

Department of Environmental Protection

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

Colleen M. Castille Secretary

November 9, 2004

Mr. Martin Drango Responsible Official Progress Energy Florida, Inc. P.O. Box 14042 MAC: DB44 St. Petersburg, Florida 33733

Re:

PROPOSED Title V Permit No. 1270020-002-AV

Turner Power Plant

Dear Mr. Drango:

One copy of the PROPOSED Title V Air Operation Permit Renewal for the Turner Power Plant located at 201 Debary Avenue, Deltona, Volusia County, is enclosed. This letter is only a courtesy to inform you that the DRAFT permit renewal has become a PROPOSED permit renewal.

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

http://www.dep.state.fl.us/air/permitting.htm

Pursuant to Section 403.0872(6), Florida Statutes, if no objection to the PROPOSED permit renewal is made by the USEPA within 45 days, the PROPOSED permit renewal will become a FINAL permit renewal no later than 55 days after the date on which the PROPOSED permit renewal was mailed (posted) to USEPA. If USEPA has an objection to the PROPOSED permit renewal, the FINAL permit renewal will not be issued until the permitting authority receives written notice that the objection is resolved or withdrawn. If you have any questions, please contact Syed Arif at 850/921-9528.

Sincerely,

Trina L. Vielhauer, Chief Bureau of Air Regulation

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Enclosures

Copy furnished to: Mr. Len Kozlov, DEP-CD USEPA, Region 4 (INTERNET E-mail Memorandum)

"More Protection, Less Process"

Printed on recycled paper.

PROPOSED Permit Renewal Determination Progress Energy Florida, Inc. Turner Power Plant Title V Permit Renewal No. 1270020-002-AV

I. Public Notice.

An "INTENT TO ISSUE TITLE V AIR OPERATION PERMIT RENEWAL" to the Progress Energy Florida, Inc. for the Turner Power Plant, located at 201 Debary Avenue, Deltona, Florida, Volusia County, was clerked on August 5, 2004. The "PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT RENEWAL" was published in the Orlando Sentinel on Sunday August 15, 2004. The DRAFT Title V Air Operation Permit Renewal was available for public inspection at the Department's Central District office in Orlando and the permitting authority's office in Tallahassee. Proof of publication of the "PUBLIC NOTICE OF INTENT TO ISSUE TITLE V AIR OPERATION PERMIT RENEWAL" was received via facsimile on August 20, 2004.

II. Public Comment(s).

No comments were received from the citizens, environmental groups, municipalities or other agencies.

III. Applicant's Comments

An extension of time to file a petition for an administrative proceeding was filed by the applicant on August 23, 2004. The Department granted the extension of time until September 30, 2004. A second request for extension of time to file a petition for an administrative proceeding was filed by the applicant on September 29, 2004. The Department granted the extension of time until October 15, 2004. A third request for extension of time was filed by the applicant on October 15, 2004. The Department denied the extension of time in an order dated October 25, 2004 and gave the applicant until Nov. 1, 2004 to file a petition.

Comments were received from the applicant by a letter received on October 11, 2004. The comments primarily dealt with permitted capacity information as well as the permitting note regarding the heaf input limitations. The comments in general were considered not significant enough to require the issuance of a revised DRAFT permit. The applicant's comments and the Department's responses are as follows:

Section II, Condition 4.b

This does not appear to be related to Section 112(r) we are not clear why it is in the section.

Department's Response

Section II Condition 4.b is tied to Condition 4.a. The Department is requiring the facility in case of an accidental release to submit to the permitting authority Title V certification forms or a compliance schedule in accordance with Rule 62-213.440(2), F.A.C. The Department will include this rule in the reference at the end of the condition. Accordingly, the condition will be changed as follows:

PROPOSED Permit Renewal Determination Progress Energy Florida, Inc. Turner Power Plant Title V Permit Renewal No. 1270020-002-AV

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

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

and,

b. The permittee shall submit to the permitting authority Title V certification forms or a compliance schedule in accordance with Rule 62-213.440(2), F.A.C. [40 CFR 68 and Rule 62-213.440(2), F.A.C.]

Section III, Condition A.1

The applicant requested that the capacity information language and the permitting note language regarding the heat input during compliance testing be moved to Condition A.13. The applicant submitted a more descriptive version of the permitting note that they would prefer to be used.

{Permitting note: The heat input limitations have been placed in each permit to identify the capacity of each unit for the purpose of confirming that emissions testing is conducted within 90 to 100 percent of the 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 unit was tested. Rule 62-297.310(5), F.A.C., included in the permit, requires measurement of the process variables for emission 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.}

Department's Response

The Department will not move the capacity information language and the permitting note language regarding heat input during compliance testing to Condition A.13. The heat input limitations in Condition A.1 were a part of the State Operating Permits issued to the facility. Consequently, the permitting note in Condition A.1 will not be changed or removed. However, the Department will include the proposed permitting note language by the applicant in the Statement of Basis. The Department recognizes that this language was a part of the FPL agreement letter with the Department, and will therefore include it in the Statement of Basis.

PROPOSED Permit Renewal Determination Progress Energy Florida, Inc. Turner Power Plant Title V Permit Renewal No. 1270020-002-AV

Section III, Condition A.13

A.13. Operating Rate During Testing

Testing of emissions shall be conducted with the emissions unit operating at capacity. Capacity is defined as 90 - 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 permitted 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, provided however, operations do not exceed 100 percent of the maximum operation rate allowed by this permit. Data, curves, and calculations necessary to demonstrate the heat input rate correction at both design and test conditions shall be submitted to the Department's local office with the compliance test report.

[Rules 62-297.310(2) & (2)(a), F.A.C.; and, requested by the applicant on September 25, 1997]

The applicant would like to strike the wording as indicated above because there is no regulatory basis for the wording.

Department's Response

The Department will change the condition to read exactly what Rule 62-297.310(2) reads. The applicant has concurred with this approach. Accordingly, Condition A.13 will be changed as follows:

A.13. Operating Rate During Testing

Unless otherwise stated in the applicable emission limiting standard rule, 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 the maximum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test rate until a new test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. Permitted capacity is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. [Rules 62-297.310(2), F.A.C.; and, requested by the applicant on November 8, 2004]

IV. Conclusion.

The permitting authority hereby issues PROPOSED Permit Renewal No. **1270020-002- AV**, with the changes noted above.

STATEMENT OF BASIS

Progress Energy Florida, Inc.
Turner Power Plant
Facility ID No.: 1270020
Volusia County

Title V Air Operation Permit Renewal **PROPOSED Permit No.:** 1270020-002-AV

This Title V air operation permit renewal is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, 62-213, and 62-214. The above named permittee is hereby authorized to perform the work or operate the facility 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 four simple cycle combustion turbine peaking units (CTP), all of which are pre-NSPS sources. Each CT exhausts through a separate stack. Emissions from the CT are uncontrolled. Because these emission units have no add-on control devices, they are not subject to CAM. Also included in this permit are miscellaneous unregulated/insignificant emissions units and/or activities.

The Initial Title V permit contained three (3) existing steam generating emissions units, which were SG 2, SG 3, and SG 4. On January 1, 1998, they were permanently retired. All references made to these emissions units have been deleted from the text and tables. However, they are still referenced in the Acid Rain Part, which is Section IV of the permit.

The combustion turbine peaking units (CTP) may only fire new No. 2 fuel oil having a maximum sulfur content of 0.5 percent, by weight. CTP 1 and CTP 2 each have a maximum heat input of 286 MMBtu/hour at 59° F and each power a generator rated at 18.0 MW (megawatts of electricity); and, the maximum heat input was changed from 278 to 286 due to the heat input curve. CTP 3 and CTP 4 each have a maximum heat input of 930 MMBtu/hour at 59° F and each power a generator rated at 82.0 MW. The heat input limitations have been placed in each permit to identify the capacity of each unit for the purpose of confirming that emissions testing is conducted within 90 to 100 percent of the 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 unit was tested. Rule 62-297.310(5), F.A.C., included in the permit, requires measurement of the process variables for emission 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.

Emissions are not controlled and each turbine exhausts through a separate stack. These emissions units are pre-NSPS and not subject to the Acid Rain Program. CTP 1 and CTP 2 began commercial service on October 9, 1970. CTP 3 and CTP 4 began commercial service on June 14, 1974. The emissions units are regulated under Rule 62-210.300, F.A.C., Permits Required and 62-213, F.A.C., Operation Permits for Major Sources of Air Pollution.

The Department has determined that the appropriate visible emissions (VE) testing frequency for the four combustion turbines is a VE test upon exceeding 400 hours of operation on fuel oil in any given federal fiscal year (October 1 through September 30). This frequency is justified by the low historical operational use of fuel oil for these units and the previous VE tests which documented compliance while firing fuel oil.

This permit renewal includes some changes to the Initial Title V permit as described below.

- The applicant requested the following changes to Specific Conditions A.1 and A.13:
- A.1. <u>Permitted Capacity</u>. CTP 1 and CTP 2 each have a maximum heat input of 286 MMBtu/hour at 59° F and each power a generator rated at 18.0 MW (megawatts of electricity). CTP 3 and CTP 4 each have a maximum heat input of 930 MMBtu/hour at 59° F and each power a generator rated at 82.0 MW. At other ambient temperatures, the units shall be

STATEMENT OF BASIS cont.

Progress Energy Florida, Inc.: Turner Power Plant

Title V Air Operation Permit Renewal

Facility ID No.: 1270020

PROPOSED Permit No.: 1270020-002-AV

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operated in accordance with established performance curves, which will be made available at the site during compliance testing.

{Permitting note: The heat input limitations have been placed in the permit to identify the capacity of each emissions unit for purposes of confirming that emissions testing is conducted within 9095-100 percent of the emissions unit's rated capacity (or to limit future operation to 110105 percent of the test load), to establish appropriate limits and to aid in determining future rule applicability.}

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; and, AO 64-176745A]

A.13. Operating Rate During Testing

Testing of emissions shall be conducted with the emissions unit operating at capacity. Capacity is defined as 9095 - 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 permitted 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 110105 percent of the value reached during the test, provided however, operations do not exceed 100 percent of the maximum operation rate allowed by this permit. Data, curves, and calculations necessary to demonstrate the heat input rate correction at both design and test conditions shall be submitted to the Department's local office with the compliance test report.

[Rules 62-297.310(2) & (2)(a), F.A.C.; and, requested by the applicant on September 25, 1997]

Comment: The change for Specific Condition A.1 is acceptable to the Department as most of the recent permits issued for Combustion Turbines require emission testing within 90-100 percent of the emissions unit's rated capacity. Additionally, the State Operating Permit under which this facility was operating indicates emission testing within 90-100 percent of the emissions unit's rated capacity. For Specific Condition A.13, the Department will not delete the requirement that operations do not exceed 100 percent of the maximum operation rate allowed by this permit. Therefore, Specific Condition A.13 shall read as follows:

A.13. Operating Rate During Testing

Testing of emissions shall be conducted with the emissions unit operating at capacity. Capacity is defined as 9095 - 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 permitted 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 110105 percent of the value reached during the test, provided however, operations do not exceed 100 percent of the maximum operation rate allowed by this permit. Data, curves, and calculations necessary to demonstrate the heat input rate correction at both design and test conditions shall be submitted to the Department's local office with the compliance test report.

[Rules 62-297.310(2) & (2)(a), F.A.C.; and, requested by the applicant on September 25, 1997]

- The applicant requested the following change to Specific Condition A.12:
- A.12. The fuel sulfur content, percent by weight, provided by the vendor or permittee for each delivery of liquid fuels shall be evaluated using either ASTM D2622-94, ASTM D4294-90, both ASTM D4057-88 and ASTM D129-91, or the latest edition, or ASTM D1552-90, or an equivalent method.

Comment: The change is acceptable to the Department with the following caveat that the equivalent method should be approved by the Department prior to its use. Therefore, the language should read as follows:

STATEMENT OF BASIS cont.

Progress Energy Florida, Inc.: Turner Power Plant

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Title V Air Operation Permit Renewal

Facility ID No.: 1270020

PROPOSED Permit No.: 1270020-002-AV

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A.12. The fuel sulfur content, percent by weight, provided by the vendor or permittee for each delivery of liquid fuels shall be evaluated using either ASTM D2622-94, ASTM D4294-90, both ASTM D4057-88 and ASTM D129-91, or the latest edition, or ASTM D1552-90, or an equivalent method after Department approval.

Also included in the permit (appendices) are unregulated and insignificant emissions units and/or activities.

Based on the Title V permit renewal application received May 21, 2004, this facility is not a major source of hazardous air pollutants (HAPs).

Progress Energy Florida, Inc. Turner Power Plant Facility ID No.: 1270020 Volusia County

Title V Air Operation Permit Renewal **PROPOSED Permit No.:** 1270020-002-AV

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

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

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Telephone: 850/488-0114 Fax: 850/922-6979

Compliance Authority:
Department of Environmental Protection
Central District
3319 Maguire Boulevard, Suite 232
Orlando, Florida 32803-3767

Telephone: 407/894-7555 Fax: 407/897-2966

Title V Air Operation Permit Renewal Progress Energy Florida, Inc. - Turner Power Plant PROPOSED Permit No.: 1270020-002-AV

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Permittee:

Progress Energy Florida, Inc. P.O. Box 14042 St. Petersburg, Florida 33733 PROPOSED Permit No.: 1270020-002-AV

Facility ID No.: 1270020 SIC Nos.: 49, 4911

Project: Title V Air Operation Permit Renewal

This permit renewal is for the operation of the Turner Power Plant. This facility is located at 201 Debary Avenue, Deltona, Volusia County; UTM Coordinates: Zone 17, 473.4 km East and 3193.3 km North; Latitude: 28° 51' 08" North and Longitude: 81° 16' 22" West.

This Title V air operation permit renewal is issued under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, 62-213, and 62-214. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved 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:

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Appendix U-1, List of Unregulated Emissions Units and/or Activities. Appendix I-1, List of Insignificant Emissions Units and/or Activities. APPENDIX TV-4, TITLE V CONDITIONS (version dated 2/12/02). OGC Order TFR-92-A-01 dated March 11, 1993. Phase II Acid Rain Application/Compliance Plan received May 21, 2004.

Effective Date: January 1, 2005

Renewal Application Due Date: July 5, 2009

Expiration Date: December 31, 2009

Michael G. Cooke, Director Division of Air Resource Management

MGC/sa

Section I. Facility Information.

Subsection A. Facility Description.

This facility consists of four simple cycle combustion turbine peaking units (CTP), all of which are pre-NSPS emissions units. The three steam generators, Nos. SG 2, SG3 and SG4, were permanently retired on January 1, 1998. Each CT exhausts through a separate stack. Also included in this permit are miscellaneous unregulated/insignificant emissions units and/or activities.

Based on the Title V permit renewal application received on May 21, 2004, this facility is not a major source of hazardous air pollutants (HAPs).

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

| E.U. ID Nos. | |
|--------------|---|
| | Brief Description |
| -002 | Fossil Fuel Fired Steam Generator No. SG 2 (Permanently Retired 1/1/98) |
| -003004 | Fossil Fuel Fired Steam Generator No. SG 3 (Permanently Retired 1/1/98) |
| -005006 | Fossil Fuel Fired Steam Generator No. SG 4 (Permanently Retired 1/1/98) |
| -011 | Combustion Turbine Peaking Unit (Pre-NSPS) No. CTP 1 |
| -012 | Combustion Turbine Peaking Unit (Pre-NSPS) No. CTP 2 |
| -009 | Combustion Turbine Peaking Unit (Pre-NSPS) No. CTP 3 |
| -010 | Combustion Turbine Peaking Unit (Pre-NSPS) No. CTP 4 |

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

Statement of Basis

These documents are on file with the permitting authority:

Initial Title V Permit Application received June 14, 1996.

FINAL Title V Permit issued with effective date of January 1, 2000

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

PROPOSED Permit No.: 1270020-002-AV Facility ID No.: 1270020

Section II. Facility-wide Conditions.

The following conditions apply facility-wide:

1. APPENDIX TV-4, TITLE V CONDITIONS, is a part of this permit.

{Permitting note: APPENDIX TV-4, TITLE V CONDITIONS, is distributed to the permittee only. Other persons requesting copies of these conditions shall be provided a copy when requested or otherwise appropriate.}

2. Not federally enforceable. General Pollutant Emission Limiting Standards. Objectionable Odor Prohibited. No person shall 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. 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, incorporated and adopted by reference in Chapter 62-297, F.A.C., 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 CAA).
- **a.** The permittee shall submit its Risk Management Plan (RMP) to the Chemical Emergency Preparedness and Prevention Office (CEPPO) RMP Reporting Center when, and if, such requirement becomes applicable. Any Risk Management Plans, original submittals, revisions or updates to submittals, should be sent to:

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

and,

- **b.** The permittee shall submit to the permitting authority Title V certification forms or a compliance schedule in accordance with Rule 62-213.440(2), F.A.C. [40 CFR 68 and Rule 62-213.440(2), F.A.C.]
- 5. <u>Unregulated Emissions Units and/or Activities.</u> Appendix U-1, List of Unregulated Emissions Units and/or Activities, is a part of this permit. [Rule 62-213.440(1), F.A.C.]
- 6. <u>Insignificant Emissions Units and/or Activities.</u> Appendix I-1, List of Insignificant Emissions Units and/or Activities, is a part of this permit. [Rules 62-213.440(1), 62-213.430(6) and 62-4.040(1)(b), F.A.C.]
- 7. General Pollutant Emission Limiting Standards. Volatile Organic Compounds Emissions or Organic Solvents Emissions. No person shall 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: Nothing has been deemed or ordered necessary by the Department to date.}

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

PROPOSED Permit No.: 1270020-002-AV Facility ID No.: 1270020

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:

- Maintenance of paved areas as needed,
- Regular mowing of grass and care of vegetation,

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- Limiting access to plant property by unnecessary vehicles; and,
- ◆ Additional or alternative activities may be utilized to minimize unconfined particulate emissions. [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.]
- 9. 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.]
- 10. The permittee shall submit all compliance related notifications and reports required of this permit to the Department's Central District office:

Department of Environmental Protection Central District Office 3319 Maguire Boulevard, Suite 232 Orlando, Florida 32803-3767 Telephone: 407/894-7555 Fax: 407/897-2966

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

United States Environmental Protection Agency
Region 4

Air, Pesticides & Toxics Management Division
Air & EPCRA Enforcement Branch
Air Compliance Section
61 Forsyth Street
Atlanta, Georgia 30303
Telephone: 404/562-9099
Fax: 404/562-9095

- 12. <u>Statement of Compliance</u>. 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. 52., Appendix TV-2, Title V Conditions} [Rule 62-214.420(11), F.A.C.]
- 13. Certification by Responsible Official (RO). In addition to the professional engineering certification required for applications by Rule 62-4.050(3), F.A.C., any application form, report, compliance statement, compliance plan and compliance schedule submitted pursuant to Chapter 62-213, F.A.C., shall contain a certification signed by a responsible official that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. Any responsible official who fails to submit any required information or who has submitted incorrect information shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary information or correct information.

 [Rule 62-213.420(4), F.A.C.]

Section III. Emissions Unit(s) and Conditions.

Subsection A. This section addresses the following emissions unit(s).

| <u>E.U.</u> | |
|-------------|---------------------------------------|
| ID Nos. | Brief Description |
| -011 | Combustion Turbine Peaking Unit CTP 1 |
| -012 | Combustion Turbine Peaking Unit CTP 2 |
| -009 | Combustion Turbine Peaking Unit CTP 3 |
| -010 | Combustion Turbine Peaking Unit CTP 4 |

The above referenced combustion turbine peaking units (CTP) can only fire new No. 2 fuel oil having a maximum sulfur content of 0.5 percent, by weight. CTP 1 and CTP 2 each have a maximum heat input of 286 MMBtu/hour at 59° F and each power a generator rated at 18.0 MW (megawatts of electricity). CTP 3 and CTP 4 each have a maximum heat input of 930 MMBtu/hour at 59° F and each power a generator rated at 82.0 MW. Pollutant emissions are not controlled and each turbine exhausts through a separate stack. These emissions units are pre-NSPS and not subject to the Acid Rain Program. CTP 1 and CTP 2 began commercial service on October 9, 1970. CTP 3 and CTP 4 began commercial service on June 14, 1974.

{Permitting Note: The emissions units are regulated under Rule 62-210.300, F.A.C., Permits Required.}

The following specific conditions apply to the above referenced emissions units:

Essential Potential to Emit (PTE) Parameters

A.1. Permitted Capacity. CTP 1 and CTP 2 each have a maximum heat input of 278 MMBtu/hour at 59° F and each power a generator rated at 18.0 MW (megawatts of electricity). CTP 3 and CTP 4 each have a maximum heat input of 930 MMBtu/hour at 59° F and each power a generator rated at 82.0 MW. At other ambient temperatures, the units shall be operated in accordance with established performance curves, which will be made available at the site during compliance testing.

{Permitting note: The heat input limitations have been placed in the permit to identify the capacity of each 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.}

[Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.; and, AO 64-176745A]

- A.2. Emissions Unit Operating Rate Limitation After Testing. See specific condition A.13.
- A.3. Methods of Operation Fuels. Only new No. 2 fuel oil shall be fired in these turbines. [Rules 62-4.160(2) and 62-213.440(1), F.A.C.; and, AO 64-176745A]
- A.4. <u>Hours of Operation</u>. Each emissions unit may operate continuously, i.e., 8,760 hours/year/CT. [Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.]

Emission Limitations and Standards

{Permitting note: Table 1-3, Summary of Air Pollutant Standards and Terms, summarizes information for convenience purposes only. This table does not supersede any of the terms or conditions of this permit.}

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

A.5. <u>Visible Emissions</u>. Visible emissions from each turbine shall not be equal to or greater than 20 percent opacity.

[Rule 62-296.320(4)(b)1., F.A.C.; and, AO 64-176745.]

A.6. <u>Sulfur Content</u>. The sulfur content of the new No. 2 fuel oil shall not exceed 0.5 percent, by weight. [Rule 62-213.440, F.A.C.; and AO 64-176745.]

Excess Emissions

A.7. Excess emissions from these emissions units resulting from startup, shutdown or malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]

A.8. 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.9. The permittee shall demonstrate compliance with the sulfur content limit with a fuel analysis provided by the vendor or the permittee for each liquid fuel delivery. See specific condition **A.12**. [Rule 62-213.440, F.A.C.; and, AO 64-176745.]

A.10. 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: 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.11. The test method for visible emissions shall be EPA Method 9, incorporated and adopted by reference 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.12. The fuel sulfur content, percent by weight, provided by the vendor or permittee for each delivery of liquid fuels shall be evaluated using either ASTM D2622-94, ASTM D4294-90, both ASTM D4057-88 and ASTM D129-91, or the latest edition, or ASTM D1552-90, or an equivalent method after Department approval, [Rules 62-213.440 and 62-297.440, F.A.C.]

A.13. Operating Rate During Testing

Unless otherwise stated in the applicable emission limiting standard rule, 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 the maximum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test rate until a new test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. Permitted capacity is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. [Rules 62-297.310(2), F.A.C.; and, requested by the applicant on November 8, 2004]

A.14. Applicable Test Procedures

- (a) Required Sampling Time.
 - 2. Opacity Compliance Tests. When EPA 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.]

- A.15. 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;
- 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 operation 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) <u>Special Compliance Tests</u>. When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.
- (c) Waiver of Compliance Test Requirements. If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a bag house or specifying a fuel analysis for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the 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.16. <u>Visible Emissions Testing - Annual</u>. By this permit, annual emissions compliance testing for visible emissions is not required for these emissions units while burning only liquid fuels for less than 400 hours per year.

[Rules 62-297.310(7)(a)4., and 8., F.A.C.]

Record keeping and Reporting Requirements

A.17. <u>Malfunction Reporting</u>. In the 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.18. 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.

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

Section IV. This section is the Acid Rain Program

Operated by: Progress Energy Florida, Inc.

ORIS code: 0629

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

The emissions units listed below are regulated under Acid Rain Program, Phase II.

E.U. ID Nos. Description

| -002 | Fossil Fuel Fired Steam Generator - SG 2 (Permanently Retired 1/1/98) |
|-------------|---|
| -003 & -004 | Fossil Fuel Fired Steam Generator - SG 3 (Permanently Retired 1/1/98) |
| -005 & -006 | Fossil Fuel Fired Steam Generator - SG 4 (Permanently Retired 1/1/98) |

A.1. The "Retired Unit Exemption" form submitted for this facility constitutes the Acid Rain Part application pursuant to 40 CFR 72.8 and is a part of this permit. The owners and operators of these acid rain units shall comply with the standard requirements and special provisions set forth in DEP Form No. 62-210.900(1)(a)3., dated June 16, 2003, and signed by the designated representative on April 26, 2004. These units are subject to the following: 40 CFR 72.1, which requires the units to have an Acid Rain Part as part of its Title V permit; 40 CFR 72.2, which provides associated definitions; 40 CFR 72.3, which provides measurements, abbreviations, and acronyms; 40 CFR 72.4, which provides the federal authority of the Administrator; 40 CFR 72.5, which provides the authority of the states; 40 CFR 72.6, which makes the boilers Phase II units; 40 CFR 72.10, which gives the public access to information about these units; and, 40 CFR 72.13, which incorporates certain ASTM methods into 40 CFR Part 72.

[Chapter 62-213 and Rule 62-214.340, F.A.C.]

A.2. Sulfur dioxide (SO₂) allowance allocations for each Acid Rain unit are as follows:

| E.U. ID_Nos. | EPA ID | Year | 2005 | 2006 | 2007 | 2008 | 2009 |
|--------------|-----------|---|------|------|------|------|------|
| -002 | 2 | SO2 allowances, under Table 2 of 40 CFR Part 73 | 543* | 543* | 543* | 543* | 543* |
| -003 & -004 | 3 | SO2 allowances, under Table 2 of 40 CFR Part 73 | 718* | 718* | 718* | 718* | 718* |
| -005 & -006 | 4 | SO2 allowances, under Table 2 of 40 CFR Part 73 | 611* | 611* | 611* | 611* | 611* |

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

PROPOSED Permit No.: 1270020-002-AV Facility ID No.: 1270020

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

- a. No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the Federal Acid Rain Program, provided that such increases do not require a permit revision pursuant to Rule 62-213.440(3), F.A.C.
- b. No limit shall be placed on the number of allowances held by the source under the Federal Acid Rain program.
- c. Allowances shall be accounted for under the Federal Acid Rain Program. [Rule 62-213.440(1)(c), F.A.C.]
- A.4. <u>Fast-Track Revisions of Acid Rain Parts</u>. Those Acid Rain sources making a change described at Rule 62-214.370(4), F.A.C., may request such change as provided in Rule 62-213.413, F.A.C. [Rules 62-213.413 and 62-214.370(4), F.A.C.]
- A.5. Comments, notes, and justifications: None.

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PROPOSED Permit ID No.: 1270020-002-AV

Facility ID No.: 1270020

Table 1-1, Air Pollutant Emission Allowables and Terms

E.U. ID Nos. Brief Description

| -011 -012 | Combus | | | | | | | | |
|-------------------|-------------------|----------------|---------------------|--------------|-----|---------------------|---------------------|---------------------------------|----------------------------|
| | | | Allowab | le Emissions | | Equivalent Em | ission ^I | | |
| Pollutant Name | Fuel(s) | Hours/ Year | Standards | lbs/hour | TPY | lb/hour | TPY | Regulatory Citation(s) | See Permit Condition(s) |
| Visible Emissions | New No. 2 F.O. | 8760 | < 20% Opacity | | | | | Rule 62-296.320(4)(b)1., F.A.C. | A.5 |
| Sulfur Dioxide | New No. 2 F.O. | 8760 | max. 0.50% S by wt. | | | 142.56 ² | 624.43 ² | Rule 62-213440, F.A.C. | A.6 |

| -009 -010 | 1 | | rbine Peaking Un rbine Peaking Un | | | | | | |
|-------------------|-------------------|------------------|--------------------------------------|--------------|-----|---------------------|---------------------|---------------------------------|----------------------------|
| | | | Allowab | le Emissions | | Equivalent Em | ission ¹ | | |
| Pollutant Name | Fuel(s) | Hours/ Year * | Standards | lbs/hour | TPY | lb/hour | TPY | Regulatory Citation(s) | See Permit Condition(s) |
| Visible Emissions | New No. 2 F.O. | 8760 | < 20% Opacity | | | | | Rule 62-296.320(4)(b)1., F.A.C. | A.5 |
| Sulfur Dioxide | New No. 2 F.O. | 8760 | max. 0.50% S by wt. | | | 476.92 ³ | 2088.92 | Rule 62-213440, F.A.C. | A.6 |

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

Emissions based on a maximum heat input of 286 MMBtu/hr. at 59°F, operating 8760 hr/yr., and maximum F.O. sulfur content of 0.50 %, by wt.

Emissions based on a maximum heat input of 930 MMBtu/hr. at 59°F, operating 8760 hr/yr., and maximum F.O. sulfur content of 0.50 %, by wt. Note: This table summarizes information for convenience purposes only and does not supersede any of the terms or conditions of this permit.

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Facility ID No.: 1270020

Table 2-1, Compliance Testing Requirements

| -011: C -012: C -009: C | rief Descri TP 1 TP 2 TP 3 TP 4 | <u>ption</u> | | | | · | |
|-------------------------------|---|----------------------------|---------------------------|----------------------------------|--------------------------|-----|---------------------|
| Pollutant Name or parameter | Fuel(s) | EPA/Reference Method | Testing Time or Frequency | Frequency Base Date ² | Min. Compl. Test Time | CMS | Permit Condition(s) |
| SO ₂ | Oil | F.O. Analysis ¹ | Per Delivery ¹ | | NA | | A.12 |
| VE | Oil | EPA Meth. 9 | Annual ³ | | 1 Hour | | A. 11,14,15 & 16 |

Sulfur content of the fuel oil shall be provided by the supplier or permittee for every delivery.

Note: This table summarizes information for convenience purposes only and does not supersede any of the terms or conditions of this permit.

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

Test not required in years that fuel oil is fired less than 400 hours. If a combustion turbine is operated less than 400 hours per year, test is only required once every 5 years, during the year prior to renewal.

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Facility ID No.: 1270020

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

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

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

| 1 | Lube Oil System Vents | | | |
|---|---------------------------------|--|--|--|
| 2 | Lube Oil Reservoir Tank | | | |
| 3 Oil Water Separators | | | | |
| 4 Hazardous Waste Building | | | | |
| 5 Parts Washers/Degreasers | | | | |
| 6 Waste Oil Storage Tanks | | | | |
| 7 Lube Oil Storage Building | | | | |
| 8 | Portable Unleaded Gasoline Tank | | | |
| 9 No. 2 Diesel Fuel Tank | | | | |
| 10 Surface Coating and Solvent Cleaning | | | | |

4

Appendix H-1, Permit History/ID Number Changes

Progress Energy Florida, Inc.

Turner Power Plant

Facility ID No.: 1270020

Permit History (for tracking purposes):

| E.U. | | | | | • | |
|--------------|---------------------------------------|--------------|------------|------------------------|---------------|-----------------|
| <u>ID No</u> | Description | Permit No. | Issue Date | Expiration Date | Extended Date | Revised Date(s) |
| -003 | FFSG Unit #3 Stack "A" | AO64-185095 | 10/31/90 | 09/25/95 | 8/14/96 | |
| -004 | FFSG Unit #3 Stack "B" | AO64-185095 | 10/31/90 | 09/25/95 | 8/14/96 | |
| -005 | Unit #4 - Stack "A" | AO64-185095 | 10/31/90 | 09/25/95 | 8/14/96 | |
| -006 | Unit #4 - Stack "B" | AO64-185095 | 10/31/90 | 09/25/95 | 8/14/96 | |
| -009 | Peaking Unit #3 Oil Fired Gas Turbine | AO64-176745 | 07/03/90 | 01/15/96 | | |
| -010 | Peaking Unit #4 Oil Fired | AO64-176745 | 07/03/90 | 01/15/96 | | |
| -011 | Peaking Gen. Turbine P1 | AO64-176745 | 07/03/90 | 01/15/96 | | |
| -012 | Peaking Gen. Turbine P2 | AO64-176745 | 07/03/90 | 01/15/96 | | |
| | Initial Title V Permit | 1270020-001- | 01/01/00 | 12/31/04 | | |
| | | AV | | | | |
| | | | | | | |

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

From: Facility ID No.: 30ORL640020

To: Facility ID No.: 1270020

Notes:

- 1 AO permit(s) automatic extension(s) in Rule 62-210.300(2)(a)3.a., F.A.C., effective 03/21/96.
- 2 AC permit(s) automatic extension(s) in Rule 62-213.420(1)(a)4., F.A.C., effective 03/20/96.

{Rule 62-213.420(1)(b)2., F.A.C., effective 03/20/96, allows Title V Sources to operate under existing valid permits}

PROPOSED Permit No.: 1270020-002-AV

Facility ID No.: 1270020

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

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

Brief Description of Emissions Units and/or Activities:

| Emissions Unit | Description |
|----------------|-------------------------|
| -xxx | General Purpose Engines |
| -xxx | Fuel Storage Tanks |
| -xxx | Emergency Generators |

4

Friday, Barbara

To:

Kozlov, Leonard

Cc:

Arif, Syed

Subject: PROPOSED Title V Permit Renewal No. 1270020-002-AV - Progress Energy Florida, Inc. - Turner Power Plant

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

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

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

Florida Department of Environmental Protection

Memorandum

TO:

Trina L. Vielhauer

THRU:

Al Linero

FROM:

Syed Arif Syal Aug 10/25

DATE:

October 25, 2004

SUBJECT:

PROPOSED Permit Project No.: 1270020-002-AV

Progress Energy Florida, Inc.

Four Simple Cycle Combustion Turbines

Turner Power Plant Volusia County

Attached is the proposed permit package for the Title V Permit Renewal for this facility. The Statement of Basis shows the applicant requested some minor changes from the initial Title V permit. The Public Notice was published on August 15, 2004 in the Orlando Sentinel. Comments were submitted by the applicant.

We recommend your approval of the attached proposed Title V Permit Renewal.

AAL/sa

Attachments