Florida Power
A Progress Energy Company

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BUREAU OF AIR REGULATION

April 29, 2002

Mr. Al Linero, P.E. Administrator
Bureau of Air Regulation
Florida Department of Environmental Protection
2600 Blair Stone Rd.
Tallahassee, Florida 32399-2400

Dear Mr. Linero:

Re: Florida Power University of Florida Facility
Construction Permit No. 0010001-003-AC/ Title V Permit No. 0010001-001-AV

Florida Power is submitting a request to modify the above-referenced construction permit and, subsequently, the Title V operating permit that will incorporate the requested changes. The proposed changes are discussed in detail below.

The current construction permit was issued on May 18, 2001. Specific Condition 5 in Section III contains a permitted capacity, referenced to the heat input for the combustion turbine (CT). This permitted capacity is stated as 392 mmBtu/hour at 59 degrees F, based on the fuel's LHV when firing natural gas. The current Title V (TV) operating permit for this facility contains similar language, the difference being that the TV permit contains a "permitting note" that explains the purpose of the heat input rating (Specific condition A.1. of Section III of the current Title V permit). Without the permitting note, it could be implied that the heat input rating is a value that is not to be exceeded. The maximum heat input for this CT model, as well as the model that existed prior to the modification, actually occurs at 49F.

The heat input rating contained in the current construction permit was based on information provided to the DEP in the permit application, and it corresponds to data provided by General Electric (GE). Florida Power has found that the CT can attain a heat input level that is slightly higher than the current permit rating

The CT can actually attain a heat input of approximately 408 mmBtu/hour, as well as a nominal rating of 50 MW output, at 59 deg. F, as shown on the enclosed heat input/MW vs. engine inlet temperature graph. Florida Power requests that the current construction and operating permits be amended to incorporate this heat input curve. In addition, retention of the permitting note contained in the current TV permit will provide clarity for compliance purposes. In the interim, until additional guidance or permitting action is provided by the Department, Florida Power will continue to restrict operation to ensure that the heat input rating is not exceeded. This results in the loss of approximately 3 MW that could be produced, which becomes more critical as we approach the high demand summer peaking season. Florida Power bases this request on the understanding that additional operating flexibility will be provided, but there will be no change

in the emission limits contained in the permit (i.e., compliance with all lb/hour and tons/year limits will be maintained).

In addition, Condition 6 of Section III of the construction permit contains fuel usage limits for the DB (519.5 million ft^3 of natural gas) and for the CT and DB combined (3.48 trillion Btu). This presents an additional complication, given that the fuel limit for the DB is a fuel flow value, while the limit for the CT and DB combined is provided as a total heating value. In order to avoid confusion and ensure compliance, Florida Power requests that the language in the permit regarding the fuel use limit be changed to reflect an approach similar to that for the annual hours of operation limit. Specifically, the permit should state a baseline amount that may be exceeded, provided that the facility-wide annual NOx emissions limit is not exceeded. Florida Power requests that the second sentence of Condition 6 be changed to the following language:

The turbine/duct burner may operate for more hours per year and at a higher annual fuel consumption provided that the facility-wide NOx emissions do not exceed 194.3 TPY.

The combination of continuous monitoring and the associated reporting for both the short-term lb/hour limit and the long-term annual limit will ensure adequate monitoring for purposes of determining continuous compliance with the emissions limits.

Florida Power has enclosed four copies of the appropriate permit application forms and the revised heat input curve. Thank you for your consideration of this submittal. Please contact Mike Kennedy at (727) 826-4334 or Matt Lydon at (727) 826-4152 if you have any questions.

Sincerely,

Kris G. Edmondson
Plant Manager

Department of Environmental Protection

Division of Air Resources Management

APPLICATION FOR AIR PERMIT - TITLE V SOURCE

See Instructions for Form No. 62-210.900(1)

I. APPLICATION INFORMATION

Identification of Facility

1. Facility Owner/Company Name: Florida Power Corporation	
2. Site Name: University of Florida Cogeneration Plant	
3. Facility Identification Number: 0010001 [ ] Unknown	
4. Facility Location: Street Address or Other Locator: Mowry Road, Building 82, University of Florida City: Gainesville County: Alachua Zip Code: 32611-2295	
5. Relocatable Facility? [ ] Yes [X] No	6. Existing Permitted Facility? [X] Yes [ ] No

Application Contact

1. Name and Title of Application Contact: J. Michael Kennedy, Manager Air Program, Environmental Services Department
2. Application Contact Mailing Address: Organization/Firm: Florida Power Corporation Street Address: One Power Plaza, 263 13th Ave., S. City: St. Petersburg State: FL Zip Code: 33701
3. Application Contact Telephone Numbers: Telephone: (727) 826-4334 Fax: (727) 826-4216

Application Processing Information (DEP Use)

1. Date of Receipt of Application:	5-7-02
2. Permit Number:	001 0001-004-AC
3. PSD Number (if applicable):	
4. Siting Number (if applicable):	

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Purpose of Application

Air Operation Permit Application

This Application for Air Permit is submitted to obtain: (Check one)

[ ] Initial Title V air operation permit for an existing facility which is classified as a Title V source.

[ ] Initial Title V air operation permit for a facility which, upon start up of one or more newly constructed or modified emissions units addressed in this application, would become classified as a Title V source.

Current construction permit number:_____

[ ] Title V air operation permit revision to address one or more newly constructed or modified emissions units addressed in this application.

Current construction permit number:_____

Operation permit number to be revised:_____

[X] Title V air operation permit revision or administrative correction to address one or more proposed new or modified emissions units and to be processed concurrently with the air construction permit application. (Also check Air Construction Permit Application below.)

Operation permit number to be revised/corrected: 001-0001-001-AV

[ ] Title V air operation permit revision for reasons other than construction or modification of an emissions unit. Give reason for the revision; e.g., to comply with a new applicable requirement or to request approval of an "Early Reductions" proposal.

Operation permit number to be revised:_____

Reason for revision:_____

Air Construction Permit Application

This Application for Air Permit is submitted to obtain: (Check one)

[X] Air construction permit to construct or modify one or more emissions units.

Construction permit no. 001-0001-003-AC

[ ] Air construction permit to make federally enforceable an assumed restriction on the potential emissions of one or more existing, permitted emissions units.

[ ] Air construction permit for one or more existing, but unpermitted, emissions units.

Owner/Authorized Representative or Responsible Official

1. Name and Title of Owner/Authorized Representative or Responsible Official: Kris Edmondson, Plant Manager
2. Owner/Authorized Representative or Responsible Official Mailing Address: Organization/Firm: Florida Power Corporation Street Address: P.O. Box 14042 GV44 City: Gainesville State: FL Zip Code: 33733-4042
3. Owner/Authorized Representative or Responsible Official Telephone Numbers: Telephone: (352) 337-6900 Fax: (352) 337-6920
4. Owner/Authorized Representative or Responsible Official Statement: *I, the undersigned, am the owner or authorized representative*(check here [ ], if so) or the responsible official (check here [ ], if so) of the Title V source addressed in this application, whichever is applicable. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof. I understand that a permit, if granted by the Department, cannot be transferred without authorization from the Department, and I will promptly notify the Department upon sale or legal transfer of any permitted emissions unit.* Signature 4/21/2002 Date

* Attach letter of authorization if not currently on file.

Professional Engineer Certification

1. Professional Engineer Name: Scott Osbourn Registration Number: 57557
2. Professional Engineer Mailing Address: Organization/Firm: ENSR International Street Address: 150 Second Ave. N., Suite 1500 City: St. Petersburg State: FL Zip Code: 33701-3343
3. Professional Engineer Telephone Numbers: Telephone: (727) 898-9591 Fax: (727) 898-9582

4. Professional Engineer Statement:

I, the undersigned, hereby certify, except as particularly noted herein, that:*

(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this Application for Air Permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and

(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.

If the purpose of this application is to obtain a Title V source air operation permit (check here [ ], if so), I further certify that each emissions unit described in this Application for Air Permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance schedule is submitted with this application.

If the purpose of this application is to obtain an air construction permit for one or more proposed new or modified emissions units (check here [X], if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.

If the purpose of this application is to obtain an initial air operation permit or operation permit revision for one or more newly constructed or modified emissions units (check here [X], if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.

Signature

5/3/02
Date

(seal)

* Attach any exception to certification statement.

Scope of Application

Emissions Unit ID	Description of Emissions Unit	Permit Type	Processing Fee
001	COGEN PLANT GAS TURBINE		$0.00

Application Processing Fee

Check one: [ ] Attached - Amount: $_____ [X] Not Applicable

Construction/Modification Information

1. Description of Proposed Project or Alterations:

Applicant has found that the LM6000-PC-ESPRINT combustion turbine can attain a performance level of approximately 408 MMBTU/hour (LHV) and 50 MW at 59 deg. F as shown on the enclosed heat input vs. engine inlet temperature graph. Florida Power requests that the permit be amended to incorporate this heat input curve. In addition, retention of the permitting note contained in the current Title V permit will provide clarity for compliance purposes. No change is requested in any of the emission limits (lb/hr and tons/yr) that currently exist in the permit.

In addition, Florida Power requests that the turbine/duct burner operate at a higher annual fuel consumption provided that the facility-wide NOx emissions do not exceed 194.3 TPY.

2. Projected or Actual Date of Commencement of Construction: May 18, 2001

3. Projected Date of Completion of Construction: June 2, 2001

Application Comment

For clarity, the application forms are divided into:

- Facility information
- Newly modified emission unit (Combustion Turbine)

III. EMISSIONS UNIT INFORMATION

LM6000-PC-ESPRINT

A separate Emissions Unit Information Section (including subsections A through J as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

A. GENERAL EMISSIONS UNIT INFORMATION
(All Emissions Units)

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in This Section: (Check one)

[X] This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Regulated or Unregulated Emissions Unit? (Check one)

[X] The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.

[ ] The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

2. Description of Emissions Unit Addressed in This Section (limit to 60 characters):
Combustion Turbine (LM6000-PC-ESPRINT)

4. Emissions Unit Identification Number:
ID: ARMS No. 001
[ ] No ID
[ ] ID Unknown

5. Emissions Unit Status Code:	6. Initial Startup Date:	7. Emissions Unit Major Group SIC Code:	8. Acid Rain Unit?
A	June 2, 2001	49	[X]

9. Emissions Unit Comment: (Limit to 500 Characters)
The new CT has replaced the previous CT, which exhausted through a heat recovery steam generator (HRSG) and a single stack. There are no other changes to the process configuration.

Emissions Unit Control Equipment

1. Control Equipment/Method Description (Limit to 200 characters per device or method):

   Steam injection.

2. Control Device or Method Code(s): 28

Emissions Unit Details

1. Package Unit:
   Manufacturer: General Electric Model Number: LM6000-PC-ESPRINT
2. Generator Nameplate Rating: 50 MW @ 59°F 98% RH inlet conditions
3. Incinerator Information:
   Dwell Temperature: °F
   Dwell Time: seconds
   Incinerator Afterburner Temperature: °F

B. EMISSIONS UNIT CAPACITY INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Operating Capacity and Schedule

1. Maximum Heat Input Rate:	408 mmBtu/hr LHV @ 59°F inlet
2. Maximum Incineration Rate:	lb/hr tons/day
3. Maximum Process or Throughput Rate:	
4. Maximum Production Rate:	50 MW @ 59°F inlet temp
5. Requested Maximum Operating Schedule:	
	24 hours/day 7 days/week
	52 weeks/year 8,760 hours/year*
6. Operating Capacity/Schedule Comment (limit to 200 characters):	
Maximum heat input based on natural gas-firing,	
* The permitted NOx cap of 194.3 TPY is based on operation of the CT/DB at maximum firing rates for 7,211 hr/yr and total fuel usage of 3.48 trillion Btu/yr. The CT/DB may operate for more hours per year (up to 8,760 hr/yr) and at a higher annual fuel consumption provided that the facility-wide NOx emissions do not exceed 194.3 TPY.	

E. SEGMENT (PROCESS/FUEL) INFORMATION
(All Emissions Units)

Segment Description and Rate: Segment 1 of 2

1. Segment Description (Process/Fuel Type) (limit to 500 characters): Natural Gas Firing		
2. Source Classification Code (SCC): 2-01-002-01	3. SCC Units: Million Cubic Feet Burned	
3. Maximum Hourly Rate: 0.429 (LHV)	4. Maximum Annual Rate: 3,663 (LHV)	6. Estimated Annual Activity Factor:
2. Maximum % Sulfur: 1 grain/ 100 CF	8. Maximum % Ash:	9. Million Btu per SCC Unit: 950 (LHV)
10. Segment Comment (limit to 200 characters): Based on inlet conditions 59°F and 60% relative humidity, LHV.		

Segment Description and Rate: Segment 2 of 2

1. Segment Description (Process/Fuel Type) (limit to 500 characters): Distillate oil firing in CT		
3. Source Classification Code (SCC): 2-01-002-01	3. SCC Units: Thousand Gallons Burned	
4. Maximum Hourly Rate: 2.9	5. Maximum Annual Rate: 635	6. Estimated Annual Activity Factor:
3. Maximum % Sulfur: 0.5	8. Maximum % Ash: 0.1	9. Million Btu per SCC Unit: 132
10. Segment Comment (limit to 200 characters): Million Btu per SCC Unit = 132.48 (rounded to 132). Heat content based on LHV.		

Engine Inlet Temp. Vs. Heat Input (LHV) and MW Output
LM6000PC-Esprint - University of Florida Cogen - Florida Power