

Department of Environmental Protection

Virginia B. Wetherell Secretary

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

P.E. Certification Statement

Permittee:

Orlando CoGen Limited, L.P. Orlando CoGen Plant

DRAFT Permit No.: 0950203-001-AV

Facility ID No.: 0950203

Project type: Initial Title V Air Operation Permit

I HEREBY CERTIFY that the engineering features described in the above referenced application and subject to the proposed permit conditions provide reasonable assurance of compliance with applicable provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 62-4 and 62-204 through 62-297. However, I have not evaluated and I do not certify aspects of the proposal outside of my area of expertise (including but not limited to the electrical, mechanical, structural, hydrological, and geological features).

Scott M. Sheplak, P.E.

date

Registration Number: 0048866

Permitting Authority:

Department of Environmental Protection

Bureau of Air Regulation

111 South Magnolia Drive, Suite 4

Tallahassee, Florida 32301 Telephone: 850/488-1344

Fax: 850/922-6979



Department of Environmental Protection

Lawton Chiles Governor Twin Towers Office Building 2600 Blair Stone Road Tallahassee, Florida 32399-2400 March 26, 1997

Virginia B. Wetherell Secretary

Mr. Larry J. Adkins Plant Manager Orlando CoGen Limited, L.P. 8275 Exchange Drive Orlando, FL 32809

Re:

DRAFT Title V Permit No.: 0950203-001-AV

Orlando CoGen Limited, L.P.

Dear Mr. Adkins:

One copy of the DRAFT Title V Air Operation Permit for the Orlando CoGen Limited, L.P. Facility located at 8275 Exchange Drive, Orlando, Orange County, is enclosed. The permitting authority's "INTENT TO ISSUE TITLE V AIR OPERATION PERMIT" is also included.

The "PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT" must be published as soon as possible upon receipt of this letter. This issue is important in order for you to receive your Title IV Acid Rain permit by January 1, 1999, pursuant to the Clean Air Act and Section 403.0872, Florida Statutes. Proof of publication, i.e., newspaper affidavit, must be provided to the permitting authority's office within 7 (seven) days of publication. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit.

Please submit any written comments you wish to have considered concerning the permitting authority's proposed action to Scott M. Sheplak, P.E., at the above letterhead address. If you have any other questions, please contact Lennon Anderson at 850/488-1344.

Sincerely,

C. H. Fancy, P.E.

Chief

Bureau of Air Regulation

CHF/a

Enclosures

cc: Ms. Carla E. Pierce, U.S. EPA, Region 4 (INTERNET E-mail Memorandum)
Ms. Yolanda Adams, U.S. EPA, Region 4 (INTERNET E-mail Memorandum)

In the Matter of an Application for Permit by:

Orlando CoGen Limited, L.P. 8275 Exchange Drive Orlando, FL 32809 DRAFT Permit No.: 0950203-001-AV Orlando CoGen Limited, L.P. Orange County

INTENT TO ISSUE TITLE V AIR OPERATION PERMIT

The Department of Environmental Protection (permitting authority) gives notice of its intent to issue a Title V air operation permit (copy of DRAFT Permit enclosed) for the Title V source detailed in the application specified above, for the reasons stated below.

The applicant, Orlando CoGen Limited, L.P., applied on June 8, 1996, to the permitting authority for a Title V air operation permit for the Orlando CoGen Limited, L.P. Facility located at 8275 Exchange Drive, Orlando, Orange County.

The permitting authority has permitting jurisdiction 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. This source is not exempt from Title V permitting procedures. The permitting authority has determined that a Title V air operation permit is required to commence or continue operations at the described facility.

The permitting authority intends to issue this Title V air operation permit based on the belief that reasonable assurances have been provided to indicate that operation of the source will not adversely impact air quality, and the source will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-214, 62-256, 62-257, 62-281, 62-296, and 62-297, F.A.C.

Pursuant to Sections 403.815 and 403.0872, F.S., and Rules 62-103.150 and 62-210.350(3), F.A.C., you (the applicant) are required to publish at your own expense the enclosed "PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT." The notice shall be published one time only as soon as possible in the legal advertisement section of a newspaper of general circulation in the area affected. For the purpose of these rules, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. Where there is more than one newspaper of general circulation in the county, the newspaper used must be one with significant circulation in the area that may be affected by the permit. If you are uncertain that a newspaper meets these requirements, please contact the permitting authority at the address or telephone number listed below. The applicant shall provide proof of publication to the Department's Bureau of Air Regulation, 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400 (Telephone: 850/488-1344; Fax: 850/922-6979), within 7 (seven) days of publication. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit pursuant to Rule 62-103.150(6), F.A.C.

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The permitting authority will issue the Title V PROPOSED Permit, and subsequent Title V FINAL Permit, in accordance with the conditions of the enclosed Title V DRAFT Permit unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The permitting authority will accept written comments concerning the proposed permit issuance action for a period of 30 (thirty) days from the date of publication of "<u>PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT</u>." Written comments should be provided to the permitting authority office. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in this DRAFT Permit, the permitting authority shall issue a Revised DRAFT Permit and require, if applicable, another Public Notice.

The permitting authority will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to Sections 120.569 and 120.57, F.S. Mediation under Section 120.573, F.S., will not be available for this proposed action.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000 (Telephone: 850/488-9730; Fax: 850/487-4938). Petitions filed by the permit applicant or any of the parties listed below must be filed within 14 (fourteen) days of receipt of this notice of intent. Petitions filed by any other person must be filed within 14 (fourteen) days of publication of the public notice or within 14 (fourteen) days of receipt of this notice of intent, whichever occurs first. A petitioner must mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-5.207, F.A.C.

A petition must contain the following information:

- (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Permit File Number, and the county in which the project is proposed;
- (b) A statement of how and when each petitioner received notice of the permitting authority's action or proposed action;
- (c) A statement of how each petitioner's substantial interests are affected by the permitting authority's action or proposed action;
 - (d) A statement of the material facts disputed by the petitioner, if any;
- (e) A statement of the facts that the petitioner contends warrant reversal or modification of the permitting authority's action or proposed action;
- (f) A statement identifying the rules or statutes that the petitioner contends require reversal or modification of the permitting authority's action or proposed action; and,

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(g) A statement of the relief sought by the petitioner, stating precisely the action that the petitioner wants the permitting authority to take with respect to the action or proposed action addressed in this notice of intent.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the permitting authority's final action may be different from the position taken by it in this notice of intent. Persons whose substantial interests will be affected by any such final decision of the permitting authority on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

In addition to the above, a person subject to regulation has a right to apply to the Department of Environmental Protection for a variance from or waiver of the requirements of particular rules, on certain conditions, under Section 120.542, F.S. The relief provided by this state statute applies only to state rules, not statutes, and not to any federal regulatory requirements. Applying for a variance or waiver does not substitute or extend the time for filing a petition for an administrative hearing or exercising any other right that a person may have in relation to the action proposed in this notice of intent.

The application for a variance or waiver is made by filing a petition with the Office of General Counsel of the Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. The petition must specify the following information:

- (a) The name, address, and telephone number of the petitioner;
- (b) The name, address, and telephone number of the attorney or qualified representative of the petitioner, if any;
 - (c) Each rule or portion of a rule from which a variance or waiver is requested;
 - (d) The citation to the statute underlying (implemented by) the rule identified in (c) above;
 - (e) The type of action requested;
 - (f) The specific facts that would justify a variance or waiver for the petitioner;
- (g) The reason why the variance or waiver would serve the purposes of the underlying statute (implemented by the rule); and,
- (h) A statement whether the variance or waiver is permanent or temporary and, if temporary, a statement of the dates showing the duration of the variance or waiver requested.

The Department will grant a variance or waiver when the petition demonstrates both that the application of the rule would create a substantial hardship or violate principles of fairness, as each of those terms is defined in Section 120.542(2), F.S., and that the purpose of the underlying statute will be or has been achieved by other means by the petitioner.

Persons subject to regulation pursuant to any federally delegated or approved air program should be aware that Florida is specifically not authorized to issue variances or waivers from any requirements of any such federally delegated or approved program. The requirements of the program remain fully enforceable by the Administrator of the United States Environmental Protection Agency and by any person under the Clean Air Act unless and until the Administrator

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separately approves any variance or waiver in accordance with the procedures of the federal program.

Finally, pursuant to 42 United States Code (U.S.C.) Section 7661d(b)(2), any person may petition the Administrator of the EPA within 60 (sixty) days of the expiration of the Administrator's 45 (forty-five) day review period as established at 42 U.S.C. Section 7661d(b)(1), to object to issuance of any permit. Any petition shall be based only on objections to the permit that were raised with reasonable specificity during the 30 (thirty) day public comment period provided in this notice, unless the petitioner demonstrates to the Administrator of the EPA that it was impracticable to raise such objections within the comment period or unless the grounds for such objection arose after the comment period. Filing of a petition with the Administrator of the EPA does not stay the effective date of any permit properly issued pursuant to the provisions of Chapter 62-213, F.A.C. Petitions filed with the Administrator of EPA must meet the requirements of 42 U.S.C. Section 7661d(b)(2) and must be filed with the Administrator of the EPA at 401 M. Street, SW, Washington, D.C. 20460.

Executed in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

C. H. Fancy, P.E.

Chief

Bureau of Air Regulation

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CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this INTENT TO ISSUE TITLE V AIR OPERATION PERMIT (including the PUBLIC NOTICE and the DRAFT permit) and all copies were sent by certified mail before the close of business on 33198 to the person(s) listed:

Larry Adkins

In addition, the undersigned duly designated deputy agency clerk hereby certifies that copies of this INTENT TO ISSUE TITLE V AIR OPERATION PERMIT (including the PUBLIC NOTICE and the DRAFT permit) were sent by U.S. mail on the same date to the person(s) listed:

Kennard Kosky, P.E. Karen Winegardner, Orlando CoGen Limited, L.P. Len Kozlov, CD

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.

(Clerk)

(Date)

PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT

STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION

Title V DRAFT Permit No.: 0950203-001-AV
Orlando CoGen Limited, L.P.
Orange County

The Department of Environmental Protection (permitting authority) gives notice of its intent to issue a Title V air operation permit to Orlando CoGen Limited, L.P. for the Orlando CoGen Limited, L.P. Facility located at 8275 Exchange Drive, Orlando, Orange County. The applicant's name and address are: Orlando CoGen Limited, L.P., 8275 Exchange Drive, Orlando, FL 32809.

The permitting authority will issue the Title V PROPOSED Permit, and subsequent Title V FINAL Permit, in accordance with the conditions of the Title V DRAFT Permit unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The permitting authority will accept written comments concerning the proposed Title V DRAFT Permit issuance action for a period of 30 (thirty) days from the date of publication of this Notice. Written comments should be provided to the Department's Bureau of Air Regulation, 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in this DRAFT Permit, the permitting authority shall issue a Revised DRAFT Permit and require, if applicable, another Public Notice.

The permitting authority will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to Sections 120.569 and 120.57, F.S. Mediation under Section 120.573, F.S., will not be available for this proposed action.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000 (Telephone: 850/488-9730; Fax: 850/487-4938). Petitions must be filed within 14 (fourteen) days of publication of the public notice or within 14 (fourteen) days of receipt of the notice of intent, whichever occurs first. A petitioner must mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the applicable time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under Sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-5.207 of the Florida Administrative Code.

A petition must contain the following information:

- (a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Permit File Number, and the county in which the project is proposed;
- (b) A statement of how and when each petitioner received notice of the permitting authority's action or proposed action;
- (c) A statement of how each petitioner's substantial interests are affected by the permitting authority's action or proposed action;
 - (d) A statement of the material facts disputed by the petitioner, if any;
- (e) A statement of the facts that the petitioner contends warrant reversal or modification of the permitting authority's action or proposed action;

- (f) A statement identifying the rules or statutes that the petitioner contends require reversal or modification of the permitting authority's action or proposed action; and,
- (g) A statement of the relief sought by the petitioner, stating precisely the action that the petitioner wants the permitting authority to take with respect to the action or proposed action addressed in this notice of intent.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the permitting authority's final action may be different from the position taken by it in this notice of intent. Persons whose substantial interests will be affected by any such final decision of the permitting authority on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

In addition to the above, pursuant to 42 United States Code (U.S.C.) Section 7661d(b)(2), any person may petition the Administrator of the EPA within 60 (sixty) days of the expiration of the Administrator's 45 (forty-five) day review period as established at 42 U.S.C. Section 7661d(b)(1), to object to issuance of any permit. Any petition shall be based only on objections to the permit that were raised with reasonable specificity during the 30 (thirty) day public comment period provided in this notice, unless the petitioner demonstrates to the Administrator of the EPA that it was impracticable to raise such objections within the comment period or unless the grounds for such objection arose after the comment period. Filing of a petition with the Administrator of the EPA does not stay the effective date of any permit properly issued pursuant to the provisions of Chapter 62-213, F.A.C. Petitions filed with the Administrator of EPA must meet the requirements of 42 U.S.C. Section 7661d(b)(2) and must be filed with the Administrator of the EPA at 401 M. Street, SW, Washington, D.C. 20460.

A complete project file is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

Permitting Authority:

Department of Environmental Protection Bureau of Air Regulation 111 South Magnolia Drive, Suite 4 Tallahassee, Florida 32301 Telephone: 850/488-1344

Fax: 850/922-6979

Affected District/Local Program:

Central District
3319 Maguire Boulevard, Suite 232
Orlando, Fl 32803-3767
Telephone: 407/894-7555

Fax: 407/897-2966

The complete project file includes the DRAFT Permit, the application, and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact Scott M. Sheplak, P.E., at the above address, or call 850/488-1344, for additional information.

Orlando CoGen Limited, L.P. Facility ID No.: 0950203 Orange County

Initial Title V Air Operation Permit **DRAFT 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

Mail Station #5505 2600 Blair Stone Road Tallahassee, Florida 32399-2400 Telephone: 850/488-1344

Fax: 850/922-6979

Compliance Authority:

Orange County Environmental Protection Department 2002 East Michigan Street Orlando, Florida 32806 Telephone: 407/836-7400

Fax: 407/836-7499

Drafted on March 26, 1998

Initial Title V Air Operation Permit **DRAFT Permit No.:** 0950203-001-AV

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Department of Environmental Protection

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

Virginia B. Wetherell Secretary

Permittee:

Orlando CoGen Limited, L.P.

DRAFT Permit No.: 0950203-001-AV

Facility ID No.: 0950203

SIC Nos.: 49, 4931

Project: Initial Title V Air Operation Permit

This permit is for the operation of the Orlando CoGen Limited, L.P. This facility is located at 8275 Exchange Drive, Orlando, Orange County; UTM Coordinates: Zone 17, 459.5 km East and 3146.1 km North; Latitude: 28° 26' 23" North and Longitude: 81° 24' 28" West.

STATEMENT OF BASIS: This Title V air operation permit 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:

D. Customited fuel nountoning

Appendix U-1, List of Unregulated Emissions Units and/or Activities
Appendix I-1, List of Insignificant Emissions Units and/or Activities
APPENDIX TV-1, TITLE V CONDITIONS (version dated 12/02/97)
APPENDIX SS-1, STACK SAMPLING FACILITIES (10/01/96)
TABLE 297.310-1, CALIBRATION SCHEDULE (version dated 10/06/96)
FIGURE 1- SUMMARY REPORT-GASEOUS AND OPACITY EXCESS EMISSION
AND MONITORING SYSTEM PERFORMANCE REPORT (7/96)
Phase II Permit Application received December 4, 1997.

Effective Date: January 1, 1999

Renewal Application Due Date: July 5, 2003

Expiration Date: December 31, 2003

Howard L. Rhodes, Director Division of Air Resources Management

HLR/sms/la

DRAFT Permit No.: 0950203-001-AV

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 initial Title V permit application received June 13, 1996, this facility is not a major source of hazardous air pollutants (HAPs).

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

Brief Description
Combustion Turbine (CT)
Heat Recovery Steam Generator (HRSG) and Duct Burner (DB) System

Unregulated Emissions Units and/or Activities

-xxx

150 kW backup generator with a total fuel consumption limited to 4.4 million cubic feet per year or less of natural gas.

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

DRAFT Permit No.: 0950203-001-AV

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

These documents are on file with the permitting authority: Initial Title V Permit Application received June 13, 1996

Additional Information Request dated January 14,1997 Additional Information Response received April 11, 1997 Waiver of 90 Day time Limit received July 1, 1997 Waiver of 90 Day time Limit received December 31, 1997 Waiver of 90 Day time Limit received January 28, 1998

DRAFT Permit No.: 0950203-001-AV

Section II. Facility-wide Conditions.

The following conditions apply facility-wide:

- 1. APPENDIX TV-1, TITLE V CONDITIONS, is a part of this permit. {Permitting note: APPENDIX TV-1, 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. [Rule 62-296.320(4)(b)1. & 4, F.A.C.]
- 4. <u>Prevention of Accidental Releases (Section 112(r) of CAA)</u>. If required by 40 CFR 68, the permittee shall submit to the implementing agency:
 - a. a risk management plan (RMP) when, and if, such requirement becomes applicable;
- b. certification forms and/or RMPs according to the promulgated rule schedule. [40 CFR 68]
- 5. <u>Unregulated-Emissions Units and/or Activities.</u> 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. <u>Insignificant Emissions Units and/or Activities.</u> 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 (OS) without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department.

DRAFT Permit No.: 0950203-001-AV

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

{Permitting note: The Department has not ordered any control devices or systems under Rule 62-296.320(1)(a), F.A.C.}

- **8.** 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.]
- 9. The permittee shall submit all compliance related notifications and reports required of this permit to

Orange County Environmental Protection Department.

2002 East Michigan Street Orlando, Florida 32806 Telephone: 407/836-7400 Fax: 407/836-7499

- 10. <u>Statement of Compliance</u>. The annual statement of compliance pursuant to Rule 62-213.440(3), F.A.C., shall be submitted within 60 (sixty) days after the end of the calendar year. {See condition 52., APPENDIX TV-1, TITLE V CONDITIONS} [Rule 62-214.420(11), F.A.C.]
- 11. 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
Operating Permits Section
61 Forsyth Street
Atlanta, Georgia 30303
Telephone: 404/562-9099

Fax: 404/562-9095

DRAFT Permit No.: 0950203-001-AV

Section III. Emissions Units and Conditions.

Subsection A. This section addresses the following emissions unit.

E.U.

ID No. Brief Description

-001 Combustion Turbine (CT)

The combined cycle combustion turbine (CT) is an Asea Brown Boveri 11N1-EV model with a nameplate rating of 78.9 MW at ISO. The emissions from the CT are controlled by using dry low NOx burner technology. The CT is allowed to only burn natural gas. It began commercial operation on September 25, 1993.

{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(7), 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. 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 unit listed above:

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.]

A.2. <u>Turbine Cleaning.</u> The turbine compressors shall be cleaned only with Turbotect 927 while the turbine is operating (i.e., on-line) at a dilution ratio of 9 gallons of cleaner to 35 gallons of demineralized water. Cleaning of the on-line compressors shall be performed every 4 days. The Turbotect 927 usage shall not exceed 821 gallons per 12-month rolling average.

[Proposed by applicant in the initial Title V permit application received June 13, 1996]

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.}

A.3. <u>Nitrogen Oxides.</u> Nitrogen oxides emissions, expressed as NO_x, shall not exceed 15 ppmvd @ 15% O₂ (57.4 lbs/hr; 251.4 TPY, 12-month rolling average).

DRAFT Permit No.: 0950203-001-AV

A.4. <u>Carbon Monoxide</u>. Carbon monoxide emissions, expressed as CO, shall not exceed 10 ppmvd (22.3 lbs/hr; 92.1 TPY, 12-month rolling average) [AC48-206720 and BACT Determination, dated August 17, 1992]

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

- A.5. <u>Particulate Matter.</u> Particulate matter emissions, expressed as PM/PM₁₀, shall not exceed 0.01 lb/MMBtu (9.0 lbs/hr, 39.4 TPY, 12-month rolling average) [AC48-206720 and BACT Determination, dated August 17, 1992]
- **A.6.** Volatile Organic Compounds. Volatile organic compound emissions, expressed as VOC, shall not exceed 3.0 lbs/hr; 13.0 TPY, 12-month rolling average. [AC48-206720]
- A.7. <u>Sulfur Dioxide</u>. No fuels shall be burned at this source which contain sulfur in excess of 0.8 percent by weight.

 [40 CFR 60.333(b)]

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.8. 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)]

A.9. 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.10. 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 procedures as specified in this permit, except as provided for 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)]

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- **A.11.** Compliance tests shall be conducted on an annual basis on or within 60 days prior to September 8 for Specific Conditions A.12. through A.14. [AC48-206720]
- **A.12.** Nitrogen Oxides. The owner or operator shall determine compliance with nitrogen oxides as follows:

a. The nitrogen oxides emission rate (NO_x) shall be computed for each run using the following equation:

 $NO_x = (NO_{x0}) (Pr/Po)^{0.5} e^{19(Ho-0.00633)} (288°K/Ta)^{1.53}$

where:

 NO_x = emission rate of NO_x at 15 percent O_2 and ISO standard ambient conditions, volume percent.

 NO_{x0} = observed NO_x concentration, ppm by volume.

 P_r = reference combustor inlet absolute pressure at 101.3 kilopascals ambient pressure, mm Hg.

 P_0 = observed combustor inlet absolute pressure at test, mm Hg.

 $H_0 =$ observed humidity of ambient air, g H_2O/g air.

e = transcendental constant, 2.718.

 $T_a = ambient temperature, °K$.

b. EPA. Method 20 (40 CFR 60, Appendix A) shall be used to determine the nitrogen oxides, and oxygen concentrations. The span values shall be 300 ppm of nitrogen oxide and 21 percent oxygen. The NO_x emissions shall be determined at 30, 50, 75 and 100 percent of peak load or at four points in the normal operating range of the gas turbine, including the minimum point in the range and peak load. [40 CFR 60.335(c)(1) & (3)]

A.13. Nitrogen Dioxide. The emission test sampling points will be selected in accordance with 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.

[AC48-206720]

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- A.14. 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.

 [40 CFR 60.335(d)]
- A.15. 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.16.** 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).

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

V A.X. The permittee shall monitor ...

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A.17. For the purpose of reports required under 40 CFR 60.7(c), periods of excess emissions that shall be report 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)]

Miscellaneous Condition

A.18. 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 only burn natural gas. The HRSG-DB System began commercial operation on September 25, 1993.

{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(7), 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. 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.}

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.]

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.}

- **B.2.** Nitrogen Oxides. Nitrogen oxides emissions, expressed as NO_x , shall not exceed 0.1 lb/MMBtu (12.2 lb/hr; 22.5 TPY, 12-month rolling average). [AC48-206720 and BACT Determination, dated August 17, 1992]
- **B.3.** Carbon Monoxide. Carbon monoxide emissions, expressed as CO, shall not exceed 0.1 lb/MMBtu (12.2 lb/hr; 22.5 TPY, 12-month rolling average) [AC48-206720 and BACT Determination, dated August 17, 1992]

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- **B.4.** Particulate Matter. Particulate matter emissions, expressed as PM/PM₁₀, shall not exceed 0.01 lb/MMBtu (1.2 lb/hr; 2.2 TPY, 12-month rolling average) [AC48-206720 and BACT Determination, dated August 17, 1992]
- **B.5.** Volatile Organic Compounds. Volatile organic compound emissions, expressed as VOC, shall not exceed 3.7 lb/hr; 6.8 TPY, 12-month rolling average. [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.}

- B.6. Compliance tests shall be conducted on an annual basis on or within 60 days prior to September 8 for Specific Conditions B.7.
 - B.7. 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 60.45b(f)]

Miscellaneous Condition

B.8. 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 No. Brief Description

-001 Combustion Turbine (CT)

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

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{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:

Essential Potential to Emit (PTE) Parameters

C.1. Methods of Operation - Fuels. The only fuel allowed to be burned is natural gas. [Rule 62-213.410, F.A.C.]

C.2. Hours of Operation. These emissions units are allowed to operate continuously, i.e., 8,760 hours/year. The hours of operation for the DB shall not exceed 3688 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). [Rules 62-4.160(2) and 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.}

C.3. <u>Visible Emissions</u>. Visible emissions from CT only or CT and DB shall not exceed 10% opacity.

[AC48-206720]

Excess Emissions

C.4. 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 longer duration. [Rule 62-210.700(1), F.A.C.]

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C.5. 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.}

- C.6. Compliance with standards in 40 CFR 60, other than opacity, shall be determined only by performance tests established by 40 CFR 60.8, unless otherwise specified in the applicable standard.

 [40 CFR 60.11(a)]
- C.7. 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.8. 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.9. <u>Circumvention.</u> 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.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

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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.11. 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.]

C.12. 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.13. 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

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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) <u>Required Flow Rate Range</u>. 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) <u>Calibration of Sampling Equipment</u>. 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.]

C.14. 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.15. 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.]

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- C.16. 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 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:
 - 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
- (b) <u>Special Compliance Tests</u>. 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

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provisions of Rule 62-297.310(7)(b), F.A.C., shall apply. [Rule 62-297.310(7), F.A.C.; SIP approved]

- C.17. Compliance tests shall be conducted on an annual basis on or within 60 days prior to September 8 for Specific Conditions C.18. through C.21. Tests shall be conducted for CT only, and CT plus DB. [AC48-206720]
- C.18. Carbon Monoxide: The test method for carbon monoxide shall be EPA Method 10. CO shall be tested simultaneously with NO_x, volatile organic compounds (VOC) and VE at maximum load.

[AC48-206720 and AO48-248669]

. C.19. Particulate Matter. The test method for particulate matter shall be EPA Method 5 or 17. An opacity test for the CT may be substituted for the annual particulate emissions test. If, however, opacity values exceed 10%, then an EPA Method 5 or 17 particulate test must be conducted on the CT to demonstrate compliance with the particulate emissions standard.

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C.20. Volatile Organic Compounds. The test method for VOC shall be EPA Method 25A. VOC shall be tested simultaneously with NO_x, CO and VE at maximum load. No testing for VOC is required if the CO limit is met. [AC48-206720]

C.21. 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. VE readings shall be taken simultaneously with tests for NOx, CO and VOC.

[AC48-206720 and AO48-248669]

Continuous Monitoring Requirements

C.22. 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.

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- (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), and (4)]

- **C.23.** 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)]

C.24. 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 limitation in Specific Conditions A.3. and B.2. 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 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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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 hour rolling average-compliance NO_x level = 59.4 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 and AO48-248669]

Recordkeeping and Reporting Requirements

C.25. The owner or operator shall notify the Central District Office of the 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 Department's Central District Office 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:
 - 1. The type, location, and designation of the emissions unit tested.

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- 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

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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.
- (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).

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[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.]

C.31. The permittee shall maintain records on the amount of Turbotect 927 used to clean the turbine compressors, including the date cleaned and dilution ratio. [Rule 62-4.070(3), F.A.C.]

Reasonable Assurances

C.32. Any other operating parameters established during compliance testing and/or inspections, that will ensure the proper operation of this facility, are considered part of this operating permit. Said operating parameters include, but are not limited to: Fuel flow rate and/heat input rate.

[Rule 62-4.070(3), F.A.C.]

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DRAFT Permit No.: 0950203-001-AV

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.

<u>ID 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 07/01/95, dated 12/02/97. [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 is as follows:

E.U. ID				_	
No.	EPA ID	Year	2000	2001	2002
-001	1	SO2			
		allowances,			
		under	0*	0*	0*
	-	Table 2 or			
		3 of 40			
		CFR Part			
		73			
-002	1	SO2	_		
		allowances,			
		under	0*	0*	0*
		Table 2 or			
		3 of 40			
		CFR Part			
		73			

^{*}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.

DRAFT Permit No.: 0950203-001-AV

- **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.]
- A.4. <u>Fast-Track Revisions of Acid Rain Parts.</u> 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 U-1, List of Unregulated Emissions Units and/or Activities.

Orlando CoGen Limited, L.P. Orlando CoGen Limited, L.P.

DRAFT Permit No.: 0950203-001-AV

Facility ID No.: 0950203

<u>Unregulated Emissions Units and/or Activities</u>. 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'.

<u>E.U.</u>

ID No. Brief Description of Emissions Units and/or Activity

-xxx

One or more emergency generators which are not subject to the Acid Rain Program and have total fuel consumption, in the aggregate, 4.4 million cubic feet per year or less of natural gas.

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

Orlando CoGen Limited, L.P. **DRAFT Permit No.:** 0950203-001-AV

Orlando CoGen Limited, L.P. Facility ID No.: 0950203

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. Comfort heating < 1 MMBtu/hr
- 2. Internal combustion engines mobile sources
- 3. Non-industrial vacuum cleaning
- 4. Refrigeration equipment
- 5. Vacuum pumps for labs
- 6. Steam cleaning equipment
- 7. Sanders \leq 5 sq.ft.
- 8. Lab equipment used for chemical or physical analyses
- 9. Brazing, soldering or welding equipment
- 10. Emergency generators < 32,000 gal/yr
- 11. General purpose engines < 32,000 gal/yr
- 12. Fire and safety equipment
- 13. Surface coating > 5% VOC; 6 gal/month
- 14. Surface coating < 5% VOC
- 15. Freshwater cooling towers. The cooling towers do not use chromimum-based treatment chemicals.

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

Orlando CoGen Limited, L.P.

DRAFT Permit No.: 0950203-001-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)

			Allowable Emissions	•	Equivalent En	nissions*		See permit
Pollutant Name	Fuel(s)	Hours/Year	Standard(s)	TPY	lbs./hour	TPY	Regulatory Citation(s)	Condition(s)
NOx	natural gas	8760	15 ppmvd @ 15% O ₂		57.4 lbs/hr	251.4		A.3.
co	natural gas	8760	10 ppmvd		22.3 lbs/hr	92.1		A.4.
PM/PM10	natural gas	8760	0.01 lb/MMBtu		9.0 lbs/hr	39.4		A.5.
voc	natural gas	8760			3.0 lbs/hr	13		A.6.
VE	natural gas	8760	10% opacity					C.3.
SO2	natural gas	8760	0.8 % sulfur content b	y weight			40 CFR 60.333(b)	A.7.
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				! 				1
<u> </u>								

Notes:

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

[electronic file name: 09502031.xls]

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

Orlando CoGen Limited, L.P.

DRAFT Permit No.: 0950203-001-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

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

			Allowable Emissions	5	Equivalent En	nissions*	•	See permit
Pollutant Name	Fuel(s)	Hours/Year	Standard(s)	TPY	lbs./hour	TPY	Regulatory Citation(s)	Condition(s)
NOx	natural gas	3688**	0.1 lb/MMBtu		12.2 lbs/hr	22.5		B.2.
co	natural gas	3688**	0.1 lb/MMBtu		12.2 lbs/hr	22.5		B.3.
PM/PM10	natural gas	3688**	0.01 lb/MMBtu		1.2 lbs/hr	2.2		B.4.
VOC	natural gas	3688**			3.7 lbs/hr	6.8		B.5.
VE	natural gas	3688**	10% opacity					C.3.
								1

Notes:

[electronic file name: 09502031.xls]

^{*} 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

DRAFT Permit No.: 0950203-001-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

	_		Testing	Frequency	Min. Compliance		
Pollutant Name		Compliance	Time	Base	Test		See permit
or parameter	Fuel	Method	Frequency	Date *	Duration	CMS**	Condition(s)
NOx	natural gas	20	annual	8-Sep	1hr		A.12., 13., B.7.,
co	natural gas	10	annual	8-Sep	1hr		C.18.
PM/PM10	natural gas	5 or 17	annual	8-Sep	1hr		C.19.
VOC	natural gas	25A	annual	8-Sep	1 hr		C.20.
VE	natural gas	9	annual	8-Sep	1hr		C.21.
SO2	natural gas	20	annual	8-Sep	1hr		A.14., 17
]							
	·	·					

Notes:

[electronic file name: 09502032.xls]

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

^{**}CMS [=] continuous monitoring system

Appendix H-1, Permit History/ID Number Changes

Orlando Cogeneration Limited, L.P.

DRAFT Permit No.: 0950203-001-AV

Facility ID No.: 0950203

Permit History (for tracking purposes):

E.U.

ID No	Description	Permit No.	Issue Date	Expiration Date	Extended Date ^{1,2}	Revised Date(s)
-001	Combustion Turbine	AO48-248669	02/10/95	01/31/2000		
		AC48-206720/	08/17/92	06/02/95	11/01/96	
		PSD-FL-184				
-002	HRSG-DB System	AO48-248669	02/10/95	01/31/2000		
		AC48-206720/	08/17/92	06/02/95	11/01/96	
		PSD-FL-184				

(if applicable) ID Number Changes (for tracking purposes):

From: Facility ID No.: 30ORG480203

To: Facility ID No.: 0950203

STEP 1

Phase II Permit Application

Compliance

Page 1

This submission is: X New	Revised		
Orlando CoGen		FL	54466

STEP 2
Enter the boiler ID#
from NADB for each
affected unit, and
indicate whether a
repowering plan is
being submitted for
the unit by entering
"yes" or "no" at
column c. For new
units, enter the requested information
in columns d and e

Identify the source by plant name, State, and ORIS code from NADB

a	b b	c	. d	e
Bailer ID#	Unit Will Hold Allow- ances in Accordance	Repowering Pien	New Units	New Units
	with 40 CFR 72.9(c)(1)		Commence Operation Date	Monitor Certification Deadline
1	Yes	No	25 SEP 1993	1 JAN 1996
	Yes			
	Yes			
	Yes			·
	Yes			
	Yes	·		
	Yes			
	Yes			
	Yes	: 		
	Yes			
	Yes			
	Yes			

STEP 3 Check the box if the response in column c of Step 2 is "Yes" for any unit For each unit that will be repowered, the Repowering Extension Plan form is included and the Repowering Technology Patition form has been submitted or will be submitted by June 1, 1997.

RECEIVED

DEC 04 1997

BUREAU OF AIR REGULATION

DEP Form No. 62-210.900(1)(a) - Form

Effective: 7-1-95

Plant Name (from Step 1)

STEP 4
Read the standard requirements and certification, enter the name of the designated representative, and sign and date

Standard Requirements

Permit Requirements.

- (1) The designated representative of each Acid Rain source and each Acid Rain unit at the source shall: (i) Submit a complete Acid Rain part application (including a compliance pian) under 40 CFR part 72, Rules 62-214.320 and 330, F.A.C. in accordance with the deadlines specified in Rule 62-214.320, F.A.C.; and
 - (ii) Submit in a timely manner any supplemental information that the permitting authority determines is necessary in order to review an Acid Rain part application and issue or dany an Acid Rain parmit;
- (2) The owners and operators of each Acid Rain source and each Acid Rain unit at the source shall:

 (i) Operate the unit in compliance with a complete Acid Rain part application or a superseding Acid Rain part issued by the permitting authority; and

 (ii) Have an Acid Rain Part.

Monitoring Requirements.

- (1) The owners and operators and, to the extent applicable, designated representative of each Acid Rein source and each Acid Rein unit at the source shall comply with the monitoring requirements as provided in 40 CFR part 75, and Rule 62-214.420, F.A.C.
- (2) The emissions measurements recorded and reported in accordance with 40 CFR part 75 shall be used to determine compliance by the unit with the Acid Rain emissions limitations and emissions reduction requirements for sulfur dioxide and nitrogen oxides under the Acid Rain Program.
- (3) The requirements of 40 CFR part 75 shall not affect the responsibility of the owners and operators to monitor emissions of other pollutants or other emissions characteristics at the unit under other applicable requirements of the Act and other provisions of the operating permit for the source.

Sulfur Dioxide Requirements.

- (1) The owners and operators of each source and each Acid Rain unit at the source shall:
 - (i) Hold allowances, as of the allowance transfer deadline, in the unit's compliance subaccount (after deductions under 40 CFR 73.34(c)) not less than the total annual emissions of sulfur dioxide for the previous calendar year from the unit and
- (ii) Comply with the applicable Acid Rain emissions limitations for sulfur dioxida.
- (2) Each ton of sulfur dioxide emitted in excess of the Acid Rain emissions limitations for sulfur dioxide shall constitute a separate violation of the Act.
- (3) An Acid Rain unit shall be subject to the requirements under paragraph (1) of the sulfur dioxide requirements as follows:
 - (i) Starting January 1, 2000, an Acid Rain unit under 40 CFR 72.6(a)(2); or
 - (ii) Starting on the later of January 1, 2000 or the deadline for monitor certification under 40 CFR part 75, an Acid Rain unit under 40 CFR 72.6(a)(3).
- (4) Allowances shall be held in, deducted from, or transferred among Allowance Tracking System accounts in accordance with the Acid Rain Program.
- (5) An allowance shall not be deducted in order to comply with the requirements under paragraph (1)(i) of the sulfur dioxide requirements prior to the calendar year for which the allowance was allocated.
- (6) An allowance allocated by the Administrator under the Acid Rain Program is a limited authorization to emit sulfur dioxide in accordance with the Acid Rain Program. No provision of the Acid Rain Program, the Acid Rain permit application, the Acid Rain permit, or the written exemption under 40 CFR 72.7 and 72.8 and no provision of law shall be construed to limit the authority of the United States to terminate or limit such authorization.
- (7) An allowance allocated by the Administrator under the Acid Rain Program does not constitute a property right.

Nitrogen Oxides Requirements. The owners and operators of the source and each Acid Rain unit at the source shall comply with the applicable Acid Rain emissions limitation for nitrogen oxides.

Excess Emissions Requirements.

- (1) The designated representative of an Acid Rain unit that has excess emissions in any calendar year shall submit a proposed offset plan, as required under 40 CFR part 77.
- (2) The owners and operators of an Acid Rain unit that has excess emissions in any calendar year shall;
 (i) Pay without demand the penalty required, and pay upon demand the interest on that penalty, as required by 40 CFR part 77; and
 - (ii) Comply with the terms of an approved offset plan, as required by 40 CFR part 77.

Recordkeeping and Reporting Requirements.

- (1) Unless otherwise provided, the owners and operators of the source and each Acid Rain unit at the source shall keep on site at the source each of the following documents for a period of 5 years from the date the document is created. This period may be extended for cause, at any time prior to the end of 5 years, in writing by the Administrator or permitting authority:
 - (i) The certificate of representation for the designated representative for the source and each Acid Rain unit at the source and all documents that demonstrate the truth of the statements in the certificate of representation, in accordance with Rule 62-214.350, F.A.C.; provided that the certificate and documents shall be retained on site at the source beyond such 5-year period until such documents are superseded because of the submission of a new certificate of representation changing the designated representative;
 - (ii) All emissions monitoring information, in accordance with 40 CFR part 75:
 - (iii) Copies of all reports, compliance certifications, and other submissions and all records made or required under the Acid Rain Program; and,

Plant Name (from Step 1)

Recordkeeping and Reporting Requirements (cont.)

- (iv) Copies of all documents used to complete an Acid Rain part application and any other submission under the Acid Rain Program or to demonstrate compliance with the requirements of the Acid Rain Program.
- (2) The designated representative of an Acid Rain source and each Acid Rain unit at the source shall submit the raports and compliance certifications required under the Acid Rain Program, including those under 40 CFR part 72 subpart 1 and 40 CFR part 75.

Liability.

- (1) Any person who knowingly violates any requirement or prohibition of the Acid Rain Program, a complete Acid Rain part application, an Acid Rain part, or a written exemption under 40 CFR 72.7 or 72.8, including any requirement for the payment of any penalty owed to the United States, shall be subject to enforcement pursuant to section 113(c) of the Act.
- (2) Any person who knowingly makes a false, material statement in any record, submission, or report under the Acid Rain Program shall be subject to criminal enforcement pursuant to section 113(c) of the Act and 18 U.S.C. 1001.
- (3) No permit revision shall excuse any violation of the requirements of the Acid Rain Program that occurs prior to the date that the revision takes effect.
- (4) Each Acid Rain source and each Acid Rain unit shall meet the requirements of the Acid Rain Program. (5) Any provision of the Acid Rain Program that applies to an Acid Rain source (including a provision applicable to the designated representative of an Acid Rain source) shall also apply to the owners and operators of such source and of the Acid Rain units at the source.
- (6) Any provision of the Acid Rain Program that applies to an Acid Rain unit (including a provision applicable to the designated representative of an Acid Rain unit) shall also apply to the owners and operators of such unit. Except as provided under 40 CFR 72.44 [Phase II repowering extension plans), and except with regard to the requirements applicable to units with a common stack under 40 CFR part 75 (including 40 CFR 75.16, 75.17, and 75.18), the owners and operators and the designated representative of one Acid Rain unit shall not be liable for any violation by any other Acid Rain unit of which they are not owners or operators or the designated representative and that is located at a source of which they are not owners or operators or the designated representative.
- of which they are not owners of operators or the designated representative.

 (7) Each violation of a provision of 40 CFR parts 72, 73, 75, 77, and 78 by an Acid Rain source or Acid Rain unit, or by an owner or operator or designated representative of such source or unit, shall be a separate violation of the Act.

Effect on Other Authorities. No provision of the Acid Rain Program, an Acid Rain part application, an Acid Rain part, or a written examption under 40 CFR 72.7 or 72.8 shall be construed as:

- (1) Except as expressly provided in title IV of the Act, exempting or excluding the owners and operators and, to the extent applicable, the designated representative of an Acid Rain source or Acid Rain unit from compliance with any other provision of the Act, including the provisions of title I of the Act relating to applicable National Ambient Air Quality Standards or State Implementation Plans;
- (2) Limiting the number of allowances a unit can hold; provided, that the number of allowances held by the unit shall not affect the source's obligation to comply with any other provisions of the Act;
- (3) Requiring a change of any kind in any State law regulating electric utility rates and charges, affecting any State law regarding such State regulation, or limiting such State regulation, including any prudence review requirements under such State law;
- (4) Modifying the Federal Power Act or affecting the authority of the Federal Energy Regulatory Commission under the Federal Power Act; or,
- (5) Interiefing with or impairing any program for competitive bidding for power supply in a State in which such program is established.

Certification

I am authorized to make this submission on benalf of the owners and operators of the Acid Rain source or Acid Rain units for which the submission is made. I cartify under penalty of law that I have personally examined, and am familiar with, the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine or imprisonment.

Larry J. Adkins	
Signature Parry Halbur	/2-2-97 Date

Form No. 62-210.900(1)(a) - Form

BEST AVAILABLE COPY

STEP 5 (optional)
Enter the source AIRS
and FINDS identification
numbers, If known

AIRS			
FINDS			

Orlando CoGen Limited, L.P. Facility ID No.: 0950203
Orange County

Initial Title V Air Operation Permit **DRAFT 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

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

Telephone: 904/488-1344 Fax: 904/922-6979

Drafted on June 6, 1997

Initial Title V Air Operation Permit **DRAFT Permit No.:** 0950203-001-AV

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B. Duct Burner System Associated with HRSG	6
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plication is due 01/92	

Permittee:

Orlando CoGen Limited, L.P.

DRAFT Permit No.: 0950203-001-AV

Facility ID No.: 0950203

SIC Nos.: 49, 4931

Project: Initial Title V Air Operation Permit

This permit is for the operation of the Orlando CoGen Limited, L.P. This facility is located at Orlando 8275 Exchange Drive, Orlando, Orange, UTM Coordinates: Zone 17, 459.5 km East and 3146.1 km North; Latitude: 28° 26' 23" North and Longitude: 81° 24' 28" West.

STATEMENT OF BASIS: This Title V air operation permit 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 E-1, List of Exempt Emissions Units and/or Activities
APPENDIX TV-1, TITLE V CONDITIONS (version dated 02/27/97)
APPENDIX SS-1, STACK SAMPLING FACILITIES (03/13/96) 79 6
Appendix CP-1, Compliance Plan dated June 13, 1996

Effective Date: January 1, 1998

Renewal Application Due Date: July 5, 2002

Expiration Date: December 31, 2002

Howard L. Rhodes, Director Division of Air Resources Management

HLR/sms/la

Orlando CoGen Limited, L.P.

DRAFT Permit No.: 0950203-001-AV

Page 2

Section I. Facility Information.

Subsection A. Facility Description.

This facility consists of one combustion turbine and one duct burner system associated with a heat recovery steam generator (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/exempt emissions units and/or activities.

Based on the initial Title V permit application received June 13, 1996, this facility is not a major source of hazardous air pollutants (HAPs).

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

<u>E.U.</u>	
ID No.	Brief Description
-001	Combustion Turbine
-002	Duct Burner System Associated with HRSG Emergency generator with a total fuel consumption limited to 4.4 million cubic
= 003 -\	Emergency generator with a total fuel consumption limited to 4.4 million cubic
~× X	feet per year or less of natural gas.

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

Orlando CoGen Limited, L.P. DRAFT Permit No.: 0950203-001-AV

Page 3

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

These documents are on file with the permitting authority: Initial Title V Permit Application received June 13, 1996

Additional Information Request dated January 14,1997 Additional Information Response received April 11, 1997 Orlando CoGen Limited, L.P. **DRAFT Permit No.:** 0950203-001-AV Page 4

Section II. Facility-wide Conditions.

The following conditions apply facility-wide:

1. APPENDIX TV-1, TITLE V CONDITIONS (version dated 02/27/97), is a part of this permit.

{Permitting note: APPENDIX TV-1, 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). [Rule 62-296.320(4)(b)1., F.A.C.]
- 4. <u>Unregulated Emissions Units and/or Activities.</u> 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.]
- 5. Exempt Emissions Units and/or Activities. Appendix E-1, List of Exempt 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.]
- 6. 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.

[Rule 62-296.320(1)(a), F.A.C.; Proposed by applicant in the initial Title V permit application received June 13, 1996]

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- 7. Not federally enforceable. Reasonable precautions to prevent emissions of unconfined particulate matter at this facility include:
 - a. Paving and maintenance of roads, parking areas and yards.
- b. Application of water or chemicals to control emissions from such activities as demolition of buildings, grading roads, construction, and land clearing.
- c. Application of asphalt, water, oil or chemicals or other dust suppressants to unpaved roads, yards, open stock piles and similar activities.
- d. Removal of particulate matter from roads and other paved areas under the control of the owner or operator of the facility to prevent reentrainment, and from buildings or work areas to prevent particulate from becoming airborne.
 - e. Landscaping or planting of vegetation.
- f. Use of hoods, fans, filters, and similar equipment to contain, capture and/or vent particular matter.
 - g. Confining abrasive blasting where possible.
- h. Enclose or covering of conveyor systems. [Rule 62-296.320(4)(c)2., F.A.C.; Proposed by applicant in the initial Title V permit application received June 13, 1996]

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

Change to Orange County

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Section III. Emissions Units and Conditions.

Subsection A. This section addresses the following emissions unit.

<u>E.U.</u>	·
ID No.	Brief Description
-001	Combustion Turbine (CT)
-002	Duct Burner (DB) System Associated with HRSG

The combustion turbine has a nameplate rating of 78.9 MW at ISO. The CT exhausts through a heat recovery steam generator (HRSG). The HRSG is used to drive a 50 MW steam turbine. The emissions from the CT are controlled using Dry Low NOx Burner technology. The CT and DB began commercial operation in September 1993.

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{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 and Subpart GG, Standards of Performance for Stationary Gas Turbines, adopted and incorporated by reference in Rule 62-204.800(7), 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 following specific conditions apply to the emissions units listed above:

A.1. <u>Definitions</u>. 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.

[40 CFR 60.2; Rule 62-204.800(7)(a), F.A.C.]

Essential Potential to Emit (PTE) Parameters

A.2. Permitted Capacity. The operation rate shall not exceed

a. CT - 856.9 MMBtu/hr at ISO conditions.

b. DB - 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.]

A.3. Methods of Operation - (i.e., Fuels)

The only fuel allowed to be burned is natural gas.

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

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A.4. Hours of Operation. The hours of operation for these emissions unit shall not exceed:

a. CT - 8760 hours/year(X)

b. DB - 3688 hours /year-at maximum heat input (Note: this unit may operate at lower heat input rates for more hours within the annual heat input limit).

These emissions units are allowed to 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.}

A.5. Nitrogen Oxides. Nitrogen oxides emissions, expressed as NO_x, shall not exceed:

CT - 15 ppmvd @ 15% O₂ (57.4 lbs/hr, 251.4 TPY); 24-hr rolling average.

DB - 0.1 lb/MMBtu (12.2 lb/hr; 22.5 TPY); 24-hr rolling average.

[AC 48-206720 and AO48-248669]

A.6. Carbon Monoxide. Carbon monoxide emissions, expressed as CO, shall not exceed:

CT - 10 ppmvd (22.3 lbs/hr; 92.1 TPY).

DB - 0.1 lb/MMBtu (12.2 lb/hr; 22.5 TPY)

[AC 48-206720 and AO48-248669]

A.7. <u>Particulate Matter.</u> Particulate matter emissions, expressed as PM/PM₁₀, shall not exceed:

CT - 0.01 lb/MMBtu (9.0 lbs/hr; 39.4 TPY)

DB - 0.01 lb/MMBtu (1.2 lb/hr; 2.2 TPY)

[AC 48-206720 and AO48-248669]

A.8. <u>Volatile Organic Compounds.</u> Volatile organic compound emissions, expressed as VOC, shall not exceed:

CT - 3.0 lbs/hr; 13.0 TPY

DB - 3.7 lb/hr; 6.8 TPY

[AC 48-206720 and AO48-248669]

from the CT/DB

A.9. Visible Emissions. Visible emissions shall not exceed.

— CT/DB - Less than or equal to 10% opacity.

[AC 48-206720 and AO48-248669]

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A.10. Sulfur Dioxide. The emission-limit for sulfur dioxide (SO₂) from the CT shall not exceed 0.015 percent by volume at 15 percent oxygen and on a dry basis.

[40 CFR 60.333(a)]

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Excess Emissions

A.11. Excess emissions resulting from 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 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. 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.]
- A.14. Compliance with the NOx, CO and visible emission standards shall be determined by the following reference methods as described in 40 CFR 60, Appendix A (July 1, 1991) and adopted by reference in Rule 62-297, F.A.C.
- a. Method 1 Sample and Velocity Traverses
- b. Method 2 Volumetric Flow Rate
- c. Method 5 Determination of Particulate emission from stationary sources or 17
- d. Method 9 Visual determination of the opacity of Emissions from stationary sources
- e. Method 10 Determination of the carbon monoxide emissions from stationary sources

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f. Method 20 - Determination of Nitrogen Oxides, Sulfur Dioxide and Diluent emissions from Stationary Gas Turbines

Note: Other test methods may be used for compliance testing only after prior Department written approval. Compliance with the total volatile organic compound emission limits will be assumed, provided that the CO allowable emission rate is achieved; specific VOC compliance testing is not required. Compliance tests shall be conducted on an annual basis on or within 60 days prior to September 8 for each parameter marked (A) in the following table:

PARAMETER		TEST METHOD
NO _x (A)	,	Method 20* with F factor for results in
		pounds per million Btu.
	•	Stack concentrations of NO _x will be
,		corrected with the ISO correction equation
		in Specific Condition A.18. of this permit.
VOC (A)		Method 25A. VOC will be tested
	•	simultaneously with NO _x , CO and VE at
		maximum load. Not required if CO limit is
		met.
	!	
CO (A)	1	Method 10. CO will be tested
	•	simultaneously with NO _x , VOC and VE at
	i	maximum load. Tests will be conducted for
	1.	CT only, and CT plus DB. CO test will be
	!	three test runs, with each test run to be a
		minimum of one hour as required by 62-
		297.310(1) and 62-297.330(1)(a)
	1.	
VE (A)	÷	Method 9. two one-hour VE tests while
·		firing gas at maximum load. One hour with
		DB on, one hour with DB off. VE readings
		will be taken simultaneously with tests for
		NO _x , CO and VOC.

<u>PARAMETER</u>	METHOD OF DETERMINATION
Fuel Type	Natural Gas
Btu per pound of Fuel (A)	Fuel Analysis both low and high. Btu input
	for CT calculated using lower heating
	value. Btu input for DB calculated using
	higher heating value.

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PARAMETER	METHOD OF DETERMINATION
CO_2 and O_2 (A)	Method 3A/20 to be used to measure
	oxygen for all test conditions.
Ambient temperature, pressure and humidity (A)	Temperature and humidity of the ambient air will be recorded by the stack test team. This is in addition to the data recorded by the computer. Pressure will be measured as ambient pressure.
30, 50, 75, and 100% of peak load or at four points in the normal operating range of the gas turbine, including the minimum point in the range and peak load, as referenced in 40 CFR 60.335(c)(2), Subpart GG.	Peak load based on Btu input will be established and megawatts determined on the day of the test. Multiple load testing for NO _x will be performed in accordance with 40 CFR 60.335(c)(2).

* The emission test sampling points will be selected in accordance with 6.1.2.4 of Method 20, which states - Select the eight sampling points at which the lowest O₂ concentration 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.

A one-hour visible emissions test at peak load is required to show compliance with the 10% opacity limit on the turbine.

[AC 48-206720 and AO48-248669]

A.15. An opacity test for the CT may be substituted for the annual particulate emissions test. If, however, opacity-values exceed 10%, then a Method 5 or 17 particulate test must be conducted on the CT to prove compliance with the particulate emissions standard.

[AC 48-206720 and AO48-248669]

- A.16. 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.17. 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 procedures as specified in this permit, except as provided for 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.18. The owner or operator shall determine compliance with the nitrogen oxides and sulfur dioxide standards in 40 CFR 60.332 and 40 CFR 60.333(a) as follows:

a. The nitrogen oxides emission rate (NO_x) shall be computed for each run using the following equation:

$$NO_x = (NO_{xO}) (Pr/Po)^{0.5} e^{19(Ho-0.00633)} (288°K/Ta)^{1.53}$$

where:

NO_X = emission rate of NO_X at 15 percent O₂ and ISO standard ambient conditions, volume percent.

 NO_{XO} = observed NO_{X} concentration, ppm by volume.

P_r = reference combustor inlet absolute pressure at 101.3 kilopascals ambient pressure, mm Hg.

Po = observed combustor in et absolute pressure at test, mm Hg.

 H_0 = observed humidity of ambient air, g H_2O/g air.

e = transcendental constant, 2.718.

 T_a = ambient temperature, ${}^{\circ}K$.

[40 CFR 60.335(c)(1)]

A.19. 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 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.

[40 CFR 60.335(d)]

A.20. 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)]

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Monitoring of Operations

A.21. The owner or operator of any stationary gas turbine subject to the provisions of 40 CFR 60, Subpart GG and using water injection to control NOx emissions shall install and operate a continuous monitoring system to monitor and record the fuel consumption and the ratio of water to fuel being fired in the turbine. This system shall be accurate to within ±5.0 percent and shall be approved by the Administrator.

[40 CFR 60.334(a)]

A.22. 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:

a 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.

b. 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).

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

- **A.23.** For the purpose of reports required under 40 CFR 60.7(c), periods of excess emissions that shall be reported are defined as follows:
- a. Nitrogen oxides. Any one-hour period during which the average water-to-fuel ratio, as measured by the continuous monitoring system, falls below the water-to-fuel ratio determined to demonstrate compliance with 40 CFR 60.332 by the performance test required in 40 CFR 60.8 or any period during which the fuel-bound nitrogen of the fuel is greater than the maximum nitrogen content allowed by the fuel-bound nitrogen allowance used during the performance test required in 40 CFR 60.8. Each report shall include the average water-to-fuel ratio, average fuel consumption, ambient conditions, gas turbine load, and nitrogen content of the fuel during the period of excess emissions, and the graphs or figures developed under 40 CFR 60.335(a). [40 CFR 60.334(c)(1)]
- b. Sulfur dioxide. Any daily period during which the sulfur content of the fuel being fired in the gas turbine exceeds 0.8 percent.

 [40 CFR 60.334(c)(2)]

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- c. Ice fog. Each period during which an exemption provided in 40 CFR 60.332(g) is in effect shall be reported in writing to the Administrator quarterly. For each period the ambient conditions existing during the period, the date and time the air pollution control system was deactivated, and the date and time the air pollution control system was reactivated shall be reported. All quarterly reports shall be postmarked by the 30th day following the end of each calendar quarter.

 [40 CFR 60.334(c)(3)]
- d. Emergency fuel. Each period during which an exemption provided in 40 CFR 60.332(k) is in effect shall be included in the report required in 40 CFR 60.7(c). For each period, the type, reasons, and duration of the firing of the emergency fuel shall be reported.

 [40 CFR 60.334(c)(4)]

Continuous Monitoring Requirements

A.24. 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, (July 1, 1991 version). For the purpose of demonstrating ongoing compliance with the applicable NO_x emission limitation in Specific Condition A.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 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:

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 hour rolling average-compliance NO_x level = 59.4 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 and AO48-248669]

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Recordkeeping and Reporting Requirements

A.25. Any change in the method of operation, equipment or operating hours which affects air emissions shall be submitted to the Department's Bureau of Air Regulation and the Central Florida District Office for prior approval.

[AC 48-206720 and AO48-248669]

A.26. The owner of operator shall notify the Central District Office of the 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.]

A.27. In case of excess emissions resulting from malfunctions, Orlando CoGen Limited shall notify the Department's Central District Office 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.]

A.28. Test Reports.

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

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

Reasonable Assurances

A.29. Any other operating parameters established during compliance testing and/or inspections, that will ensure the proper operation of this facility, are considered part of this operating permit. Said operating parameters include, but are not limited to: Fuel flow rate and heat input rate.

[Rule 62-4.070(3), F.A.C.]

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A.30. All recorded data shall be maintained on file for a period of at least two years. The information supplied in this report shall be consistent with the reporting requirements of 40 CFR 60.7.

[Rule 62-4.070(3), F.A.C.]

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