

## Email Memorandum

**Date:** November 2, 1999

**To:** Scott Osbourn, Senior Environmental Engineer  
Florida Power Corporation

**cc:** Michael Kennedy, Meteorologist  
Florida Power Corporation

Katy Forney, New Source Review  
EPA Region 4

**From:** Jeff Koerner, New Source Review Section  
Bureau of Air Regulation - DEP

**Re:** DEP File No. 097-0014-003-AC (PSD-FL-268)  
FPC Intercession City Plant  
Response to Comments from FPC and EPA Region 4

I was contacted by our Office of General Counsel concerning the request for an extension of time in which to file for an administrative hearing. It was brought to my attention that the permit processing time clock has stopped with your request. In addition, I am prevented from issuing a final permit until you withdraw your request.

I have reviewed your written comments regarding the Draft Permit, comments and requests made during our meeting on 10/25/99, and comments received from EPA Region 4. For each of your written comments, I have prepared the following responses and have included EPA's comments for similar topics. Any remaining comments made by EPA are discussed at the end of this email.

### Page 5

**Specific Condition 3. Permitted Capacity:** FPC requests that text, similar to that in recent Title V permits, be added to clarify that the heat input values for gas and oil firing are only included for the purposes of determining capacity during testing, and that regular record keeping is not required. FPC also requests a change in the text from "... an inlet air supply cooled to 59° F ..." to "... an inlet air temperature of 59° F ...". **Response:** The Department includes the heat input as a maximum rate based on the fuel heating value, inlet temperature, air pressure, relative humidity, and load. The only record keeping requirement is a monthly recording of the average heat input for each fuel as a check on the permitted capacity. This requirement will be retained. The Department will revise the text regarding inlet air temperature.

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**Specific Condition 6. Hours of Operation:** Based on the Department's cost analysis, FPC requests the following revised limits on hours of operation: 5760 hours per year per gas turbine for gas firing and 3000 hours per year per gas turbine for oil firing. EPA Region 4 also comments (#1) that the Department's cost analysis was appropriate, but that hot SCR for continuous operation should not be dismissed based on the estimated cost effectiveness. EPA suggests that these concerns could be addressed if the Draft Permit was revised to limit hours of operation to: 3390 hours per year gas per turbine with no more than 1000 hours per year per turbine. This is consistent with other recent determinations for intermittent, simple cycle combustion turbines in Region 4.

**Response:** The Department based the limits on hours of operation on the applicant's initial request and planned use of these gas turbines as "peaking units". During our meeting on 10/25/99, I mentioned that your request would result in an increase in emissions, which would require submittal of a modified application and restarting the permit process. In light of EPA's comments, it may be necessary to restrict hours on a "per turbine basis", but it may also be possible to allow for some flexibility above the initial request that was based on an *average* of 3390 hours per year per gas turbine. For example, it may be possible to address EPA's concerns by the following revision, which would not require the submittal of a modified application:

- Retain the aggregate limit of 10,170 hours per year of which no more than 3000 hours per year would be oil firing. (This case would still define “potential emissions”, so there would not be an increase in emissions.)
- Limit the hours of operation for each turbine to 5085 hours per year of which no more than 1500 hours per year would be oil firing.

This would require a closer monitoring of the hours by the plant, but allows some flexibility for cases when a unit may be “down”. You also indicated the need to maintain the proposed construction schedule. This condition could be revised in many different ways based on your decision. The Department reserves the right to revise the Draft Permit to satisfy EPA’s stated concerns.

FPC also requests deletion of the requirement to limit operation below 50% load to less than two hours per unit cycle. **Response:** This requirement is included to limit operation of the gas turbines under conditions that *may* generate excess emissions based on information from General Electric. The excess emissions rule does not properly address this situation because the compliance status for each pollutant is unknown except for NO<sub>x</sub>, which is continuously monitored. The Department is considering revising this condition to: “Operation below 50% of base load shall be limited to two (2) hours during any calendar day.”

#### Page 7

**Specific Condition 11. and 12. Emissions Controls:** FPC requests insertion of text similar to “... in accordance with the manufacturer’s recommendations ...” after the condition requiring DLN Combustion technology and the condition requiring Water Injection Controls. FPC also requests deletion of the requirement to provide emissions performance versus load diagrams. **Response:** The Department will revise the condition to include the requested text. As discussed during our meeting, the Department will add the following text to the condition requiring load diagrams: “Compliance with this requirement may be demonstrated by compiling data during the initial NSPS tests performed at various load conditions.”

FPC also strenuously objects to the requirement of developing a NO<sub>x</sub> reduction plan if a unit fires more oil than gas during a 12-month period. **Response:** The intent of this requirement was to address the possibility of continued oil firing on a single unit as “normal operations”. The Department will revise this requirement to: “If the hours of oil firing for a combustion turbine exceed 1000 hours during any consecutive 12 month period, the permittee shall develop a NO<sub>x</sub> reduction plan.”

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**Specific Condition 15. Emissions Standards:** FPC requests that the emissions standards be expressed solely in terms of a mass emissions rate (pounds per hour) using “ppmvd” only as the basis, that the VOC concentration be expressed as ppmvw, and that the CO concentration be expressed as ppmvd. **Response:** The “ppmvd” standards are required to ensure complete utilization of the technical capabilities of the DLN system to minimize NO<sub>x</sub> emissions. For combustion turbines, units of “ppmvd” are the standard by which environmental agencies compare BACT determinations, have been included in many recent air permits, and are consistent with the federal NSPS Subpart GG. The emissions standards will not be revised. However, the Department will be revise these conditions to express the CO concentration as ppmvd and VOC concentration as ppmvw, consistent with the manufacturer’s test data.

FPC requests that the requirement to reduce CO emissions from 25 ppmvd to 20 ppmvd be revised from “after the first 12 months after initial startup” to “after the first 12 months after initial compliance testing”. **Response:** This request is reasonable and the condition will be revised accordingly.

**Specific Condition 16., 17. and 19. Emissions Standards:** FPC again requests revision of these conditions to reflect mass-based standards. **Response:** The Department’s response is the same as described above.

FPC requests replacing the text “3-hour test averages” for the CO and NO<sub>x</sub> standards with a reference to the corresponding EPA test method. **Response:** An emissions standard must have an appropriate averaging period in order to be practicably enforceable. The condition will remain unchanged.

FPC requests that the NO<sub>x</sub> limit when firing oil be revised to a from a 3-hour block average to a 24-hour block average, consistent with gas firing. Because these units are intended to be "peaking units", EPA Region 4 comments (#2) that the 24-hour block averages should be revised to a shorter averaging period, such as a 3-hour block average. **Response:** The Department established the 24-hour block average for gas firing to allow for some fluctuations in emissions resulting from load changes that may require a period of time for the DLN system to completely adjust. The Department required a 3-hour block average for oil firing for two reasons: (1) NO<sub>x</sub> emissions from oil firing are nearly five times that of gas firing, and (2) the belief that the Speedtronic™ Gas Turbine Automatic Control System is technically capable adjusting the water injection rate to meet this shorter averaging period. So, the averaging period isn't really based on the fuel being fired, but the control methods being used and the corresponding emission rates. In addition, the air quality analysis was based on maximum *hourly* emissions when firing oil. To address EPA's concerns, the Department will include additional text in Specific Condition 21 to clarify the "24-hour block average".

**Specific Condition 21. Excess Emissions:** In accordance with the original language of Rule 62-210.700, F.A.C., FPC requests that this condition be revised to include the following text "... unless specifically authorized by the Department for longer duration ...". FPC also requests that the limit of one hour of excess emissions resulting from startup to simple cycle be removed. EPA Region 4 comments (#4) that automatic exemptions should not be granted for excess emissions. **Response:** The Department notes that Rule 62-210.700(5), F.A.C. also states the following: "... Considering operational variations in types of industrial equipment operations affected by this rule, the Department may adjust maximum and minimum factors to provide reasonable and practical regulatory controls consistent with the public interest." Based on FPC's comments and EPA Region 4's comments, the Department is still considering a complete revision of this permit condition.

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**Specific Condition 22. Combustion Turbine Testing Capacity:** FPC requests that the text "ambient temperature" be replaced with "inlet temperature". **Response:** The Department agrees and will revise the text.

Page 11

**Specific Condition 27(a) and (d). Performance Test Methods:** FPC requests clarification of the phrase "annual 3-hour NO<sub>x</sub> limit". **Response:** The Department will revise this text to "NO<sub>x</sub> limit based on a 3-hour test average".

**Specific Condition 30. Annual Performance Tests:** FPC requests removal of the requirement to conduct annual visible emissions tests when firing natural gas. **Response:** The Department established the visible emissions standard as a surrogate BACT standard for regulating particulate matter when firing natural gas. The annual visible emissions test is necessary on at least an annual basis to determine compliance for visible emissions and particulate matter.

FPC requests that annual tests for CO, NO<sub>x</sub>, and visible emissions when firing oil be required only when oil is fired for more than 400 hours per year per combustion turbine. **Response:** The Department will revise this condition to: "If a combustion turbine operates more than 100 hours on oil firing during any federal fiscal year, the permittee shall schedule and conduct annual tests for CO, NO<sub>x</sub>, and visible emissions while firing distillate oil. Compliance with the NO<sub>x</sub> standards may be determined by the continuous monitor data collected during the required CO test."

FPC requests removal of the condition requiring compliance with the visible emissions standard as a surrogate for compliance with the VOC standard. FPC believes that compliance with the CO standard is an adequate surrogate. **Response:** The Department included visible emissions as a surrogate for VOC emissions because compliance may be easily demonstrated on a more frequent basis.

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**Specific Condition 35. Continuous Monitoring Requirements:** FPC requests removal of the text that allows substitution of missing data in accordance with Title IV, revising the NOx limits to a mass emissions rate, and changing the NOx limit for oil firing from a 3-hour average to a 24-hour block average. **Response:** The Department has previously responded to the issues regarding a mass emissions standard and averaging period. The Department will remove the text regarding substitution of monitoring data. As a result of this request, the Department is considering a complete revision to Specific Condition No. 21 regarding excess emissions and clarifying the method of calculating the 24-hour block average for NOx emissions.

Page 14

**Specific Condition 39. Monthly Operations Summary:** FPC requests that this condition be deleted. **Response:** The Department will revise "written log" to "written or electronic log" and add the following text: "Information may be recorded and stored as an electronic file, but must be available for inspection and/or printing at the request of the Compliance Authorities."

Appendix BD

FPC requests revising the BACT Determination consistent with other requested changes. **Response:** This is not necessary because the Department has not agreed to revise the emissions standards.

Remaining EPA Comments

For completeness, I will also discuss the five additional comments made by EPA Region 4, which were not covered above.

- #3 EPA comments that an opacity limit for PM/PM<sub>10</sub> is acceptable, but that the emissions rate should be referenced. To address EPA's comment, the Department will include the PM/PM<sub>10</sub> emissions rate as the basis for establishing the opacity limit.
- #5. EPA comments that there will be an increase in potential VOC emissions from the existing fuel oil tank as a result of this project. The Department agrees, but estimates these emissions to be less than 1 ton per year. Nevertheless, the Department will include a note in the Emissions Unit Description.
- #6. EPA notes that the Department's estimated emissions rates for PM/PM<sub>10</sub> are higher than the initial application and modeling analysis. The Department based these higher rates on information provided by General Electric for the same model gas turbine for another project. The manufacturer reports test data indicating that the back half of the EPA Method 5 train also contains PM<sub>10</sub> – about the same quantity as the filter portion. In effect, this doubles both the expected PM emissions as well as PM<sub>10</sub> (assuming all particulate to be PM<sub>10</sub>). The primary reason for including the higher emissions rate was to establish the basis for future modification and netting determinations. The Department's staff meteorologist concluded that no additional requirements would be triggered as a result of these emissions, which were higher than originally modeled.
- #7. EPA agrees with the Department's conditions limiting hours of operation as each gas turbine is installed. No response is required.
- #8. EPA primarily comments that oil firing may not always result in the worst-case scenario and that a larger receptor grid should have been used in the air quality analysis. Again, these issues were discussed with our staff meteorologist. He confirmed EPA's comments, but concluded that no additional requirements would be triggered based on additional modeling.
- #9. EPA comments that air quality impacts resulting from temporary emissions sources associated with the project should also be considered in the Additional Impacts Analysis, but would believe this would not alter the conclusion presented. The Department concurs.

If you have any questions, please contact me at 850/414-7268.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 4  
ATLANTA FEDERAL CENTER  
61 FORSYTH STREET  
ATLANTA, GEORGIA 30303-8960

OCT 20 1999

RECEIVED

OCT 25 1999

BUREAU OF AIR REGULATION

4 APT-ARB

Mr. A. A. Linero, P.E.  
Florida Department of Environmental Protection  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 32399-2400

SUBJ: Preliminary Determination and Draft Permit for Florida Power Corporation (FPC) -  
Intercession City Plant (PSD-FL-268) located in Osceola County, Florida

Dear Mr. Linero:

Thank you for sending the preliminary determination and draft permit dated September 15, 1999, for the above referenced facility. The preliminary determination is for the proposed construction and operation of three simple cycle combustion turbines (CTs) with a nominal generating capacity of 87 MW each to be located at the existing Intercession City Plant. The combustion turbines proposed for the facility are General Electric (GE), frame 7EA units. The CTs will primarily combust pipeline quality natural gas with No. 2 fuel oil combusted as backup fuel. As proposed, the CTs will be allowed to fire natural gas a total of 10,170 hours per year and No. 2 fuel oil a total of 3000 hours per year for all turbines combined with no restrictions on how these hours are allocated per turbine. Total emissions from the proposed project are above the thresholds requiring Prevention of Significant Deterioration (PSD) review for nitrogen oxides (NO<sub>x</sub>), carbon monoxide (CO), sulfur dioxide (SO<sub>2</sub>), particulate matter (PM/PM<sub>10</sub>) and sulfuric acid mist (SAM).

Based on our review of the preliminary determination and draft permit, we have the following comments:

1. The applicant proposed a best available control technology (BACT) NO<sub>x</sub> emission limit of 9 ppmvd (15% oxygen) for natural gas firing to be achieved by use of dry low-NO<sub>x</sub> combustion. The proposed BACT for NO<sub>x</sub> emissions when firing No. 2 fuel oil is 42 ppmvd using water injection. In Appendix BD of the draft permit, the NO<sub>x</sub> BACT determination is discussed in detail. The applicant performed a cost analysis which considered using selective catalytic reduction (SCR) to control NO<sub>x</sub> emissions from the CTs. The applicant's cost analysis assumed an average operating scenario for each CT (firing 2,390 hours per year of natural gas and 1,000 hours per year of fuel oil) and calculated the cost effectiveness of SCR to be \$12,890/ton removed of NO<sub>x</sub>. The Florida Department of Environmental Protection (FDEP) disagreed with some of the assumptions in the applicant's cost analysis (as we did) and performed their own cost analysis. FDEP's cost analysis calculated the cost effectiveness

of SCR to be \$6,024/ton removed of NO<sub>x</sub>, based on a worst-case operating scenario (firing 5,760 hours per year of natural gas and 3,000 hours per year of fuel oil in one turbine). Since condition 6 of the draft permit only limits the total number of operating hours for all three CTs combined and does not set any per unit operating limits, FDEP's cost effectiveness calculation is the appropriate analysis for the current permitted operating scenario. However, FDEP still rejected SCR as BACT based on "unreasonable costs associated with controlling very low NO<sub>x</sub> emissions."

Given the results of FDEP's BACT evaluation and given that the draft permit would allow continuous operation of one turbine, Region 4's opinion is that use of SCR can not be dismissed as BACT. Our concerns about the NO<sub>x</sub> BACT conclusion will be resolved if FDEP restricts each turbine to a maximum operating schedule of 3,390 hours per consecutive 12 months, of which no more than 1,000 hours can consist of fuel oil firing. Such a restriction is consistent with other recent BACT determinations for intermittent operation, simple cycle combustion turbines elsewhere in Florida (for example, Polk Power) and with other recent determinations for intermittent operation, simple cycle combustion turbines elsewhere in Region 4.

2. In condition 17 of the draft permit, the emission rate for NO<sub>x</sub> is set as 32.0 lb/hr (9 ppmvd) on a 24-hr block average as measured by CEMS. Since the proposed CTs will run in simple cycle mode and will seldom operate for 24 consecutive hours, the averaging period for this emission limit should be much shorter, consistent with the 3-hour averaging period proposed for fuel oil combustion.
3. The proposed BACT limit for particulate matter (PM<sub>10</sub>), found in condition 18 of the draft permit, is 10% opacity for visible emissions. This visible emissions opacity limit is proposed as a surrogate for a BACT particulate matter emissions rate limit. It is acceptable to use the 10% opacity limit as a surrogate for monitoring and recordkeeping; however, the permit conditions also should list the corresponding emission rate for particulate matter.
4. As indicated in condition 20 and 21 of the draft permit, FDEP is proposing to allow excess emissions due to startup, shutdown or malfunction for up to 2 hours in any 24-hour period. Since the Intercession City Plant CTs are designed for intermittent use, it is unclear if the 24 hours refers to consecutive hours or operating hours. Furthermore, it is EPA's policy that BACT applies during all normal operations and that automatic exemptions should not be granted for excess emissions. Startup and shutdown of process equipment are part of the normal operation of a source and should be accounted for in the planning, design, and implementation of operating procedures for the process and control equipment. Accordingly, it is reasonable to expect that careful and prudent planning and design will eliminate violations of emission limitations during such periods.
5. The new CTs, which will fire No. 2 fuel oil as backup fuel, have the potential to increase the throughput of the existing fuel oil storage tank. Any increase in VOC emissions from the additional use should be taken into account when calculating the potential to emit (PTE)

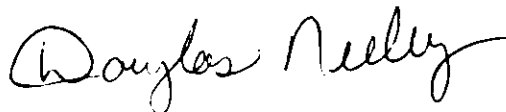
VOC emissions. We realize the VOC emissions increase will be small and do not expect it to cause any applicability changes; however, as a matter of completeness, this increase in emissions should be included in all PTE calculations.

6. Emission Changes - The annual emission rates for PM/PM<sub>10</sub> and SO<sub>2</sub> associated with the planned modification are larger in the Preliminary Determination (PD) than those appearing in the PSD application. Although all modeling results provided in the application used the smaller emission rates, multiplying the very small maximum concentrations reported in Table 7-1 by the ratio of the PD to PSD permit application emission values (i.e., PM<sub>10</sub> = 73/33 TPY; SO<sub>2</sub> = 95/83.7 TPY) will not cause the maximum impacts to exceed the applicable Significant Impact Levels (SIL). If the short term emission rates are proportional to the annual rates, these emission increases will not change the modeling conclusions presented in the application.
7. EPA agrees with FDEP in limiting the number of operating hours as each new turbine is installed. This condition will prevent the applicant from installing just one combustion turbine and operating it as a baseload turbine instead of intermittently, as proposed in the permit application. Additionally, if the applicant switches from simple cycle to combined cycle operation in the future, this change would be considered a modification potentially subject to PSD review.
8. Modeling Results - The PSD application indicated receptors were located at 100-m resolution about the site boundary and at radial distances of 500 meters; 1.0, 1.5, 2.0, and 2.5 km; and at 5 km intervals from 5 to 50 km. All modeling was performed with all the CT stacks co-located for fuel oil operation only. The following should be noted:
  - From review of Tables 6-1 through 6-8, oil firing does not appear to always produce the maximum emissions for CO, NO<sub>x</sub>, and VOC. The SCREEN3 modeling used to determine the CT operational configuration that produces the maximum impact was not complete, so the determination of the worst-case operational configuration could not be confirmed.
  - Review of the ISCST3 modeling revealed the site boundary receptors are not located within 100-m resolution. Also, some of the reported maximum concentrations were located in areas where the maximum resolution is 2 to 5 km.
  - Because of the large receptor grid resolution about the location of reported maximum concentrations, the modeling results may not capture the maximum concentrations from the proposed modification. Modeling about the reported maximum concentrations with more refined receptor grids is needed to ensure maximum concentrations are obtained for comparison to the PSD significant impact levels.
9. Additional Analysis - The section addressing air quality impacts due to emissions associated with industrial, commercial, and residential growth indicated only permanent growth-related

emission sources were considered. Although temporary emissions sources associated with growth should also be addressed, it is believed that inclusion of temporary sources for this facility would not alter the conclusions presented.

Thank you for the opportunity to comment on the FPC-Intercession City facility preliminary determination and draft permit. If you have any questions regarding these comments, please direct them to either Katy Forney at (404) 562-9130 or Jim Little at (404) 562-9118.

Sincerely,



R. Douglas Neeley  
Chief

Air and Radiation Technology Branch  
Air, Pesticides and Toxics  
Management Division

cc: J. Keener, BAR  
SWD  
NPS



# INTEROFFICE MEMORANDUM

**Sensitivity:** COMPANY CONFIDENTIAL

**Date:** 22-Oct-1999 01:45pm  
**From:** Patricia Comer TAL  
COMER\_P  
**Dept:** Office General Counsel  
**Tel No:** 850/488-9730

**To:** Jeff Koerner TAL ( KOERNER\_J )

**Subject:** Re: OGC Case for Project No. 0970014-003-AC

We got a Request for Extension on October 5. Case assigned to Doug Beason.

# INTEROFFICE MEMORANDUM

**Sensitivity:** COMPANY CONFIDENTIAL

**Date:** 22-Oct-1999 01:41pm  
**From:** Patricia Comer TAL  
COMER\_P  
**Dept:** Office General Counsel  
**Tel No:** 850/488-9730

**To:** Jeff Koerner TAL ( KOERNER\_J )

**Subject:** Re: OGC Case for Project No. 0970014-003-AC

Heather Chapman would be able to help. She's the chief admin person over here in TT(1-9678)  
You can also ask Kathy Carter, your Agency Clerk, who logs in all legal cases...she's in Douglas (8-9736).  
Or, if you're really desperate, ask the permitting attorneys...that's Doug Beason for NE, SW and Cen.(8-9624) and Martha Nebelsiek for NW, SE and S (1-9633).  
But, today only because it's Friday and all, I'll give you a special deal and check this out myself....I'll get back to you as soon as I find out.

# INTEROFFICE MEMORANDUM

**Sensitivity:** COMPANY CONFIDENTIAL

**Date:** 22-Oct-1999 01:14pm

**From:** Jeff Koerner TAL  
KOERNER\_J

**Dept:** Air Resources Management

**Tel No:** 850/414-7268 GIC 069

**To:** Patricia Comer TAL ( COMER\_P )

**Subject:** OGC Case for Project No. 0970014-003-AC

Pat,

I'm working on a project for the FPC Intercession City site. I was trying to update ARMS for the date of publication, but couldn't. Apparently, OGC has locked the ARMS data. I guess there's a petition or a request for an extension in which to file a petition. How can I find out?

Thanks.

Jeff



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OCT 21 1999

October 19, 1999

BUREAU OF AIR REGULATION

Mr. Al Linero, P.E.  
Administrator, New Source Review Section  
Florida Department of Environmental Protection  
2600 Blair Stone Rd.  
Tallahassee, Florida 32399-2400

Dear Mr. Linero:

Re: FPC Intercession City Facility, Notice of Intent to Issue PSD Permit  
Draft Permit No. 097-0014-003-AC (PSD-FL-268)

Enclosed please find the notarized proof of publication received from the Osceola News-Gazette for the Florida Department of Environmental Protection *Notice of Intent to Issue PSD Permit* referenced to the above request. The notice was published on September 30, 1999.

If you should have any questions concerning this correspondence, please do not hesitate to contact me at (727) 826-4258.

Sincerely,

A handwritten signature in black ink, appearing to read "Scott H. Osbourn".

Scott H. Osbourn  
Senior Environmental Engineer

cc: Len Kozlov, DEP Central District (w/attach)

Attachment

EPA  
NPS  
J. Koerner, BAR

PROOF OF PUBLICATION

FROM

Osceola News-Gazette

Kissimmee, Florida
OSCEOLA COUNTY

In the Matter of

Public Notice
Of Intent To Issue
Air Construction
Permit

Filed . . . . day of . . . . 19 . . . .
First Publication . . . . September 30, 1999 . . . .
Last Publication . . . . September 30, 1999 . . . .

Make Remittance to Osceola News-Gazette
Kissimmee, Florida

PROOF OF PUBLICATION

STATE OF FLORIDA,
COUNTY OF OSCEOLA

Before me, the undersigned authority, personally
appeared Dan L. Autrey, who on oath says that he is
General Manager of the Osceola News-Gazette, a
twice weekly newspaper published at Kissimmee, in
Osceola County, Florida; that the attached copy of the
advertisement was published weekly in the regular
and entire edition of said newspaper in the issues of:

September 30, 1999

Affiant further says that the Osceola News-Gazette
is a newspaper published in Kissimmee, in said
Osceola County, Florida, and that the said newspaper
has heretofore been continuously published in said
Osceola County, Florida, each week and has been
entered as periodicals postage matter at the post
office in Kissimmee, in said Osceola County, Florida,
for a period of one year next preceding the first publi-
cation of the attached copy of advertisement; and affi-
ant further says that he has neither paid nor promised
any person, firm or corporation any discount, rebate,
commission or refund for the purpose of securing this
advertisement for publication in the said newspaper.

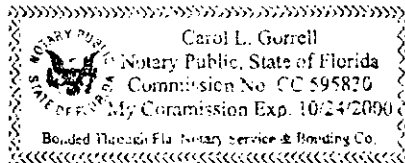
Signature of Dan L. Autrey

Sworn to and subscribed before me by Dan L. Autrey,
who is personally known to me, this 30 day of

September 1999

Signature of Carol L. Gorrell

Carol L. Gorrell
(N.P. Seal)



**PUBLIC NOTICE OF INTENT TO ISSUE  
AIR CONSTRUCTION PERMIT  
STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL PROTECTION**

Draft Permit No. 097-0014-003-AC (PSD-FL-268)

FPC Intercession City Plant  
Osceola County

Three New Peaking Simple-Cycle Combustion Turbines  
New Emissions Units 018, 019, and 020

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit to the Florida Power Corporation to increase peaking power at the existing FPC Intercession City Plant. This plant is located approximately 3.5 miles west of Intercession City at 6525 Osceola Polk County Line Road in Osceola County, Florida. The Draft Permit authorizes the installation of three simple cycle, dual-fuel, General Electric Model 7EA combustion turbines with electrical generator sets, each having an hourly capacity of 87 MW. A Best Available Control Technology (BACT) determination was required for carbon monoxide (CO), nitrogen oxides (NOx), particulate matter (PM/PM10), sulfuric acid mist (SAM), and sulfur dioxide (SO2) pursuant to Rule 62-212.400, F.A.C. and 40 CFR 52.21, Prevention of Significant Deterioration (PSD) of Air Quality. This project is not subject to review under Section 403.506 F.S. (Power Plant Siting Act), because it provides for no expansion in steam generating capacity. The applicant's authorized representative is Mr. W. Jeffrey Pardue, C.E.P., Director of Environmental Services for the Florida Power Corporation. The applicant's mailing address is P.O. Box 14042, MAC BB1A, St. Petersburg, FL 33733.

When firing natural gas, NOx emissions from each gas turbine will be controlled by dry low-NOx combustors capable of achieving emissions of 9 ppmvd corrected to 15% oxygen. When firing low sulfur distillate oil, NOx emissions will be controlled by water injection capable of achieving 42 ppmvd corrected to 15% oxygen. Base load carbon monoxide (CC) limits will be 20 ppmvd corrected to 15% oxygen for gas and oil firing. For the first 12 months of operation, the permit specifies a CO limit of 25 ppmvd corrected to 15% oxygen for gas firing; allow for tuning the gas turbines, dry-low NOx combustors and automated control system. Emissions of volatile organic compounds, sulfur dioxide, sulfuric acid mist, and particulate matter will be very low because of the inherently low emissions of the General Electric 7EA gas turbine, the use of pipeline-quality natural gas as the primary fuel, and limited usage of low sulfur distillate oil. Total turbine operating hours for the three combined units are limited to 10,170 hours per year. Of this total, no more than 3000 turbine hours per year may occur when firing low sulfur distillate oil. The permit contains further restrictions if only one or two units are installed.

The following table summarizes the potential project emissions in tons per year and shows the corresponding PSD Significant Emissions Rate.

<u>Pollutant</u>	<u>Project Potential Emissions (Tons Per Year)</u>	<u>Significant Emissions Rate (Tons Per Year)</u>	<u>Significant? (Table 212.400-2)</u>	<u>Subject To BACT?</u>
CO	260	100	Yes	Yes
NOx	365	40	Yes	Yes
PM/PM10	73	15	Yes	Yes
SAM	9	7	Yes	Yes
SO2	95	40	Yes	Yes
VOC	15	40	No	No

After the first 12 months, potential CO emissions will be reduced to 220 tons per year. An air quality impact analysis was conducted. The ambient impact analysis predicted all pollutant emissions to have an insignificant impact on Class I and Class II Areas. Emissions from the facility will not significantly contribute to or cause a violation of any state of federal ambient air quality standard. The Department will issue the Final Permit with the attached conditions unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments and request for public meetings concerning the proposed permit issuance action for a period of 30 (thirty) days from the date of publication of this Public Notice of Intent to Issue Air Construction Permit. Written comments and request for public meetings should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit and require, if applicable, another Public Notice.

The Department will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to sections 120.569 and 120.57 F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below.

Mediation is not available in this proceeding.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under sections 120.569 and 120.57 of the Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under section 120.60(3) of the Florida Statutes must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. Under section 120.60(3), however, any person who asked the Department for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under sections 120.569 and 120.57 F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205 of the Florida Administrative Code.

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by rule 28-106.301.

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

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

Department of Environmental Protection  
Bureau of Air Regulation  
111 S. Magnolia Drive, Suite 4  
Tallahassee, Florida, 32301  
Telephone: 850/488-0114  
Fax: 850/922-6979

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

The complete project file includes the application, technical evaluations, Draft Permit, and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact Al Linero, Administrator of the New Source Review Section, or the Department's reviewing engineer for this project, Jeff Koerner, at 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301, or call 850/488-0114, for additional information.



BUREAU OF AIR REGULATION  
OCT 18 1999  
RECEIVED

October 15, 1999

Mr. A. A. Linero, P.E.  
Administrator, New Source Review Section  
Florida Department of Environmental Protection  
111 South Magnolia Drive, Suite 4  
Tallahassee, Florida 32301

**Re: Florida Power Corporation's Intercession City Facility  
New Emissions Units 018, 019 and 020  
FDEP File No. 097-0014-003-AC (PSD-FL-268)**

Dear Mr. Linero:

The above referenced project was publicly noticed in the Osceola Times on September 30, 1999. The following provides the Department with Florida Power Corporation's (FPC) comments on the various portions of the "Intent to Issue PSD Permit" package, broken down by section.

#### **Technical Evaluation and Preliminary Determination**

Project Emissions – Section 3.2 (page TE-3) lists VOC emissions of 15 tons per year (TPY) and a footnote as follows:

"The initial application indicated that VOC emissions would be greater than 40 TPY, but that estimate was based on 'unburned hydrocarbon' emissions. GE data indicates regulated VOC emissions to be much less. The Draft Permit conditions regulate 'VOC' emissions."

FPC concurs that the application estimates were based on unburned hydrocarbons (UHCs), as UHCs were the basis provided in the GE spec sheets. UHC emissions are also referred to as total hydrocarbon compound (THC) emissions. VOC emissions are a subset of the UHCs (or THCs) that reflect the non-methane/ethane portion. Based on the UHC estimates provided by GE, FPC's application conservatively reflected VOC emissions of 7 ppmw and 9 lb/hr (at 59°F) for both gas and oil. Assuming operation at 3,390 hr/yr, total VOC emissions were estimated by FPC to be 15.3 TPY per CT, or 45.9 TPY total (just over the 40 TPY PSD significance level). The Department subsequently presents, in Table 5-A (page TE-5), proposed emission limits for VOCs and further states that the proposed "... standards for VOC are not BACT standards, but limits to ensure pollutant emissions remain below the



corresponding significant emissions rates. FPC is in agreement with the Department that VOC emissions are a subset of the UHC emissions and, therefore, should be lower than the UHC values originally proposed. However, the vendor will not guarantee either the UHC or VOC values. FPC requests that the VOC permit limits be revised to 7 lb/hr (at 59°F) for both gas and oil. This lower value is a compromise that acknowledges that VOCs may be lower than the values reported by GE for UHCs. Further, at a rate of 7 lb/hr, the project VOC emissions would still be below the 40 TPY significant threshold level and exempt from BACT review (35.6 TPY).

### **Draft Permit**

Permitted Capacity - Specific Condition (SC) 3 (page 5 of 14). In accordance with the Department's position on recently issued Title V permits, FPC requests that a permitting note be placed at the end of SC 3 to clarify that the heat input values are only included for purposes of determining capacity during testing, and that regular record keeping is not required. Also, the third sentence of SC 3 should read as follows: "an inlet air temperature of supply cooled to 59°F...".

Hours of Operation - SC 6 (page 6 of 14). FPC requests that the appropriate hour limitations for the units be revisited for the following reasons: 1) FPC had requested 3,390 hr/yr/CT for consistency with past permit requests, but has become aware that other applicants are requesting and receiving operating hour limits in excess of 4,000 hr/yr; 2) FPC conducted all ambient impact modelling, conservatively based on the use of fuel oil at 8,760 hours per year of operation, showing no adverse impacts; and 3) the Department's own BACT analysis was conducted at unlimited operation, assuming 5,760 hr/yr/CT on gas and 3,000 hr/yr/CT on oil. As all of the required analyses conducted by the Department were based on these operating hour assumptions, FPC requests that these hour values (i.e., 5,760 hr/yr/CT, no more than 3,000 hr/yr/CT on oil) be incorporated as limits for each of the CTs.

Also, the permit language in SC 6 states that operation below 50% of base load shall be limited to two hours per unit cycle (breaker open to breaker closed). If the Department is concerned about excess emissions during this period, FPC notes that the Excess Emissions section of the permit (SC 21, page 9 of 14) limits excess emissions due to start-ups, shutdowns and malfunctions to no more than two hours in any 24-hour period. Since combustion turbine peaking units typically operate at close to full load, the units would only be at less than 50% of full load due to initiation of a start-up or shutdown sequence. Therefore, FPC requests that the referenced language in SC 6 be deleted.

Emissions Controls - SC 11 and SC 12 (page 7 of 14). FPC requests that the Department add the phrase "Consistent with best operation and maintenance practices..." to the beginning of each of these conditions. The permit language also requires that "the permittee provide manufacturer's emissions performance versus load diagrams' for the specific system". FPC is reluctant to agree to this language because GE has indicated that they do not typically provide such diagrams. In any event, FPC provided spec sheets in our initial application with emissions data and other stack parameters at different load points. This data was used as the basis for the worst-case ambient impact modelling. The information in these previously submitted spec sheets should be sufficient for the Department's needs and, therefore, FPC requests that the permit language referring to submittal of these diagrams be deleted.

FPC strenuously objects to the language requiring the development of a NO<sub>x</sub> reduction plan (and an associated lowering of the NO<sub>x</sub> emission limit), if a unit operates for more hours on oil than gas. The maximum allowable hours of oil and gas firing are appropriately dealt with in this permit proceeding (i.e., the BACT process that determines the best available control technology, as well as the appropriate emission limit, and the ambient impact analysis that reflects all of these assumptions). To require a permittee to revisit these issues simply because more operation on oil than gas occurred in a 12-month period (even though the permittee has operated well below all other applicable limits), is unreasonable. FPC requests that this language be removed.

Emissions Standards - SC 15 (page 8 of 14). FPC requests that this section provide emission limits for VOC, CO and NO<sub>x</sub> in terms of "pounds per hour" only, referring to the relevant concentration value (ppm) as the basis for these limits. The VOC basis should be expressed as ppm<sub>vw</sub> and the CO basis should be expressed as ppm<sub>vd</sub>. The CO limits on gas (both ppm<sub>vd</sub> and lb/hr) are lower than the vendor guarantee and, although there is risk involved in agreeing to an emission limit that is lower than the corresponding vendor guarantee, FPC will agree to accept the phased approach proposed in the permit (i.e., 54 lb/hr, based on 25 ppm<sub>vd</sub>, initially and 43 lb/hr, based on 20 ppm<sub>vd</sub>, after 12 months). However, FPC requests that the permit language be revised to have the 12-month period commence after initial compliance testing, not first fire in the unit.

Similarly, FPC requests that the language in SC 16 and SC 17 refer to the lb/hr format as the emission limit. Further, instead of referring to 3-hour test averages for CO and NO<sub>x</sub> compliance, FPC requests that these conditions simply refer to SC 27, which details the appropriate EPA reference test methods. The requested text is provided below.

#### 16. Carbon Monoxide (CO)

**Gas Firing:** During the first 12 months after initial-startup compliance demonstration, CO emissions shall not exceed 54.0 lb/hr (at 59°F) ~~nor based on 25 ppm<sub>vd</sub> corrected to 15% oxygen based on a 3-hour test average~~ the procedures provided in Condition 27 when firing natural gas in a combustion turbine. Thereafter, CO emissions shall not exceed 43.0 lb/hr (at 59°F) ~~nor based on 20.0 ppm<sub>vd</sub> corrected to 15% oxygen based on a 3-hour test average~~ the procedures provided in Condition 27 when firing natural gas in a combustion turbine.

**Oil Firing:** When firing low sulfur distillate oil in a combustion turbine, CO emissions shall not exceed 44.0 lb/hr (at 59°F) ~~nor based on 20 ppm<sub>vd</sub> corrected to 15% oxygen based on a 3-hour test average~~ the procedures provided in Condition 27.

#### 17. Nitrogen Oxides (NO<sub>x</sub>)

**Gas Firing:** When firing natural gas in a combustion turbine, NO<sub>x</sub> emissions shall not exceed 32.0 lb/hr (at 59°F) ~~nor based on 9 ppm<sub>vd</sub> corrected to 15% oxygen based on a 3-hour test average~~ the procedures provided in Condition 27. In addition, NO<sub>x</sub>

emissions shall not exceed 32.0 lb/hr (at 59°F) ~~9 ppmvd corrected to 15% oxygen~~ based on a 24-hour block average for data collected from the continuous emissions monitor.

**Oil Firing:** When firing low sulfur distillate oil in a combustion turbine, NO<sub>x</sub> emissions shall not exceed 167.0 lb/hr (at 59°F) ~~nor based on 42 ppmvd corrected to 15% oxygen based on a 3-hour test average the procedures provided in Condition 27.~~ In addition, NO<sub>x</sub> emissions shall not exceed 167.0 lb/hr (at 59°F) ~~9 ppmvd corrected to 15% oxygen~~ based on a ~~3-hour~~ 24-hour block average for data collected from the continuous emissions monitor.

Similarly, FPC requests that the language in SC 19, the limits for VOCs, incorporate the same revisions as discussed above.

**Excess Emissions-** SC 21 provides the standard language that "...excess emissions during startup, shutdown and malfunction not exceed 2 hours in any 24-hour period", however, the phrase "unless specifically authorized by the DEP for longer duration" needs to be added to the text. Also, this condition includes the following language: "Excess emissions resulting from startup to simple cycle mode shall not exceed one hour." FPC requests that this language be removed, as it is unnecessarily restrictive and has not been observed in other recently issued permits.

**Emissions Performance Testing-** In the text of SC 22, when referring to the combustion turbine testing capacity, the phrase heat input vs. ambient temperature is used. In cases where inlet cooling is utilized, it's more technically correct to use the phrase heat input vs. inlet temperature. In the discussion on performance test methods (SC 27), EPA Methods 7E and 20 refer to an "annual 3-hour NO<sub>x</sub> limit". FPC requests that this language be removed, as it is confusing and serves no purpose. Regarding the annual performance testing requirements listed in SC 30, FPC does not believe that it's necessary to conduct annual VE tests while firing natural gas fuel. Also, annual testing for CO, NO<sub>x</sub> and VEs should only be required for oil firing if oil is fired for more than 400 hours per CT in a federal fiscal year. Finally, the condition provides that an annual test for VOCs is not required as long as the unit remains in compliance with the CO and visible emissions limits specified in the permit. FPC believes that CO emissions are a good surrogate for the VOC compliance status and the Department has traditionally used the VOC/CO representation in permit language. However, the inclusion of VE as an additional surrogate for VOC compliance is new language and unnecessary. FPC requests that the language relating visible emissions compliance to VOC compliance be removed.

**Continuous Monitoring Requirements-** The requirement in SC 35 (page 12 of 14) to substitute missing data per Title IV (40 CFR 75) is overly punitive when applied to averaging periods shorter than what is contained in Title IV (calendar year annual average). Missing data periods, as well as startup/shutdown (less than fifty percent load) and malfunction periods, should be excluded from the calculation of short-term averages. Further, the NO<sub>x</sub> limits in this condition should be stated in terms of "pounds per hour" only, using the concentration in ppm as the basis. The averaging period while firing fuel oil should be changed from "3 hr average" to "24 hour block average" similar to the requirement for gas firing. The averaging times

requested by FPC should be pollutant-specific, not fuel-specific. FPC does not understand the rationale for requiring a shorter averaging time for a NOx standard on oil vs. a NOx standard based on gas-firing.

Compliance Demonstrations- SC 39 refers to the requirement for a monthly operations summary. This summary is described as a written log, updated each month, to include hours of firing on each fuel, the quantity of fuel fired, the average heat input of each fuel fired, the average sulfur content, etc. FPC intends to record and maintain all records and data onsite that are necessary for compliance with this permit. The requirement for a separate written monthly summary is unnecessary and FPC requests that SC 39 be deleted.

**Appendix BD**

The BACT determination should be modified to reflect the changes referenced above, such as stating the proposed limits in terms of "pounds per hour", inclusion of appropriate averaging times and references to EPA reference test methods.

FPC appreciates the opportunity to provide these comments and, at your convenience, would like to arrange for a meeting to discuss these issues. In the meantime, if you have any questions, please feel free to contact me at (727) 826-4258.

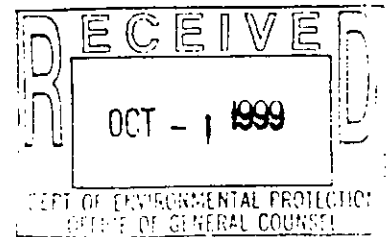
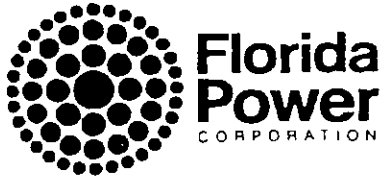
Sincerely,



Scott H. Osbourn  
Senior Environmental Engineer

cc: Jeff Koerner, DEP BAR  
Robert Manning, HGS&S

cc: L. Kozlov, Central District  
EPA  
NPS



September 30, 1999

Ms. Kathy Carter, Clerk  
Office of General Counsel  
Florida Department of Environmental Protection  
Room 638  
3900 Commonwealth Blvd.  
Tallahassee, FL 32399-3000

Dear Ms. Carter:

RE: Florida Power Corporation, Intercession City Facility  
REQUEST FOR EXTENSION OF TIME on the *Intent to Issue Air Construction Permit*  
Draft Permit No. 097-0014-003-AC (PSD-FL-268)

On September 20, 1999, Florida Power Corporation (FPC) received the above-referenced *Intent to Issue Air Construction Permit*. A review of the permit conditions has revealed that several issues remain to be resolved. Accordingly, FPC requests an extension of time, pursuant to Florida Administrative Code Rule 62-110.106(4), to and including November 30, 1999, in which to file a Petition for Administrative Proceedings in the above-styled matter. Granting of this request will not prejudice either party, but will further both parties' mutual interest by hopefully avoiding the need to actually file a Petition for Administrative Proceeding in this matter. If the Department denies this request, FPC requests the opportunity to file a Petition for Administrative Proceeding within 10 days of such denial.

If you should have any questions, please contact Mr. Scott Osbourn of FPC at (727) 826-4258.

Sincerely,

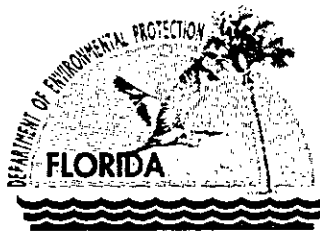
A handwritten signature in black ink, appearing to read "W. Jeffrey Pardue".

W. Jeffrey Pardue, C.E.P.  
Director, Environmental Services Department  
Title V Responsible Official

A handwritten signature in black ink, appearing to read "Robert A. Manning".

Robert A. Manning, Esq.  
Hopping Green Sams & Smith

cc: Scott Sheplak, DEP  
Jeffrey Brown, DEP OGC



# Department of Environmental Protection

Jeb Bush  
Governor

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

David B. Struhs  
Secretary

September 15, 1999

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. R. Douglas Neeley, Chief  
Air, Radiation Technology Branch  
US EPA Region IV  
61 Forsyth Street  
Atlanta, GA 30303

Re: PSD Review and Custom Fuel Monitoring Schedule  
FPC Intercession City Plant  
Air Permit No. PSD-FL-268

Dear Mr. Neeley:

Enclosed is a copy of the Department's draft permit to construct three 87 MW simple cycle, peaking combustion turbines for the FPC Intercession City Plant in Osceola County, Florida. The Department's Intent to Issue package was already mailed to Mr. Gregg Worley of Region 4. This project authorizes the installation of three simple cycle, dual-fuel, General Electric Model 7EA combustion turbines with electrical generator sets, each having a maximum hourly capacity of 87 MW. The new units will use the existing infrastructure including oil storage and support equipment. Total turbine operating hours for the three combined units are limited to 10,170 hours per year. Of this total, no more than 3000 turbine hours per year may occur when firing low sulfur distillate oil. The permit contains further restrictions if only one or two units are installed.

When firing natural gas, NOx emissions from each gas turbine will be controlled by dry low-NOx combustors capable of achieving emissions of 9 ppmvd corrected to 15% oxygen. When firing low sulfur distillate oil, NOx emissions will be controlled by water injection capable of achieving 42 ppmvd corrected to 15% oxygen. Base load carbon monoxide (CO) limits will be 20 ppmvd corrected to 15% oxygen for gas and oil firing. For the first 12 months of operation, the permit specifies a CO limit of 25 ppmvd corrected to 15% oxygen for gas firing to allow for tuning the combustion turbines, dry-low NOx combustors and automated control system. Emissions of volatile organic compounds, sulfur dioxide, sulfuric acid mist, and particulate matter will be very low because of the inherently low emissions of the General Electric 7EA gas turbine, the use of pipeline-quality natural gas as the primary fuel, and limited usage of low sulfur distillate oil.

Please send your written comments on or approval of the applicant's proposed custom fuel monitoring schedule. The plan is based on the letter dated January 16, 1996 from Region V to Dayton Power and Light. The Subpart GG limit on SO<sub>2</sub> emissions is 150 ppmvd @ 15% oxygen or a fuel sulfur limit of 0.8% sulfur by weight. Neither of these limits could conceivably be violated by the use of pipeline quality natural gas, which has a maximum SO<sub>2</sub> emission rate of 0.0006 lb/mmBTU (40 CFR 75 Appendix D Section 2.3.1.4). The sulfur content of pipeline quality natural gas in Florida has been estimated at a maximum of 0.003 % sulfur. Fuel oil will with a 0.05% sulfur content will be used. The requirements have been incorporated into the enclosed draft permit and read as follows:

*"Protect, Conserve and Manage Florida's Environment and Natural Resources"*

37. Fuel Records

- (a) Natural Gas: The permittee shall demonstrate compliance with the fuel sulfur limit for natural gas specified in this permit by maintaining records of the sulfur content of the natural gas being supplied for each month of operation. Methods for determining the sulfur content of the natural gas shall be ASTM methods D4084-82, D3246-81 or equivalent methods. These methods shall be used to determine the sulfur content of the natural gas fired in accordance with any EPA-approved custom fuel monitoring schedule (see Alternate Monitoring Plan) or natural gas supplier data or the natural gas sulfur content referenced in 40 CFR 75 Appendix D. The analysis may be performed by the owner or operator, a service contractor retained by the owner or operator, the fuel vendor, or any other qualified agency pursuant to 40 CFR 60.335(e). However, the permittee is responsible for ensuring that the procedures in 40 CFR 60.335 or 40 CFR 75 are used to determine the fuel sulfur content for compliance with the 40 CFR 60.333 SO<sub>2</sub> standard.
- (b) Low Sulfur Distillate Oil: For all bulk shipments of low sulfur distillate oil received at this facility, the permittee shall obtain from the fuel vendor an analysis identifying the sulfur content. Methods for determining the sulfur content of the distillate oil shall be ASTM D129-91, D2622-94, or D4294-90 or equivalent methods. Records shall specify the test method used and shall comply with the requirements of 40 CFR 60.335(d).

[Rules 62-4.070(3) and 62-4.160(15), F.A.C.]

38. Alternate Monitoring Plan: Subject to EPA approval, the following alternate monitoring may be used to demonstrate compliance.

- (a) The NO<sub>x</sub> CEM data may be used in lieu of the monitoring system for water-to-fuel ratio and the reporting of excess emissions in accordance with 40 CFR 60.334(c)(1), Subpart GG. Subject to EPA approval, the calibration of the water-to-fuel ratio-monitoring device required in 40 CFR 60.335(c)(2) will be replaced by the 40 CFR 75 certification tests of the NO<sub>x</sub> CEMS.
- (b) The NO<sub>x</sub> CEM data shall be used in lieu of the requirement for reporting excess emissions in accordance with 40 CFR 60.334(c)(1), Subpart GG.
- (c) When requested by the Department, the CEMS emission rates for NO<sub>x</sub> on this unit shall be corrected to ISO conditions to demonstrate compliance with the NO<sub>x</sub> standard established in 40 CFR 60.332.
- (d) A *custom fuel monitoring schedule* pursuant to 40 CFR 75 Appendix D for natural gas may be used in lieu of the daily sampling requirements of 40 CFR 60.334 (b)(2) provided the following conditions are met.
  - (1) The permittee shall apply for an Acid Rain permit within the deadlines specified in 40 CFR 72.30.
  - (2) The permittee shall submit a monitoring plan, certified by signature of the Authorized Representative, that commits to using a primary fuel of pipeline supplied natural gas containing no more than 2 grains of sulfur per 100 SCF of gas pursuant to 40 CFR 75.11(d)(2);

- (3) Each unit shall be monitored for SO<sub>2</sub> emissions using methods consistent with the requirements of 40 CFR 75 and certified by the USEPA.

This custom fuel-monitoring schedule will only be valid when pipeline natural gas is used as a primary fuel. If the primary fuel for these units is changed to a higher sulfur fuel, SO<sub>2</sub> emissions must be accounted for as required pursuant to 40 CFR 75.11(d).

[40 CFR 60, Subpart GG, Applicant Request]

Also, please comment on these conditions with respect to the use of the acid rain NO<sub>x</sub> CEMS for demonstrating compliance as well as reporting excess emissions. Typically NO<sub>x</sub> emissions will be less than 9 ppmvd @15% oxygen for gas firing which is less than one-tenth of the applicable Subpart GG limit based on the efficiency of the unit. A CEMS requirement is stricter and more accurate than any Subpart GG requirement for determining excess emissions.

The Department recommends your approval of the custom fuel monitoring schedules and these NO<sub>x</sub> monitoring provisions. We also request your comments on the Intent to Issue. If you have any questions on these matters please contact Jeff Koerner at 850/414-7268.

Sincerely,



A. A. Linero, P.E., Administrator  
New Source Review Section

AAL/jfk

Enclosures



Z 333 618 141

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PSO-FI-268 0970014-003-AC	

PS Form 3800, April 1995

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<b>SENDER:</b> ■ Complete items 1 and/or 2 for additional services. ■ Complete items 3, 4a, and 4b. ■ Print your name and address on the reverse of this form so that we can return this card to you ■ Attach this form to the front of the mailpiece, or on the back if space does not permit ■ Write "Return Receipt Requested" on the mailpiece below the article number. ■ The Return Receipt will show to whom the article was delivered and the date delivered.		I also wish to receive the following services (for an extra fee): 1. <input type="checkbox"/> Addressee's Address 2. <input type="checkbox"/> Restricted Delivery Consult postmaster for fee.
3. Article Addressed to:  Mr. Doug Neeley, Section Chief Air, Radiation Technology Branch Preconstruction/HAP Section U.S. EPA - Region IV 61 Forsyth Street Atlanta, GA 30303	4a. Article Number 2.333 618 141 4b. Service Type <input type="checkbox"/> Registered <input checked="" type="checkbox"/> Certified <input type="checkbox"/> Express Mail <input type="checkbox"/> Insured <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> COD 7. Date of Delivery	
5. Received By: (Print Name) <b>JOYCE EVANS</b> 6. Signature: (Addressee or Agent) <b>X SEP 17 1999</b>	8. Addressee's Address (Only if requested and fee is paid)	

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