the Acid Rain Part.....	30	Deleted: 12
Appendix I-1, List of Insignificant Emissions Units and/or Activities.....	32	Deleted: 19
Appendix U-1, List of Unregulated Emissions Units and/or Activities.....	33	Inserted: 16
Appendix H-1, Permit History/ID Number Changes.....	34	Deleted: 12
Referenced Attachments.....	40	Deleted: 19
		Deleted: 28
		Inserted: 28
		Deleted: 24
		Deleted: 30
		Inserted: 30
		Deleted: 26
		Deleted: 31
		Inserted: 31
		Deleted: 27
		Deleted: 32
		Inserted: 32
		Deleted: 28
		Deleted: 47
		Inserted: 47
		Deleted: 29

Permittee:

Orlando CoGen Limited, L.P.
8275 Exchange Drive
Orlando, Florida 32809-7651

PROPOSED Permit No.: 0950203-002-AV

Facility ID No.: 0950203

SIC Nos.: 49, 4931

Project: Title V Air Operation Permit Renewal

The purpose of this permit is to renew Title V Air Operation Permit No. 0950203-001-AV. This existing facility is located at 8275 Exchange Drive, Orlando, Orange County.

This Title V Air Operation Permit Renewal 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 I-1, List of Insignificant Emissions Units and/or Activities

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

APPENDIX TV-4, TITLE V CONDITIONS (version dated 2/12/02)

APPENDIX SS-1, STACK SAMPLING FACILITIES (10/07/96)

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 (07/96)

Phase II Permit Application received September 3, 2003.

Effective Date: January 1, 2004

Renewal Application Due Date: July 5, 2008

Expiration Date: December 31, 2008

Michael G. Cooke, Director
Division of Air Resource Management

MGC/sms/jh

Section I. Facility Information.

Subsection A. Facility Description.

This facility consists of one combustion turbine, one heat recovery steam generator (HRSG) and one duct burner system associated with the HRSG. The facility's nominal output is 128.9 megawatts (MW). This facility utilizes natural gas as its only fuel.

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

Based on the Title V Air Operation Permit Renewal application received July 1, 2003, this facility is not a major source of hazardous air pollutants (HAPs).

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

Regulated Emissions Units:

E.U. ID

<u>No.</u>	<u>Brief Description</u>
-001	Combustion Turbine (CT)
-002	Heat Recovery Steam Generator (HRSG) and Duct Burner (DB) System

Unregulated emissions Units and/or Activities (See Appendix U-1):

E.U. ID

<u>No.</u>	<u>Brief Description</u>
-003	Emergency Generator(s)

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

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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:

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

Table 2-1, Summary of Compliance Requirements

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

Appendix H-1, Permit History/ID Number Changes

Statement of Basis

These documents are on file with the permitting authority:

Initial Title V Air Operation Permit issued/effective January 1, 1999.

Title V Air Operation Permit Renewal Application received July 1, 2003.

Additional Information Request dated August 25, 2003.

Additional Information Response received September 3, 2003.

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. **Not federally enforceable. 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.]
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.
[Rules 62-296.320(4)(b)1. & 4., F.A.C.]
4. **Prevention of Accidental Releases (Section 112(r) of CAA).**
 - a. The permittee shall submit its Risk Management Plan (RMP) to the Chemical Emergency Preparedness and Prevention Office (CEPPO) RMP Reporting Center when, and if, such requirement becomes applicable. 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
 - and,
 - b. The permittee shall submit to the permitting authority Title V certification forms or a compliance schedule in accordance with Rule 62-213.440(2), F.A.C.
[40 CFR 68]
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. **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

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(OS) without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department.

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

{Permitting Note: No vapor emission control devices or systems are deemed necessary nor ordered by the Department as of the issuance date of this permit.}

8. **Emissions of Unconfined Particulate Matter.** Pursuant to Rules 62-296.320(4)(c)1., 3. & 4., F.A.C., reasonable precautions to prevent emissions of unconfined particulate matter at this facility include the following requirements (see Condition 57. of APPENDIX TV-4, TITLE V CONDITIONS):

The following requirements are "not federally enforceable":

- a. Maintenance of roads, parking areas, and yards;
- b. Landscaping or planting of vegetation;
- c. Confining abrasive blasting where possible; and,
- d. Other techniques, as necessary.

[Rule 62-296.320(4)(c)2., F.A.C.; and, proposed by the applicant in the Title V permit renewal application received July 1, 2003.]

9. When appropriate, any recording, monitoring, or reporting requirements that are time-specific shall be in accordance with the effective date of the permit, which defines day one.

[Rule 62-213.440, F.A.C.]

10. **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)}

11. The permittee shall submit all compliance related notifications and reports required of this permit to:

Orange County Environmental Protection Department.
800 Mercy Drive, Suite 4
Orlando, Florida 32806
Telephone: 407/836-1400
Fax: 407/836-1499

12. 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 & EPCRA Enforcement Branch
61 Forsyth Street
Atlanta, Georgia 30303-8960
Telephone: 404/562-9155
Fax: 404/562-9163

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13. 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.]

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Section III. Emissions Units and Conditions.

Subsection A. This section addresses the following emissions unit.

E.U. ID

<u>No.</u>	<u>Brief Description</u>
-001	Combustion Turbine (CT)

The combined cycle combustion turbine (CT) is an Asea Brown Boveri (ABB) 11N1-EV model with a nameplate rating of 78.9 MW at ISO conditions. The CT is allowed to burn only natural gas.

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{Permitting notes: The emissions unit is regulated under Acid Rain, Phase II; NSPS - 40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines, adopted and incorporated by reference in Rule 62-204.800(8), F.A.C.; Rule 212.400, F.A.C., Prevention of Significant Deterioration (PSD); Rule 62-212.400(6), F.A.C., Best Available Control Technology (BACT) Determination, dated August 17, 1992. The CT began commercial operation on September 25, 1993. Stack height = 115 feet, exit diameter = 15.7 feet, exit temperature = 240 °F, actual volumetric flow rate = 668,145 acfm. The emissions from the CT are controlled by using dry low NO_x burner technology. As defined by 40 CFR 60.331(g), ISO standard day condition means 288 degrees Kelvin (59°F), 60% relative humidity and 101.3 kilopascals (14.7 pounds per square inch) pressure.}

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

{Permitting Note: In addition to the requirements listed below, these emissions units are also subject to the standards and requirements contained in the Acid Rain Part of this permit (see Section IV).}

Essential Potential to Emit (PTE) Parameters

A.1. Permitted Capacity. The operation rate based on the low heating value (LHV) of the fuel shall not exceed 856.9 MMBtu/hr at ISO conditions.
[Rules 62-4.160(2), F.A.C. and 62-210.200(PTE), F.A.C.]

{Permitting note: The heat input limitations have been placed in each permit to identify the capacity of each unit for the purposes of confirming that emissions testing is conducted within 90 to 100 percent of the unit's rated capacity (or to limit future operation to 110 percent of the test load), to establish appropriate emission limits and to aid in determining future rule applicability.

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A.2. Emissions Unit Operating Rate Limitation After Testing. See Specific Condition A.11.
[Rule 62-297.310(2), F.A.C.]

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A.3. Methods of Operation:

- a. Fuels. Only natural gas shall be fired in this unit. The burning of other fuels requires review, public notice, and approval through the pre-construction process.
- b. Control Technology: Dry Low NO_x (DLN) combustors shall have been installed, and shall be maintained, on the combustion turbine to control nitrogen oxides (NO_x) emissions.

[Rules 62-4.070, F.A.C., 62-210.200, F.A.C. (Definitions - Potential Emissions), & 62-213.410, F.A.C.; Chapters 62-210 & 62-212, F.A.C.; AC48-206720; and, Applicant Request]

A.4. Maximum Annual Allowable Hours of Operation. The CT (combustion turbine) is allowed to operate continuously (8,760 hours per year).

[Rule 62-210.200, F.A.C. (Definitions - Potential Emissions); and, AC48-206720.]

Emission Limitations and Standards

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{Permitting Note: The attached 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.}

{Permitting note: Unless otherwise specified, the averaging times for Specific Conditions A.5. – A.9. are based on the specified averaging time of the applicable test method.}

A.5. Nitrogen Oxides. Nitrogen oxides emissions, expressed as NO_x, shall not exceed 15 ppmvd (24-hr rolling average) @ 15% O₂ (57.4 lbs/hr; 251.4 TPY). (See also Condition C.0.)

[AC48-206720; and, BACT Determination, dated August 17, 1992]

{Permitting Note: For purposes of CAM, continuous compliance with the NO_x emission limits is being demonstrated through the use of the continuous emissions monitor that is required in Specific Condition C.22.}

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Inserted: Continuous compliance with the NO_x emission limits is being demonstrated through the use of the continuous emissions monitor that is required in Specific Condition C.22.}]

A.6. Carbon Monoxide. Carbon monoxide emissions, expressed as CO, shall not exceed 10 ppmvd (22.3 lbs/hr; 92.1 TPY).

[AC48-206720; and, BACT Determination, dated August 17, 1992]

A.7. Particulate Matter. Particulate matter emissions, expressed as PM/PM₁₀, shall not exceed 0.01 lb/MMBtu (9.0 lbs/hr; 39.4 TPY).

[AC48-206720; and, BACT Determination, dated August 17, 1992]

A.8. Volatile Organic Compounds. Volatile organic compound emissions, expressed as VOC, shall not exceed 3.0 lbs/hr; 13.0 TPY.

[AC48-206720]

A.9. Visible Emissions. Visible emissions from the CT shall not exceed 10% opacity.

[AC48-206720]

A.10. Sulfur Dioxide. No fuels shall be burned at this source which contain sulfur in excess of 0.8 percent by weight.

[40 CFR 60.333(b)]

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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.}

A.11. Excess emissions resulting from startup, shutdown or malfunction 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 a longer duration.
[Rule 62-210.700(1), F.A.C.]

A.12. 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.]

Test Methods and Procedures

{Permitting note: 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.}

A.13. Testing of emissions shall be conducted with the source operating at capacity, as defined below. If it is impracticable to test at capacity, then sources may be tested at less than capacity. In such cases, the entire heat input vs. inlet temperature curve will be adjusted by the increment equal to the difference between the design heat input value and 110 percent of the value reached during the test. 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. **Capacity** is defined as 90-100 percent of the manufacturer's rated heat input achievable for the average ambient (or conditioned) air temperature during the test.
[Rule 62-4.070(3), F.A.C.; and, AO48-248669]

A.14. Nitrogen Dioxide. The emission test sampling points will be selected in accordance with 40 CFR 60, Appendix A, section 6.1.2.4 of Method 20, which states - Select the eight sampling points at which the lowest O₂ concentrations were obtained. If the difference between the highest and the lowest measured oxygen concentrations in the stack is less than 0.4% oxygen by volume, it may be assumed that stratification does not exist. More than eight points may be used, if desired, providing that the points described above are included.
[0950203-001-AV]

A.15. To compute the nitrogen oxides emissions, the owner or operator shall use analytical methods and procedures that are accurate to within 5 percent and are approved by the Administrator to determine the nitrogen content of the fuel being fired.
[40 CFR 60.335(a)]

A.16. In conducting the performance tests required in 40 CFR 60.8, the owner or operator shall use as reference methods and procedures the test methods in Appendix A of 40 CFR 60 or other methods and

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procedures as specified in this permit, except as provided in 40 CFR 60.8(b). Acceptable alternative methods and procedures are given in paragraph 40 CFR 60.335(f).
[40 CFR 60.335(b)]

A.17. Nitrogen Oxides. During performance tests to determine compliance with the NSPS NO_x standard [40 CFR 60.332(a)(1)], the measured NO_x emission at 15 percent oxygen shall be adjusted to ISO ambient atmospheric conditions by the following equation in accordance with 40 CFR 60.335(c)(1):

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$$NO_x = (NO_{x0}) (P_r/P_0)^{0.5} e^{19(H_0 - 0.00633)} (288^\circ K/T_a)^{1.53}$$

Where:

- NO_x = Emissions rate of NO_x at 15 percent O₂ and ISO standard ambient conditions, volume percent.
- NO_{x0} = Observed NO_x emission rate at 15 percent oxygen, ppmv.
- P_r = Reference combustor inlet absolute pressure at 101.3 kilopascals (1 atmosphere) ambient pressure, mm Hg.
- P₀ = Measured combustor inlet absolute pressure at test ambient pressure, mm Hg.
- e = Transcendental constant (2.718).
- H₀ = Observed humidity of ambient air at test, g H₂O/g air.
- T_a = Temperature of ambient air at test, °K.

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[40 CFR 60.335(c)(1); and, AC48-206720]

A.18. Sulfur Dioxide. The owner or operator shall determine compliance with the sulfur content standard in 40 CFR 60.333(b) as follows: ASTM D 1072-90(94)E-1, D 3031-81(86), D 4084-94, or D 3246-92, or the latest edition, shall be used for the sulfur content of gaseous fuels (incorporated by reference-see 40 CFR 60.17). The applicable ranges of some ASTM methods mentioned above are not adequate to measure the levels of sulfur in some fuel gases. Dilution of samples before analysis (with verification of the dilution ratio) may be used, subject to the approval of the Administrator.

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[40 CFR 60.335(d)]

A.19. To meet the requirements of 40 CFR 60.334(b), the owner or operator shall use the methods specified in 40 CFR 60.335(a) and 40 CFR 60.335(d) of 40 CFR 60.335 to determine the nitrogen and sulfur contents of the fuel being burned. The analysis may be performed by the owner or operator, a service contractor retained by the owner or operator, the fuel vendor, or any other qualified agency.
[40 CFR 60.335(e)]

Monitoring of Operations

A.20. The owner or operator of any stationary gas turbine subject to the provisions of 40 CFR 60, Subpart GG shall monitor sulfur content and nitrogen content of the fuel being fired in the turbine. The frequency of determination of these values shall be as follows:

- (1) If the turbine is supplied its fuel from a bulk storage tank, the values shall be determined on each occasion that fuel is transferred to the storage tank from any other source.
- (2) If the turbine is supplied its fuel without intermediate bulk storage the values shall be determined and recorded daily. Owners, operators or fuel vendors may develop custom schedules for determination of the values based on the design and operation of the affected facility and the characteristics of the fuel supply. These custom schedules shall be substantiated with data and must be approved by the Administrator before they can be used to comply with 40 CFR 60.334(b). (See Specific Condition A.21)

[40 CFR 60.334(b)(1) and (2)]

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A.21. The permittee shall monitor sulfur content and nitrogen content of natural gas fired in the turbine as follows:

Custom Fuel Monitoring Schedule for Natural Gas

1. Monitoring of fuel nitrogen content shall not be required when firing natural gas.
2. Sulfur Monitoring:
 - a. Analysis for fuel sulfur content of the natural gas shall be conducted using one of the approved ASTM reference methods for the measurement of sulfur in gaseous fuels, or an approved alternative method. The reference methods are ASTM D1072-90(94)E-1; ASTM D3031-81(86); ASTM D3246-92; and ASTM D4084-94, or the latest edition of the above ASTM methods as referenced in 40 CFR 60.335(d).
 - b. This custom fuel monitoring schedule became effective on September 17, 1993. Sulfur monitoring shall be conducted twice monthly for six months. If this monitoring shows little variability in the fuel sulfur content, and indicates consistent compliance with 40 CFR 60.333, then sulfur monitoring shall be conducted once per quarter for six quarters.
 - c. If after the monitoring required in item 2.b. above, or herein, the sulfur content of the fuel shows little variability and, calculated as sulfur dioxide, represents consistent compliance with the sulfur dioxide emission limits specified under 40 CFR 60.333, sample analysis shall be conducted twice per annum. This monitoring shall be conducted during the first and third quarter of each calendar year.
 - d. Should any sulfur analysis as required in items 2.b. or 2.c. above indicate noncompliance with 40 CFR 60.333, 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. 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 must notify the Department 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 samples analysis and fuel supply pertinent to this custom schedule shall be retained for a period of five years, and be available for inspection by personnel of federal, state, and local air pollution control agencies.

[Rule 62-4.070(3), F.A.C. and EPA's September 17, 1993 approval letter]

A.22. For the purpose of reports required under 40 CFR 60.7(c), periods of excess emissions that shall be reported is as follows:

Sulfur Dioxide. Any daily period during which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8 percent by weight.

[40 CFR 60.334(c)(2)]

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Miscellaneous Condition

A.23. This emissions unit is also subject to conditions contained in **Subsection C. Common Conditions.**

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Subsection B. This section addresses the following emissions unit.**E.U. ID****No.****Brief Description**

-002

Heat Recovery Steam Generator (HRSG) and Duct Burner (DB) System

The heat recovery steam generator (HRSG), which accepts exhaust from the CT, is used to drive a 50 MW steam turbine. The transition duct from the CT to the HRSG contains duct burners (DBs), manufactured by COEN Company Incorporated. The DB system is allowed to burn only natural gas.

{Permitting notes: The emissions unit is regulated under Acid Rain, Phase II; NSPS - 40 CFR 60, Subpart Db, Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units, adopted and incorporated by reference in Rule 62-204.800(8), F.A.C.; Rule 212.400(6), F.A.C., Prevention of Significant Deterioration (PSD); Rule 62-212.400(6), F.A.C., Best Available Control Technology (BACT) Determination, dated August 17, 1992. The HRSG-DB System began commercial operation on September 25, 1993. The DB system shares a common stack with the CT. Stack height = 115 feet, exit diameter = 15.7 feet, exit temperature = 240 °F, actual volumetric flow rate = 668,145 acfm. The emissions from the DB system are uncontrolled.}

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For the purposes of Rule 62-204.800(7), F.A.C., the definitions contained in the various provisions of 40 CFR 60, shall apply except that the term "Administrator" when used in 40 CFR 60, shall mean the Secretary or the Secretary's designee.

{Permitting Note: In addition to the requirements listed below, these emissions units are also subject to the standards and requirements contained in the Acid Rain Part of this permit (see Section IV).}

Essential Potential to Emit (PTE) Parameters

B.1. Permitted Capacity. The operation rate based on the low heating value (LHV) of the fuel shall not exceed 122.0 MMBtu/hr for a maximum heat input of 450,000 MMBtu/yr. [Rules 62-4.160(2), F.A.C. and 62-210.200(PTE), F.A.C.]

{Permitting note: The heat input limitations have been placed in each permit to identify the capacity of each unit for the purposes of confirming that emissions testing is conducted within 90 to 100 percent of the unit's rated capacity (or to limit future operation to 110 percent of the test load), to establish appropriate emission limits and to aid in determining future rule applicability.}

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B.2. Emissions Unit Operating Rate Limitation After Testing. See Specific Condition **B.13**. [Rule 62-297.310(2), F.A.C.]

B.3. Methods of Operation - Fuels. The only fuel allowed to be burned is natural gas.

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[Rule 62-213.410, F.A.C.; and AC48-206720.]

B.4. Hours of Operation. The hours of operation for the DB shall not exceed 3,688 hours/year at maximum heat input (Note: The DB, however, may operate at lower heat input rates for more hours, up to 8,760, within the annual heat input limit).

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[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; and AC48-206720.]

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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.}

{Permitting note: Unless otherwise specified, the averaging times for Specific Conditions B.5. – B.9. are based on the specified averaging time of the applicable test method.}

B.5. Nitrogen Oxides. Nitrogen oxides emissions, expressed as NO_x, shall not exceed 0.1 lb/MMBtu, 24-hour rolling average (12.2 lb/hr; 22.5 TPY). (See also Condition C.0.)
[AC48-206720; and, BACT Determination dated August 17, 1992]

[Permitting Note: For purposes of CAM, continuous compliance with the NO_x emission limits is being demonstrated through the use of the continuous emissions monitor that is required in Specific Condition C.22.]

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Inserted: Continuous compliance with the NO_x emission limits is being demonstrated through the use of the continuous emissions monitor that is required in Specific Condition C.22.]

B.6. Carbon Monoxide. Carbon monoxide emissions, expressed as CO, shall not exceed 0.1 lb/MMBtu (12.2 lb/hr; 22.5 TPY)
[AC48-206720; and, BACT Determination dated August 17, 1992]

B.7. Particulate Matter. Particulate matter emissions, expressed as PM/PM₁₀, shall not exceed 0.01 lb/MMBtu (1.2 lb/hr; 2.2 TPY)
[AC48-206720; and, BACT Determination dated August 17, 1992]

B.8. Volatile Organic Compounds. Volatile organic compound emissions, expressed as VOC, shall not exceed 3.7 lb/hr; 6.8 TPY.
[AC48-206720]

B.9. Visible Emissions. Visible emissions from the DB shall not exceed 10% opacity.
[AC48-206720]

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.}

B.10. Excess emissions resulting from startup, shutdown or malfunction 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 a longer duration.

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[Rule 62-210.700(1), F.A.C.]

B.11. 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.]

Test Methods and Procedures

{Permitting note: 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.}

B.12. To determine compliance with the emission limit for nitrogen oxides for duct burners used in combined cycle systems, the owner or operator of an affected facility shall conduct the performance tests required under 40 CFR 60.8 using the nitrogen oxides and oxygen measurement procedures in 40 CFR part 60 Appendix A, Method 20. During the performance test, one sampling site shall be located as close as practicable to the exhaust of the turbine, as provided by section 6.1.1 of Method 20. A second sampling site shall be located at the outlet to the steam generating unit. Measurements of nitrogen oxides and oxygen shall be taken at both sampling sites during the performance test. The nitrogen oxides emission rate from the combined cycle system shall be calculated by subtracting the nitrogen oxides emission rate measured at the sampling site at the outlet from the turbine from the nitrogen oxides emission rate measured at the sampling site at the outlet from the steam generating unit.

[AC48-206720; and, 40 CFR 60.46b(f)]

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B.13. Unless otherwise stated in the applicable emission limiting standard rule, testing of emissions shall be conducted with the emissions unit operation at permitted capacity as defined below. If it is impractical to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance to regain the authority to operate at the permitted capacity. **Permitted capacity** is defined as 90 to 100 percent of the maximum operation rate allowed by the permit.

[Rule 62-297.310(2), F.A.C.]

Miscellaneous Condition

B.14. This emissions unit is also subject to conditions contained in **Subsection C. Common Conditions.**

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Subsection C. Common Conditions.**E.U. ID**

<u>No.</u>	<u>Brief Description</u>
-001	Combustion Turbine (CT)
-002	Heat Recovery Steam Generator (HRSG) and Duct Burner (DB) System

{Permitting Note: For the purposes of Rule 62-204.800(7), F.A.C., the definitions contained in the various provisions of 40 CFR 60, shall apply except that the term "Administrator" when used in 40 CFR 60, shall mean the Secretary or the Secretary's designee.}

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

Emission Limitations and Standards

C.0. When both the CT and DB are operating, NO_x emissions shall not exceed 69.6 lbs/hr.

{Permitting Note: For purposes of CAM, continuous compliance with the NO_x emission limits is being demonstrated through the use of the continuous emissions monitor that is required in Specific Condition C.22.}

[AC48-206720; and, BACT Determination dated August 17, 1992]

General

C.1. Definitions. For the purposes of Rule 62-204.800(8), F.A.C., the definitions contained in the various provisions of 40 CFR 60 shall apply except that the term "Administrator" when used in 40 CFR 60, shall mean the Secretary or the Secretary's designee.
[40 CFR 60.2; Rule 62-204.800(7)(a), F.A.C.]

C.2. Circumvention. No owner or operator subject to the provisions of 40 CFR 60 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]

C.3. Modifications. Except as provided under 40 CFR 60.14(e) and (f), any physical or operational change to an existing facility which results in an increase in the emission rate to the atmosphere of any pollutant to which a standard applies shall be considered a modification within the meaning of section 11 of the Act. Upon modification, an existing facility shall become an affected facility for each pollutant to which a standard applies and for which there is an increase in the emission rate to the atmosphere.
[40 CFR 60.14(a)]

C.4. Operating Procedures. Operating procedures shall include good operating practices and proper training of all operators and supervisors. The good operating practices shall meet the guidelines and procedures as established by the equipment manufacturers. All operators (including supervisors) of air pollution control devices shall be properly trained in plant specific equipment.
[Rule 62-4.070(3), F.A.C.]

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Emissions Controls

C.5. Combustion control shall be utilized for CO control. The permittee shall have designed the facility to allow for future installation of an oxidation catalyst. Once the performance testing has been completed, the decision to require an oxidation catalyst will be based on a cost/benefit analysis of using such control.

[AC48-206720]

Test Methods and Procedures

{Permitting note: 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. 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.

[40 CFR 60.8(c)]

C.7. Compliance with standards in 40 CFR 60, other than opacity, shall be determined by performance tests established by 40 CFR 60.8, unless otherwise specified in the applicable standard.

[40 CFR 60.11(a)]

C.8. 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 operation and maintenance procedures, and inspection of the source.

[40 CFR 60.11(d)]

C.9. Special provisions set forth under an applicable subpart of 40 CFR 60 shall supersede any conflicting provisions of 40 CFR 60.11.

[40 CFR 60.11(f)]

C.10. 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

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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.11. 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 three separate test runs unless otherwise specified in a particular test method or applicable rule.

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

C.12. 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:
 - a. For batch, cyclical processes, or other operations which are normally completed within less than the minimum observation period and do not recur within that time, the period of observation shall be equal to the duration of the batch cycle or operation completion time.
 - b. The observation period for special opacity tests that are conducted to provide data to establish a surrogate standard pursuant to Rule 62-297.310(5)(k), F.A.C., Waiver of Compliance Test Requirements, shall be established as necessary to properly establish the relationship between a proposed surrogate standard and an existing mass emission limiting standard.
 - 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, attached to this permit.

(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.]

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C.13. 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.14. 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.]

C.15. 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:
- Did not operate; or
 - In the case of a fuel burning emissions unit, burned liquid and/or solid 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:
- Visible emissions, if there is an applicable standard;
 - 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
- (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

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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]

C.16. Annual Tests Required. Annual tests shall be conducted for visible emissions (VE), nitrogen oxides (NO_x), and carbon monoxide (CO). Annual tests may be required for volatile organic carbons (VOC) and particulate matter (PM). Tests shall be conducted for the CT only, and the CT plus the DB. Required annual tests shall be conducted concurrently, and shall be conducted using the following EPA reference methods in accordance with 40 CFR 60, Appendix A.

[Note: Other test methods may be used for compliance testing only after prior Department written approval.]

[AC 48-206720]

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C.17. Visible Emissions. The test method for visible emissions shall be EPA Method 9. There shall be two one-hour VE tests while firing gas at maximum load, one hour with the DB on and one hour with the DB off.

[AC48-206720; and, 0950203-001-AV]

C.18. Nitrogen Oxides. The test method for nitrogen oxides shall be EPA Method 20.

[AC48-206720]

C.19. Carbon Monoxide. The test method for carbon monoxide shall be EPA Method 10.

[AC48-206720]

C.20. Particulate Matter. When required, the test method for particulate matter shall be EPA Method 5 or 17. An opacity test at maximum load for the CT may be substituted for the annual particulate matter emissions test. If, however, opacity values exceed 10%, then an EPA Method 5 or 17 particulate matter emissions test must be conducted on the CT at maximum load to demonstrate compliance with the particulate matter emissions standard.

[AC48-206720]

C.21. Volatile Organic Compounds. When required, the test method for VOC shall be EPA Method 25A. Compliance with the total VOC emission limits will be assumed, provided the CO allowable emission rate is achieved. Specific VOC compliance testing is not required.

[AC48-206720]

Continuous Monitoring Requirements

C.22. The permittee shall calibrate, maintain and operate a continuous emission monitor (CEM) in the stack to measure and record the nitrogen oxide (NO_x) emissions from this source. The continuous emission monitor must comply with 40 CFR 60, Appendix B, Performance Specification 2. For the purpose of demonstrating ongoing compliance with the applicable NO_x emission limitations in **Specific Conditions A.5. and B.5.**, using the stack CEM, compliance is considered to occur when the NO_x emissions are less than or equal to 57.4 lb/hr when only the CT is operating and less than or equal to 69.6 lb/hr when both the CT and DB are operating. The 24-hour rolling average compliance level is calculated based on the proportion of hours in any 24-hour period that the CT only or the CT/DB are

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operating. Any portion of an hour that the DB operates is recognized as an hour period on the rolling average. For example, in a given contiguous 24-hour period, with 20 hours of CT operation only and 4 hours of CT/DB operation:

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$$\text{Calculated Emission Limitation} = [(57.4 \text{ lb/hr} \times 20 \text{ hrs}) + (69.6 \text{ lb/hr} \times 4 \text{ hrs})]/24 \text{ hrs}$$

$$24 \text{ hour rolling average-compliance NO}_x \text{ level} = 59.4 \text{ lb/hr}$$

Compliance with the permitted NO_x emission limitation is considered satisfied as long as the NO_x emissions from the stack CEM are less than or equal to the calculated NO_x emissions, averaged over the same 24-hour period.

[AC 48-206720]

C.23. 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.

[40 CFR 60.7(c)(1), (2), (3), & (4)]

C.24. The summary report form shall contain the information and be in the format shown in Figure 1 (attached) 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.

[40 CFR 60.7(d)(1) and (2)]

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Recordkeeping and Reporting Requirements

C.25. The owner or operator shall notify the Orange County Environmental Protection Department, in writing, at least 15 days prior to the date on which each test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.

[Rule 62-297.310(7)(a)9., F.A.C.]

C.26. In case of excess emissions resulting from malfunctions, Orlando CoGen Limited shall notify the Orange County Environmental Protection Department in accordance with 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department.

[Rule 62-210.700(6), F.A.C.]

C.27. Test Reports.

- (a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Orange County Environmental Protection Department on the results of each such test.
- (b) The required test report shall be filed with the Orange County Environmental Protection Department 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 Department 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, if required by the test method:
 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.

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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.

[Rule 62-297.310(8), F.A.C.]

C.28. The permittee 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.

[40 CFR 60.7(b)]

C.29. (1) Notwithstanding the frequency of reporting requirements specified in 40 CFR 60.7(c), 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 1 full year (e.g., 4 quarterly or 12 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 40 CFR 60, Subpart A, and the applicable standard;
- (iii) The Administrator does not object to a reduced frequency of reporting for the affected facility, as provided in 40 CFR 60.7(e)(2).

(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.

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(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 non-complying 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 40 CFR 60.7(e)(1) and (e)(2).

[40 CFR 60.7(e)]

C.30. The permittee shall maintain a file of all measurements, including continuous monitoring systems, 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; 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(f); Rule 62-213.440(1)(b)2.b., F.A.C.]

Deleted: C.31. The permittee shall maintain records on the following:

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Section IV. This section is the Acid Rain Part.

Operated by: Orlando CoGen Limited, L.P.
 ORIS code: 54466

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

The emissions units listed below are new units regulated under Acid Rain, Phase II.

E.U. ID

<u>No.</u>	<u>Brief Description</u>
-001	Combustion Turbine
-002	Heat Recovery Steam Generator (HRSG) and Duct Burner (DB) System

A.1. The Phase II permit 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), effective 06/16/03; dated 09/02/03.

[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:

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<u>E.U. ID No.</u>	<u>EPA ID</u>	<u>Year</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>
-001	1	SO₂ allowances, under Table 2 of 40 CFR Part 73	0*	0*	0*	0*	0*
-002	1	SO₂ allowances, 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 increases 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.]

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A.4. Fast-Track Revisions of Acid Rain Parts. Those Acid Rain sources making a change described at Rule 62-214.370(4), F.A.C., may request such change as provided in Rule 62-213.413, Fast-Track Revisions of Acid Rain Parts.
[Rule 62-213.413, F.A.C.]

A.5. Comments, notes, and justifications: none

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, are exempt from the permitting requirements of Chapters 62-210 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 Rule 62-210.300(3)(a), 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 Rule 62.210.300(3)(a), 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.

1. Internal combustion engines – mobile sources.
2. Vacuum pumps for labs.
3. Steam cleaning equipment.
4. Lab equipment used for chemical or physical analyses.
5. Brazing, soldering or welding equipment.
6. Fire and safety equipment.
7. Space heating equipment (non-boilers).
8. Parts cleaning and degreasing stations not subject to 40 CFR 63, Subpart T.
9. Degreasing units using heavier-than-air vapors exclusively, not subject to 40 CFR 63, Subpart T.
10. Turbine vapor extractors
11. Sand blasting and abrasive grit blasting.
12. Freshwater cooling tower. The cooling tower does not use chromium-based treatment chemicals.
13. Storage tanks less than 550 gallons.
14. Architectural (equipment) maintenance painting.
15. Petroleum lubrication systems.
16. Refrigeration equipment.
17. Sanders < 5 sq.ft.
18. On-line turbine compressor cleaning.

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

Unregulated Emissions Unit(s) 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 unit(s) and/or activities are neither ‘regulated emissions units’ nor ‘insignificant emissions units’.

E.U. ID

No. Brief Description

-003 Emergency Generator(s)

-003 Emergency Generator(s).
Located for use at this source is one, or more, Emergency Generator(s).

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Appendix H-1, Permit History/ID Number Changes

Permit History (for tracking purposes):

<u>E.U. ID No.</u>	<u>Description</u>	<u>Permit No.</u>	<u>Issue/Effective Date</u>	<u>Expiration Date</u>	<u>Project Type</u>
-001 -002	Combustion Turbine HRSG-DB System	AC48-206720/ PSD-FL-184	08/17/92	06/02/95	Initial Construction
-001 -002	Combustion Turbine HRSG-DB System	0950203-001-AV	01/01/99	12/31/2003	Initial Title V Permit
-001 -002 -003	Combustion Turbine HRSG-DB System Emergency Generator(s)	0950203-002-AV	01/01/04	12/31/08	Title V permit Renewal

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Referenced Attachments

Phase II Acid Rain Application/Compliance Plan

Appendix A-1, Abbreviations, Definitions, Citations, And Identification Numbers

Appendix SS-1, Stack Sampling Facilities (Version Dated 10/07/96)

Appendix TV-4, Title V Conditions (Version Dated 2/12/02)

**Figure 1: Summary Report-
Gaseous And Opacity Excess Emission And Monitoring System Performance**

Table 297.310-1, CALIBRATION SCHEDULE (Version Dated 10/07/96)

Table 1-1, Summary Of Air Pollutant Standards And Terms

Table 2-1, Summary Of Compliance Requirements

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

Orlando CoGen Limited, L.P.

PROPOSED Permit No.: 0950203-002-AV

Facility ID No.: 0950203

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

E.U. ID No. Brief Description

-001 Combustion Turbine (CT)

Pollutant Name	Fuel(s)	Hours/Year	Allowable Emissions		Equivalent Emissions*		Regulatory Citation(s)	See permit Condition(s)
			Standard(s)	TPY	lbs./hour	TPY		
NOx	natural gas	8760	15 ppmvd @ 15% O ₂		57.4 lbs/hr	251.4		A.5.
CO	natural gas	8760	10 ppmvd		22.3 lbs/hr	92.1		A.6.
PM/PM10	natural gas	8760	0.01 lb/MMBtu		9.0 lbs/hr	39.4		A.7.
VOC	natural gas	8760			3.0 lbs/hr	13		A.8.
VE	natural gas	8760	10% opacity					A.9.
SO2	natural gas	8760	0.8 % sulfur content by weight		571.3 lbs/hr	2503	40 CFR 60.333(b)	A.10.

Notes:

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

E.U. ID No. Brief Description

-002 Heat Recovery Steam Generator (HRSG) and Duct Burner (DB) System

Pollutant Name	Fuel(s)	Hours/Year	Allowable Emissions		Equivalent Emissions*		Regulatory Citation(s)	See permit Condition(s)
			Standard(s)	TPY	lbs./hour	TPY		
NOx	natural gas	3688**	0.1 lb/MMBtu		12.2 lbs/hr	22.5		B.5.
CO	natural gas	3688**	0.1 lb/MMBtu		12.2 lbs/hr	22.5		B.6.
PM/PM10	natural gas	3688**	0.01 lb/MMBtu		1.2 lbs/hr	2.2		B.7.
VOC	natural gas	3688**			3.7 lbs/hr	6.8		B.8.
VE	natural gas	3688**	10% opacity					B.9.

Notes:

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

** This unit may operate at lower heat input rates for more hours within the annual heat input limit.

Table 2-1, Summary of Compliance Requirements

Orlando CoGen Limited, L.P

PROPOSED Permit No.: 0950203-002-AV

Facility ID No.: 0950203

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

E.U. ID No. Brief Description

- 001 Combustion Turbine (CT)
- 002 Heat Recovery Steam Generator (HRSG) and Duct Burner (DB) system

Pollutant Name or parameter	Fuel	Compliance Method	Testing Time Frequency	Frequency Base Date *	Min. Compliance Test Duration	CMS**	See permit Condition(s)
NOx	natural gas	20	annual	1-Apr	1hr		A.14.-17., B.12., C.18.
CO	natural gas	10	annual	1-Apr	1hr		C.19.
PM/PM10	natural gas	5 or 17	annual	1-Apr	1hr		C.20.
Testing required if VE standard for the CT alone, or the CT plus DB is not met.							
VOC	natural gas	25A	annual	1-Apr	1 hr		C.21.
Testing required if CO standard is not met.							
VE	natural gas	.9	annual	1-Apr	1hr		C.17.
SO2	natural gas	ASTM D 1072-90(94)E-1, D 3031-81(86), D 4084-94 or D 3246-92	see custom fuel monitoring schedule		not applicable		A.18., 19., 21., 22.

Notes:

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

**CMS [=] continuous monitoring system