

Department of Environmental Protection

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

Colleen M. Castille Secretary

November 15, 2004

Mr. Frederick F. Haddad, Jr. Vice President, Power Resources Business Unit Orlando Utilities Commission 500 South Orange Avenue P.O. Box 3193 Orlando, Florida 32802

Re:

PROPOSED Title V Air Operation Permit Renewal

0090008-003-AV Indian River Plant

Facility ID: 0090008; ORIS Code: 683

Dear Mr. Haddad, Jr.:

One copy of the "<u>PROPOSED PERMIT RENEWAL DETERMINATION</u>" for the Indian River Plant, located at US 1 and Kings Highway, Titusville, Brevard County, is enclosed. This letter is only a courtesy to inform you that the DRAFT permit has become a PROPOSED permit.

An electronic version of this determination has been posted on the Division of Air Resource Management's world wide web site for the United States Environmental Protection Agency (U.S. EPA) Region 4 office's review. The web site address is:

http://www.dep.state.fl.us/air/eproducts/airpermit/AirSearch.asp

Pursuant to Section 403.0872(6), Florida Statutes, if no objection to the PROPOSED permit is made by the USEPA within 45 days, the PROPOSED permit will become a FINAL permit no later than 55 days after the date on which the PROPOSED permit was mailed (posted) to USEPA. If USEPA has an objection to the PROPOSED permit, the FINAL permit will not be issued until the permitting authority receives written notice that the objection is resolved or withdrawn. If you have any questions, please contact Tom Cascio at 850/921-9526.

Sincerely,

Trina L. Vielhauer, Chief Bureau of Air Regulation

Zuin LV elhaun

Copy furnished to: U.S. EPA, Region 4 (INTERNET E-mail Memorandum) Len Kozlov, P.E., Central District Office Scott Osbourn, P.E., Golder Associates, Inc. Denise Stalls, OUC

"More Protection, Less Process"

Printed on recycled paper.

PROPOSED Permit Renewal Determination Indian River Plant Permit No. 0090008-003-AV

I. Public Notice.

An "INTENT TO ISSUE TITLE V AIR OPERATION PERMIT RENEWAL" to the Orlando Utilities Commission, for the Indian River Plant, located at US 1 and Kings Highway, Titusville, Brevard County, was clerked on October 8, 2004. The "PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT RENEWAL" was published in Florida Today on October 13, 2004.

The DRAFT Title V Air Operation Permit was available for public inspection at the Department of Environmental Protection's Central District Office in Orlando, and the permitting authority's office in Tallahassee. Proof of publication of the "<u>PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT RENEWAL</u>" was received on October 25, 2004.

II. Public Comment(s).

No comments were received from any agencies, or the public at large concerning the DRAFT Permit Renewal. Comments were received from the Applicant in an e-mail memorandum dated November 9, 2004. The comments and the Department responses are summarized in the table below.

No.	Permit Specific Condition Reference	Department Response
1	Specific Condition C.50.	The Applicant commented: "COMS for Periodic Monitoring - it's understood that this is a potentially applicable requirement for the combustion turbines, just as any Part 75 requirement is potentially applicable due to the fact that these are Acid Rain units. We object to the way the condition is worded: "OUC shall install continuous opacity monitoring systems (COMS) pursuant to 40 CFR Part 75." This makes it sound as though we've triggered applicable requirements in Part 75 that now obligate us to install COMS, which is absolutely untrue. These units are exempt from COMS under 40 CFR 75.14(c). The current permit, under Subsection B, already states the applicability of Part 75 to these units and should be sufficient to address any potential applicability of COMS."
	f	Department response: The language "when applicable" was added to the first sentence of Specific Condition C.50.
2	Specific Condition C.7.	The Applicant commented: "We believe that the language in this condition that refers to the number of operating hours (170 per unit for CTs A & B and 400 per unit for CTs C & D) was intended to address whether annual testing on oil was required. The site already tests annually for NOx on gas, regardless of the number of hours of operation. Please revise to reflect the intent for oil firing.
		Department response: The language of Specific Condition C.7. was revised to provide this clarification.
3	CAM Plan	The Applicant commented: "In the <u>CAM Plan</u> , the scales on fuel flow for Figures 6 and 8 (CT C and CT D natural gas firing, respectively) seem to be incorrect. I'll send you revised figures no later than COB Wednesday."
		Department response: The CAM Plan was revised based on the corrected figures.

PROPOSED Permit Renewal Determination

Indian River Plant Permit No. 0090008-003-AV

4	Specific Conditions C.2. and C.3.	The Applicant commented: "In accordance with the revisions to NSPS, Subpart GG, please revise <u>Conditions C.2 and C.3</u> to eliminate the requirements for 5% accuracy, and for nitrogen content analysis, respectively."
		Department response: the Department agrees with these changes. Therefore, the sentence "The system shall be accurate to within ±5.0 percent and shall be approved by the Department" has been removed from Specific Condition C.2., and the words "nitrogen content" has been removed from Specific Condition C.3. in the PROPOSED permit

III. Conclusion.

The Applicant's accepted comments were not considered significant enough to reissue the DRAFT Title V Permit and to require another Public Notice. The permitting authority hereby issues PROPOSED Title V Permit Renewal No. 0090008-003-AV, with the changes noted above.

STATEMENT OF BASIS

Orlando Utilities Commission
Indian River Plant
Facility ID No. 0090008
Brevard County

PROPOSED Title V Air Operation Permit Renewal Permit No. 0090008-003-AV

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

This facility consists primarily of four combustion turbines.

Emissions units -004 and -007 (Turbines A and B) consist of simple cycle GE Frame 6 combustion turbines, each with a 35 MW rating. Although the turbines primarily fire natural gas, distillate oil may be fired during periods of curtailed or uneconomical natural gas supply. Nitrogen oxide emissions are reduced by using water injection. Both turbines began commercial operation August 1, 1990.

Emissions units -005 and -006 (Turbines C and D) consist of simple cycle Westinghouse Model Number 501-D5 combustion turbines, each with a 129 MW rating. The turbines primarily fire natural gas. Distillate oil may be fired during periods of curtailed or uneconomical natural gas supply. Nitrogen oxide emissions are controlled by water injection. Both turbines began commercial operation November 1, 1991.

Also included in this permit are miscellaneous unregulated and insignificant emissions units and activities. Based on the Title V permit renewal application received on May 21, 2004, this facility is not a major source of hazardous air pollutants (HAPs).

The following changes were made to the facility's existing Title V permit 0090008-002-AV:

- Specific Condition C.43. was revised as follows to be consistent with the testing requirements as required by Specific Condition B.5.
- C.43. The Permittee shall conduct a compliance test on an *annual basis* for each of the following pollutants. Each compliance test shall be conducted in accordance with 40 CFR 60, Appendix A, using the method indicated.
 - a) Oxides of Nitrogen (NOx) EPA Method 20.
 - b) Carbon Monoxide (CO) EPA Method 10. (Combustion Turbines C and D only).
 - c) Beryllium (Be) EPA Method 104.

Since the pollutants mercury, lead, and beryllium are an inherent constituent in distillate fuel oil, they will be regulated by specifying that only No. 2 fuel oil be fired at this facility in addition to natural gas. See Specific Condition **B.5.**

- d) Particulate Matter (PM/PM₁₀) EPA Method 5. An annual compliance test for particulate matter emissions shall not be required for any fuel burning emissions unit that, in a federal fiscal year, does not burn liquid and/or solid fuel, other than during startup, for a total of more than 400 hours. [Rule 62-297.310(7)(a)4. & 5., F.A.C.]
 - Specific Condition C.10. was revised to correct an error in a reference to a specific condition (C.1. in place of D.1.).

C.10. The monitoring device of 40 CFR 60.334(a) (see Specific Condition C.2.) shall be used to determine the fuel consumption and the water-to-fuel ratio necessary to comply with 40 CFR 60.332 (see Specific Condition C.1.) 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. All loads shall be corrected to ISO conditions using the appropriate equations supplied by the manufacturer. However, annual compliance tests conducted to establish compliance with NOx limits that are more stringent than the NSPS standard shall not require an ISO correction or testing at four load points; rather, the testing shall be done at capacity, as defined earlier. [40 CFR 60.335(c)(2)]

The lower limit of the definition of capacity was changed from 95% to 90% of the manufacturer's rated heat input to be consistent with recent Department language in other permits. Also changed is the language (from 105%) to, "in such cases, the entire heat input versus inlet temperature curve will be adjusted by the increment equal to the difference between the design heat input value and 110 percent of the value reached during the test." See Specific Conditions B.8., C.5.0., and C.7.

The applicant requested that Specific Condition C.50. (noted below) be deleted with the claim that it is an artifact of a earlier permit that applied to the total Indian River Plant facility (i.e., prior to the sale of the three boilers to Reliant Energy). This specific condition is retained because it was an applicable requirement for the combustion turbines in the prior permit.

C.50. COMS for Periodic Monitoring. OUC shall install continuous opacity monitoring systems (COMS) pursuant to 40 CFR Part 75. OUC shall maintain and operate the COMS and shall make and maintain records of opacity measured by the COMS, for purposes of periodic monitoring. [Rule 62-213.440, F.A.C., and applicant requested]

Orlando Utilities Commission Indian River Plant Facility ID No. 0090008 Brevard County

Title V Air Operation Permit PROPOSED Permit Renewal No. 0090008-003-AV

Permitting Authority:

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

Mail Station #5505 2600 Blair Stone Road Tallahassee, Florida 32399-2400 Telephone: 850/488-0114 Fax: 850/922-6979

Compliance Authority:

Department of Environmental Protection Central District Office 3319 Maguire Boulevard, Suite 232 Orlando, Florida 32803-3767 Telephone: 407/894-7555

Fax: 407/897-2996

Title V Air Operation Permit PROPOSED Permit Renewal No. **0090008-003-AV**

TABLE OF CONTENTS

ection .	Page
lacard Page	1
Facility Information	2
. Facility-wide Conditions.	3
I. Emissions Unit Conditions	5
A. Combustion Turbines A & B	5
B. Combustion Turbines C & D.	7
C. Common Conditions	
/. Acid Rain Part, Phase II	25



Department of **Environmental Protection**

leb Bush Governor

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

Colleen M. Castille Secretary

Permittee:

Orlando Utilities Commission 500 South Orange Avenue P.O. Box 3193 Orlando, Florida 32802

PROPOSED Permit Renewal No. 0090008-003-AV

SIC Nos. 49, 4911

Project: Title V Air Operation Permit Renewal

This permit renewal is for the operation of Indian River Plant. This facility is located at US 1 & Kings Highway, Titusville, Brevard County, 32780; UTM Coordinates: Zone 17, 521.5 km East and 3151.6 km North; Latitude: 28° 29' 32" North and Longitude: 80° 46' 59" West.

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

Referenced attachments made a part of this permit:

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

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

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

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

TABLE 297.310-1, CALIBRATION SCHEDULE (version dated 10/07/96)

Figure 1 - SUMMARY REPORT - GASEOUS AND OPACITY EXCESS EMISSION AND MONITORING SYSTEM REPORT (version dated 7/96)

Phase II Acid Rain Part Application signed by the Designated Representative on April 23, 2004.

Alternate Sampling Procedures: ASP Number 97-B-01 and ASP 92-0-01

Attachment A: Operating Curve for Combustion Turbines A and B

Attachment B: Westinghouse Electric Corp. letter dated 04/11/95 Re: Heat Input Curve for

OUC Indian River, Units C and D, Base Load Operation.

Appendix CAM

Effective Date: January 1, 2005

Renewal Application Due Date: July 5, 2009

Expiration Date: December 31, 2009

Michael G. Cooke, Director Division of Air Resource Management

MGC/tbc

"More Protection, Less Process"

Printed on recycled paper.

Section I. Facility Information

Subsection A. Facility Description

This facility consists of four combustion turbines, and one unregulated fuel storage tank. Based on the Title V permit renewal application received on May 21, 2004, this facility is not a major source of hazardous air pollutants (HAPs). A compliance assurance monitoring (CAM) plan is included for the water injection control of nitrogen oxides emissions. See Appendix CAM.

{Permitting Note: PSD-FL-130 was initially issued for all four combustion turbines. PSD-FL-173 was subsequently issued for combustion turbines C and D.}

Subsection B. Summary of Emissions Unit ID Nos. and Brief Descriptions

E.U. ID	
No.	Brief Description
004	35 MW Simple Cycle Combustion Turbine A
005	129 MW Simple Cycle Combustion Turbine C
006	129 MW Simple Cycle Combustion Turbine D
007	35 MW Simple Cycle Combustion Turbine B
009	One No. 2 Fuel Oil Storage Tank (150,000 gallon capacity)

Please reference the Permit No., Facility ID No., and appropriate Emissions Unit ID Nos. on all test report submittals, applications, and other correspondence.

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 Transfers

Statement of Basis

These documents are on file with the permitting authority:

Title V Permit Renewal Application received on May 21, 2004.

Request for additional information letter dated June 30, 2004.

Response from the applicant received on September 24, 2004.

DRAFT Title V Permit Renewal clerked on October 8, 2004.

Section II. Facility-wide Conditions

The following conditions apply facility-wide:

- 1. APPENDIX TV-4, TITLE V CONDITIONS, is a part of this permit. {Permitting note: APPENDIX TV-4, TITLE V CONDITIONS, is distributed to the Permittee only. Other persons requesting copies of these conditions shall be provided a copy when requested or otherwise appropriate.}
- 2. Not Federally Enforceable. General Pollutant Emission Limiting Standards. Objectionable Odor Prohibited. The permittee shall not cause, suffer, allow, or permit the discharge of air pollutants which cause or contribute to an objectionable odor. [Rule 62-296.320(2), F.A.C.]
- 3. General Particulate Emission Limiting Standards. General Visible Emissions Standard. Except for emissions units that are subject to a particulate matter or opacity limit set forth or established by rule and reflected by conditions in this permit, no person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density of which is equal to or greater than that designated as Number 1 on the Ringelmann Chart (20 percent opacity). EPA Method 9 is the method of compliance pursuant to Chapter 62-297, F.A.C. [Rule 62-296.320(4)(b)1. & 4., F.A.C.]

<u>{Permitting Note:</u> Although the Permittee is <u>not</u> required to perform a visible emissions compliance test to demonstrate compliance with the facility-wide limitations annually or before renewal, if the Department believes that the general visible emissions standard is being violated, the Department may require that the owner or operator perform a visible emissions compliance test per Chapter 62-297.310(7)(b), Special Compliance Tests. In addition, Department personnel who are certified to perform visible emissions tests may determine compliance with the general visible emissions standard.}

- 4. Prevention of Accidental Releases (Section 112(r) of CAA).
- a. The permittee shall submit its Risk Management Plan (RMP) to the Chemical Emergency Preparedness and Prevention Office (CEPPO) RMP Reporting Center when, and if, such requirement becomes applicable. Any Risk Management Plans, original submittals, revisions or updates to submittals, should be sent to:

RMP Reporting Center
Post Office Box 1515
Lanham-Seabrook, Maryland 20703-1515
Telephone: 301/429-5018

and.

- b. The permittee shall submit to the permitting authority Title V certification forms or a compliance schedule in accordance with Rule 62-213.440(2), F.A.C. [40 CFR 68]
- 5. <u>Unregulated Emissions Units and Activities.</u> Appendix U-1, List of Unregulated Emissions Units and Activities, is a part of this permit. [Rule 62-213.440(1), F.A.C.]
- 6. <u>Insignificant Emissions Units and Activities.</u> Appendix I-1, List of Insignificant Emissions Units and 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. [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.]
- Not federally enforceable. The Permittee shall take reasonable precautions to prevent emissions of unconfined particulate matter at this facility. These precautions include receiving delivery of fuel oil by barge rather than trucks, and using paved roads for the fuel trucks which deliver vehicle fuel. Additionally, watering will be used as needed to prevent emissions from unpaved areas.

[Rule 62-296.320(4)(c)2., F.A.C.]

10. The Permittee shall submit all compliance, annual operating reports and other correspondence required of this permit to:

Department of Environmental Protection Central District Office 3319 Maguire Boulevard Suite 232 Orlando, Florida 32803-3767 Telephone: 407/894-7555 Fax: 407/897-2996

11. Any reports, data, notification, certifications, and requests required to be sent to the United States Environmental Protection Agency should be sent to:

United States Environmental Protection Agency

Region 4

Air, Pesticides, & Toxics Management Division

Air and EPCRA Enforcement Branch, Air Enforcement Section

61 Forsyth Street Atlanta, Georgia 30303 Telephone: 404/562-9155 Fax: 404/562-9163

{Permitting note: Condition no. 51 of Appendix TV-4, lists the necessary elements of a compliance certification required under 40 C.F.R. 70.6(c)(5)(iii).}

Certification by Responsible Official (RO). In addition to the professional engineering 12. certification required for applications by Rule 62-4.050(3), F.A.C., any application form, report, compliance statement, compliance plan and compliance schedule submitted pursuant to Chapter 62-213, F.A.C., shall contain a certification signed by a responsible official that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. Any responsible official who fails to submit any required information or who has submitted incorrect information shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary information or correct information. [Rule 62-213.420(4), F.A.C.]

Subsection A. Combustion Turbines A and B

E.U. ID	
No.	Brief Description
004	35 MW Simple Cycle Combustion Turbine A
007	35 MW Simple Cycle Combustion Turbine B

Emissions units 004 and 007 (Turbines A and B) consist of simple cycle GE Frame 6 combustion turbines, each with a 35 MW rating. Although the turbines primarily fire natural gas, distillate oil may be fired during periods of curtailed or uneconomical natural gas supply. Nitrogen oxide emissions are reduced by using water injection. Both turbines began commercial operation on August 1, 1990. {Permitting notes: These emissions units are regulated under Rule 62-210.300, F.A.C., Permits Required; NSPS - 40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines, adopted and incorporated by reference in Rule 62-204.800(7)(b)38., F.A.C.; NSPS 40 CFR 60 Subpart A; Rule 62-212.400, F.A.C., Prevention of Significant Deterioration; PSD-FL-130; and AC05-144482 and AC05-146749.} These emissions units are subject to compliance assurance monitoring (CAM). See Appendix CAM.

The following conditions apply to the emissions units listed above:

Essential Potential to Emit (PTE) Parameters

A.1. <u>Permitted Capacity.</u> The maximum heat input (lower heating value) to each turbine shall not exceed 445 MMBtu/hour, at sea level and 59°F. See Attachment A for a plot of heat input versus temperature.

[Rules 62-4.160(2), 62-210.200 (PTE), and 62-212.400, F.A.C., AO05-176351]

- A.2. <u>Methods of Operation Fuels.</u> The only fuels allowed to be burned are No. 2 fuel oil and natural gas. To comply with the sulfur emission limits, the sulfur content of the as-fired fuels shall not exceed 0.3 percent, by weight. See Specific Condition C.3. (Common Conditions). [Rules 62-4.160(2), 62-210.200, and 62-213.440(1), F.A.C.; AC05-144482 and AC05-146749.]
- A.3. <u>Hours of Operation.</u> This emissions units may operate continuously (8,760 hours per year). The facility is required to keep daily records of the operating hours and associated fuel use. [Rules 62-210.200 and 62-213.440(1)(b)1.b., F.A.C., (PTE)]

Emission Limitations and Standards

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

{Permitting note: Unless otherwise specified, the averaging times for Specific Conditions A.4. through A.5. are based on the specified averaging time of the applicable test method.}

Orlando Utilities Commission Indian River Plant

A.4. The maximum allowable emissions from the turbines in accordance with the BACT determination, shall not exceed the following, at sea level and 59°F:

Pollutant	Fuel	ppm @ 15% O ₂	lb per hr/Unit	TPY per Unit	TPY per 2 Units
NOx	Gas	42	75.1	328.9	658
NOx -	Oil	65	118.3	518.2	1036.5
SO ₂	Gas	n/a	0.34	1.5	3
SO ₂	Oil	n/a	142.7	625.0	1250

{Permitting note: The averaging time shall correspond to the cumulative sample time, as specified in the reference test method.}

[PSD-FL-130; and AC05-144482 and AC05-146749.]

A.5. <u>Visible emissions</u>. Visible emissions shall not exceed 5% opacity while burning natural gas or 10% opacity while burning distillate oil, except as provided in Rule 62-210.700, F.A.C., Excess Emissions. EPA Method 9 shall be used annually to show compliance. [PSD-FL-130; and AC05-144482 and AC05-146749.]

A.6. The following emissions are tabulated for *PSD* and inventory purposes:

Pollutant	Fuel	lb per hr/Unit	TPY per Unit	TPY per 2 Units
CO	Gas	10.0	43.8	87.5
СО	Oil	10.0	44.2	88.5
Total Particulates	Gas	2.5	11.0	22
Total Particulates	Oil	20.0	87.6	175
PM10	Gas	2.5	11.0	22
PM10	Oil	10.0	43.8	87.5
VOC	Gas	4.0	17.5	35
VOC	Oil	4.0	17.5	35
Beryllium	Oil	0.0001	0.0005	0.0009
SO ₂ Mist	Oil	10.0	44.0	88

[PSD-FL-130; and AO05-176351.]

Operating Parameters

A.7. <u>Water Injection</u>. Water injection shall be used for NOx control. The combustion turbines (CT) shall operate at the minimum water-to-fuel ratios measured for the most recent (satisfactory) compliance demonstration. The compliance test report shall document the required water-to-fuel ratios. [PSD-FL-130]

A.8. Both start and black start capability shall be provided by a No.2 fuel oil fired 800 HP internal combustion diesel engine (for each turbine), projected to run for approximately 10 minutes per start. These diesels are expected to emit minimal air emissions (15 lbs SO₂/yr./unit). [PSD-FL-130; and AC05-144482, AC05-146749, and AO05-176351]

Excess Emissions, Monitoring, Testing, and Recordkeeping Requirements

A.9. Subsection C (Common Conditions) applies to these emissions units.

Subsection B. Combustion Turbines C and D

E.U. ID	
No.	Brief Description
005	. 129 MW Simple Cycle Combustion Turbine C
006	129 MW Simple Cycle Combustion Turbine D

Emissions units 005 and 006 (Turbines C and D) consist of simple cycle Westinghouse Model Number 501-D5 combustion turbines, each with a 129 MW rating. The turbines primarily fire natural gas. Distillate oil may be fired during periods of curtailed or uneconomical natural gas supply. Nitrogen oxide emissions are controlled by water injection. Both turbines began commercial operation on November 1, 1991.

{Permitting notes: This emissions unit is regulated under Acid Rain-Phase II, Rule 62-210.300, F.A.C., Permits Required; NSPS - 40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines, adopted and incorporated by reference in Rule 62-204.800(7)(b)38., F.A.C.; NSPS 40 CFR 60 Subpart A; Rule 62-212.400, F.A.C., Prevention of Significant Deterioration; PSD-FL-173; and AC05-193720.} These emissions units are subject to compliance assurance monitoring (CAM). See Appendix CAM.

The following conditions apply to the emissions units listed above:

Essential Potential to Emit (PTE) Parameters

- **B.1.** Permitted Capacity. For each emissions unit, the maximum heat input (lower heating value) (MMBtu/hr) shall n ot exceed 1,354 MMBtu/hr while firing natural gas or 1,346 MMBtu/hr while firing distillate oil. See Attachment B for a plot of heat input versus temperature. [Rules 62-4.160(2), 62-210.200 (PTE), and 62-212.400, F.A.C., PSD-FL-173]
- **B.2.** Methods of Operation Fuels. For each CT, natural gas shall be the primary fuel and No. 2 fuel oil shall be the secondary fuel. For each CT usage rates shall not exceed the following:
 - a. Maximum No. 2 fuel oil consumption shall not exceed either of the following limitations: 10,282 gals per hour; 22,517,580 gallons per year.
 - b. Maximum annual firing using No. 2 fuel oil shall not exceed 2,190 hours per year.
 - c. Maximum sulfur content in the oil shall not exceed 0.3 percent by weight.
 - d. Maximum annual firing on any fuel combination shall not exceed 4,380 hours per year.

To determine compliance with the capacity factor limitations, each CT's fuel consumption shall be continuously measured and recorded. The permittee shall maintain daily records of this fuel usage and the operating hours. All records shall be maintained for a minimum of five years after the date of each record and shall be made available to authorized representatives of the Department upon request.

To comply with the sulfur emission limits, the sulfur content of the as-fired fuels shall not exceed 0.3 percent, by weight; see Specific Condition C.3. (Common Conditions).

Any request to a change in the method of operation, equipment or operating hours which would result in an increase in emissions shall be submitted to the DEP's Bureau of Air Regulation. [PSD-FL-173 and Rules 62-4.160(2), 62-210.200, 62-213.440(1), F.A.C.,]

B.3. Hours of Operation. Each source is allowed to operate at full load for a maximum of 4,380 hours per year. The facility is required to keep daily records of the operating hours. [PSD FL-173, Rules 62-210.200 (PTE) and 62-213.440(1)(b)1.b., F.A.C.]

B.4. Any request to change the method of operation, equipment or operating hours which would result in an increase in emissions shall be submitted to the DEP's Bureau of Air Regulation and Central District offices for prior approval.

[PSD-FL-173 and AC05-193720]

Emission Limitations and Standards

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

{Permitting note: Unless otherwise specified, the averaging times for Specific Conditions **B.5.** through **B.7.** are based on the specified averaging time of the applicable test method.}

B.5. The maximum allowable emissions from *each* turbine in accordance with the BACT determination, shall not exceed any of the following limitations, at sea level and 59°F:

Pollutant	Firing Natural Gas	TPY* Firing Gas	Lbs/hour Firing Gas**	Firing No. 2 Fuel Oil	TPY* Firing No.2 Fuel Oil	Lbs/hour Firing No.2 Fuel Oil**	Basis
NOx	25 ppm @ 15% O ₂ (dry basis)	295.75	135.0	42ppmv @15% O ₂ (dry basis)	253	231.1	BACT
SO ₂	0.3% by weight	1.05	0.5	0.3% by weight	476.5	435.2	BACT
PM/PM10	0.003 lb/MMBtu	9.75	4.5	0.08 lb/MMBtu	118.5	108.2	Perf. Data
VOC	5 ppmvd	18.5	8.4	15 ppmvd	56	51.1	Perf. Data
CO	25 ppmvd	156.5	71.5	25 ppmvd	79.5	72.6	Perf. Data
SO ₂ Mist	Natural gas as fuel	0.035	0.02	Low sulfur oil	14.25	13.0	Perf. Data

^{*} Emission rates for each 129 MW turbine are based on a 50 percent capacity factor with a maximum of 25 percent attributed to oil firing.

Since the pollutants mercury, lead, and beryllium are an inherent constituent in distillate fuel oil, they will be regulated by specifying that only No.2 fuel oil be fired at this facility in addition to natural gas.

{Permitting note: \(^{\frac{1}{2}}\) The averaging time shall correspond to the cumulative sample time, as specified in the reference test method.}

[AC05-193720, AO05-229084, and applicant request.]

- **B.6.** <u>Visible Emissions</u>. Visible emissions shall never exceed 20 percent opacity and shall not exceed 10 percent opacity during full load, except as provided in Rule 62-210.700, F.A.C., Excess Emissions. EPA Method 9 shall be used to demonstrate compliance. [AC05-193720]
- **B.7.** Compliance with the total volatile organic compound emission limits will be assumed, provided the CO allowable emission rate is achieved; specific VOC compliance testing is not required. [PSD-FL-173]

Excess Emissions, Monitoring, Testing, and Recordkeeping Requirements

B.8. Emissions Testing. Testing of emissions shall be conducted with the turbines operating at capacity (maximum heat input rate for the inlet air temperature of the CT during the test). Capacity is defined as 90-100 percent of the manufacturer's rated heat input achievable for the average ambient

^{**} Requested by applicant.

(or conditioned inlet) air temperature during the test. If it is impracticable to test at capacity, then the combustion turbine may be tested at less than capacity. In such case, the entire heat input versus inlet temperature curve (reference Attachment B) will be adjusted down by the increment equal to the difference between the design heat input value and 110 percent of the value reached during the test. Data, curves, and calculations necessary to demonstrate the heat input rate correction at both design and test conditions shall be submitted to the Department with the compliance test report. Test results will be the average of three valid one-hour runs.

[AC05-193720 and PSD-FL-173]

B.9. Carbon Monoxide. EPA Method 10 shall be used to show compliance with the CO emission limits on an annual basis.

[PSD-FL-173 and OGC File No. #94-3376-C-05]

B.10. Water Injection. Water injection shall be used for NO_x control. OUC shall report the water-to-fuel ratios used during testing to demonstrate compliance with the permitted emission rate. Additionally, the water meters shall be calibrated semi-annually (once every six months). If, after two years [of initial use], the meters show less than two percent error, the calibration frequency shall be changed to annually.

[PSD-FL-173 and OGC File No. #94-3376-C-05]

B.11. The permittee shall conduct its operation of combustion turbines C and D using the Department-approved "Air Pollution Prevention and Operator's Best Management Practice Training Plan".

[OGC File No. #94-3376-C-05]

B.12. Training. All watch engineers, Control Center I's, plant operators, and apprentice operators, directly involved with the operation of Combustion C and D and/or the related monitoring systems shall be trained annually on the approved final plan referenced in Specific Condition **B.11.**, above. The OUC shall keep documentation of the employee training in the plan on file in the facility records. All watch engineers, Control Center I's, plant operators, and apprentice operators, directly involved with the operation of Combustion C and D and/or the related monitoring systems shall be trained of these plans prior to their initial operation of Combustion Turbines C and D. This training shall be documented and filed as provided above.

[OGC File No. #94-3376-C-05]

B.13. Subsection C (Common Conditions) applies to these emissions units.

Subsection C. Common Conditions

Emission Limitations and Standards

- **C.1.** Oxides of Nitrogen. In addition to the specific NOx emission limits specified for each turbine, NOx emissions shall not exceed any of the following limits:
- a. Nitrogen oxides emissions, expressed as NO_x, shall not exceed:

$$STD = 0.0075 (14.4)/Y + F$$

where:

STD = allowable NOx emissions (percent by volume at 15 percent oxygen and on a dry basis).

Y = manufacturer's rated heat rate at manufacturer's rated load (kilojoules per watt hour) or, actual measured heat rate based on lower heating value of fuel as measured at actual peak load for the facility. The value of Y shall not exceed 14.4 kilojoules per watt hour.

F = NOx emission allowance for fuel-bound nitrogen as defined in 40 CFR 60.332(a)(3).

F shall be defined according to the nitrogen content of the fuel as follows:

Fuel-bound nitrogen (% by weig	ht) F (NO _X % by volume)
N <u><</u> 0.015	0
0.015 <n<u><0.1</n<u>	0.04(N)
0.1 <n<u><0.25</n<u>	0.004+0.0067(N-0.1)
N>0.25	0.005

where:

N =the nitrogen content of the fuel (percent by weight)

{Permitting Note: Fuel-bound nitrogen is used to increase the NSPS limit to account for nitrogen in the fuel. The lowest NOx limit that can be achieved with this equation is 0.0075% NO_x by volume (at 15 percent oxygen and on a dry basis.) Combustion Turbines A, B, C, and D are all BACT turbines and have much lower NO_x limits without regard for the fuel-bound nitrogen. } [40 CFR 60.332]

Monitoring Requirements

- C.2. CMS Requirements. For the simple cycle unit, the permittee shall install, operate, and maintain a continuous monitoring system (CMS) to monitor and record the fuel consumption, the ratio of water to fuel being fired in the turbine, and the electrical output in MW.

 [40 CFR 60.334(a)]
- C.3. <u>Critical Fuel Parameters</u>. OUC shall monitor sulfur content, and the lower heating value 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 Bureau of Air Regulation before they can be used to show compliance. See Specific Condition C.10., below.

[40 CFR 60.334(b)]

- C.4. Excess Emissions Defined. For the purpose of reports required under 40 CFR 60.7(c) (see Specific Condition C.16.), 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).
- b. Sulfur dioxide. Any daily period during which the sulfur content of the fuel being fired in the gas turbine exceeds 0.3 percent.

[40 CFR 60.334(c)(1)&(c)(2), PSD-FL-130 and PSD-FL-173]

Compliance Assurance Monitoring (CAM) Requirements

C.4.1. These emissions units are subject to the CAM requirements contained in the attached Appendix CAM. Failure to adhere to the monitoring requirements specified does not necessarily indicate an exceedance of a specific emissions limitation; however, it may constitute good reason to require compliance testing pursuant to Rule 62-297.310(7)(b), F.A.C. [40 CFR 64; and Rules 62-204.800 and 62-213.440(1)(b)1.a., F.A.C.]

Test Methods & Procedures

C.5.0. Testing of emissions shall be conducted with the source operating at capacity. Capacity is defined as 90 to 100 percent of the manufacturer's rated heat input achievable for the average ambient (or conditioned) air temperature during the test. If it is impracticable to test at capacity, then sources may be tested at less than capacity. In such cases, the entire heat input versus inlet temperature curve will be adjusted by the increment equal to the difference between the design heat input value and 110 percent of the value reached during the test. Data, curves, and calculations necessary to demonstrate the heat input rate correction at both design and test conditions shall be submitted to the Department with the compliance test report.

To demonstrate compliance with federal new source performance standard Subpart GG -Standards of performance Stationary Gas Turbines, the initial test shall be conducted at four load points and corrected to ISO conditions for comparison to the NSPS allowable. Subsequent annual compliance tests conducted to establish compliance with NOx limits that are more stringent than the NSPS standard shall not require an ISO correction or testing at four load points; rather, the testing shall be done at capacity, as defined above. However, when testing shows that NOx emissions exceed the standard when operating at capacity, the company shall recalibrate the NOx emission control system using emission testing at four loads as required in Subpart GG. [Rule 62-4.070(3), F.A.C.]

- C.5.1. The Permittee shall conduct a compliance test for each combustion turbine on an annual basis for the following pollutants. Each compliance test shall be conducted in accordance with 40 CFR 60, Appendix A, using the method indicated.
 - a) Oxides of Nitrogen (NOx) EPA Method 20.
 - b) Carbon Monoxide (CO) EPA Method 10 (CT Units C&D only).
 - c) Visible Emissions EPA Method 9.

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

Orlando Utilities Commission Indian River Plant

C.6. The Permittee shall conduct a compliance test for each of the following pollutants 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 this requirement. 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 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. Each compliance test shall be conducted in accordance with 40 CFR 60 Appendix A, using the method indicated.

- a) Sulfur Dioxide (SO₂) ASTM Method for sulfur in fuel. (See Specific Condition C.12.)
- b) Oxides of Nitrogen (NOx) EPA Method 20.
- c) Carbon Monoxide (CO) EPA Method 10 (CT Units C&D only).
- d) Visible Emissions EPA Method 9.

[Rule 62-297.310(7)(a)3., F.A.C.]

C.7. NOx Compliance. Annual compliance tests shall be performed with natural gas. Annual NOx compliance tests shall be performed with fuel oil used for more than 170 hours per unit for CT-A and CT-B in the preceding 12 month period, and for more than 400 hours per unit for CT-C and CT-D in the preceding 12 month period. Testing of emissions shall be conducted at 90-100% of the manufacturer's rated heat input based on the average ambient air temperature during the test. To compute the nitrogen oxides emissions, OUC shall use analytical methods and procedures that are accurate to within +5 percent and are approved by the Department to determine the nitrogen content of the fuel being fired.

[40 CFR 60.335(a), PSD-FL-130 and PSD-FL-173]

C.8. 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)]

C.9. NOx Emission Rate. OUC shall determine compliance with the NOx standards in 40 CFR 60.332 (condition D.1) as follows:

a. The NO_X emission rate shall be computed for each run using the following equation: NO_X = (NO_{XO}) (Pr/Po)0.5 e¹⁹(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_{XO} = observed NO_X concentration, ppm by volume.

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

P_o = 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.

[40 CFR 60.335(c)(1)]

C.10. The monitoring device of 40 CFR 60.334(a) (see Specific Condition C.2.) shall be used to determine the fuel consumption and the water-to-fuel ratio necessary to comply with 40 CFR 60.332 (see Specific Condition C.1.) 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. All loads shall be corrected to ISO conditions using the appropriate equations supplied by the

Orlando Utilities Commission Indian River Plant

manufacturer. However, annual compliance tests conducted to establish compliance with NOx limits that are more stringent than the NSPS standard shall not require an ISO correction or testing at four load points; rather, the testing shall be done at capacity, as defined earlier.

[40 CFR 60.335(c)(2)]

- C.11. Emissions Concentrations. U.S. EPA. Method 20 (40 CFR 60, Appendix A) shall be used to determine nitrogen oxides, sulfur dioxide 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 each of the load conditions specified in 40 CFR 60.335(c)(2), (Specific Condition C.7.). [40 CFR 60.335(c)(3)]
- C.12. Sulfur Content. OUC shall determine compliance with the sulfur content standard in 40 CFR 60.333(b) as follows: ASTM D 2880-96, or more recent version, shall be used to determine the sulfur content of liquid fuels and ASTM D 1072-90(94)E-1, D 3031-81(86), D 4084-94, or D 3246-92, or more recent versions, 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 Department. [40 CFR 60.335(d)]
- **C.13.** The owner or operator may use the following as an alternative to the reference methods and procedures specified in 40 CFR 60.335:

Instead of using the equation in paragraph 40 CFR 60.335(c)(1), manufacturers may develop ambient condition correction factors to adjust the nitrogen oxides emission level measured by the performance test as provided in 40 CFR 60.8 to ISO standard day conditions. These factors are developed for each gas turbine model they manufacture in terms of combustion inlet pressure, ambient air pressure, ambient air humidity, and ambient air temperature. They shall be substantiated with data and must be approved for use by the D epartment before the initial performance test required by 40 CFR 60.8. Notices of approval of custom ambient condition correction factors will be published in the Federal Register.

[40 CFR 60.335(f)(1)]

- **C.14.** Except as provided by ASP 92-0-01, OUC shall provide, or cause to be provided, performance testing facilities as follows:
- 1. Sampling ports adequate for test methods applicable to such facility. This includes (a) constructing the air pollution control system such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and procedures and (b) providing a stack or duct free of cyclonic flow during performance tests, as demonstrated by applicable test methods and procedures.
 - 2. Safe sampling platform(s).
 - 3. Safe access to sampling platform(s).
- 4. Utilities for sampling and testing equipment. [40 CFR 60.7(e)]

Reporting and Recordkeeping Requirements

C.15. Excess Emissions Report. The permittee shall record the occurrence and duration of any startup, s hutdown, or malfunctions of the turbine and any malfunction of the air pollution control equipment or CMS. Additionally, the permittee shall notify the Department in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report, if requested by the Department.

[Rule 62-210.700(6), F.A.C., and 40 CFR 60.7(b)]

- **C.16.** Quarterly Report. OUC shall submit a quarterly excess emissions and monitoring systems performance report. All reports shall be postmarked by the 30th day following the end of each quarter. Written reports of excess emissions shall include the following information:
- 1. The magnitude of excess emissions computed in accordance with 40 CFR 60.13(h), any conversion factor(s) used, and the date and time of commencement and completion of each time period of excess emissions. The process operating time during the reporting period.
- 2. Specific identification of each period of excess emissions that occurs during startups, shutdowns and malfunctions of the affected facility. The nature and cause of any malfunction (if known), the corrective action taken or preventative measures adopted.
- 3. The date and time identifying each period during which the continuous monitoring system was inoperative except for zero and span checks and the nature of the system repairs or adjustments.
- 4. When no excess emissions have occurred or the continuous monitoring system(s) have not been inoperative, repaired, or adjusted, such information shall be stated in the report.

 [40 CFR 60.7(c)]
- C.17. <u>Summary Report</u>. The summary report form shall contain the information and be in the format shown in Figure 1 of 40 CFR 60.7(d) unless otherwise specified by the Department. One summary report form shall be submitted for each pollutant monitored.
- 1. If the total duration of excess emissions for the reporting period is less than one percent of the operating time for the reporting period and CMS downtime for the reporting period is less than five 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 Department.
- 2. If the total duration of excess emissions for the reporting period is one percent or greater of the total operating time for the reporting period or the total CMS downtime for the reporting period is five 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)]
- C.18. Reporting Frequency. (1) Notwithstanding the frequency of reporting requirements specified in 40 CFR 60.7(c), a permittee 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) OUC continues to comply with all recordkeeping and monitoring requirements specified in 40 CFR 60, Subpart A, and the applicable standard; and
- (iii) The Department 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 e missions and monitoring systems performance (and summary) reports may be reduced only after OUC notifies the Department in writing of his or her intention to make such a change and the Department does not object to the intended change. In deciding whether to approve a reduced frequency of reporting, the Department 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 OUC's conformance with operation and maintenance requirements. Such information may be used by the Department to make a judgment about the source's potential for noncompliance in the future. If the Department disapproves the OUC's request to reduce the frequency of reporting, the Department will notify the permittee in writing within 45 days after receiving notice of OUC's intention. The notification from the Department to the permittee 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 permittee shall submit an excess emissions and monitoring systems performance report (and summary report, if required) at the next appropriate reporting period following the noncomplying event. After demonstrating compliance with the applicable standard for another full year, the permittee may again request approval from the Department to reduce the frequency of reporting for that standard as provided for in 40 CFR 60.7(e)(1) and (e)(2).

 [40 CFR 60.7(e)]
- C.19. OUC shall file a report with the Department's Central District Office for any required compliance tests within forty-five days of the last sampling run. All reports shall be in a format consistent with and shall include the information in accordance with Rule 62-297.310 (8), F.A.C. [Rule 62-297.310(8)(a)&(b), F.A.C.]
- C.20. Records Retention. The permittee shall maintain a file of all measurements, including continuous monitoring system, monitoring device, and performance testing measurements; all continuous monitoring system performance evaluations; all continuous monitoring system or monitoring device calibration checks; adjustments and maintenance performed on these systems or devices; and, all other information required by 40 CFR 60 recorded in a permanent form suitable for inspection. The file shall be retained for at least 5 (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.21. 15 Day Notification. OUC shall provide to the Department's Central District office at least 15 days prior notice of any compliance or performance test, except as specified under other subparts, to afford the Central District office the opportunity to have an observer present. Test results shall be submitted to the Central District office no later than 45 days after completion of the test. [Rule 62-297.310(7)(a)9., F.A.C.]

Additional General Provisions - 40 CFR 60 Subpart A

C.22. Performance tests shall be conducted and data reduced in accordance with the test methods and procedures contained in each applicable subpart unless the Department (1) specifies or approves, in specific cases, the use of a reference method with minor changes in methodology, (2) waives the requirement for performance tests because the owner or operator of a source has demonstrated by other means to the Department's satisfaction that the affected facility is in compliance with the standard, or (3) approves shorter sampling times and smaller sample volumes when necessitated by

process variables or other factors. Nothing in 40 CFR 60.8 shall be construed to abrogate the Department's authority to require testing under section 114 of the Act. [40 CFR 60.8(b)(1), (4) & (5)]

C.23. Performance tests shall be conducted under such conditions as the Department shall specify to the plant operator based on representative performance of the affected facility. The owner or operator shall make available to the Department such records as may be necessary to determine the conditions of the performance tests. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test nor shall emissions in excess of the level of the applicable emission limit during periods of startup, shutdown, and malfunction be considered a violation of the applicable emission limit unless otherwise specified in the applicable standard.

[40 CFR 60.8(c)].

C.24. OUC shall provide, or cause to be provided, performance testing facilities as follows:

- 1. Sampling ports adequate for test methods applicable to such facility. This includes (a) constructing the air pollution control system such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and procedures and (b) providing a stack or duct free of cyclonic flow during performance tests, as demonstrated by applicable test methods and procedures.
 - 2. Safe sampling platform(s).
 - 3. Safe access to sampling platform(s).
- 4. Utilities for sampling and testing equipment. [40 CFR 60.8(e)]
- C.25. Each performance test shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the applicable standard. For the purpose of determining compliance with an applicable standard, the arithmetic means of results of the three runs shall apply. In the event that a sample is accidentally lost or conditions occur in which one of the three runs must be discontinued because of forced shutdown, failure of an irreplaceable portion of the sample train, extreme meteorological conditions, or other circumstances, beyond the owner or operator's control, compliance may, upon the Department's approval, be determined using the arithmetic mean of the results of the two other runs.

 [40 CFR 60.8(f)].
- C.26. Department Notification. OUC shall give written notification to the Department when there is any modification to this facility. This notice shall be submitted timely and in advance of any critical date involved to allow sufficient time for review, discussion, and revision of plans, if necessary. Such notice shall include, but not be limited to, information describing the precise nature of the change; modifications to any emission control system; production capacity of the facility before and after the change; and, the anticipated completion date of the change.

[40 CFR 60.8(d) and PSD-FL-130 and PSD-FL-173]

Compliance with Standards and Maintenance Requirements

- C.27. Compliance with opacity standards in 40 CFR 60 shall be determined by conducting observations in accordance with Reference Method 9 in appendix A of 40 CFR 60, any alternative method that is approved by the Department, or as provided in 40 CFR 60.11(e)(5). For purposes of determining initial compliance, the minimum total time of observations shall be 3 hours (30 6-minute averages) for the performance test or other set of observations (meaning those fugitive-type emission sources subject only to an opacity standard).

 [40 CFR 60.11(b)].
- C.28. The Permittee shall follow the manufacturer's instructions during periods of start-up, shutdown, malfunction, or load change to ensure that the best operational practices to minimize emissions will be adhered to and the duration of any excess emissions will be minimized. The instructions shall be kept on file at the plant site and made available for inspection upon request by the Department. [40 CFR 60.11(d)]
- **C.29.** Credible Evidence. For the purpose of submitting compliance certifications or establishing whether or not a person has violated or is in violation of any standard in 40 CFR 60, nothing in 40 CFR 60 shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test or procedure had been performed. [40 CFR 60.11(g)].
- C.30. <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]

Monitoring Requirements

- C.31. (a) For the purposes of this section, all continuous monitoring systems required under applicable subparts shall be subject to the provisions of this section upon promulgation of performance specifications for continuous monitoring systems under appendix B of 40 CFR 60 and, if the continuous monitoring system is used to demonstrate compliance with emission limits on a continuous basis, appendix F to 40 CFR 60, unless otherwise specified in an applicable subpart or by the Department. Appendix F is applicable December 4, 1987.
- (b) All continuous monitoring systems and monitoring devices shall be installed and operational prior to conducting performance tests under 40 CFR 60.8. Verification of operational status shall, as a minimum, include completion of the manufacturer's written requirements or recommendations for installation, operation, and calibration of the device.
- (c) If the owner or operator of an affected facility elects to submit continuous opacity monitoring system (COMS) data for compliance with the opacity standard as provided under 40 CFR 60.11(e)(5), he/she shall conduct a performance evaluation of the COMS as specified in Performance Specification 1, appendix B, of 40 CFR 60 before the performance test required under 40 CFR 60.8 is conducted. Otherwise, the owner or operator of an affected facility shall conduct a performance evaluation of the COMS or continuous emission monitoring system (CEMS) during any performance test required under 40 CFR 60.8 or within 30 days thereafter in accordance with the applicable performance specification in appendix B of 40 CFR 60. The owner or operator of an affected facility

shall conduct COMS or CEMS performance evaluations at such other times as may be required by the Department under section 114 of the Act.

- (1) The owner or operator of an affected facility using a COMS to determine opacity compliance during any performance test required under 40 CFR 60.8 and as described in 40 CFR 60.11(e)(5), shall furnish the Department two or, upon request, more copies of a written report of the results of the COMS performance evaluation described in 40 CFR 60.13(c) at least 10 days before the performance test required under 40 CFR 60.8 is conducted.
- (2) Except as provided in 40 CFR 60.13(c)(1), the owner or operator of an affected facility shall furnish the Department within 60 days of completion two or, upon request, more copies of a written report of the results of the performance evaluation.
- (d)(1) Permittee's of all continuous emission monitoring systems installed in accordance with the provisions of 40 CFR 60 shall check the zero (or low-level value between 0 and 20 percent of span value) and span (50 to 100 percent of span value) calibration drifts at least once daily in accordance with a written procedure. The zero and span shall, as a minimum, be adjusted whenever the 24-hour zero drift or 24-hour span drift exceeds two times the limits of the applicable performance specifications in appendix B. The system must allow the amount of excess zero and span drift measured at the 24-hour interval checks to be recorded and quantified, whenever specified. For continuous monitoring systems measuring opacity of emissions, the optical surfaces exposed to the effluent gases shall be cleaned prior to performing the zero and span drift adjustments except that for systems using automatic zero adjustments. The optical surfaces shall be cleaned when the cumulative automatic zero compensation exceeds 4 percent opacity.
- (3) Unless otherwise approved by the Department, the following procedures shall be followed for continuous monitoring systems measuring opacity of emissions. Minimum procedures shall include a method for producing a simulated zero opacity condition and upscale (span) opacity condition using a certified neutral density filter or other related technique to produce a known obscuration of the light beam. Such procedures shall provide a system check of the analyzer internal optical surfaces and all electronic circuitry including the lamp and photo detector assembly.
- (e) Except for system breakdowns, repairs, calibration checks, and zero and span adjustments required under 40 CFR 60.13(d), all continuous monitoring systems shall be in continuous operation and shall meet minimum frequency of operation requirements as follows:
- (1) All continuous monitoring systems referenced by 40 CFR 60.13(c) for measuring opacity of emissions shall complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.
- (2) All continuous monitoring systems referenced by 40 CFR 60.13(c) for measuring emissions, except opacity, shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.
- (f) All continuous monitoring systems or monitoring devices shall be installed such that representative measurements of emissions or process parameters from the affected facility are obtained. Additional procedures for location of continuous monitoring systems contained in the applicable Performance Specifications of appendix B of 40 CFR 60 shall be used.
- (g) When the effluents from a single affected facility or two or more affected facilities subject to the same emission standards are combined before being released to the atmosphere, the owner or operator may install applicable continuous monitoring systems on each effluent or on the combined effluent. When the affected facilities are not subject to the same emission standards, separate continuous monitoring systems shall be installed on each effluent. When the effluent from one affected facility is released to the atmosphere through more than one point, the owner or operator shall install an applicable continuous monitoring system on each separate effluent unless the installation of fewer systems is approved by the Department. When more than one continuous monitoring system is used to measure the emissions from one affected facility (e.g., multiple breechings, multiple outlets), the owner or operator shall report the results as required from each continuous monitoring system.

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

[Rule 62-296.800, F.A.C.; 40 CFR 60.13(a)-(h)].

- C.32. After receipt and consideration of written application, the Department may approve alternatives to any monitoring procedures or requirements of 40 CFR 60 including, but not limited to the following:
- (1) Alternative monitoring requirements when installation of a continuous monitoring system or monitoring device specified by 40 CFR 60 would not provide accurate measurements due to liquid water or other interferences caused by substances with the effluent gases.
 - (2) Alternative monitoring requirements when the affected facility is infrequently operated.
- (3) Alternative monitoring requirements to accommodate continuous monitoring systems that require additional measurements to correct for stack moisture conditions.
- (4) Alternative locations for installing continuous monitoring systems or monitoring devices when the owner or operator can demonstrate that installation at alternate locations will enable accurate and representative measurements.
- (5) Alternative methods of converting pollutant concentration measurements to units of the standards.
- (6) Alternative procedures for performing daily checks of zero and span drift that do not involve use of span gases or test cells.
 - (7) Alternatives to the ASTM test methods or sampling procedures specified by any subpart.
- (8) Alternative continuous monitoring systems that do not meet the design or performance requirements in Performance Specification 1, appendix B, but adequately demonstrate a definite and consistent relationship between its measurements and the measurements of opacity by a system complying with the requirements in Performance Specification 1. The Department may require that such demonstration be performed for each affected facility.
- (9) Alternative monitoring requirements when the effluent from a single affected facility or the combined effluent from two or more affected facilities are released to the atmosphere through more than one point.

[Rule 62-296.800, F.A.C.; 40 CFR 60.13(i)].

- **C.33.** An alternative to the relative accuracy test specified in Performance Specification 2 of 40 CFR 60 Appendix B, may be requested as follows:
- (1) An alternative to the reference method tests for determining relative accuracy is available for sources with emission rates demonstrated to be less than 50 percent of the applicable standard. A source owner or operator may petition the Department to waive the relative accuracy test in section 7 of Performance Specification 2 and substitute the procedures in section 10 if the results of a performance test conducted according to the requirements in 40 CFR 60.8 of this subpart or other tests performed following the criteria in 40 CFR 60.8 demonstrate that the emission rate of the

pollutant of interest in the units of the applicable standard is less than 50 percent of the applicable standard. For sources subject to standards expressed as control efficiency levels, a source owner or operator may petition the Department to waive the relative accuracy test and substitute the procedures in section 10 of Performance Specification 2 if the control device exhaust emission rate is less than 50 percent of the level needed to meet the control efficiency requirement. The alternative procedures do not apply if the continuous emission monitoring system is used to determine compliance continuously with the applicable standard. The petition to waive the relative accuracy test shall include a detailed description of the procedures to be applied. Included shall be location and procedure for conducting the alternative, the concentration or response levels of the alternative R A materials, and the other equipment checks included in the alternative procedure. The Department will review the petition for completeness and applicability. The determination to grant a waiver will depend on the intended use of the CEMS data (e.g., data collection purposes other than NSPS) and may require specifications more stringent than in Performance Specification 2 (e.g., the applicable emission limit is more stringent than NSPS).

(2) The waiver of a CEMS relative accuracy test will be reviewed and may be rescinded at such time following successful completion of the alternative RA procedure that the CEMS data indicate the source emissions approaching the level of the applicable standard. The criterion for reviewing the waiver is the collection of CEMS data showing that emissions have exceeded 70 percent of the applicable standard for seven, consecutive, averaging periods as specified by the applicable regulation(s). For sources subject to standards expressed as control efficiency levels, the criterion for reviewing the waiver is the collection of CEMS data showing that exhaust emissions have exceeded 70 percent of the level needed to meet the control efficiency requirement for seven, consecutive, averaging periods as specified by the applicable regulation(s) [e.g., 40 CFR 60.45(g)(2) and 40 CFR 60.45(g)(3), 40 CFR 60.73(e), and 40 CFR 60.84(e)]. It is the responsibility of the source operator to maintain records and determine the level of emissions relative to the criterion on the waiver of relative accuracy testing. If this criterion is exceeded, the owner or operator must notify the Department within 10 days of such occurrence and include a description of the nature and cause of the increasing emissions. The Department will review the notification and may rescind the waiver and require the owner or operator to conduct a relative accuracy test of the CEMS as specified in section 7 of Performance Specification 2.

[Rule 62-296.800, F.A.C.; 40 CFR 60.13(j)].

Modifications

C.34. Except as provided under 40 CFR 60.14(e) and 40 CFR 60.14(f), any physical or operational change to an existing facility which results in an increase in the emission rate to the atmosphere of any pollutant to which a standard applies shall be considered a modification within the meaning of section 111 of the Act. Upon modification, an existing facility shall become an affected facility for each pollutant to which a standard applies and for which there is an increase in the emission rate to the atmosphere.

[Rule 62-296.800, F.A.C.; 40 CFR 60.14(a)].

- C.35. Emission rate shall be expressed as kg/hr (lbs./hour) of any pollutant discharged into the atmosphere for which a standard is applicable. The Department shall use the following to determine emission rate:
- (1) Emission factors as specified in the latest issue of "Compilation of Air Pollutant Emission Factors", EPA Publication No. AP-42, or other emission factors determined by the Department to be superior to AP-42 emission factors, in cases where utilization of emission factors demonstrate that the emission level resulting from the physical or operational change will either clearly increase or clearly not increase.

(2) Material balances, continuous monitor data, or manual emission tests in cases where utilization of emission factors as referenced in 40 CFR 60.14(b)(1) does not demonstrate to the Department's satisfaction whether the emission level resulting from the physical or operational change will either clearly increase or clearly not increase, or where an owner or operator demonstrates to the Department's satisfaction that there are reasonable grounds to dispute the result obtained by the Department utilizing emission factors as referenced in 40 CFR 60.14(b)(1). When the emission rate is based on results from manual emission tests or continuous monitoring systems, the procedures specified in 40 CFR 60 appendix C of 40 CFR 60 shall be used to determine whether an increase in emission rate has occurred. Tests shall be conducted under such conditions as the Department shall specify to the owner or operator based on representative performance of the facility. At least three valid test runs must be conducted before and at least three after the physical or operational change. All operating parameters which may affect emissions must be held constant to the maximum feasible degree for all test runs.

[Rule 62-296.800, F.A.C.; 40 CFR 60.14(b)].

C.36. The addition of an affected facility to a stationary source as an expansion to that source or as a replacement for an existing facility shall not by itself bring within the applicability of 40 CFR 60 any other facility within that source.

[Rule 62-296.800, F.A.C.; 40 CFR 60.14(c)].

- C.37. The following shall not, by themselves, be considered modifications under 40 CFR 60:
- (1) Maintenance, repair, and replacement which the Department determines to be routine for a source category, subject to the provisions of 40 CFR 60.14(c) and 40 CFR 60.15.
- (2) An increase in production rate of an existing facility, if that increase can be accomplished without a capital expenditure on that facility.
- (3) An increase in the hours of operation.
- (4) Use of an alternative fuel or raw material if, prior to the date any standard under 40 CFR 60 becomes applicable to that source type, as provided by 40 CFR 60.1, the existing facility was designed to accommodate that alternative use. A facility shall be considered to be designed to accommodate an alternative fuel or raw material if that use could be accomplished under the facility's construction specifications as amended prior to the change. Conversion to coal required for energy considerations, as specified in section 111(a)(8) of the Act, shall not be considered a modification.
- (5) The addition or use of any system or device whose primary function is the reduction of air pollutants, except when an emission control system is removed or is replaced by a system which the Department determines to be less environmentally beneficial.
- (6) The relocation or change in ownership of an existing facility. [Rule 62-296.800, F.A.C.; 40 CFR 60.14(e)].
- C.38. Special provisions set forth under an applicable subpart of 40 CFR 60 shall supersede any conflicting provisions of this section.

 [Rule 62-296.800, F.A.C.; 40 CFR 60.14(f)].
- C.39. Within 180 days of the completion of any physical or operational change subject to the control measures specified in 40 CFR 60.14(a), compliance with all applicable standards must be achieved. [Rule 62-296.800, F.A.C.; 40 CFR 60.14(g)].

Excess Emissions

C.40. 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.]

C.41. Excess emissions resulting from startup or shutdown shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized.

[Rule 62-210.700(2), F.A.C.]

C.42. 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

- C.43. The Permittee shall conduct a compliance test on an *annual basis* for each of the following pollutants. Each compliance test shall be conducted in accordance with 40 CFR 60, Appendix A, using the method indicated.
 - a) Oxides of Nitrogen (NOx) EPA Method 20.
 - b) Carbon Monoxide (CO) EPA Method 10. (Combustion Turbines C and D only).
 - c) Beryllium (Be) EPA Method 104.

Since the pollutants mercury, lead, and beryllium are an inherent constituent in distillate fuel oil, they will be regulated by specifying that only No. 2 fuel oil be fired at this facility in addition to natural gas. See Specific Condition **B.5**.

d) Particulate Matter (PM/PM₁₀) - EPA Method 5.

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

[Rule 62-297.310(7)(a)4. & 5., F.A.C.]

- C.44. The Permittee shall conduct a compliance test for each of the following pollutants 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 this requirement. 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 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. Each compliance test shall be conducted in accordance with 40 CFR 60 Appendix A, using the method indicated.
 - a) Sulfur Dioxide (SO₂) EPA Method 6 or ASTM D 2880-71 for sulfur in oil.
 - b) Particulate Matter (PM/PM₁₀) EPA Method 5.
 - c) Volatile Organic Compounds (VOC) EPA Method 25.

[Rule 62-297.310(7)(a)3., F.A.C.]

C.45. Required Number of Test Runs. For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations

are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of OUC, 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.46. Calculation of Emission Rate. The indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the separate test runs unless otherwise specified in a particular test method or applicable rule. [Rule 62-297.310(3), F.A.C.]

C.47. Applicable Test Procedures.

- (a) Required Sampling Time.
 - 1. Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes.
 - 2. Opacity Compliance Tests. When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:
 - a. (not applicable)
 - b. (not applicable)
 - c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.
- (b) Minimum Sample Volume. Unless otherwise specified in the applicable rule, the minimum sample volume per run shall be 25 dry standard cubic feet.
- (c) Required Flow Rate Range. For EPA Method 5 particulate sampling, acid mist/sulfur dioxide, and fluoride sampling which uses Greenburg Smith type impingers, the sampling nozzle and sampling time shall be selected such that the average sampling rate will be between 0.5 and 1.0 actual cubic feet per minute, and the required minimum sampling volume will be obtained.
- (d) <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. (See attachment.)
- (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.48. Special Compliance Tests. When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it shall require OUC 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.

[Rule 62-297.310(7)(b), F.A.C., SIP approved]

C.49. Waiver of Compliance Test Requirements. If OUC is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a bag house or specifying a fuel analysis for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of Rule 62-297.310(7)(b), F.A.C., shall apply. [Rule 62-297.310(7)(c), F.A.C.; and SIP approved.]

C.50. COMS for Periodic Monitoring. When applicable, OUC shall install continuous opacity monitoring systems (COMS) pursuant to 40 CFR Part 75. OUC shall maintain and operate the COMS and shall make and maintain records of opacity measured by the COMS, for purposes of periodic monitoring.

[Rule 62-213.440, F.A.C., and Applicant request.]

IV. Acid Rain Part

Indian River Plant

Operated by: Orlando Utilities Commission ORIS code: 683

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

E.U. ID No.	Description	
005	129 MW Simple Cycle Combustion Turbine C	
006	129 MW Simple Cycle Combustion Turbine D	

1. The Acid Rain Part renewal application submitted for this facility, as approved by the Department, is a part of this permit. The owners and operators of these acid rain units must comply with the standard requirements and special provisions set forth in the application listed below:

a. DEP Form No.62-210.900(1)(a), signed by the Designated Representative on April 23, 2004. [Chapter 62-213, F.A.C. and Rule 62-214.320, F.A.C.]

2. The sulfur dioxide (SO₂) allowance allocations for each Acid Rain unit are:

E.U. ID No.	EPA ID#	Year	2005	2006	2007	2008	2009
005	С	SO2 allowances, under Table 2 of 40 CFR 73	0*	0*	0*	0*	0*
006	D	SO2 allowances, under Table 2 of 40 CFR 73	639*	639*	639*	639*	639*

^{*}The number of allowances held by an Acid Rain source in a unit account may differ from the number allocated by the U.S. EPA under Table 2 of 40 CFR 73.

- 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.
- a. 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.
- b. No limit shall be placed on the number of allowances held by the source under the Federal Acid Rain Program.
- c. Allowances shall be accounted for under the Federal Acid Rain Program. [Rule 62-213.440(1)(c)1., 2. & 3., F.A.C.]
- 4. Statement of Compliance. 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 No.51., Appendix TV-4, Title V Conditions.} [Rule 62-214.420(11), F.A.C.]
- 5. Where an applicable requirement of the Act is more stringent than applicable regulations promulgated under Title IV of the Act, both provisions shall be incorporated into the permit and shall be enforceable by the Administrator.

[40 CFR 70.6(a)(1)(ii); and, Rule 62-210.200, F.A.C., Definitions – Applicable Requirements.]

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

Orlando Utilities Commission

Permit Renewal No. 0090008-003-AV

Indian River Plant

<u>Unregulated Emissions Units and 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 activities are neither 'regulated emissions units' nor 'exempt emissions units'.

E.U.	
ID No.	Brief Description of Emissions Units and Activities
009	One No. 2 Fuel Oil Storage Tank (150,000 gallon capacity).

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

Orlando Utilities Commission

Permit Renewal No. 0090008-003-AV

Indian River Plant

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

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

Brief Description of Emissions Units and Activities

- 1. Internal combustion engines in boats, aircraft and vehicles used for transportation of passengers or freight.
- 2. Cold storage refrigeration equipment, except for any such equipment located at a Title V source using an ozone-depleting substance regulated under 40 CFR Part 82.
- 3. Vacuum pumps in laboratory operations.
- 4. Equipment used for steam cleaning.
- 5. Belt or drum sanders having a total sanding surface of five square feet or less and other equipment used exclusively on wood or plastics or their products having a density of 20 pounds per cubic foot or more.
- 6. Equipment used exclusively for space heating, other than boilers.
- 7. Laboratory equipment used exclusively for chemical or physical analyses.
- 8. Brazing, soldering or welding equipment.
- 9. One or more emergency generators located within a single facility provided:
 - a. None of the emergency generators is subject to the Federal Acid Rain Program; and b. Total fuel consumption by all such emergency generators within the facility is limited to 32,000 gallons per year of diesel fuel, 4,000 gallons per year of gasoline, 4.4 million standard cubic feet per year of natural gas or propane, or an equivalent prorated amount if multiple fuels are used.
- 10. One or more heating units and general purpose internal combustion engines located within a single facility provided:
 - a. None of the heating units or general purpose internal combustion engines is subject to the Federal Acid Rain Program; and
 - b. Total fuel consumption by all such heating units and general purpose internal combustion engines within the facility is limited to 32,000 gallons per year of diesel

fuel, 4,000 gallons per year of gasoline, 4.4 million standard cubic feet per year of natural gas or propane, or an equivalent prorated amount if multiple fuels are used.

- 11. Fire and safety equipment.
- 12. Surface coating operations within a single facility if the total quantity of coatings containing greater than 5.0 percent VOCs, by volume, used is 6.0 gallons per day or less, averaged monthly, provided:
 - a. Such operations are not subject to a volatile organic compound Reasonably Available Control Technology (RACT) requirement of Chapter 62-296, F.A.C.; and
 - b. The amount of coatings used shall include any solvents and thinners used in the process including those used for cleanup.
- 13. Surface coating operations utilizing only coatings containing 5.0 percent or less VOCs, by volume.
- 14. Degreasing units using heavier-than-air vapors exclusively, except any such unit using or emitting any substance classified as a hazardous air pollutant.

Note: No exemption shall be granted to any emissions unit or activity if:

- 1. Such unit or activity would be subject to any unit-specific applicable requirement;
- 2. Such unit or activity, in combination with other units and activities proposed for exemption, would cause the facility to exceed any major source threshold(s) as defined in Rule 62-213.420(3)(c)1., F.A.C., unless it is acknowledged in the permit application that such units or activities would cause the facility to exceed such threshold(s); or
- 3. Such unit or activity would emit or have the potential to emit:
- a. 500 pounds per year or more of lead and lead compounds expressed as lead;
- b. 1,000 pounds per year or more of any hazardous air pollutant;
- c. 2,500 pounds per year or more of total hazardous air pollutants; or
- d. 5.0 tons per year or more of any other regulated pollutant.

[Rule 62-213.430(6), F.A.C]

Appendix H-1, Permit History/ID Number Changes

Orlando Utility Commission Indian River Plant

Permit No. 0090008-003-AV

Facility ID No. 0090008

E.U. ID No	Description	Permit No.	Issue Date	Expiration Date	Revised Dates
004 & 007	35 MW Combustion Turbines A & B	AC05-144482, AC05-146749	09/01/88	01/31/92	12/18/89
		PSD-FL-130	09/01/88		12/18/89
		AO05-176351	07/30/90	07/25/95	
		0090008-001-AV	01/01/00		
005 & 006	129 MW Combustion Turbines C & D	AC05-146750, AC05-146751	09/01/88	01/31/92	12/18/89, 11/05/91
		PSD-FL-130	09/01/88		12/18/89, 11/05/91
		AC05-193720	11/05/91	06/30/93	05/10/94, 08/24/95
		PSD-FL-173	11/05/91		05/10/94, 08/24/95
		ASP 92-0-01	12/16/92		
		AO05-229084	09/21/93	08/30/98	
		OGC FILE NO.	05/22/96		
		94-3376-C-05			
		0090008-001-AV	01/01/00	12/31/04	
	All of the above.	0090008-002-AV	01/31/01	12/31/04	

ID Number Changes:

From: Facility ID No. 30ORL050008

To: Facility ID No. 0090008

Orlando Utilities Commission Indian River Plant

Facility ID #: 0090008

APPENDIX CAM

Compliance Assurance Monitoring Requirements

Compliance Assurance Monitoring Requirements

Pursuant to Rule 62-213.440(1)(b)1.a., F.A.C., the CAM plans that are included in this appendix contain the monitoring requirements necessary to satisfy 40 CFR 64. Conditions 1. - 17. are generic conditions applicable to all emissions units that are subject to the CAM requirements. Specific requirements related to each emissions unit are contained in the attached tables, as submitted by the applicant and approved by the Department.

40 CFR 64.6 Approval of Monitoring.

- The attached CAM plan(s), as submitted by the applicant, is/are approved for the purposes of satisfying the requirements of 40 CFR 64.3.
 [40 CFR 64.6(a)]
- 2. The attached CAM plan(s) include the following information:
 - (i) The indicator(s) to be monitored (such as temperature, pressure drop, emissions, or similar parameter);
 - (ii) The means or device to be used to measure the indicator(s) (such as temperature measurement device, visual observation, or CEMS); and
- (iii) The performance requirements established to satisfy 40 CFR 64.3(b) or (d), as applicable. [40 CFR 64.6(c)(1)]
- 3. The attached CAM plan(s) describe the means by which the owner or operator will define an exceedance of the permitted limits or an excursion from the stated indicator ranges and averaging periods for purposes of responding to (see CAM Conditions 5. 9.) and reporting exceedances or excursions (see CAM Conditions 10. 14.).
 [40 CFR 64.6(c)(2)]
- The permittee is required to conduct the monitoring specified in the attached CAM plan(s) and shall fulfill the obligations specified in the conditions below (see CAM Conditions 5. 17.).
 CFR 64.6(c)(3)]

40 CFR 64.7 Operation of Approved Monitoring.

- 5. Commencement of operation. The owner or operator shall conduct the monitoring required under this appendix upon the effective date of this Title V permit.[40 CFR 64.7(a)]
- 6. Proper maintenance. At all times, the owner or operator shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.

 [40 CFR 64.7(b)]
- 7. Continued operation. Except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the owner or operator shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the

Title V Permit Renewal No. 0090008-003-AV Facility ID No.: 0090008

operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

[40 CFR 64.7(c)]

8. Response to excursions or exceedances.

- a. Upon detecting an excursion or exceedance, the owner or operator shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions, if allowed by this permit). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or any necessary follow-up actions to return operation to within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.
- b. Determination of whether the owner or operator has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.

[40 CFR 64.7(d)(1) & (2)]

9. Documentation of need for improved monitoring. If the owner or operator identifies a failure to achieve compliance with an emission limitation or standard for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the owner or operator shall promptly notify the permitting authority and, if necessary, submit a proposed modification to the Title V permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.

[40 CFR 64.7(e)]

40 CFR 64.8 Quality Improvement Plan (QIP) Requirements.

10. Based on the results of a determination made under CAM Condition 8.b., above, the permitting authority may require the owner or operator to develop and implement a QIP. Consistent with CAM Condition 4., an accumulation of exceedances or excursions exceeding 5 percent duration of a pollutant-specific emissions unit's operating time for a reporting period, may require the implementation of a QIP. The threshold may be set at a higher or lower percent or may rely on other criteria for purposes of indicating whether a pollutant-specific emissions unit is being maintained and operated in a manner consistent with good air pollution control practices.

[40 CFR 64.8(a)]

11. Elements of a QIP:

- a. The owner or operator shall maintain a written QIP, if required, and have it available for inspection.
- b. The plan initially shall include procedures for evaluating the control performance problems and, based on the results of the evaluation procedures, the owner or operator shall modify the plan to include procedures for conducting one or more of the following actions, as appropriate:

Title V Permit Renewal No. 0090008-003-AV Facility ID No.: 0090008

- (i) Improved preventive maintenance practices.
- (ii) Process operation changes.
- (iii) Appropriate improvements to control methods.
- (iv) Other steps appropriate to correct control performance.
- (v) More frequent or improved monitoring (only in conjunction with one or more steps under CAM Condition 11.b(i) through (iv), above).

[40 CFR 64.8(b)]

12. If a QIP is required, the owner or operator shall develop and implement a QIP as expeditiously as practicable and shall notify the permitting authority if the period for completing the improvements contained in the QIP exceeds 180 days from the date on which the need to implement the QIP was determined.

[40 CFR 64.8(c)]

- 13. Following implementation of a QIP, upon any subsequent determination pursuant to CAM Condition 8.b., the permitting authority may require that an owner or operator make reasonable changes to the QIP if the QIP is found to have:
 - a. Failed to address the cause of the control device performance problems; or
 - b. Failed to provide adequate procedures for correcting control device performance problems as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.

[40 CFR 64.8(d)]

14. Implementation of a QIP shall not excuse the owner or operator of a source from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the Act.

[40 CFR 64.8(e)]

40 CFR 64.9 Reporting And Recordkeeping Requirements.

15. General reporting requirements.

- a. On and after the date specified in **CAM Condition 5.** by which the owner or operator must use monitoring that meets the requirements of this appendix, the owner or operator shall submit monitoring reports semi-annually to the permitting authority in accordance with Rule 62-213.440(1)(b)3.a., F.A.C.
- b. A report for monitoring under this part shall include, at a minimum, the information required under Rule 62-213.440(1)(b)3.a., F.A.C., and the following information, as applicable:
 - (i) Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;
 - (ii) Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and
 - (iii) A description of the actions taken to implement a QIP during the reporting period as specified in **CAM Conditions 10.** through **14.** Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

[40 CFR 64.9(a)]

16. General recordkeeping requirements.

a. The owner or operator shall comply with the recordkeeping requirements specified in Rule 62-213.440(1)(b)2., F.A.C. The owner or operator shall maintain records of monitoring data,

monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to CAM Conditions 10. through 14. and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under this part (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions).

b. Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements.

[40 CFR 64.9(b)]

40 CFR 64.10 Savings Provisions.

- 17. It should be noted that nothing in this appendix shall:
 - a. Excuse the owner or operator of a source from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the Act. The requirements of this appendix shall not be used to justify the approval of monitoring less stringent than the monitoring which is required under separate legal authority and are not intended to establish minimum requirements for the purpose of determining the monitoring to be imposed under separate authority under the Act, including monitoring in permits issued pursuant to title I of the Act. The purpose of this part is to require, as part of the issuance of a permit under Title V of the Act, improved or new monitoring at those emissions units where monitoring requirements do not exist or are inadequate to meet the requirements of this part.
 - b. Restrict or abrogate the authority of the Administrator or the permitting authority to impose additional or more stringent monitoring, recordkeeping, testing, or reporting requirements on any owner or operator of a source under any provision of the Act, including but not limited to sections 114(a)(1) and 504(b), or state law, as applicable.
 - c. Restrict or abrogate the authority of the Administrator or permitting authority to take any enforcement action under the Act for any violation of an applicable requirement or of any person to take action under section 304 of the Act.

[40 CFR 64.10]

4

Title V Permit Renewal No. 0090008-003-AV Facility ID No.: 0090008

OUC – Indian River Plant

Emissions Units -004, -005, -006 & -007

Natural Gas and Oil-Fired Combustion Turbines NO_X Emissions Controlled By Water Injection

Title V Permit Renewal No. **0090008-003-AV**Facility ID No.: 0090008

Table 1. Monitoring Approach

		Compliance Indicator
I.	Indicator	Water-to-fuel ratio.
	Measurement Approach	Continuous Monitoring System measuring water injection rate, fuel consumption, and water-to-fuel ratio.
II.	Indicator Range	An excursion is defined as any one-hour period (excluding startup and shutdown) during which the average water-to-fuel ratio, as measured by the continuous monitoring system, falls below the target ratio values indicated by the heat input curves shown in figures 1 – 8 (typical target ratio values for different load percentages and fuel types are shown in Tables 2 - 4), below. These water-to-fuel ratios have been determined to provide a reasonable assurance of compliance with the limits contained in NSPS, Subpart GG and the Title V permit. Excursions trigger an inspection of the water injection system to determine the cause and any necessary corrective action. If the water-to-fuel ratio falls below the target ratio values for more than 16 consecutive unit operating hours, a test will be performed to redetermine the NO _x emission rate-heat input correlation for each fuel and (optional) combination of fuels.
III.	Performance Criteria A. Data Representativeness	The system meets the specifications of 40 CFR Part 60, Subpart GG.
	B. Verification of Operational Status	Not applicable, use of existing monitoring equipment is proposed.
	C. QA/QC Practices and Criteria	All data QA/QC is in accordance with the requirements of 40 CFR Part 75 Appendix E.
	D. Monitoring Frequency	Continuous.
	E. Data Collection Procedures	Automated data acquisition system (DAHS)
	F. Averaging Period	1 hour average (data collection frequency is continuous).

Table 2. Water-to-Fuel Ratios for CTA and CTB

Load (percent)	Water-to-Fuel Ratio Target Value		Water-to-Fuel Ratio Target Value			to-Fuel tio d Value	Water-to-Fuel Ratio Required Value		
	Nátur CT-A	al Gas CT-B	Distillate CT-A	Fuel Oil CT-B	Natur CT-A	al Gas CT-B	Distillate CT-A	Fuel Oil	
50	0.50	0.50	0.47	0.47	0.47	0.47	0.45	0.45	
75	0.58 0.66	0.58	0.54	0.54	0.56 0.65	0.56	0.52	0.52	
85 100	0.70 0.75	0.70 0.75	0.64 0.68	0.64 0.68	0.69 0.73	0.69	0.63 0.66	0.63 0.66	

Table 3. Water-to-Fuel Ratios for CTC and CTD (When Firing Gas)

Load (percent)	Target Natur		2001 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	d Value
	CT-C	CT-D	CT-C	CT-D
49	1.13	1.12	1.08	1.03
58	1.14	1.10	1.09	1.06
68	1.15	1.18	1.08	1.14
78	1.18	1.28	1.14	1.24
100	1.28	1.28	1.24	1.24

Table 4. Water-to-Fuel Ratios for CTC and CTD (When Firing Oil)

Load (percent)	Target	Fuel Ratio Value Fuel Oil		Fuel Ratio d Value Fuel Oil
	CT-C	CT-D	CT-C	CT-D
19	0.85	0.85	0.80	0.80
39	0.89	0.85	0.84	0.80
61	0.93	0.95	0.88	0.90
67	0.93	0.95	0.88	0.90
75	0.95	1.05	0.90	1.00
83	1.05	1.05	1.00	1.00
92	1.05	1.05	1.00	1.00
100	1.09	1.05	1.04	1.00

ţ

Figure 1

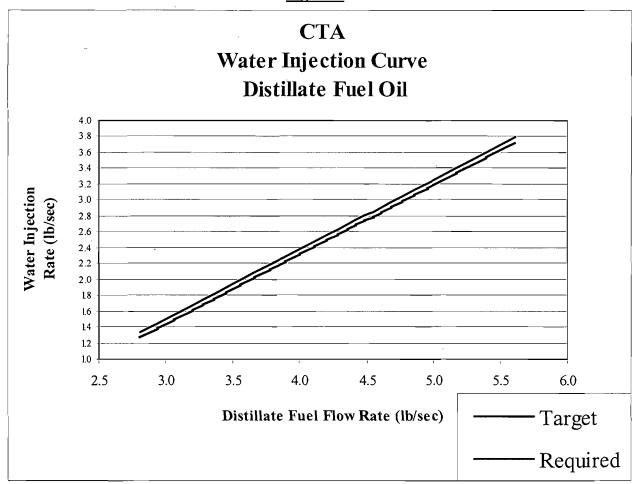


Figure 2

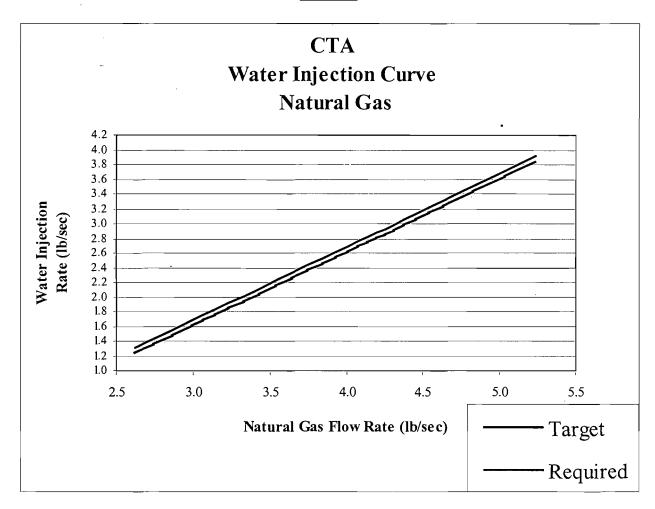


Figure 3

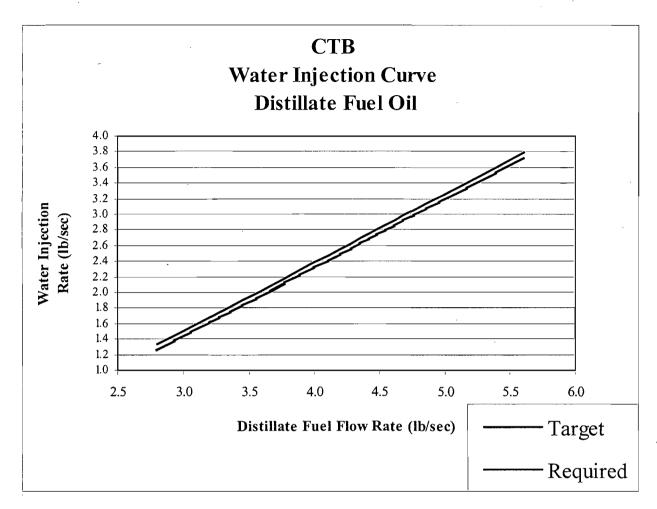


Figure 4

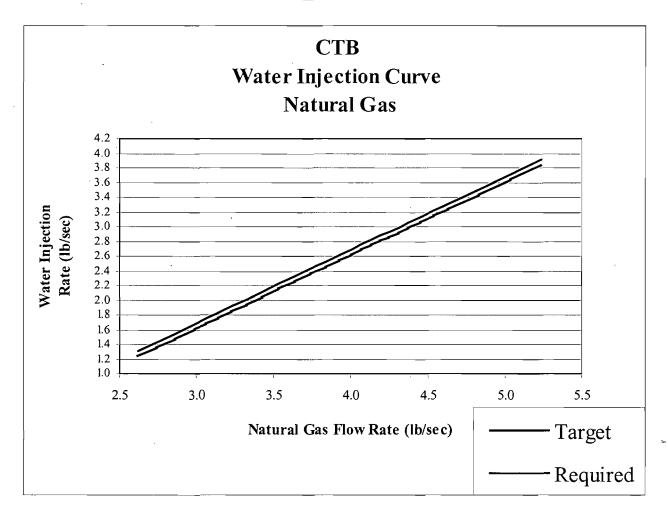


Figure 5

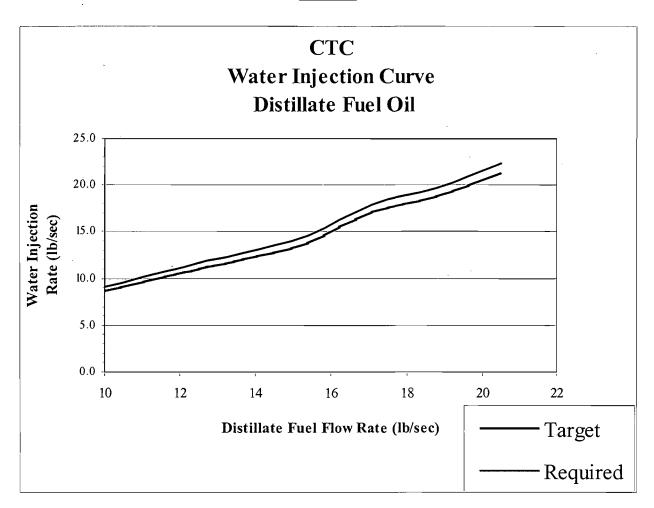


Figure 6

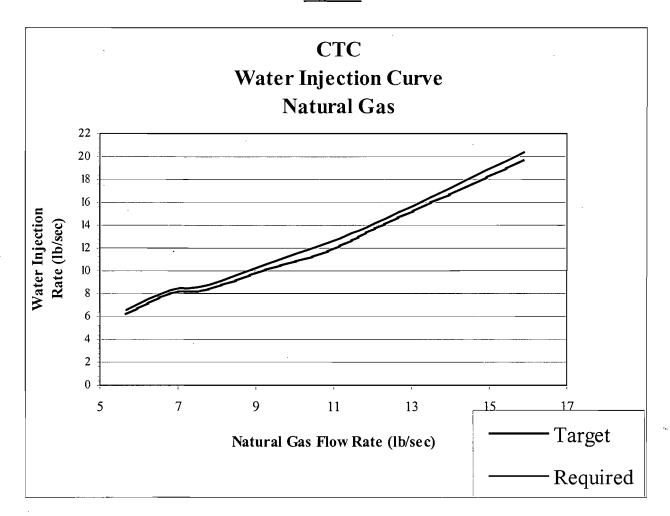


Figure 7

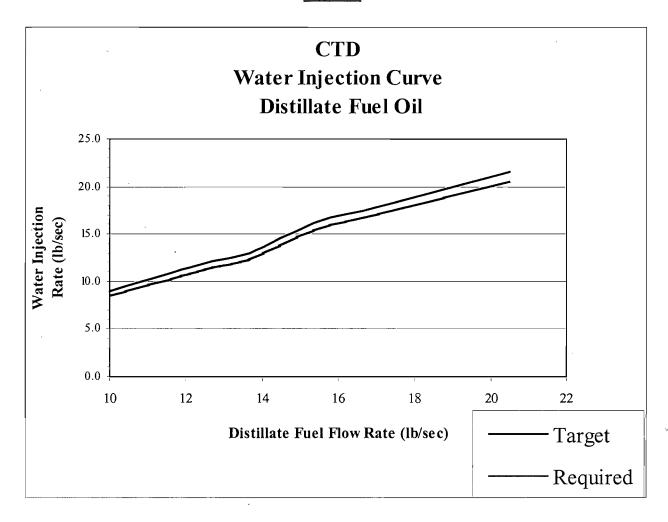


Figure 8

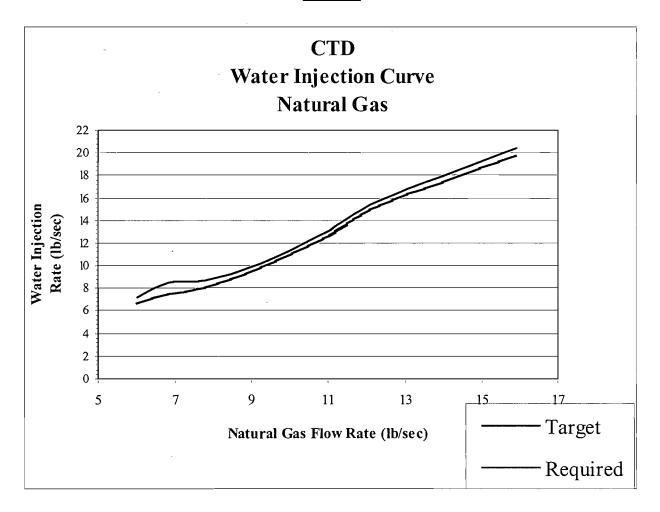


Table 1-1, Summary of Air Pollutant Standards and Terms

Orlando Utilities Commission Indian River Plant

Permit # 0090008-003-AV Facility ID # 0090008

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

E.U. 004, 007

Combustion Turbines A and B

			Allowal	ble Emissions		Equivalent Emissions*			See Permit
Pollutant/Parameter	Fuel	Hours/Year	lbs/hour/unit	TPY/unit	TPY/2 units	lbs./hour	TŖY	Regulatory Citations	Condition
SO2	Gas	8,760	0.34	1.5	3-			PSD-FL-130	III. A.4
	Oil		143	625	1250	285.4	1250		
NOx	Gas Oil		75 118	329 518	658 103 7	23 7	1037	PSD-FL-130	III. A.4
VE	Gas Oil		5% opacity 10% opacity				n/a	PSD-FL-130	III. A.5
		-							
							·		
		,							

Notes:

^{** --} Annual emissions (TPY) based on 3 hours per day at 0.3 lb/mmBtu and 21 hours per day at 0.1lb/MMBtu.

^{* --} Equivalent Emissions provided for information only.

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

Orlando Utilities Commission Indian River Plant

Permit # 0090008-003-AV Facility ID # 0090008

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

E.U. 005, 006

Combustion Turbines C and D

			Allowable Emissions			lowable Emissions		
Pollutant/Parameter	Fuel	Hours/Year	Standard	TPY/unit	TPY/2 units	lbs./hour / unit	Regulatory Citations	Condition
SO2	Gas	4,380	0.3% Sulfur Fuel	1.05	2.10	0.5	PSD-FL-173	III.B.5
	Oil		0.3% Sulfur Fuel	476.5	953	217.6		
NOx	Gas		25 ppm@15% O2	295.75	591.5	135.0	PSD-FL-173	III.B.5
	Oil		42 ppm@15% O2	253	506	115.5		
VE	Gas		10% opacity				AC05-193720	III.B.6
	Oil		10% opacity					
PM/PM10	Gas		0.003 lb/MMBtu	9.75	19.5	4.5		III.B.5
	Oil		0.08 lb/MMBtu	118.5	237	54.1		
со	Gas		25 ppmvd	156.5	313	71.5		III.B.5
	Oil		25 ppmvd	79.5	159	36.3		
VOC.	Gas		5 ppmvd	18.5	37	8.4		III.B.5
	Oil		15 ppmvd	56	112	25.6		
Sulfurc Acid Mist	Gas			0.035	0.07	0.02		III.B.5
	Oil			14.25	28.5	6.5		·

Table 2-1, Summary of Compliance Requirements

Orlando Utilities Commission Indian River Plant

Permit # 0090008-003-AV Facility ID # 0090008

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

E.U. 004, 007

Combustion Turbines A and B

			Frequency	Frequency	Min. Compliance		
Pollutant/		Compliance	ōf	Base	Test		Permit
Parameter	Fuel	Method	Sampling	Date *	Duration	CMS**	Condition
SO2	#2 oil	Fuel sampling & analysis	Daily sampling of as-fired fuel	Per 40 CFR 60.334(b)			III.C.6, C.12
	gas						
VE	#2 oil	EPA Method 9	annual	20-Jan			III.C.6
NOx	#2 oil gas	EPA Method 20	annual	20-Jan			III.C.6

Notes:

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

^{**}CMS = continuous monitoring system

Table 2-1, Summary of Compliance Requirements

Orlando Utilities Commission Indian River Plant

Permit # 0090008-003-AV Facility ID # 0090008

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

E.U. 005, 006

Combustion Turbines C and D

			Erequency	Frequency	Min. Compliance		
Pollutant/		Compliance	of	Base	Test		, Permit
Parameter	Fuel	Method	Sampling	Date *	Duration	CMS	Condition
SO2	#2 oil	Fuel sampling & analysis	After each fuel oil shipment	Per 40 CFR 60.335			III.C.6, C.12
·	gas						
VE	#2 oil gas	EPA Method 9	annual	20-Jan			III.C.6
СО	#2 oil gas	EPA Method 10	annual	20-Jan			III.B.9, C.6
NOx	#2 oil gas	EPA Method 20**	annual	20-Jan			III.C.6
PM/PM10	#2 oil gas	none					
voc		***					III.B.7.

Notes:

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

^{**}With ASP for revised Method 1

^{***} Compliance with total VOC emission limits will be assumed, provided the CO allowable emission rate is achieved. PSD-FL-173

Friday, Barbara

To: Kozlov, Leonard; 'sosbourn@golder.com'; dstalls@ouc.com

Cc: Cascio, Tom

Subject: PROPOSED Title V Permit Renewal No. 0090008-003-AV - Orlando Utilities Commission - Indian

River Plant

Find attached the zip file for subject PROPOSED Title V Permit Renewal for your information and files.

If I may be of further assistance, please feel free to contact me.

Barbara J. Friday Planner II Bureau of Air Regulation (850)921-9524 Barbara.Friday@dep.state.fl.us