THE STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

In the Matter of an
Application for Permit by:
Florida Power Corporation,
University of Florida Cogeneration Plant
Alachua County, Florida

OGC CASE NO. 97-1208
DRAFT Permit No.: 0010001-001-AV

/

NOTICE OF WITHDRAWAL OF EXTENSION OF TIME

The Florida Power Corporation (FPC), by and through undersigned counsel, hereby withdraws its Request for Extension of Time to file a petition for formal administrative proceedings in accordance with Chapter 120, Florida Statutes. FPC filed its last Request for Extension of Time until October 1, 1999, in response to the "Intent to Issue Title V Air Operation Permit" (Draft Permit No.0010001-001-AV) for the University of Florida Cogeneration Plant located in Alachua County, Florida, to negotiate certain changes in the Draft Title V permit with the Department of Environmental Protection (Department). Following discussions with Department representatives, FPC and the Department came to an agreement on the issues involved in the above-referenced Draft Title V permit, as reflected in the attached preliminary proposed Title V permit. Conditioned upon the Department's issuance of the Proposed Title V permit in accordance with our agreement, FPC hereby withdraws its Request for Extension of Time.

Respectfully submitted this 16 day of September, 1999.

HOPPING GREEN SAMS & SMITH, P.A.

Robert A. Manning

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Attorney for Florida Power Corporation

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a copy of the foregoing has been furnished to the following by U.S. Mail on this 16 day of September, 1999.

Clair H. Fancy, P.E., Chief
Bureau of Air Regulation
Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, FL 32399-2600

Ed Svec
Bureau of Air Regulation
Department of Environmental Protection
2600 Blair Stone Road
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Office of General Counsel
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2600 Blair Stone Road
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Robert A. Manning
Attorney

Florida Power Corporation
University of Florida Cogeneration Plant
Facility I.D. No.: 0010001
Alachua County

Initial Title V Air Operation Permit
PROPOSED Permit No.: 0010001-001-AV

Permitting Authority:

State of Florida
Department of Environmental Protection
Division of Air Resources Management
Bureau of Air Regulation
Title V Section

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

Phone: (904)488-1344
Fax: (904)922-6979

Initial Title V Air Operation Permit
PROPOSED Permit No.: 0010001-001-AV

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Permittee:
Florida Power Corporation
P.O. Box 12295
Gainesville, FL 32611-2295

PROPOSED Permit No.: 0010001-001-AV
Facility ID No.: 0010001
SIC No.: 49, 4911
Project: Initial Title V Air Operation Permit

This permit is for the operation of the University of Florida Cogeneration Plant. This facility is located on Mowry Road at Building 82, University of Florida, Gainesville, Alachua County; UTM Coordinates: Zone 17, 369.4 km East and 3279.3 km North; Latitude: 29° 38' 23" North and Longitude: 82° 20' 55" West.

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

Referenced attachments made a part of this permit:

Appendix U-1, List of Unregulated Emissions units and/or Activities
Appendix I-1, List of Insignificant Emissions Units and/or Activities
APPENDIX TV-3, TITLE V CONDITIONS (version dated 04/30/99)
APPENDIX SS - 1, STACK SAMPLING FACILITIES (VERSION DATED 10/07/96)
FIGURE 1 - SUMMARY REPORT-GASEOUS AND OPACITY EXCESS
EMISSION AND MONITORING SYSTEM PERFORMANCE REPORT (40 CFR 60; July, 1996)
Phase II Acid Rain Application/Compliance Plan received 12/22/95

Effective Date: January 1, 2000
Renewal Application Due Date: July 5, 2004
Expiration Date: December 31, 2004

Howard L. Rhodes, Director,
Division of Air Resources Management

HLR/sms/bm

Section I. Facility Information.

Subsection A. - Facility Description.

This facility consists of one Combustion Turbine (CT), one Duct Burner (DB) with a Heat Recovery Steam Generator (HRSG), and two Steam Boilers (No. 4 and No. 5). Emissions from the CT and DB are vented through a common stack. The steam boilers, each having a separate exhaust stack, are used only as back-up sources. Also, included in this permit are miscellaneous insignificant emissions units and/or activities.

Based on the initial Title V permit application received June 14, 1996, this facility is not a major source of Hazardous Air Pollutants (HAPs).

Subsection B. - Summary of Emissions Unit(s) with ID No(s).

E.U. ID No.	Description
- 001	GE LM6000 Combustion Turbine
- 002	Duct Burner System with a HRSG
- 003	No.4 Steam Boiler
- 004	No.5 Steam Boiler

Please reference the Permit No., Facility ID No., and appropriate emissions unit(s) with their ID No(s). on all correspondence, test report submittals, applications, and etc.

Subsection C. - Relevant Documents.

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

These documents are provided to the permittee for information purposes only:
Table 1-1, Summary of Air Pollutant Standards and Terms
Table 2-1, Summary of Compliance Requirements
Appendix A-1, Abbreviations, Acronyms, Citations, and Identification Numbers
Appendix H-1, Permit History/ID Number Changes

These documents are on file with permitting authority:
Phase II Acid Rain Application/Compliance Plan received December 22, 1995.
Initial Title V Permit Application received June 14, 1996.
Response letter from Mr. Scott H. Osbourn received August 13, 1997.
Letter from Mr. Scott H. Osbourn dated August 27, 1998.

Section II. Facility wide Conditions.

1. APPENDIX TV-3, TITLE V CONDITIONS, is a part of this permit.
{Permitting note: APPENDIX TV-3, TITLE V CONDITIONS, is distributed to the permittee only. Other persons requesting copies of these conditions shall be provided with only one 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, shall be used to determine compliance with this condition.
[Rules 62-296.320(4)(b)1. & 4., F.A.C.]

4. Prevention of Accidental Releases (Section 112(r) of the CAA). If required by 40 CFR 68, the permittee shall submit to the implementing agency:
   a. a risk management plan (RMP) when, and if, such requirement becomes applicable, and;
   b. certification forms and/or RMPs according to the promulgated rule schedule.
[40 CFR 68]

5. Unregulated Emissions units and/or Activities. Appendix U-1, List of Unregulated Emissions units and/or Activities, is a part of this permit. The facility has none at this time.
[Rule 62-213.440(1), F.A.C.]

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

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

{Permitting note.: There are no requirements deemed necessary and ordered by the Department at this time.}

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

8. **Not federally enforceable.** Reasonable precautions should be taken to prevent emissions of unconfined particulate matter at this facility. Steps presently taken at the facility to minimize particulate emissions are as follows:

a. Maintenance of paved areas as needed,
b. Regular mowing of grass and care of vegetation,
c. Limiting access to plant property by unnecessary vehicles, and
d. Additional or alternative activities may be utilized to minimize unconfined particulate emissions.

[Rule 62-296.320(4)(c)2., F.A.C.; proposed by applicant in the initial Title V permit application received June 14, 1996; and, a comment letter received August 13, 1998.]

9. The permittee shall submit all compliance related notifications and reports required of this permit to the Department's Northeast District Office and Branch Office:

Department of Environmental Protection
Northeast District Office
7825 Baymeadows Way, Suite 200-B
Jacksonville, FL 32256-7590
Telephone: 904/448-4300
Fax: 904/448-4363

and

Department of Environmental Protection
Northeast District Branch Office
5700 Southwest 34th Street, Suite 1204
Gainesville, FL 32608
Telephone: 352/955-2095
Fax: 352/377-5671

Emission Limitations

10. The total NO_X emissions from the entire facility (i.e., CT, DB, Boiler #4 and Boiler #5) shall not exceed 194.3 TPY. See Facility-wide Condition No. 11.
[Rule 62-212.400(2)(g), F.A.C.; and, AC01-204652/PSD-FL-181/PSD-FL-181(A)]

Potential to Emit

11. Pursuant to PSD-FL-181, the permittee requested and received a 39.7 TPY net increase in NO_X emissions. Therefore, any net increase in NO_X emissions of 0.3 TPY above the allowable limitation established in Facility-wide Condition No. 10 will initiate preconstruction review requirements pursuant to Rule 62-212.400(5), F.A.C., for NO_X for the CT and DB as if construction of these emissions units had not yet begun. See Facility-wide Condition No. 10.
[Rules 62-212.400(2)(g) and 62-212.400(5), F.A.C.]

12. Based on the comment letter received August 13, 1997, Boilers Nos. 1, 2, and 3 have been retired.
[Comment letter dated August 8, 1997; and, PSD-FL-181]

Monitoring of Operations

13. The permittee shall maintain the required fuel use records and include the total NO_X emission calculation in each annual operating report; and, the records shall be retained for a five year period.
[Rule 62-213.440, F.A.C.; Rule 62-212.400(2)(g), F.A.C.; and, AC01-204652/PSD-FL-181/PSD-FL-181(A)]

Miscellaneous

14. 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.]

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

United States Environmental Protection Agency
Region 4
Air, Pesticides & Toxics Management Division
Air & EPCRA Enforcement Branch
Air Enforcement Section
61 Forsyth Street
Atlanta, Georgia 32303
Telephone: 404/562-9155
Fax: 404/562-9163

Section III. Emissions Unit(s) & Conditions.

Subsection A. This section addresses the following emissions unit.

E.U. ID No.	Brief Description
-001	GE LM 6000 Combustion Turbine

The General Electric LM 6000 combustion turbine has a generator rating of 43 megawatts (MW) and a maximum heat input rating of 399 MMBtu/hr (LHV) while firing natural gas and 384 MMBtu/hr (LHV) while firing No. 2 distillate fuel oil. The NO_X emissions are controlled with steam injection. The combustion turbine and associated duct burner exhaust through the same HRSG and common stack. This emissions unit began commercial service in 1994.

{Permitting note: This emissions unit is regulated under Acid Rain, Phase II; 40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines, adopted and incorporated by reference in Rule 62-204.800(7)(b), F.A.C; PSD-FL-181 dated August 17, 1992; and, PSD-FL-181(A).}

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

Essential Potential to Emit (PTE) Parameters

A.1. Permitted Capacity. The maximum heat input shall not exceed 399 MMBtu/hr (LHV) while firing natural gas and 384 MMBtu/hr (LHV) while firing No. 2 distillate fuel oil.

{Permitting note: The heat input limitation has been placed in the permit to identify the capacity of the emissions unit for purposes of confirming that emissions testing is conducted within 90-100 percent of the emissions unit's rated capacity (or to limit future operation to 110 percent of the test load), to establish appropriate limits and to aid in determining future rule applicability. Regular record keeping is not required for heat input. Instead, the owner or operator is expected to determine heat input whenever emission testing is required to demonstrate at what percentage of the rated capacity that the emissions unit was tested.}

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; and, AC01-204562/PSD-FL-181(A)]

A.2. Emissions Unit Operating Rate Limitation After Testing. See Specific Condition **A.23**.

A.3. Methods of Operation - Fuels. Only natural gas or No. 2 fuel oil shall be fired in the combustion turbine. [Rule 62-213.410, F.A.C.; and, PSD-FL-181]

A.4. Hours of Operation. The hours of operation for the CT are specified in Specific Condition **D.1**. [Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; and, PSD-FL-181]

Emission Limitations and Standards

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

A.5. Pollutant and visible emissions from the CT shall not exceed the following allowable limits:

			CT Allowable Limits	
Pollutant	**Fuel Type**	**Basis of Limit**	**lbs/hr**	**TPY**
NO_X[1]	Natural Gas	25 ppmvd @ 15% O_2	39.6[3]	142.7[1,2]
	No.2 Fuel Oil	42 ppmvd @ 15% O_2	66.3[3]	7.3[1,2]
SO_2	No.2 Fuel Oil	BACT	0.5% Sulfur content, by weight	
CO	Natural Gas	BACT: 42 ppmvd @ 15% O_2	38.8	158.0
	No.2 Fuel Oil	BACT: 75 ppmvd @ 15% O_2	70.5	7.7
Parameter	**Fuel Type**		**CT Allowable Limit**	
VE	Natural Gas		10% opacity[4]	
VE	No. 2 Fuel Oil		20% opacity, except for one 6-min. period per hour of not more than 27% opacity[4]	

1 The NO_X limit was accepted by the applicant to escape PSD New Source Review.

2 Any net increase in NO_X emissions of 0.3 TPY above the combined allowable limits of the CT and DB (174.6 TPY; and, see Specific Conditions B.4. and D.2.b.) will initiate preconstruction review requirements pursuant to Rule 62-212.400(5), F.A.C., for NO_X for the CT and DB as if construction of these emissions units had not yet begun.

3 30-day rolling average, compliance timeframe. (See Specific Condition A.6.)

4 Since the CT and DB are in series, the opacity standard is applicable when the CT or the CT and DB are in operation, except when the CT is firing No. 2 distillate fuel oil, at which time the CT's opacity standard for fuel oil will be in effect. See Specific Condition B.4.

A.6. Since the initial performance tests have been conducted, the permittee has elected to demonstrate compliance with the allowable NO_X emissions limits using a continuous emissions monitor system (CEMS). Since the CT and DB are in series, the allowable emissions for both emissions units shall be combined for ongoing compliance demonstration purposes. For the purpose on demonstrating ongoing compliance with the applicable combined emissions limits for both the CT and DB, using the stack CEMS, compliance is considered to occur when the NO_X emissions are less than or equal to (1) 39.6 lbs/hr or 66.3 lbs/hr when only the CT is operating and firing natural gas or No. 2 distillate fuel oil, respectively; (2) 58.3 lbs/hr when both the CT and DB are operating and firing natural gas; or, (3) 85.0 lbs/hr when both the CT and DB are operating and the CT is firing No. 2 distillate fuel oil and the DB is firing natural gas. The daily rolling average compliance value shall be calculated based on the proportion of hours operated in a day (midnight to midnight) that the CT or both the

CT and DB are operating. Any portion of an hour that the DB operates shall be recognized as an hour-period on the daily operation. For example, in a given daily timeframe, with 20 hours of CT operation only while firing natural gas and 4 hours of CT-DB operation while firing natural gas:

Calculated Daily NO_X Emissions Value =
[(39.6 lbs/hr x 20-hrs) + (58.3 lbs/hr x 4-hrs)]/24-hrs =
42.72 lbs/day NO_X emissions value

For the 30-day rolling average, this daily calculated emissions value will then be added to the previous 29-day period of daily calculated emission values and divided by 30 (days) to establish the 30-day average emissions value for comparing to the CEMS data over the same 30-day period.

Calculated 30-Day Average NO_X Emissions Value =
[42.72 lbs/day + "previous 29-daily emission values (lbs/day) summation"]/30-days =
lbs/30-day average NO_X emissions value

Compliance with the permitted NO_X emission limitation is considered satisfied as long as the NO_X emissions value from the stack CEMS is less than or equal to the calculated NO_X emissions value, averaged over the same 30-day period.
[AC 01-204652/PSD-FL-181/PSD-FL-181(A); 40 CFR 60.44b(i); and, Rule 62-212.400(2)(g), F.A.C.]

A.7. Sulfur Dioxide - Sulfur Content: The sulfur content of the fuel oil fired by the stationary gas turbine may be used to determine compliance with 40 CFR 60.333(b). Under such circumstances, the permittee shall not fire in any stationary gas turbine any fuel which contains a sulfur content in excess of 0.5 percent, by weight.
[40 CFR 60.333(b); and, AC01-204652/PSD-FL-181/PSD-FL-181(A)]

Excess Emissions

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

A.8. Excess emissions resulting from startup, shutdown or malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for a longer duration.
[Rule 62-210.700(1), F.A.C.]

A.9. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown, or malfunction shall be prohibited.
[Rule 62-210.700(4), F.A.C.]

Monitoring of Operations

A.10. At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.
[40 CFR 60.11(d)]

A.11. Determination of Process Variables.
(a) Required Equipment. The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.
(b) Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.
[Rule 62-297.310(5), F.A.C.]

A.12. The NOx emission rate in lbs/hr and tons/yr from the cogeneration (CT and DB) stack shall be calculated using a continuous emissions monitoring (CEM) system, which is certified pursuant to 40 CFR 75, and used to determine lbs/MMBtu of NOx. The CEM system shall be operated and maintained in accordance with the applicable requirements of 40 CFR 75, Subparts B and C. Missing data shall be substituted in a manner pursuant to 40 CFR 75, Subpart D. Record keeping and reporting shall be conducted pursuant to 40 CFR 75, Subparts F and G. Excess emissions pursuant to 40 CFR 60.334 shall be determined using the 40 CFR Part 75 CEM system.
[Applicant requested; and, 40 CFR 75]

A.13. The power output of the generator shall be continuously monitored and recorded.
[AC01-204652/PSD-FL-181]

A.14. The permittee shall monitor sulfur content and nitrogen content of No. 2 fuel oil. The frequency of determinations of these values shall be as follows:
(a) If the emissions unit 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 emissions unit is supplied its fuel oil 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 fuel monitoring schedule requests shall be substantiated with data and submitted to the Department. The Department will submit the request to the Administrator, who must approve the custom fuel monitoring schedule before it can be used to comply with 40 CFR 60.334(b).
[40 CFR 60.334(b)(1) and (2)]

A.15. The sulfur content and nitrogen content of natural gas fired in the turbine shall be monitored as per the following custom fuel monitoring schedule:

Custom Fuel Monitoring Schedule for Natural Gas

a. Monitoring of fuel nitrogen content shall not be required while natural gas is the only fuel being fired in the gas turbines.

b. Sulfur Monitoring

1. Analysis for fuel sulfur content of the natural gas shall be conducted using one of the approved ASTM reference methods for the measurement of sulfur in gaseous fuels, or an approved alternative method. The reference methods are ASTM D1072-90(94)E-1, ASTM D3031-81(86), ASTM D3246-92, and ASTM D4084-94, or the latest edition, as referenced in 40 CFR 60.335(d).
2. This custom fuel monitoring schedule shall became effective on May 22, 1995. Effective the date of this custom schedule, sulfur monitoring shall be conducted twice monthly for six months. If this monitoring shows little variability in the fuel sulfur content, and indicates consistent compliance with 40 CFR 60.333 and the conditions of this permit, then sulfur monitoring shall be conducted once per quarter for six quarters. If monitoring data is provided by the applicant which demonstrates consistent compliance with the conditions of this permit, the applicant may begin monitoring as per the requirements of item b.3 below.
3. If after the monitoring required in item b.2 above, or herein, the sulfur content of the fuel shows little variability and, calculated as sulfur dioxide, represents consistent compliance with the sulfur dioxide emission limits specified under 40 CFR 60.333 and the conditions of this permit, sample analysis shall be conducted twice per annum. This monitoring shall be conducted during the first and third quarters of each calendar year.
4. Should any sulfur analysis as required in items b.2 or b.3 above indicate noncompliance with 40 CFR 60.333 and the conditions of this permit, the owner or operator shall notify the Department of such excess emissions and the custom schedule shall be re-examined by the Environmental Protection Agency. Sulfur monitoring shall be conducted weekly during the interim period when this custom fuel monitoring schedule is being re-examined.

c. If there is a change in fuel supply, the owner or operator must notify the Department of such change for re-examination of this custom schedule. A substantial change in fuel quality shall be considered as a change in fuel supply. Sulfur monitoring shall be conducted weekly during the interim period when this custom schedule is being re-examined.

d. Records of sample analysis and fuel supply pertinent to this custom schedule shall be retained for a period of five years, and be available for inspection by personnel of federal and state air pollution control agencies.

[40 CFR 60.334(b)(2); and, PSD-FL-181 amendment dated May 22,1995]

Test Methods and Procedures

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

A.16. The test method for visible emissions (VE) shall be EPA Method 9, incorporated and adopted by reference in Rule 62-204.800, F.A.C., and referenced in Chapter 62-297, F.A.C.
[Rules 62-204.800, 62-296.320(4)(b)4.a. and 62-297.401, F.A.C.]

A.17. The permittee shall comply with the stack sampling requirements contained in Appendix SS-1, Stack Sampling Facilities (attached).
[Rule 62-297.310(6), F.A.C.]

A.18. To compute the nitrogen oxide emissions, the permittee shall use analytical methods and procedures that are accurate to within 5 percent and are approved by the Administrator to determine the nitrogen content of the fuel being fired.
[40 CFR 60.335(a)]

A.19. Compliance with the NSPS NO_X emission limitation pursuant to 40 CFR 60.332 is considered satisfied as long as the NO_X emissions value from the stack CEMS is less than or equal to the allowable NO_X emissions limit. See Specific Condition A.5.
(3) For the RATA demonstration pursuant to 40 CFR 60, Appendix B, to satisfy the requirements of 40 CFR 75, EPA Method 20 (40 CFR 60, Appendix A) shall be used to determine the nitrogen oxides and oxygen concentrations. The span values shall be 300 ppm of nitrogen oxide and 21 percent oxygen.

{Permitting note: Because the permittee has agreed to use the NO_X CEMS for compliance and the formal annual stack test requirement is being incorporated into the CEMS RATA demonstration, then a separate annual stack test is not required. However, this does not preclude the imposition of a "Special Compliance Test" pursuant to Rule 62-297.310(7)(b), F.A.C. See Specific Condition A.24.}

[40 CFR 60.335(c)(3)]

A.20. The permittee shall determine compliance with the sulfur content standard in 40 CFR 60.333(b) as follows: ASTM D2880-96, or the latest edition, shall be used to determine the sulfur content of liquid fuels and ASTM D1072-90(94)E-1, D3031-81(86), D4084-94, D3246-92, or the latest edition, shall be used for the sulfur content of gaseous fuels (incorporated by reference in 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 approval of the Administrator.
[40 CFR 60.335(d)]

A.21. To meet the requirements of 40 CFR 60.334(b), the permittee shall use the methods specified in 40 CFR 60.335(a) and (d) to determine the nitrogen and sulfur contents of the fuel being burned. The analysis may be performed by the permittee, a service contractor retained by the permittee, the fuel vendor, or any other qualified agency.
[40 CFR 60.335(e)]

A.22. Required Number of Test Runs. For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five day period allowed for the test, the Secretary or his or her designee may accept the results of the two complete runs as proof of compliance, provided that the arithmetic mean of the results of the two complete runs is at least 20 percent below the allowable emission limiting standards.
[Rule 62-297.310(1), F.A.C.]

A.23. Operating Rate During Testing. Testing of emissions shall be conducted with the emissions unit operating at permitted capacity as defined below. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than minimum permitted capacity, in which case subsequent emissions unit operations are limited to 110 percent of the test load until a new test is conducted. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. The permitted capacity shall at no time be exceeded. 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, an emissions unit may be tested at less than capacity. In such cases, the entire heat input vs. inlet temperature curve will be adjusted by the increment equal to the difference between the design heat input value and 110 percent of the value reached during the test. Data, average ambient temperature during the test, capacity vs. ambient temperature 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.
[Rule 62.297.310(2), F.A.C.; and, AC 01-204652/PSD-FL-181]

A.24. Frequency of Compliance Tests. The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.
(a) General Compliance Testing.
3. The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to Rule 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:
a. Did not operate; or
b. In the case of a fuel burning emissions unit, burned liquid fuel for a total of no more than 400 hours.
4. During each federal fiscal year (October 1 - September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:
a. Visible emissions, if there is an applicable standard.
b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; or 100 tons per year or more of any other regulated air pollutant (See Specific Condition A.19.); and,
c. Each NESHAP pollutant, if there is an applicable emissions standard.
8. Any combustion turbine that does not operate for more than 400 hours per year shall conduct a visible emissions compliance test once per each five-year period, coinciding with the term of its air operating permit.
9. The owner or operator shall notify the Department, at least 15 days prior to the date on which each formal compliance test is to begin, of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator.
(b) Special Compliance Tests. When the Department, after investigations, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.

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

A.25. 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 (TPY) or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 TPY of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:
a. For batch, cyclical processes, or other operations which are normally completed within less than the minimum observation period and do not recur within that time, the period of observation shall be equal to the duration of the batch cycle or operation completion time.
b. The observation period for special opacity tests that are conducted to provide data to establish a surrogate standard pursuant to Rule 62-297.310(5)(k), F.A.C., Waiver of Compliance Test Requirements, shall be established as necessary to properly establish the relationship between a proposed surrogate standard and an existing mass emission limiting standard.
c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.
(d) Calibration of Sampling Equipment. Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1, CALIBRATION SCHEDULE (attached).
[Rule 62-297.310(4), F.A.C.]

A.26. Test Reports.
(a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department on the results of each such test.
(b) The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed.
(c) The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information:
1. The type, location, and designation of the emissions unit tested.
2. The facility at which the emissions unit is located.
3. The owner or operator of the emissions unit.

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

[Rules 62-213.440 and 62-297.310(8), F.A.C.]

Recordkeeping and Reporting Requirements

A.27. The permittee shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of an affected facility; any malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.
[40 CFR 60.7(b)]

A.28. The applicant shall submit to the Administrator semiannual written reports, postmarked by the 30th day following the end of each calendar half, of excess emissions as follows:
a. If the total duration of excess emissions for the reporting period is less than 1 percent of the total operating time for the reporting period and CMS downtime for the reporting period is less than 5 percent of the total operating time for the reporting period, only the summary report form as per Figure 1 attached to this permit.
b. If the total duration of excess emissions for the reporting period is 1 percent or greater of the total operating time for the reporting period or the total CMS downtime for the reporting period is 5 percent or greater of the total operating time for the reporting period, the summary report form and the excess emission report described in 40 CFR 60.7(c) shall both be submitted.
[40 CFR 60.7(c) and (d)]

A.29. 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 this part recorded in a permanent form suitable for inspection. The file shall be retained for at least five years following the date of such measurements, maintenance, reports, and records.
[Rule 62-213.440(1)(b), F.A.C.; and, 40 CFR 60.7(f)]

A.30. In case of excess emissions resulting from malfunctions, each owner or operator 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.]

A.31. For the purpose of reports required under 40 CFR 60.7(c), periods of excess emissions that shall be reported are defined as follows:
a. The NO_X CEMS will be used in lieu of the water/fuel monitoring system and fuel bound nitrogen (FBN) monitoring, which are required in 40 CFR 60.334. The NO_X CEMS shall be used to report excess emissions during periods of startup, shutdown, and malfunction in lieu of FBN monitoring and the water/fuel monitoring system described in 40 CFR 60.334(c)(1).
b. Sulfur dioxide. Any daily period during which the sulfur content of the fuel being fired in the gas turbine exceeds 0.5 percent, by weight.
[40 CFR 60.334(c); and, PSD-FL-181]

Miscellaneous

A.32. Carbon Monoxide. EPA Method 10 shall be used to demonstrate compliance in accordance with Chapter 62-297, F.A.C., and 40 CFR 60, Appendix A.
[PSD-FL-181]

Subsection B. This section addresses the following emissions unit.

E.U. ID No.	Brief Description
-002	Duct Burner System associated with a HRSG

The Duct Burner (DB) can only fire natural gas and can only be operated while the CT is being operated. Low-NO_X burners have been installed to control emissions. The DB has a maximum heat input rate of 187.0 MMBtu/hr (LHV). The DB and CT exhaust through an associated HRSG and common stack. This emissions unit began commercial service in 1994.

{Permitting note: This emissions unit is regulated under 40 CFR 60, Subpart Db, Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units, adopted and incorporated by reference in Rule 62-204.800(7), F.A.C.; PSD-FL-181 dated August 17, 1992; and, PSD-FL-181(A).}

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

Essential Potential to Emit (PTE) Parameters

B.1. Permitted Capacity. The maximum heat input from the DB shall not exceed 187.0 MMBtu/hour (LHV).

{Permitting note: The heat input limitation has been placed in the permit to identify the capacity of the emissions unit for purposes of confirming that emissions testing is conducted within 90-100 percent of the emissions unit's rated capacity (or to limit future operation to 110 percent of the test load), to establish appropriate limits and to aid in determining future rule applicability. Regular record keeping is not required for heat input. Instead, the owner or operator is expected to determine heat input whenever emission testing is required to demonstrate at what percentage of the rated capacity that the emissions unit was tested.}

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; and, AC01-204562/PSD-FL-181/PSD-FL-181(A)]

B.2. Methods of Operation - Fuel. Only natural gas shall be fired in this emissions unit. The maximum fuel consumption for natural gas is specified in Specific Condition **D.1**.
[AC01-204562/PSD-FL-181/PSD-FL-181(A)]

B.3. Hours of Operation. The maximum hours of operation are specified in Specific Condition **D.1**.
[AC01-204562/PSD-FL-181/PSD-FL-181(A)]

Emission Limitations and Standards

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

B.4. Pollutant and visible emissions from the DB shall not exceed the following allowable limits:

			DB Allowable Limits	
Pollutant	**Fuel Type**	**Basis of Limit**	**lbs/hr**	**TPY**
NO_X[1]	Natural Gas	0.1 lb/MMBtu	18.7[3]	24.6[1,2]
CO	Natural Gas	BACT: 0.15 lb/MMBtu	28.1	36.9
Parameter	**Fuel Type**		**DB Allowable Limit**	
VE	Natural Gas		10% opacity[4]	

1 The NO_X limit was accepted by the applicant to escape PSD New Source Review.

2 Any net increase in NO_X emissions of 0.3 TPY above the combined allowable limits of the CT and DB (174.6 TPY; and, see Specific Conditions A.5. and D.2.b.) will initiate preconstruction review requirements pursuant to Rule 62-212.400(5), F.A.C., for NO_X for the CT and DB as if construction of these emissions units had not yet begun.

3 30-day rolling average, compliance timeframe. (See Specific Condition B.5.)

4 Since the CT and DB are in series, the opacity standard is applicable when the CT or the CT and DB are in operation, except when the CT is firing No. 2 distillate fuel oil, at which time the CT's opacity standard for fuel oil will be in effect. See Specific Condition A.5.

B.5. Since the initial performance tests have been conducted, the permittee has elected to demonstrate compliance with the allowable NO_X emissions limits using a continuous emissions monitor system (CEMS). Since the CT and DB are in series, the allowable emissions for both emissions units shall be combined for ongoing compliance demonstration purposes. For the purpose on demonstrating ongoing compliance with the applicable combined emissions limits for both the CT and DB, using the stack CEMS, compliance is considered to occur when the NO_X emissions are less than or equal to (1) 39.6 lbs/hr or 66.3 lbs/hr when only the CT is operating and firing natural gas or No. 2 distillate fuel oil, respectively; (2) 58.3 lbs/hr when both the CT and DB are operating and firing natural gas; or, (3) 85.0 lbs/hr when both the CT and DB are operating and the CT is firing No. 2 distillate fuel oil and the DB is firing natural gas. The daily rolling average compliance value shall be calculated based on the proportion of hours operated in a day (midnight to midnight) that the CT or both the CT and DB are operating. Any portion of an hour that the DB operates shall be recognized as an hour-period on the daily operation. For example, in a given daily timeframe, with 20 hours of CT operation only while firing natural gas and 4 hours of CT/DB operation while firing natural gas:

Calculated Daily NO_X Emissions Value =
[(39.6 lbs/hr x 20 hrs) + (58.3 lbs/hr x 4 hrs)]/24 hrs =
42.72 lbs/hr daily NO_X emissions value

For the 30-day rolling average, this daily calculated emissions value will then be added to the previous 29-day period of daily calculated emission values and divided by 30 (days) to establish the 30-day average emissions value for comparing to the CEMS data over the same 30-day period.

Calculated 30-Day Average NO_X Emissions Value =
[42.72 lbs/day + "previous 29-daily emission values (lbs/day) summation"]/30-days =
lbs/30-day average NO_X emissions value

Compliance with the permitted NO_X emission limitation is considered satisfied as long as the NO_X emissions value from the stack CEMS is less than or equal to the calculated NO_X emissions value, averaged over the same 30-day period.
[40 CFR 60.44b(a)(4) & (i); Rule 62-212.400(2)(g), F.A.C.; and, AC 01-204652/PSD-FL-181/PSD-FL-181(A)]

B.6. Particulate Matter. Particulate matter emissions shall be controlled by the firing of natural gas.
[Rule 62-296.406(2), F.A.C., BACT; and, AC 01-204652/PSD-FL-181/PSD-FL-181(A)]

B.7. Sulfur Dioxide. Sulfur dioxide emissions shall be controlled by the firing of natural gas.
[Rule 62-296.406(3), F.A.C., BACT; and, AC 01-204652/PSD-FL-181/PSD-FL-181(A)]

Excess Emissions

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

B.8. The NO_X emission limits established by this permit apply at all times, including periods of startup, shutdown and malfunctions.
[40 CFR 60.44b(h) and 40 CFR 60.46b(a)]

Test Methods and Procedures

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

B.9. The test method for visible emissions (VE) shall be EPA Method 9, incorporated and adopted by reference in Rule 62-204.800, F.A.C., and referenced in Chapter 62-297, F.A.C.
[Rules 62-204.800, 62-296.320(4)(b)4.a. and 62-297.401, F.A.C.]

B.10. The permittee shall comply with the stack sampling requirements contained in Appendix SS-1, Stack Sampling Facilities (attached).
[Rule 62-297.310(6), F.A.C.]

B.11. Monitoring of the DB shall be as described in Specific Conditions A.6., A.19., B.5. and B.12.
[40 CFR 60.46b(f); and, applicant requested]

Recordkeeping and Reporting Requirements

B.12. NO_X combined emissions from the CT and DB shall be demonstrated on a 30-day rolling average using a CEMS. See Specific Conditions A.5., A.6., B.4., B.5., B.11. and B.14.
[40 CFR 60.44b(i)]

B.13. The owner or operator of an affected facility shall record and maintain records of the amounts of natural gas fired during each day and calculate the annual capacity factor for natural gas for each calendar quarter. The annual capacity factor is determined on a 12-month rolling average basis with a new annual capacity factor calculated at the end of each calendar month.
[40 CFR 60.49b(d)]

B.14. For facilities subject to nitrogen oxides standards under 40 CFR 60.44b, the owner or operator shall maintain records of the following information for each steam generating unit operating day:
(1) Calendar date.
(2) The average hourly nitrogen oxides emission rates (nanograms per joule or pounds per million Btu heat input) measured or predicted.
(3) The 30-day average nitrogen oxides emission rates nanograms per joule or lb./million Btu heat input) calculated at the end of each steam generating unit operating day from the measured or predicted hourly nitrogen oxide emission rates for the preceding 30 steam generating unit operating days.
(4) Identification of the steam generating unit operating days when the calculated 30-day average nitrogen oxides emission rates are in excess of the nitrogen oxides emissions standards under 40 CFR 60.44b, with the reasons for such excess emissions as well as a description of corrective actions taken.
(5) Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of the corrective actions taken.
(6) Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data.
(7) Identification of "F" factor used for calculations, method of determination, and type of fuel combusted.
[40 CFR 60.49b(g)(1) thru (7)]

B.15. All records required under this section shall be maintained by the owner or operator of the affected facility for a period of five years following the date of such record.
[Rule 62-213.440, F.A.C.]

Miscellaneous

B.16. Annual NOx Compliance Demonstration for the CT and DB. For purposes of demonstrating compliance with the annual limits, the NOx emission rate (lbs/MMBtu) from the CT and DB shall be calculated using the NOx analyzer data and equation F-5 from 40 CFR 75, Appendix F. Hourly heat input rates (MMBtu/hr) shall be used to convert lbs/MMBtu of NOx to lbs/hr of NOx and actual operating hours shall be used to obtain tons per year.
[AC01-204652/PSD-FL-181(A)]

B.17. Carbon Monoxide. EPA Method 10 shall be used to demonstrate compliance in accordance with Chapter 62-297, F.A.C., and 40 CFR 60, Appendix A.
[PSD-FL-181]

Subsection C. This section addresses the following emissions units.

E.U. ID No.	Brief Description
-003	No. 4 Steam Boiler
-004	No. 5 Steam Boiler

The maximum heat input rate for the No. 4 steam boiler is 69.6 MMBtu/hr. The maximum heat input is based on permitted firing limits of 68,000 cf of natural gas per hour and 444 gallons per hour of No. 2 fuel oil. The maximum heat input rate for the No. 5 steam boiler is 168 MMBtu/hr. The maximum heat input is based on permit firing limits of 164,000 cf of natural gas per hour and 1,067 gallons per hour of No. 2 fuel oil. The emission units began commercial service in 1976.

{Permitting note(s): The emissions units are regulated under Rule 62-296.406, F.A.C., Fossil Fuel Steam Generators with Less than 250 MMBtu per Hour Heat Input.}

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

Essential Potential to Emit (PTE) Parameters

C.1. Permitted Capacity. The maximum operation heat input rate for the boilers are as follows:

EU ID/Facility ID Nos.	Fuel Type	MMBtu/hr Heat Input
-003/Boiler 4	No. 2 Fuel Oil	69.6
	Natural Gas	69.6
-004/Boiler 5	No. 2 Fuel Oil	168
	Natural Gas	168

{Permitting note: The heat input limitation has been placed in the permit to identify the capacity of the emissions unit for purposes of confirming that emissions testing is conducted within 90-100 percent of the emissions unit's rated capacity (or to limit future operation to 110 percent of the test load), to establish appropriate limits and to aid in determining future rule applicability. Regular record keeping is not required for heat input. Instead, the owner or operator is expected to determine heat input whenever emission testing is required to demonstrate at what percentage of the rated capacity that the emissions unit was tested.}

[Rules 62-4.160(2), 62-210.200(PTE) and 62-296.406, F.A.C.]

C.2. Emissions Unit Operating Rate Limitation After Testing. See Specific Condition C.17.
[Rule 62-297.310(2), F.A.C.]

C.3. Methods of Operation.
a. The only fuels allowed to be burned are No. 2 distillate fuel oil and natural gas.
b. The boilers may be operated as necessary for backup to the CT and DB.
[Rule 62-213.410, F.A.C.; and, AC01-204562/PSD-FL-181/PSD-FL-181(A)]]

C.4. Hours of Operation. The boilers may be operated as necessary for backup to the CT and DB, and as long as the total nitrogen oxides emissions from this permitted facility does not exceed 194.3 tons per year. See Facility-wide Condition No. 10.
[AC01-204562/PSD-FL-181/PSD-FL-181(A); and, Rule 62-212.400(2)(g), F.A.C.]

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.}

C.5. Visible Emissions. Visible emissions shall not exceed 10 percent opacity and 20 percent opacity when firing natural gas and No. 2 fuel oil, respectively. An opacity of 27 percent or less for one six-minute period per hour shall be allowed when firing No. 2 fuel oil.
[Rule 62-296.406(1), F.A.C.; and, AO 01-204652/PSD-FL-181/PSD-FL-181(A)]

C.6. Visible Emissions - Soot Blowing and Load Change. Visible emissions shall not exceed 60 percent opacity during the 3-hours in any 24 hour period of excess emissions allowed for boiler cleaning (soot blowing) and load change.

A load change occurs when the operational capacity of a unit is in the 10 percent to 100 percent capacity range, other than startup or shutdown, which exceeds 10 percent of the unit's rated capacity and which occurs at a rate of 0.5 percent per minute or more.
[Rule 62-210.700(3), F.A.C.]

C.7. Particulate Matter. Particulate matter emissions shall be controlled by the firing of natural gas and/or low sulfur content No. 2 fuel oil.
[Rule 62-296.406(2), F.A.C., BACT; and, AO 01-204652/PSD-FL-181/PSD-FL-181(A)]

C.8. Sulfur Dioxide. Sulfur dioxide emissions shall be controlled by firing natural gas and No. 2 fuel oil with a sulfur content that shall not exceed 0.5 percent, by weight. See Specific Condition C.16.
[Rule 62-296.406(3), F.A.C., BACT; and, AO 01-204652/PSD-FL-181/PSD-FL-181(A)]

Excess Emissions

C.9. Excess emissions resulting from malfunction of any emissions unit shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) 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.10. Excess emissions resulting from existing fossil fuel steam generators 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.11. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited.
[Rule 62-210.700(4), F.A.C.]

Monitoring of Operations

C.12. Determination of Process Variables.
(a) Required Equipment. The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.
(b) Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.
[Rule 62-297.310(5), F.A.C.]

Test Methods and Procedures

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

C.13. Visible emissions. The test method for visible emissions shall be EPA Method 9, incorporated in Chapter 62-297, F.A.C.
[Rules 62-213.440 and 62-297.401, F.A.C.]

C.14. Nitrogen Oxides. In order to establish a "lbs/hr" or "lbs/MMBtu" emissions factor for nitrogen oxides for each boiler and for each fuel type fired, one-time performance tests shall be conducted on each boiler using EPA Method 20 or 7E in accordance with Rule 62-297.401, F.A.C., firing natural gas and then firing No. 2 fuel oil, or vice versa. This emissions factor per fuel type shall then be used in conjunction with the actual hours operated or total heat input in the previous year per fuel type to assess the nitrogen oxides contribution toward the facility cap of 194.3 TPY. See Specific Conditions **C.4.** and **C.19.** and Facility-wide Condition No. 10.
[Rules 62-210.200(PTE), 62-212.400(2)(g), 62-213.440, 62-297.310(7) and 62-297.401, F.A.C.]

C.15. Sulfur Dioxide - Sulfur Content. The sulfur content of the No. 2 fuel oil shall not exceed 0.5 %, by weight. The permittee shall demonstrate compliance with the liquid fuel sulfur limit by the vendor providing a fuel analysis upon each fuel delivery. See Specific Conditions **C.8.** and **C.16.**
[Rules 62-213.440, F.A.C.; Rule 62-296.406(3), F.A.C., BACT; and, applicant requested]

C.16. The fuel sulfur content, percent by weight, for liquid fuels shall be evaluated using either ASTM D2622-92, ASTM D4294-90, both ASTM D4057-88 and ASTM D129-91, or the latest edition(s).
[Rules 62-213.440, 62-296.406(3) and 62-297.440, F.A.C.]

C.17. Operating Rate During Testing. Testing of emissions shall be conducted with the emissions unit operation at permitted capacity, which is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity.
[Rules 62-297.310(2) & (2)(b), F.A.C.]

C.18. Applicable Test Procedures.
(a) Required Sampling Time.
2. Opacity Compliance Tests. When either EPA Method 9 or DEP Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur. Exceptions to these requirements are as follows:
c. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.
[Rule 62-297.310(4)(a)2.c., F.A.C.]

C.19. Frequency of Compliance Tests. The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.
(a) General Compliance Testing.
2. For excess emission limitations for particulate matter specified in Rule 62-210.700, F.A.C., a compliance test shall be conducted annually while the emissions unit is operating under soot blowing conditions in each federal fiscal year during which soot blowing is part of normal emissions unit operation, except that such test shall not be required in any federal fiscal year in which a fossil fuel steam generator does not burn liquid fuel for more than 400 hours other than during startup.
3. The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to Rule 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:
a. Did not operate; or
b. In the case of a fuel burning emissions unit, burned liquid fuel for a total of no more than 400 hours.
4. During each federal fiscal year (October 1 - September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:
a. Visible emissions, if there is an applicable standard;
b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; or 100 tons per year or more of any other regulated air pollutant; and,
c. Each NESHAP pollutant, if there is an applicable emission standard.

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

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

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

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

C.20. By this permit, annual emissions compliance testing for visible emissions is not required for these emissions units while burning:

a. only gaseous fuel(s); or

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

c. only liquid fuel(s) for less than 400 hours per year.

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

Record keeping and Reporting Requirements

C.21. In the case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department's Northeast District office or the Northeast District Branch office 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's Northeast District office or Northeast District Branch office.

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

C.22. All recorded data shall be maintained on file by the owner or operator for a period of five years.

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

C.23. Test Reports.

(a) The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department or the Northeast District office or the Northeast District Branch office on the results of each such test.

(b) The required test report shall be filed with the Department or the Northeast District office or the Northeast District Branch office as soon as practical but no later than 45 days after the last sampling run of each test is completed.

(c) The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information:

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

[Rules 62-213.440 and 62-297.310(8), F.A.C.]

Subsection D. Common Conditions: Combustion Turbine and Duct Burner

Essential Potential to Emit (PTE) Parameters

D.1. Fuel consumption rates and hours of operation for the combustion turbine (CT) and duct burner (DB) shall not exceed those listed below:

EU/Facility ID No.	Natural Gas			No. 2 Fuel Oil		
	M ft^3/hr*	$MMft^3$/yr	hrs/yr*	M gals/hr*	M gals/yr	hrs/yr*
CT/001	420.3	2997.2**	8146.8**	2.9	635.1	219.0 **
DB/002	197.7	519.5	2628.0	NA	NA	NA

* Based on maximum firing rates. Units may run at lower rates for more hours within annual fuel limits.
** An additional 1.9 hrs/yr operation on natural gas will be allowed for each 1.0 hr/yr that fuel oil is not burned (up to 219 x 1.9 hrs/yr), in which case, the emission limits in Specific Conditions A.5. and B.4. shall be adjusted accordingly.
[PSD-FL-181/PSD-FL-181(A)]

Emission Limitations and Standards

D.2.a. The permittee accepted a contemporaneous emissions increase of 39.7 TPY for NO_X with a total CT and DB NO_X limitation of 174.6 TPY to escape PSD New Source Review requirements by 0.3 TPY pursuant to Rule 62-212.400(5), F.A.C., in the permitting action of PSD-FL-181, issued August 17, 1992; and, elected not to provide appropriate spacing for future installation of NO_X controls during the initial construction. If the permittee later applies for a permit modification to increase capacity, the retrofit costs associated with not making provisions for such technology (initially) shall not be considered in the retrofit analysis required for the future expansion.
b. Any net increase in NO_X emissions of 0.3 TPY above the combined allowable limits of the CT and DB (174.6 TPY; and, see Specific Conditions A.5. and B.4.) will initiate preconstruction review requirements pursuant to Rule 62-212.400(5), F.A.C., for NO_X for the CT and DB as if construction of these emissions units had not yet begun.
[PSD-FL-181; and, Rule 62-212.400(2)(g), F.A.C.]

Test Methods and Procedures

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

D.3. For purposes of demonstrating compliance with the annual limits, the NO_X emission rate (lbs/MMBtu) from the combustion turbine and duct burner shall be calculated using the NO_X analyzer data and equation F-6 from 40 CFR 75, Appendix F. Hourly heat input rates (MMBtu/hr) shall be used to convert lbs/MMBtu of NO_X to lbs/hr of NO_X and actual operating hours shall be used to obtain tons per year.
[AC01-204652/PSD-FL-181(A)]

Section IV. This Section is the Acid Rain Program.

Operated by: **Florida Power Corporation**
ORIS code: **7345**

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

The emissions unit listed below is regulated under Acid Rain Part, Phase II.

E.U. ID No.	Description
-001	GE LM 6000 Combustion Turbine

A.1. The Acid Rain Part application submitted for this facility, as approved by the Department, is a part of this permit. The owners and operators of this acid rain unit 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), dated 07/01/95.

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

A.2. Sulfur dioxide (SO_2) allowance allocations requirements for the Acid Rain unit are as follows:

E.U. ID No.	EPA ID No.	Year	2000	2001	2002	2003	2004
-001	-P1	**SO_2 allowances, Table 2, 3, or 4 o CFR 73**	0*	0*	0*	0*	0*

* The number of allowances held by an Acid Rain source in a unit account may differ from the number allocated by the U.S. EPA under Table 2 or 3 of 40 CFR 73.

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

1. No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the Federal Acid Rain Program, provided that such increases do not require a permit revision pursuant to Rule 62-213.400(3), F.A.C.
2. No limit shall be placed on the number of allowances held by the source under the Federal Acid Rain Program.
3. Allowances shall be accounted for under the Federal Acid Rain Program.

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

A.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 51., APPENDIX TV-3, TITLE V CONDITIONS}

[Rule 62-214.420(11), F.A.C.]

A.5. Fast-Track Revisions of Acid Rain Parts. Those Acid Rain sources making a change described at Rule 62-214.370(4), F.A.C., may request such change as provided in Rule 62-213.413, F.A.C.
[Rules 62-213.413 and 62-214.370(4), F.A.C.]

A.6. 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, F.A.C.
[Rule 62-213.440(1)(c)1., F.A.C.]

A.7. Where an applicable requirement of the Act is more stringent than an applicable requirement of 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, Definitions - Applicable Requirements, F.A.C.]

A.8. Comments, notes, and justifications: None.

PROPOSED PERMIT DETERMINATION

Florida Power Corporation
University of Florida Cogeneration Plant
PROPOSED Permit No.: 0010001-001-AV

I. Public Notice.

An "INTENT TO ISSUE TITLE V AIR OPERATION PERMIT" to Florida Power Corporation for the University of Florida Cogeneration Plant on Mowry Road at Building 82, University of Florida, Gainesville, Alachua County was clerked on June 25, 1997. The "PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT" was published in The Gainesville Sun on July 24, 1997. The DRAFT Title V Air Operation Permit was available for public inspection at the Northeast District Branch Office in Gainesville and the permitting authority's office in Tallahassee. Proof of publication of the "PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT" was received on August 13, 1997.

II. Public Comment(s).

Comments were received and the DRAFT Title V Operation Permit was changed. The comments were not considered significant enough to reissue the DRAFT Title V Permit and require another Public Notice. Comments were received from one respondent during the 30 (thirty) day public comment period. Listed below is each comment letter in the chronological order of receipt and a response to each comment in the order that the comment was received. The comment(s) will not be restated. Where duplicative comments exist, the original response is referenced.

A. Letter from Mr. Scott Osbourn dated August 8, 1997, and received on August 13, 1997.

1. Section II. Facility-wide Conditions.

a. Condition 5. In reference to Appendix U-1, reducing the fuel consumption to less than 10,000 gallons/year qualifies the emergency generator as "insignificant"; therefore, the emergency generator will be re-classified from "unregulated" to "insignificant" and Appendicies U-1 and I-1 will be appropriately changed.

b. Condition 6. The words "exempt" are replaced with "insignificant" and the appendix will become "Appendix I-1". Also, Appendix I-1 will be revised to read as follows:

- "Lube Oil Vent" changed to "Lube Oil Vents"
- "Fuel Oil Storage Tanks" changed to "193,200 gallon No. 2 Fuel Oil Storage Tanks (2)"
- "Vehicles" will be deleted since this activity is considered "trivial" pursuant to the "EPA White Paper 1" dated 7/10/95 (it is the first listing in the list).

c. Condition 7. The parenthetical expression, [Not Federally Enforceable], has been deleted since this condition is part of our SIP.

d. Condition 8. As a result of this comment, this condition is changed:

FROM:

8. **Not federally enforceable.** Reasonable precautions should be taken to prevent emissions of unconfined particulate matter at this facility include the following:

- Maintenance of paved areas as needed,
- Regular mowing of grass and care of vegetation, and
- Limiting access to plant property by unnecessary vehicles.

[Rule 62-296.320(4)(c)2., F.A.C.; and, proposed by applicant in the initial Title V permit application received June 14, 1996]

TO:

8. **Not federally enforceable.** Reasonable precautions should be taken to prevent emissions of unconfined particulate matter at this facility. Steps that are presently taken at the facility to minimize particulate matter emissions are as follows:

a. Maintenance of paved areas as needed;
b. Regular mowing of grass and care of vegetation;
c. Limiting access to plant property by unnecessary vehicles, and,
d. Additional or alternative activities may be utilized to minimize unconfined particulate matter emissions.

[Rule 62-296.320(4)(c)2., F.A.C.; proposed by applicant in the initial Title V permit application received June 14, 1996; and, comment letter received August 13, 1997.]

e. Conditions 10 and 11. The Department disagrees with the comment made regarding condition 11. In fact, this requirement is for the life of the facility and the affected emissions units, unless altered by a more recent federally enforceable permitting action, which has not occurred; and, if the allowable/permitted pollutant emissions from the facility and/or the "CT and DB" are relaxed and increased by 0.3 TPY or more of NOx above the limitations established for the affected emissions units, then PSD new source review (NSR) is applicable to the "CT and DB" as if they were never constructed. Also, and in light of the comment made on condition 11, conditions 10 and 11 edited for clarity and will be linked to avoid ambiguity as follows:

FROM:
10. The total NOx emissions from the entire facility shall not exceed 194.3 TPY.
[PSD-FL-181 dated August 17, 1992]

11. Pursuant to PSD-FL-181, the permittee requested and received a 39.7 TPY net increase in NOx emissions. Therefore, any net increase in NOx emissions of 0.3 TPY from any or all the affected emissions units (CT, DB, Boiler #4 and Boiler #5) will initiate preconstruction review requirements for NOx for the CT and DB as if construction of these emissions units had not yet begun.
[Rules 62-212.400(2)(g) and 62-212.400(5), F.A.C.]

TO:
10. The total NOx emissions from the entire facility (CT, DB, Boiler #4 and Boiler #5) shall not exceed 194.3 TPY. See Facility-wide Condition No. 11.
[Rule 62-212.400(2)(g), F.A.C.; and, AC01-204652/PSD-FL-181/PSD-FL-181(A)]

11. Pursuant to PSD-FL-181, the permittee requested and received a 39.7 TPY net increase in NOx emissions. Therefore, any net increase in NOx emissions of 0.3 TPY above the allowable limitation established in Facility-wide Condition No. 10 will initiate preconstruction review requirements pursuant to Rule 62-212.400(5), F.A.C., for NOx for the CT and DB as if construction of these emissions units had not yet begun. See Facility-wide Condition No. 10.
[Rules 62-212.400(2)(g) and 62-212.400(5), F.A.C.; and, PSD-FL-181]

f. Condition 12. Based on the information provided, this condition will be changed as follows:

FROM:
12. Boilers Nos. 1, 2, and 3 shall be permanently shut down and all associated permits for these boilers will be surrendered when this permit is issued.
[PSD-FL-181 dated August 17, 1992]

TO:
12. Based on the comment letter received August 13, 1997, Boilers Nos. 1, 2, and 3 have been retired.
[Comment letter dated August 8, 1997; and, PSD-FL-181]

g. Condition 13. The condition will be reworded to reflect what was stated in the permits, Nos. AC01-204652/PSD-FL-181:

FROM:
13. Records of all fuels fired in all emissions units and all relevant data shall be kept on a continuous basis so that, at any time, compliance with conditions of this permit can be determined upon request.
[PSD-FL-181 dated August 17, 1992]

TO:
13. The permittee shall maintain the required fuel use records and include the total NOx emission calculation in each annual operating report; and, the records shall be retained for a five year period.

[Rule 62-213.440, F.A.C.; Rule 62-212.400(2)(g), F.A.C.; and, AC01-204652/PSD-FL-181/PSD-FL-181(A)]

b. Since the issuance of the DRAFT Title V permit, the Department has added some new "Facility-wide Conditions" at the request of the U.S. EPA, Region 4. Therefore, the following "new" conditions are added under the heading "**Miscellaneous**":

"new"
14. 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.]

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

United States Environmental Protection Agency
Region 4
Air, Pesticides & Toxics Management Division
Air & EPCRA Enforcement Branch
Air Enforcement Section
61 Forsyth Street
Atlanta, Georgia 32303
Telephone: 404/562-9155
Fax: 404/562-9163

2. Section III. Subsection A.
a. Specific Condition A.1. In place of the name plate rating of 43 MW, the heat input limits per each fuel type will be established and a "permitting note" will be added as follows:

From:
A.1. Permitted Capacity. The turbine generator has a nameplate rating of 43 MW.

To:
A.1. Permitted Capacity. The maximum heat input shall not exceed 399 MMBtu/hr (LHV) while firing natural gas and 384 MMBtu/hr (LHV) while firing No. 2 distillate fuel oil.

{Permitting note: The heat input limitation has been placed in the permit to identify the capacity of the emissions unit for purposes of confirming that emissions testing is conducted within 90-100 percent of the emissions unit's rated capacity (or to limit future operation to 110 percent of the test load), to establish appropriate limits and to aid in determining future rule applicability. Regular record keeping is not required for heat input. Instead, the owner or operator is expected to determine heat input whenever emission testing is required to demonstrate at what percentage of the rated capacity that the emissions unit was tested.}

b. Specific Condition A.3. The Department disagrees with the comment and no change will be made. We have no record that this emissions unit is allowed to fire "on-specification used oil".

c. Condition A.5. The following changes will be made:
(1). In the table, the term "Standard" will be changed to "Basis of Limit" and the term "Allowables" will be changed to "CT Allowable Limits";
(2). The term "@ 15% O_2" will be added to the "basis of limit" for CO; and,
(3). The "Fuel Oil" in the VE standard will be changed to "No. 2 Fuel Oil".

(4). "Three" additional footnotes and their text have been added for clarity regarding the terms in the table: #2: to clarify the "source obligation" rule regarding NOx; #3: to clarify the compliance timeframe for NOx; and, #4: to clarify the applicable visible emissions standard during operations.

d. Specific Condition A.6. The Department agrees with the comment and will delete the condition. However, a new Specific Condition will be added to clarify the NOx compliance strategy as follows:

"new"
A.6. Since the initial performance tests have been conducted, the permittee has elected to demonstrate compliance with the allowable NO_X emissions limits using a continuous emissions monitor system (CEMS). Since the CT and DB are in series, the allowable emissions for both emissions units shall be combined for ongoing compliance demonstration purposes. For the purpose on demonstrating ongoing compliance with the applicable combined emissions limits for both the CT and DB, using the stack CEMS, compliance is considered to occur when the NO_X emissions are less than or equal to (1) 39.6 lbs/hr or 66.3 lbs/hr when only the CT is operating and firing natural gas or No. 2 distillate fuel oil, respectively; (2) 58.3 lbs/hr when both the CT and DB are operating and firing natural gas; or, (3) 85.0 lbs/hr when both the CT and DB are operating and the CT is firing No. 2 distillate fuel oil and the DB is firing natural gas. The daily rolling average compliance value shall be calculated based on the proportion of hours operated in a day (midnight to midnight) that the CT or both the CT and DB are operating. Any portion of an hour that the DB operates shall be recognized as an hour-period on the daily operation. For example, in a given daily timeframe, with 20 hours of CT operation only while firing natural gas and 4 hours of CT-DB operation while firing natural gas:

Calculated Daily NO_X Emissions Value =
[(39.6 lbs/hr x 20-hrs) + (58.3 lbs/hr x 4-hrs)]/24-hrs =
42.72 lbs/day NO_X emissions value

For the 30-day rolling average, this daily calculated emissions value will then be added to the previous 29-day period of daily calculated emission values and divided by 30 (days) to establish the 30-day average emissions value for comparing to the CEMS data over the same 30-day period.

Calculated 30-Day Average NO_X Emissions Value =
[42.72 lbs/day + "previous 29-daily emission values (lbs/day) summation"]/30-days =
lbs/30-day average NO_X emissions value

Compliance with the permitted NO_X emission limitation is considered satisfied as long as the NO_X emissions value from the stack CEMS is less than or equal to the calculated NO_X emissions value, averaged over the same 30-day period.
[AC 01-204652/PSD-FL-181/PSD-FL-181(A) and BACT; 40 CFR 60.44b(i); and, Rule 62-212.400(2)(g), F.A.C.]

e. Specific Condition A.7. (now A.8.) This condition is a quote of the rule. Therefore, no change will be made. However, due to discussions with EPA Region 4, a "permitting note will be added just after the header "**Excess Emissions**" and will read as follows:

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

f. Specific Condition A.11. (now A.12.) The requested use of the Acid Rain continuous emissions monitoring (CEM) system (40 CFR 75) as a substitute for the NSPS CEM system (40 CFR 60) is acceptable (based on the Rasnic memo). Therefore, the following change will be made:

From:
A.11. The permittee shall operate a continuous monitoring system (CMS) to monitor and record the fuel consumption and the ratio of water to fuel being fired in the turbine. This system shall be accurate to within ± 5.0 percent and shall be approved by the Administrator.
[40 CFR 60.334(a)]

To:
A.12. The NOx emission rates in lbs/hr and tons/yr from the cogeneration (CT and DB) stack shall be calculated using a continuous emissions monitoring (CEM) system, which is certified pursuant to 40 CFR 75, and used to determine lbs/MMBtu of NOx. The CEM system shall be operated and maintained in accordance with the applicable requirements of 40 CFR 75, Subparts B and C. Missing data shall be substituted in a manner pursuant to 40 CFR 75, Subpart D. Record keeping and reporting shall be conducted pursuant to 40 CFR 75, Subparts F and G. Excess emissions pursuant to 40 CFR 60.334 shall be determined using the 40 CFR Part 75 CEM system.
[Applicant requested; and, 40 CFR 75]

g. Specific Condition A.14. (now A.15.) The permittee is responsible for making sure the most recently adopted ASTM is being used to provide data concerning permit compliance to the Department. The methods you recommended are presently referenced in the permit with the exception of ASTM D1072-90(94), which is incorrect. The latest version is referenced in the permit and is ASTM D1072-90(94)E-1. This method was first adopted in 1980, technically revised in 90, re-approved in 94, and has had one edit since 94. Therefore, "or the latest edition" will be added to the last sentence of A.14.b.1.

h. Specific Condition A.18. (now A.19.) EPA agrees that an emissions unit with a more stringent limit than what is contained in a NSPS requirement is sufficient to demonstrate compliance with the NSPS standard; in addition, compliance will be demonstrated by a NOx CEMS, in this case. Therefore, the Specific Condition A.19 will be changed as follows and also linked to specific condition A.24:

FROM:
A.18. The permittee shall determine compliance with the nitrogen oxides and sulfur dioxide standards in 40 CFR 60.332 and 40 CFR 60.333 as follows:

a. The nitrogen oxides emission rate (NO_x) shall be computed for each run using the following equation:
$NO_x = (NO_{xo})\ (P_r/P_o)^{0.5}\ e^{19(Ho - 0.00633)}\ (288°K/T_a)^{1.53}$
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, mmHg.
H_o = observed humidity of ambient air, g H_2O/g air.
e = transcendental constant, 2.718.
T_a = ambient temperature, °K.
b. The monitoring device of 40 CFR 60.334(a) shall be used to determine the fuel consumption and the water-to-fuel ratio necessary to comply with 40 CFR 60.332 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 manufacture.
c. EPA Method 20 (40 CFR 60, Appendix A) shall be used to determine the nitrogen oxides, sulfur dioxide, and oxygen concentrations. The span values shall be 300 ppm of nitrogen oxide and 21percent oxygen. The NO_X emissions shall be determined at each of the load conditions specified in specific condition b. above.
[40 CFR 60.335(c)(1),(2) and (3)]

TO:
A.19. Compliance with the NSPS NO_X emission limitation pursuant to 40 CFR 60.332 is considered satisfied as long as the NO_X emissions value from the stack CEMS is less than or equal to the allowable NO_X emissions limit. See Specific Condition A.5.
(3) For the RATA demonstration pursuant to 40 CFR 60, Appendix B, to satisfy the requirements of 40 CFR 75, EPA Method 20 (40 CFR 60, Appendix A) shall be used to determine the nitrogen oxides and oxygen concentrations. The span values shall be 300 ppm of nitrogen oxide and 21 percent oxygen.

{Permitting note: Because the permittee has agreed to use the NO_X CEMS for compliance and the formal annual stack test requirement is being incorporated into the RATA demonstration, then a separate annual stack test is not required. However, this does not preclude the imposition of a "Special Compliance Test" pursuant to Rule 62-297.310(7)(b), F.A.C. See Specific Condition A.24.}

[40 CFR 60.335(c)(3)]

i. Specific Condition A.19. (now A.20.) The ASTM's referenced in this condition are referenced in 40 CFR 60.335(d). If a more recent ASTM has been adopted the permittee is responsible for using that ASTM. As stated in II.A.2.g. above, the phrase "or the latest edition" will be added after the ASTM citings to allow the use of the latest edition(s).

j. Specific Condition A.20. (now A.21.) This condition states, as per 40 CFR 6.335(e), who is authorized to perform fuel analysis and the Custom Fuel Monitoring Schedule is only for natural gas. Therefore, no change will be made.

k. Specific Condition A.22. (now A.23.) The Department disagrees with the request and no change will be made.

l. Specific Condition A.24. (now A.25.) The Department agrees with the request and sections (b), (c), and (e) of this Specific Condition will be deleted. In addition, the end of the statement in (a)2.c. will be changed to include the timeframe for the day-to-day opacity standard compliance demonstration with the addition of "shall be twelve minutes".

m. Specific Condition A.27. (now A.28.) The first line of this condition states that "the applicant shall submit.....as follows:". Therefore, no further clarification is necessary.

n. Specific Condition A.30. (now A.31.) Facility-wide Condition No. 13 is a stand alone requirement and is not associated with "excess emissions". It is an emissions cap established pursuant to Rule 62-212.400(2)(g), F.A.C.; therefore, it would be inappropriate to include the reference in this Specific Condition and no change will be made. Secondly, due to the use of a NOx CEMS for compliance, then the following will be changed for part "a". Finally, the reference to "0.05" will be changed to "0.5" in part "b"; in addition, the fuel sulfur limit was established for the pollutant SO_2 pursuant to PSD-FL-181.

FROM:
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. Each report shall include the average water-to-fuel ratio, average fuel consumption, ambient conditions, and gas turbine load during the period of excess emissions, and the graphs or figures developed under 40 CFR 60.335(a).

TO:
a. The NOx CEMS will be used in lieu of the water/fuel monitoring system and fuel bound nitrogen (FBN) monitoring, which are required in 40 CFR 60.334. The NOx CEMS shall be used to report excess emissions during periods of startup, shutdown, and malfunction in lieu of FBN monitoring and the water/fuel monitoring system described in 40 CFR 60.334(c)(1).

o. In order to address the "sulfur content" issue pursuant to 40 CFR 60.332(a) & (b) and AC01-204652/PSD-FL-181/PSD-FL-181(A) and BACT, a new specific condition (to be numbered "A.7.", and all subsequent conditions will be renumbered) will be added to the "**Emissions Limitations**" part as follows:

"new"
A.7. Sulfur Dioxide - Sulfur Content: The sulfur content of the fuel oil fired by the stationary gas turbine may be used to determine compliance with 40 CFR 60.333(a). Under such circumstances, the permittee shall not fire in any stationary gas turbine any fuel which contains a sulfur content in excess of 0.5 percent, by weight.
[40 CFR 60.333(b); and, AC01-204652/PSD-FL-181/PSD-FL-181(A)]

3. Section III. Subsection B.

a. Description. The duct burner is an integral part of the Combustion Turbine System, which is an acid rain unit, and both exhaust through a common stack. However, reference to the DB being regulated under Acid Rain will be deleted from the "{Permitting note:.....}.

b. Specific Condition B.1. Based on the PSD application for the cogeneration project received on November 13, 1991, and the Revised BACT issued August 14, 1992, the duct burner's maximum Btu heat input per hour was 187.0 and was the basis used for these permitting actions (PSD-FL-181 and Revised BACT). Therefore, the maximum Btu heat input per hour will be limited to this value. In addition, the qualifier (LHV) will be added to the heat input value.

c. Specific Condition B.4. The following changes will be made:
(1). In the table, the term "Standard" will be changed to "Basis of Limit" and the term "Allowables" will be changed to "DB Allowable Limits".
(2). "Three" additional footnotes and their text have been added for clarity regarding the terms in the table: #2: to clarify the "source obligation" rule regarding NOx; #3: to clarify the compliance timeframe for NOx; and, #4: to clarify the applicable visible emissions standard during operations.

d. Specific Condition B.6. The Department agrees with the comment and the condition will be deleted. However, a new Specific Condition (B.5.) will be added to clarify the NOx compliance strategy as follows (Specific Condition B.5. will be renumbered as B.6.):

"new"
B.5. Since the initial performance tests have been conducted, the permittee has elected to demonstrate compliance with the allowable NO_X emissions limits using a continuous emissions monitor system (CEMS). Since the CT and DB are in series, the allowable emissions for both emissions units shall be combined for ongoing compliance demonstration purposes. For the purpose on demonstrating ongoing compliance with the applicable combined emissions limits for both the CT and DB, using the stack CEMS, compliance is considered to occur when the NO_X emissions are less than or equal to (1) 39.6 lbs/hr or 66.3 lbs/hr when only the CT is operating and firing natural gas or No. 2 distillate fuel oil, respectively; (2) 58.3 lbs/hr when both the CT and DB are operating and firing natural gas; or, (3) 85.0 lbs/hr when both the CT and DB are operating and the CT is firing No. 2 distillate fuel oil and the DB is firing natural gas. The daily rolling average compliance value shall be calculated based on the proportion of hours operated in a day (midnight to midnight) that the CT or both the CT and DB are operating. Any portion of an hour that the DB operates shall be recognized as an hour-period on the daily operation. For example, in a given daily timeframe, with 20 hours of CT operation only while firing natural gas and 4 hours of CT-DB operation while firing natural gas:

Calculated Daily NO_X Emissions Value =
[(39.6 lbs/hr x 20-hrs) + (58.3 lbs/hr x 4-hrs)]/24-hrs =
42.72 lbs/day NO_X emissions value

For the 30-day rolling average, this daily calculated emissions value will then be added to the previous 29-day period of daily calculated emission values and divided by 30 (days) to establish the 30-day average emissions value for comparing to the CEMS data over the same 30-day period.

Calculated 30-Day Average NO_X Emissions Value =
[42.72 lbs/day + "previous 29-daily emission values (lbs/day) summation"]/30-days =
lbs/30-day average NO_X emissions value

Compliance with the permitted NO_X emission limitation is considered satisfied as long as the NO_X emissions value from the stack CEMS is less than or equal to the calculated NO_X emissions value, averaged over the same 30-day period.
[AC 01-204652/PSD-FL-181/PSD-FL-181(A) and BACT; 40 CFR 60.44b(i); and, Rule 62-212.400(2)(g), F.A.C.].

e. Specific Condition B.7. (now B.8.). The condition is applicable and will not be deleted.

f. Specific Condition B.10. (now B.11.). The Department agrees with the request and the following will be changed:

FROM:
B.10. To determine compliance with the emission limit for nitrogen oxides required by 40 CFR 60.44b(a)(4) for duct burners used in combined cycle systems, the owner or operator of an affected facility shall conduct the performance test required under 40 CFR 60.8 using the nitrogen oxides and oxygen measurement procedures in 40 CFR 60 Appendix A, Method 20. During the performance test, one sampling site shall be located as close as practical to the exhaust of the turbine, as provided by section 6.1.1 of Reference Method 20. A second sampling site shall be located at the outlet of the steam generating unit. Measurements of nitrogen oxides and oxygen shall be taken at these two sampling sites simultaneously during the performance test. The nitrogen oxides emission rate from the combined cycle system shall be calculated by subtracting the nitrogen oxides emission rate measured at the sampling site at the outlet from the turbine from the nitrogen oxides emissions rate measured at the sampling site at the steam generating unit.
[40 CFR 60.46b(f)]

TO:
B.11. Monitoring of the DB shall be as described in Specific Conditions A.6., A.19., B.5. and B.12.
[40 CFR 60.46b(f); and, applicant requested]

g. Specific Condition B.11. (now B.12.). The Department disagrees with the comment; however, for clarity purposes, the following will be changed:

From:
B.11. Records of the cumulative (facility wide) NO_X emissions shall be maintained on a continuous 30 day rolling average so the facility can demonstrate compliance with the conditions of this permit at any time.
[40 CFR 60.44b(i)]

To:
B.12. NO_X combined emissions from the CT and DB shall be demonstrated on a 30-day rolling average using a CEMS. See Specific Conditions A.5., A.6., B.4., B.5., B.11. and B.14.
[40 CFR 60.44b(i)]

h. Specific Condition B.13. (now B.14.). Since the permittee has elected to install a NOx CEMS for compliance purposes, then no change will be made.

i. Because the emissions unit is subject to the provisions of Rule 62-296.406(3), F.A.C., then a new Specific Condition (B.7.) will be added to clarify the BACT for SO_2 as follows (Specific Condition B.7. will be renumbered as B.8.):

"new"
B.7. Sulfur Dioxide. Sulfur dioxide emissions shall be controlled by the firing of natural gas.
[Rule 62-296.406(3), F.A.C., BACT; and, AC 01-204652/PSD-FL-181/PSD-FL-181(A)]

4. Section III. Subsection C.

a. Description. The heat input value of "69.9 mmBtu/hr" will be changed to "69.6 MMBtu/hr".

b. Specific Condition C.1. In the table, the reference to "No. 2 Low Sulfur Fuel Oil" will be changed to "No. 2 Fuel Oil".

c. Specific Condition C.3. The last sentence will be deleted since there are no fuel restrictions on the boilers, just operational and emission restrictions. Therefore, the condition will be changed as follows:

From:
C.3. Methods of Operation. The only fuels allowed to be burned are No. 2 low sulfur fuel oil and natural gas. The consumption rates for the fuels are specified in specific condition D.1.
[Rule 62-213.410, F.A.C.]

To:
C.3. Methods of Operation
a. The only fuels allowed to be burned are No. 2 Fuel Oil and Natural Gas.
b. The boilers may be operated as necessary for backup to the CT and DB. See Facility-wide Condition No. 10.
[Rule 62-213.410, F.A.C.; and, AC01-204562/PSD-FL-181/PSD-FL-181(A)]

d. Specific Condition C.4. Specific Condition No. 3. of the AC states that the boilers may be used as necessary for backup. Therefore, the following will be changed:

FROM:
Hours of Operation. The boilers may be operated as necessary for backup purposes only, and as long as the total NO_x emissions from this permitted facility does not exceed 194.3 tons per year.
[PSD-FL-181, dated August 17, 1992]

TO:
Hours of Operation. The boilers may be operated as necessary for backup to the CT and DB, and as long as the total nitrogen oxides emissions from this permitted facility does not exceed 194.3 tons per year. See Facility-wide Condition No. 10.
[AC01-204562/PSD-FL-181/PSD-FL-181(A) and BACT; and, Rule 62-212.400(2)(g), F.A.C.]

e. Specific Condition C.5. Rule 62-296.406(1), F.A.C., provides two opacity options and the option selected must be stated in the operating permit. C.5 states the permitted options reflected in PSD-FL-181(A). Therefore, no change will be made.

f. Specific Condition C.12. The Department agrees that a methodology does need to be established for assessing the nitrogen oxides contributions from Boilers Nos. 4 and 5, but does not feel that the methodology should be placed at this Specific Condition. However and because Specific Condition C.14. will be deleted due to non-applicability (see comment - response part, II.A.4.g.), then a new Specific Condition will replace the existing text to address an appropriate methodology to assess the nitrogen oxides contributions from Boilers Nos. 4 and 5. The new Specific Condition C.14. will read as follows:

(new)
C.14. Nitrogen Oxides. In order to establish a "lbs/hr" or "lbs/MMBtu" emissions factor for nitrogen oxides for each boiler and for each fuel type fired, **one-time** performance tests shall be conducted on each boiler using EPA Method 20 or 7E in accordance with Rule 62-297.401, F.A.C., firing natural gas and then firing No. 2 fuel oil, or vice versa. This emissions factor per fuel type shall then be used in conjunction with the actual hours operated or total heat input in the previous year per fuel type to assess the nitrogen oxides contribution toward the facility cap of 194.3 TPY. See Specific Conditions **C.4.** and **C.19.** and Facility-wide Condition No. 10.
[Rules 62-210.200(PTE), 62-212.400(2)(g), 62-213.440, 62-297.310(7) and 62-297.401, F.A.C.]

g. Specific Condition C.13. Since the visible emissions evaluation period, including the exception, is a six-minute time-frame, then the preferred test method is EPA Method 9. Therefore, this Specific Condition will be changed to reflect "EPA Method 9"; also, Specific Condition C.14. will be deleted due to non-applicability.

h. Specific Condition C.15. This Specific Condition reflects the conditions accepted by the applicant in the construction permit and established by BACT. Therefore, no change will be made.

i. Specific Condition C.16. Due to the comment, this Specific Condition will be changed and the phrase "or the latest edition(s)" will be added to the end of the existing text as follows:

From:
C.16. The fuel sulfur content, percent by weight, for liquid fuels shall be evaluated using either ASTM D2622-92, ASTM D4294-90, both ASTM D4057-88 and ASTM D129-91.
[Rules 62-213.440, 62-296.406(3) and 62-297.440, F.A.C.]

To:
C.16. The fuel sulfur content, percent by weight, for liquid fuels shall be evaluated using either ASTM D2622-92, ASTM D4294-90, both ASTM D4057-88 and ASTM D129-91, or the latest edition(s).
[Rules 62-213.440, 62-296.406(3) and 62-297.440, F.A.C.]

5. Section III. Subsection D.
a. The subsection header will be changed as follows:

From: **Subsection D. Common Conditions**
To: **Subsection D. Common Conditions: Combustion Turbine and Duct Burner**

b. Specific Condition D.1. The request was acceptable and the following changes have been made:
(1). Changed the hourly natural gas usage from "367.9 M ft^3/hr" to "420.3 M ft^3/hr"; and,
(2). Changed the references in footnote "**" from "No.1 and No.2" to "A.5. and B.4.".

c. Specific Condition D.2. The Department disagrees with the request and the condition will not be deleted; however, it will be changed to reflect the intent of the previous PSD permitting action (PSD-FL-181) as follows:

FROM:
D.2. If compliance test results from the combustion turbine and duct burner indicate that the NO_X standards cannot be met (see specific conditions A.5. and B.4. and Facility-wide Conditions Nos. 10. and 11.), or if an action requested by the permittee gives rise to compliance concerns, a revised BACT determination for NO_X shall be considered. The Department may revise the BACT determination to require the installation of technologically advanced NO_X controls. If the permittee has elected to not provide for future installation of NO_X controls during initial construction, these retrofit costs shall not be considered by the Department during the top-down analysis for the new BACT determination.
[PSD-FL-181 dated August 17, 1992]

TO:
D.2.a. The permittee accepted a contemporaneous emissions increase of 39.7 TPY for NO_X with a total CT and DB NO_X limitation of 174.6 TPY to escape PSD New Source Review requirements by 0.3 TPY pursuant to Rule 62-212.400(5), F.A.C., in the permitting action of PSD-FL-181, issued August 17, 1992; and, elected not to provide appropriate spacing for future installation of NO_X controls during the initial construction. If the permittee later applies for a permit modification to increase capacity, the retrofit costs associated with not making provisions for such technology (initially) shall not be considered in the retrofit analysis required for the future expansion.
b. Any net increase in NO_X emissions of 0.3 TPY above the combined allowable limits of the CT and DB (174.6 TPY; and, see Specific Conditions A.5. and B.4) will initiate preconstruction review requirements pursuant to Rule 62-212.400(5), F.A.C., for NO_X for the CT and DB as if construction of these emissions units had not yet begun.
[PSD-FL-181; and, Rule 62-212.400(2)(g), F.A.C.]

d. Specific Condition D.3. The Department disagrees with the request to add a permitting note, but will replace the existing text with a quote of the text from a previous permitting action [PSD-FL-181(A)] as follows:

From:
D.3. To demonstrate compliance with the facility NO_X emission limit of 194.4 tons per year, the NO_X emission rate (lbs/MMBtu) from the combustion turbine and duct burner shall be calculated using the NO_X analyzer data and equation F-6 from 40 CFR 75, Appendix F. Hourly heat input rates (MMBtu/hr) shall be used to convert lbs/MMBtu of NO_X to lbs/hour of NO_X.

To:
D.3. For purposes of demonstrating compliance with the annual limits, the NO_X emission rate (lbs/MMBtu) from the combustion turbine and duct burner shall be calculated using the NO_X analyzer data and equation F-6 from 40 CFR 75, Appendix F. Hourly heat input rates (MMBtu/hr) shall be used to convert lbs/MMBtu of NO_X to lbs/hr of NO_X and actual operating hours shall be used to obtain tons per year.

6. Section IV. Acid Rain Part.
a. Based on EPA's documentation, the affected emissions unit is the combustion turbine listed as "P1", which denotes a peaking unit. Therefore, the description will be changed as requested and the phrase "and duct burner with a common stack" will be deleted.

b. The following "new" Conditions A.3, A.4. and A.5. are Acid Rain unit federally enforceable applicable requirements, by virtue of the Chapter adoption into the SIP, that was not included in the Title V DRAFT permit:

"new"
A.3. Emission Allowances. Emissions from sources subject to the Federal Acid Rain Program (Title IV) shall not exceed any allowances that the source lawfully holds under the Federal Acid Rain Program. Allowances shall not be used to demonstrate compliance with a non-Title IV applicable requirement of the Act.
1. No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the Federal Acid Rain Program, provided that such increases do not require a permit revision pursuant to Rule 62-213.400(3), F.A.C.
2. No limit shall be placed on the number of allowances held by the source under the Federal Acid Rain Program.
3. Allowances shall be accounted for under the Federal Acid Rain Program.
[Rule 62-213.440(1)(c), F.A.C.]

"new"
A.4. Statement of Compliance. The annual statement of compliance pursuant to Rule 62-213.440(3), F.A.C., shall be submitted within sixty (60) days after the end of the calendar year. See condition No. 51., Appendix TV-3, Title V Conditions.
[Rule 62-214.420(11), F.A.C.]

"new"
A.5. Fast-Track Revisions of Acid Rain Parts. Those Acid Rain sources making a change described at Rule 62-214.370(4), F.A.C., may request such change as provided in Rule 62-213.413, F.A.C.
[Rules 62-213.413 and 62-214.370(4), F.A.C.]

c. Due to recent objections by the U.S. EPA, Region 4, regarding requirement deficiencies in this part, the following two new conditions will be added (previously numbered A.6. will become A.8.):

"new"
A.6. 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, F.A.C.
[Rule 62-213.440(1)(c)1., F.A.C.]

"new"
A.7. Where an applicable requirement of the Act is more stringent than an applicable requirement of 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, Definitions - Applicable Requirements, F.A.C.]

7. Table 1-1.
a. Based on the responses contained in II.A.2.c. and II.A.3.c., above, changes will be made to the table to reflect the changes agreed to be made in Specific Conditions A.5. and B.4., respectively.

b. The BACT determined by the Department addressed CO control technology, turbine CO limits each for natural gas and #2 fuel oil firing, maximum sulfur content limit for the #2 fuel oil, duct burner CO limits for natural gas firing, and opacity limits each for boilers 4 & 5 while firing natural gas and fuel oil. As such, several of the citings under "Regulation(s)" [now "Regulation(s)/Permit(s)"] have been changed to reflect the correct regulation(s) and/or SIP permit(s) that the limit or requirement was established.

8. Table 2-1.

a. The "permitting note" established on "page 9 of 30", just after the header "**Test Methods and Procedures**", reflects what the table is to be used for. Therefore, no change will be made to the table.

b. The opacity standards have been changed to reflect the associated rule language with the "exception".

B. Letter from Mr. Scott H. Osbourn dated August 27, 1998.

1. Statement of Basis. Based on the request, the following language will be added:

The heat input limitations have been placed in the permit to identify the capacity of the combustion turbine (CT) and associated duct burner - heat recovery steam generator (DB) for the purposes of confirming that emissions testing is conducted within 90 to 100 percent of the emissions unit's rated capacity (or to limit future operation to 110 percent of the test loads), to establish appropriate emissions limits and to aid in determining future rule applicability. A note below the permitted capacity condition for each emissions unit clarifies this. Regular record keeping is not required for heat input. Instead, the owner or operator is expected to determine heat input whenever emission testing is required to demonstrate at what percentage of the rated capacity that the emissions unit was tested. Rule 62-297.310(5), F.A.C., included in the permit, requires measurement of process variables for emissions tests. Such heat input determination may be based on measurements of fuel consumption by various methods including but not limited to fuel flow metering or tank drop measurements, using the heat value of the fuel determined by the fuel vendor or the owner or operator, to calculate average hourly heat input during the test.

C. General Comments.

1. U.S. EPA Region 4 Objection. Appendix TV-1 to Appendix TV-2.

a. Placard Page. Due to an objection from the U.S. EPA, Region 4, regarding Appendix TV-1, Title V Conditions, specifically condition No. 53, Permit Shield, the Department issued "Appendix TV-2" on November 10, 1998, with a permitting note in this condition to clarify that the permit shield would go into effect on the "effective date of the permit", since the issuance date is usually different. The change was made essentially for Acid Rain affected sources, because their effective date is January 1 of a given year. Therefore, under **"Referenced attachments made a part of this permit"**, APPENDIX TV-1, TITLE V CONDITIONS (version dated 12/02/97) has been changed to APPENDIX TV-2, TITLE V CONDITIONS (version dated 11/10/98) and the permitting note is as follows:

[Permitting note: The permit shield is not in effect until the effective date of the permit.}

Since there is an Appendix TV-3 (version dated 04/30/99), all references will be changed to reflect the latest version.

b. Facility-wide Conditions. Condition 1. Due to the comment in II.C.1.a., above, the following is changed:

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

TO:
1. APPENDIX TV-3, TITLE V CONDITIONS, is a part of this permit.
{Permitting note: APPENDIX TV-3, 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.}

c. Section IV. Subsection A. Condition A.4. Due to the comment in II.C.1.a., above, and to correct the condition citing in the parenthetical expression due to a revision to the appendix, the following are changed:

FROM:
A.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 53., APPENDIX TV-1, TITLE V CONDITIONS}

TO:
A.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 51., APPENDIX TV-3, TITLE V CONDITIONS}

2. Section III. Subsection A.

a. Specific Condition A.23. (now A.24.) The following will be changed to correct omissions from Rule 62-297.310(7)(a)4., F.A.C.:

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

TO:
4. During each federal fiscal year (October 1 - September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:
a. Visible emissions, if there is an applicable standard;
b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; or 100 tons per year or more of any other regulated air pollutant; and,
c. Each NESHAP pollutant, if there is an applicable emissions standard.

b. Even though referenced in Table 2-1 of the DRAFT Title V permit, the CO test method was not a part of the text. Therefore, the following specific condition is created to correct the omission:

"new"
Miscellaneous

A.32. Carbon Monoxide. EPA Method 10 shall be used to demonstrate compliance in accordance with Chapter 62-297, F.A.C., and 40 CFR 60, Appendix A.
[PSD-FL-181]

3. Section III. Subsection B.

a. Even though referenced in Table 2-1 of the DRAFT Title V permit, the CO test method was not a part of the text. Therefore, the following specific condition is created to correct the omission:

"new"
Miscellaneous

B.17. Carbon Monoxide. EPA Method 10 shall be used to demonstrate compliance in accordance with Chapter 62-297, F.A.C., and 40 CFR 60, Appendix A.

4. Section III. Subsection C.

a. Specific Condition C.19. The Department agrees to delete the following part of Rule 62-297.310(7)(a)4.b., F.A.C., since the pollutant "acrylonitrile" will not be emitted from the emissions units:

FROM:

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

a. Visible emissions, if there is an applicable standard;

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

c. Each NESHAP pollutant, if there is an applicable emissions standard.

TO:

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

a. Visible emissions, if there is an applicable standard;

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

c. Each NESHAP pollutant, if there is an applicable emissions standard.

III. Conclusion.

The permitting authority will issue the PROPOSED Permit No.: 0010001-001-AV, with any changes noted above.

STATEMENT OF BASIS

Florida Power Corporation
University of Florida Cogeneration Plant
Facility ID No.: 0010001
Alachua County

Initial Title V Air Operation Permit
PROPOSED Permit No.: 0010001-001-AV

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

This facility consists of one Combustion Turbine (CT), one Duct Burner (DB) with a Heat Recovery Steam Generator (HRSG), and two Steam Boilers (No. 4 and No. 5). Emissions from the CT and DB are vented through a common stack. The steam boilers, each having a separate exhaust stack, are used only as back-up sources. Also included in this permit are miscellaneous unregulated/insignificant emissions units and/or activities.

The General Electric LM 6000 combustion turbine has a generator rating of 43 megawatts (MW) and a maximum heat input rating of 399 MMBtu/hr (LHV) while firing natural gas and 384 MMBtu/hr (LHV) while firing No. 2 distillate fuel oil. The NO_X emissions are controlled with steam injection. The combustion turbine and associated duct burner exhaust through the same HRSG and common stack. This emissions unit began commercial service in 1994. This emissions unit is regulated under Acid Rain, Phase II; 40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines, adopted and incorporated by reference in Rule 62-204.800(7)(b), F.A.C; PSD-FL-181 and BACT dated August 17, 1992; and, permit amendment PSD-FL-181(A).

The Duct Burner (DB) can only fire natural gas and can only be operated while the CT is being operated. Low- NO_X burners have been installed to control emissions. The DB has a maximum heat input rate of 187.0 MMBtu/hr (LHV). The DB and CT exhaust through the same HRSG and common stack. This emissions unit began commercial service in 1994. This emissions unit is regulated under Acid Rain, Phase II; and, 40 CFR 60, Subpart Db, Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units, adopted and incorporated by reference in Rule 62-204.800(7), F.A.C.; PSD-FL-181 and BACT dated August 17, 1992; and, permit amendment PSD-FL-181(A).

The heat input limitations have been placed in the permit to identify the capacity of the combustion turbine and associated duct burner - heat recovery steam generator for the purposes of confirming that emissions testing is conducted within 90 to 100 percent of the emissions unit's rated capacity (or to limit future operation to 110 percent of the test loads), to establish appropriate emissions limits and to aid in determining future rule applicability. A note below the permitted capacity condition for each emissions unit clarifies this. Regular record keeping is not required for heat input. Instead, the owner or operator is expected to determine heat input whenever emission testing is required to demonstrate at what

percentage of the rated capacity that the emissions unit was tested. Rule 62-297.310(5), F.A.C., included in the permit, requires measurement of process variables for emissions tests. Such heat input determination may be based on measurements of fuel consumption by various methods including but not limited to fuel flow metering or tank drop measurements, using the heat value of the fuel determined by the fuel vendor or the owner or operator, to calculate average hourly heat input during the test.

Because the combustion turbine and associated duct burner - heat recovery steam generator were permitted under the "source obligation" rule [Rule 62-212.400(2)(g), F.A.C.] regarding NOx emissions by taking a 39.7 TPY (net increase), a 194.3 TPY (facility total), and a 174.6 TPY (CT and DB total) PSD New Source Review restriction, Facility-wide Conditions Nos. 10 and 11 and Specific Conditions Nos. A.5, B.4., and D.2 have been established to highlight these restrictions.

The maximum heat input rate for the No. 4 steam boiler is 69.6 MMBtu/hr. The maximum heat input is based on permitted firing limits of 68,000 cf of natural gas per hour and 444 gallons per hour of No. 2 fuel oil. The maximum heat input rate for the No. 5 steam boiler is 168 MMBtu/hr. The maximum heat input is based on permit firing limits of 164,000 cf of natural gas per hour and 1,067 gallons per hour of No. 2 fuel oil. The emission units began commercial service in 1976. The boilers may be operated as necessary for backup to the CT and DB, and as long as the total nitrogen oxides emissions from this permitted facility does not exceed 194.3 tons per year. Particulate matter emissions shall be controlled by the firing of natural gas and/or low sulfur content No. 2 fuel oil (BACT). Sulfur dioxide emissions shall be controlled by firing natural gas and No. 2 fuel oil with a sulfur content that shall not exceed 0.5 percent, by weight (BACT). The steam boilers are regulated under Rule 62-296.406, F.A.C., Fossil Fuel Steam Generators with Less than 250 MMBtu per Hour Heat Input, which includes BACT for particulate matter and sulfur dioxide. Visible emissions are not allowed to exceed 10 percent opacity and 20 percent opacity when firing natural gas and No. 2 fuel oil, respectively; and, an opacity exception of 27 percent or less for one six-minute period per hour is allowed when firing No. 2 fuel oil.

Based on the initial Title V permit application received June 14, 1996, this facility is not a major source of Hazardous Air Pollutants (HAPs).

Table 1-1, Air Pollutant Emission Allowables and Terms

Florida Power Corporation
University of Florida Cogeneration Plant

PROPOSED Permit ID No.: 0010001-001-AV
Facility ID No.: 0010001

Emission Unit & ID No.			Allowable Emissions			
Pollutant	Fuel(s)	Hrs/Yr[1]	Basis of Limitation	lbs/hr	TPY	Regulation(s)/Permit	Permit Condition(s)
CT - 001							
NO_x	Gas		25 ppmvd @ 15% O_2	39.6	142.7	Rule 62-212.400(2)(g), F.A.C.	A.5
	Oil		42 ppmvd @ 15% O_2	66.3	7.3	Rule 62-212.400(2)(g), F.A.C.	A.5
SO_2	Oil			max. 0.5 % S, by wt.		PSD-FL-181	A.5 & A.7.
VE	Gas/Oil			10%/20% opacity		PSD-FL-181	A.5
CO	Gas		42 ppmvd @ 15% O_2	38.8	158.0	Rule 62-212.400(6), F.A.C.	A.5
	Oil		75 ppmvd @ 15% O_2	70.5	7.7	Rule 62-212.400(6), F.A.C.	A.5
DB - 002							
NO_x	Gas		0.1 lb/MMBtu	18.7	24.6	Rule 62-212.400(2)(g), F.A.C.	B.4
VE	Gas			10% opacity		PSD-FL-181	B.4
CO	Gas		0.15 lb/MMBtu	28.1	36.9	Rule 62-212.400(6), F.A.C.	B.4
Boiler No.4 - 003							
SO_2	Oil		BACT	max. 0.5% S, by wt.		Rule 62-296.406(3), F.A.C.	C.8
VE	Gas/Oil			10%/20%[3] (60%[4])		Rule 62-212.400(6), F.A.C. Rule 62-296.406(1), F.A.C.[3] Rule 62-210.700(3), F.A.C.	C.5 C.5. C.6.
Boiler No.5 - 004							
SO_2	Oil		BACT	max. 0.5% S, by wt.		Rule 62-296.406(3), F.A.C.	C.8
VE	Gas/Oil			10%/20%[3] (60%[4])		Rule 62-212.400(6), F.A.C. Rule 62-296.406(1), F.A.C.[3] Rule 62-210.700(3), F.A.C.	C.5 C.5. C.6
Facility Wide Cap - [E.U's - 001, 002, 003 & 004]							
Total NO_x	Gas/Oil				194.3	Rule 62-212.400(2)(g), F.A.C.	Facility-wide Condition 10

[1] Refer to Specific Condition D.1. for the turbine and duct burner hours of operation while firing natural gas and fuel oil.
[2] Allowables established in PSD-FL-181, PSD-FL-181(A), and Revised BACT Determination on August 14, 1992.
[3] Exception is one 6-minute period per hour during which the opacity shall not exceed 27% while firing No. 2 fuel oil..
[4] During the 3-hours in any 24 hour period of excess emissions allowed for boiler cleaning (soot blowing) and load change.

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

Florida Power Corporation
University of Florida Cogeneration Plant

PROPOSED Permit No.: 0010001-001-AV
Facility ID No.: 0010001

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

Brief Description of Emissions Units and/or Activities: **The facility has none at this time.**

E.U. ID No.	Brief Description of Emissions unit(s) and/or Activity

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

Florida Power Corporation
University of Florida Cogeneration Plant

PROPOSED Permit No.: 0010001-001-AV
Facility ID No.: 0010001

The facilities, emissions units, or pollutant-emitting activities listed in Rule 62-210.300(3)(a), F.A.C., Categorical Exemptions, are exempt from the permitting requirements of Chapters 62-210 and 62-4, F.A.C.; provided, however, that exempt emissions units shall be subject to any applicable emission limiting standards and the emissions from exempt emissions units or activities shall be considered in determining the potential emissions of the facility containing such emissions units. Emissions units and pollutant-emitting activities exempt from permitting under Rule 62-210.300(3)(a), F.A.C., shall not be exempt from the permitting requirements of Chapter 62-213, F.A.C., if they are contained within a Title V source; however, such emissions units and activities shall be considered insignificant for Title V purposes provided they also meet the criteria of Rule 62-213.430(6)(b), F.A.C. No emissions unit shall be entitled to an exemption from permitting under Rule 62.210.300(3)(a), F.A.C., if its emissions, in combination with the emissions of other units and activities at the facility, would cause the facility to emit or have the potential to emit any pollutant in such amount as to make the facility a Title V source.

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

Brief Description of Emissions Units and/or Activities:

Brief Description of Emissions units and/or Activities
Solvent Use and Hood
Lube Oil Vents
Two (2) 193,200 gallon No. 2 Fuel Oil Storage Tanks
Fresh Water Cooling Towers
Surface Coating < 6.0 gal./day containing > 5.0% VOCs, by volume, averaged monthly (non-RACT)
Brazing, Soldering or Welding
Non-halogenerated Solvents
Emergency generator firing less than 10,000 gallons per year of diesel fuel