One Energy Place
Pensacola, Florida 32520

850.444.6111

Hand Delivered

GULF POWER
A SOUTHERN COMPANY

December 15, 1999

Mr. A. A. Linero, P.E.
Department of Environmental Protection
2600 Blair Stone Road
Mail Station #5505
Tallahassee, Florida 32399-2400

Dear Mr. Linero:

RE: Comments on Proposed PSD Permit
Plant Smith Unit 3 (Combined Cycle Unit):
DEP File No. PA 99-40 (PSD-FL-269)

Attached, please find a copy of Gulf Power's comments regarding the proposed PSD permit (PSD-FL-269) for Unit 3 (Combined Cycle Unit) at the Lansing Smith Electric Generating Plant. Also included is a revised draft permit that tracks and highlights our suggested language changes and comments.

Gulf Power is available for a face to face meeting regarding these comments upon your initial review.

If you have any questions regarding these comments or need further information regarding the proposed new unit at Plant Smith, please call me at (850) 444-6527.

Sincerely,

G. Dwain Waters Q.E.P.

G. Dwain Waters, Q.E.P.
Air Quality Programs Coordinator

c: James O Vick, Gulf Power Company
Kim Flowers, Gulf Power Company
Tom Turk, Gulf Power Company
Doug Roberts, Hopping, Green, Sams & Smith
Tom Davis, Environmental Consulting & Technology, Inc.

GULF POWER COMPANY
Comments on Proposed PSD Permit
Lansing Smith Unit 3

(Revised December 15, 1999)

GENERAL COMMENT: Gulf Power has attached to these comments a revised draft permit that tracks and highlights the suggested language changes being submitted by Gulf Power Company below:

1. **Smith 3 General Description**: The general description for Smith Unit 3 should be updated to include total heat input with Power Augmentation and heat input for the HRSG corrected to 65°F. See pages TE-4, Section 6.2 TE-7, Permit Cover Page (Project and Location).

   Recommended language: The unit consists of two nominal 170 megawatt General Electric PG7241FA gas-fired combustion turbine-generators with duct-fired recovery steam generators (HRSGs) that will raise sufficient steam to produce approximately another 200 MWs from the steam generator. The unit will achieve a nominal 566 megawatt at average annual site conditions with duct burners. The unit is capable of a maximum of approximately 574 megawatt in combined cycle operation with power augmentation and evaporative cooling at 95 °F. The maximum heat input of the combustion turbine is a nominal 1751 MBTU/hr (LHV at 65 °F) each. The maximum heat input of the two duct burners is a nominal 275 MBTU/hr (LHV at 65 °F) each.

2. **"Concurrent Installation" of LNB on Unit 1.** There are several references to the "concurrent installation of low NOx burners on Smith Unit 1," which need to be deleted. See third paragraph on page TE-3, first paragraph on page TE-7, third and fourth paragraphs on page TE-14, fifth bullet on page 9 of 14, and first paragraph of page BD-1. The Smith Unit 1 Low NOx Burner Tips were installed in 1999. The advanced computer assisted operational controls (GNOCIS) are not yet scheduled for installation. The facility-wide annual NOx emissions limit is sufficient to ensure that there will be no significant net emissions increase due to the installation of Smith Unit 3. References to the use of Low NOx Burner Tips and GNOCIS on Smith Unit 1 are unnecessary.

   Comment 16

3. **Pipeline Burner.** The gas heater pipeline burners should be added to the general description sections of the PSD cover page and under the Facility Description on page 2 of 14. The gas heater pipeline burners should be considered insignificant because they have the potential to emit less than the de minimis emission levels.

4. **PM/PM_{10} Emissions.** There are several references to PM/PM_{10} emissions from the new combined cycle unit at 253 TPY. This should be corrected to indicate that there will be 184 TPY from the new unit, plus an additional 79.5 from the

cooling tower. See first paragraph on page TE-7, first paragraph on page BD-2, and first paragraph on BD-5.

5. **Sulfur Content of Natural Gas.** Gulf Power believes that it would be more appropriate to simply require the use of "pipeline quality natural gas" rather than specify numeric limits, and therefore requests that the permit be revised to reflect this. See first table on page TE-13, table on page 8 of 14, and table on page BD-6, Condition 44(page 14). If a numeric limit is retained, however, it should be 20, rather than 2 grains/100 scf.

2 vs. 20 gr/100scf preferable

6. **Annual CO Testing At or Below Capacity**. The second table on page TE-13 and the table on page BD-7 provide that the annual testing for CO can be done during the RATA if done "at capacity." Condition 32 allows for testing to be done during the RATA even if *below* capacity. These tables and the fifth bullet on page BD-6 need to be revised to be consistent with the terms of the permit (allowing for testing below capacity).

7. **Reporting of Excess Emissions**. The first full sentence on page TE-14, Condition 27 on page 10 of 14, and Condition 30 on page 11 of 14 indicate that excess emissions must be reported. Because the NOx limit is based on a 30-day rolling average, only 30-day averages above the limit should be required to be reported as an excess emission. Non-authorized excess emissions are to be included in the 30-dayaverage for NOx. Gulf Power therefore requests that Conditions 27 and 30 be revised to clarify that excess emissions must be reported based on the applicable averaging periods.

PSD allowances

8. **Inclusion of Diesel-Fired Peaking Unit in "Facility-Wide" Cap.** Gulf Power had proposed a multi-unit cap on NOx emissions that did *not* include the small, diesel-fired peaking unit. However in the spirit of our commitment to ensure no net increase in overall NOx emissions, Gulf Power accepts this new Condition which places a cap on the full facility for NOx.

9. **PSD Class II Levels**: Page TE-18, 7.2.4 Maximum predicted project impacts shown in the table of PSD Class II Significant Impact levels differ for SO_2 and CO from those provided to the Department. Correct impacts (in units of ug/m^3) are as follows:

		Application	FDEP (TE-18)
SO_2	Annual	0.09	0.04
	24-hr	1.7	1
	3-hr	8.6	6
CO	8-hr	38.8	14
	1-hr	128.3	36

10. **NOx Emission Increase.** The last paragraph on page 2 of 14 states that the facility modification results in emissions increases greater than 40 TPY of NOx.

This is an incorrect statement because of the multi-unit emissions cap being accepted by Gulf. Therefore, this part of the sentence should be deleted.

11. **BACT Revisitation:** The last sentence of Condition 7 on pages 4 and 5 of 14 states that BACT must be reassessed if there are any increases in heat input limits, emission limits, oil firing, etc. While it may be necessary to reassess BACT, this sentence should be deleted because it does not include all of the PSD applicability criteria, including changes that result in a significant net emissions increase, nor does it include any exemptions that might be applicable. Additionally, these units currently do not have a heat input restriction, only a NOx cap limit in tons/year per this permit.

12. **Filing of Acid Rain Permit Application.** Condition 9 on page 5 of 14 states that the original acid rain permit application should be filed with EPA with a copy to the Department. Since the Department has an approved program, it seems that the original should be filed with the Department and a copy sent to EPA.

13. **Heat Input Limits.** The Department should delete the heat input limits proposed in Conditions 8 and 9 on page 7 of 14. These provisions as written could result in additional requirements under Title V "periodic monitoring" in lieu of tracking heat input rates during compliance testing as the policy of FDEP in current Title V permits. Alternatively, Gulf Power recommends language be added to clarify that the limit is included only for purposes of determining capacity during compliance testing and is not intended to be a continuous limitation subject to compliance or enforcement.

14. **Operation of Pollution Control Equipment.** Because there is no add-on pollution control equipment planned for the new unit, Conditions 12 and 13 on page 7 of 14 should be deleted to avoid confusion and potential periodic monitoring issues in the future.

15. **DLN Combustion Technology.** Conditions 15 and 17 on pages 7 and 8 of 14 require the use of dry low NOx combustion technology, citing the PSD rule as authority. Because BACT was not triggered for NOx, these Conditions should be deleted.

16. **NOx Limit.** Conditions 19 (table), 20, and 30 establish NOx limits, citing the PSD rules as authority, yet the NOx limits are voluntary since PSD was not triggered for NOx. In addition, Condition 20 establishes the NOx limit as a 24-hour average. Gulf has proposed an annual limit for NOx to show compliance to the proposed annual NOx offset but will accept a 30-day average limit in lb/hr. All references to PSD or BACT as authority should be deleted. In addition, the NOx column should be deleted from the Table in Condition 19.

17. **PM Limit for Cooling Tower.** The numeric emission limit of 18.2 lbs/hour for the cooling tower in table 19 on page 8 of 14 should be deleted since a

determination of compliance is not feasible. Otherwise these limits may require periodic monitoring which can not be met. .

18. **NOx Emissions "At ISO."** Condition 20 on page 8 of 14 provides that emissions of NOx "at ISO conditions" shall not exceed the BACT limit. Elsewhere in the permit, the Department states that NOx emissions must be corrected to ISO only when determining compliance with the NSPS limits and not when determining compliance with the PSD/BACT limits. The units are not subject to BACT and should not be corrected to ISO. In addition, a NOx emission limit on a lbs/hour and 30 day rolling average basis (rather than a parts per million and 24-hour average basis) should be sufficient to ensure compliance with the annual NOx limit. Compliance will be determined by CEMS at 82.9 lbs/hr (30 day rolling average) and prorated for periods during power augmentation. (113.3 lb/hr).

19. **Tuning of Combustors.** It is unclear what " reasonable measures" and "combustor tuning" the Department is requiring under the second bullet on page 9 of 14 as well as Condition 17 on page 8 of 14. Gulf Power intends to follow the manufacturers' recommendation on maintenance and tuning of Smith Unit 3. This item should be deleted without a clear reference of need.

20. **Missing NOx Data.** The Department has suggested that missing NOx CEM data be substituted consistent with the Acid Rain Program requirements. Gulf Power accepts this provision for the gas analyzers to report a 30 day rolling average . However, Gulf Power rejects the use of this method regarding flow monitors and heat input determinations. Heat input will be determined by fuel sampling and fuel measurement (Acid Rain Appendix D) based on the methodology as outlined in Gulf Power's baseline offset calculations.

21. **Engineering Report.** The 5th bullet item under item 20 page 9 of 14 requires the submission of an engineering report to the Department summarizing the observed changes (before versus after) in NOx, CO and PM_{10} from the installation of the Low NOx Burners on Smith Unit 1. The Low NOx Burners were installed on Smith Unit 1 earlier this year before the proposed PSD permit was received, therefore the before tests and comparisons are not possible. Certifications from Gulf Power were submitted with the Smith Unit 3 application process outlining no changes in CO and PM_{10} emissions. This requirement should be deleted.

22. **CO and VOC Limits.** The Department should not require limits in terms of both ppm and lbs/hour. Gulf Power prefers a lbs/hour limitation in Conditions 21 and 22 on page 9 of 14. Additionally, it is inappropriate to correct the emissions to ISO conditions, and therefore the references should be deleted. It is unclear what "reasonable measures" must be taken to ensure that the emissions are minimized. Gulf Power intends to follow the manufacturers' recommendation on maintenance and tuning of the Smith Unit 3. References to reasonable assurances should be deleted without clear regulatory need.

23. **SO_2 Emissions.** The Department is proposing an annual limit on SO_2 emissions in Condition 23 on pages 9 and 10 of 14 based on both BACT and, inconsistently, avoidance of PSD. An annual SO_2 limit is not required by BACT or any other Department rules. In addition, the Department proposes a limit of 52 tons per year, which would not allow PSD review to be avoided as suggested by the Department. This Condition should be deleted since pipeline quality natural gas is already required.

24. **Additional Excess Emissions Hours for Cold/Warm Startups.** Gulf wishes to clarify that a 3-hour period of authorized excess emissions during warm startups and the 4-hour period during cold startups should be allowed for each turbine and HRSG since one turbine may startup at a different time than the other. Gulf Power also wishes to clarify that these excess emissions from cold and warm startups are in *addition* to a 2-hour period for shutdowns and malfunctions. Condition 25 on page 10 of 14 should be revised to provide that an "additional" period of up to 3 hours is allowed for warm startups and an "additional" period of up to four hours is allowed for cold startups for each unit (if the units startup separately). Also, page BD-7 indicates that excess emissions may occur for 2 hours for warm starts, instead of 3 hours as allowed under the terms of the permit. This should be corrected.

25. **Annual certification of NOx offset emissions (Item 30, page 11 of 14):** Gulf Power proposes that annual compliance should be determined using the same method as outlined in the original offset proposal, i.e. unit annual average emission rate in lb/mmBtu (CEMs) multiplied by (x) annual unit heat input (sampling & analysis method)= lbs/year. The addition of the existing diesel-fired peaking CT to the emissions cap is acceptable to Gulf Power. However, this unit does not have CEMS and therefore, Gulf recommends that annual emissions be determined using AP-42 emissions factors as currently used in the Annual Operating Report (AOR). In addition, Gulf requests that the permit include additional language in this Condition to address compliance with the separate limit applicable only to the duct burner, explaining that compliance will be demonstrated continuously through compliance with the overall NOx limits of 82.9 and 113.3 lbs/hour to help prevent potential "periodic monitoring" issues in the future.

26. **PM Compliance Determination.** In Condition 31 on page 12 of 14, the annual inspections of each of the ten cells of the cooling tower should not be required to determine compliance with the PM limit. (See similar Item 17). Gulf Power has agreed to install mist eliminators on the cooling tower to reduce fine particulate emissions. Gulf Power proposes to follow the manufacturers' recommendation on operation and maintenance of the cooling tower.

27. **CEM Downtime (Condition 40, page 13 of 14).** Gulf recommends that the report should be postmarked (not received) within 3 days of the occurrence. Additionally, NOx emissions should not be required to be corrected to 15%

oxygen as referenced in Condition 40. Excess emissions for NOx should be determined on a 30-day rolling average basis (See similar Item 7 above).

28. **EPA Approval (Condition 41, page 13 of 14)**. This approval may not be necessary since this unit does not fire oil or use water injection to control emissions and the monitoring and reporting under 40 CFR 60.334(c)(1) is therefore not required. Additionally, NOx should not be required to be corrected to ISO conditions after the initial compliance tests for NSPS.

29. **Facility-Wide NOx Emissions (Condition 43, page 13 or 14).** Gulf will accept a facility-wide NOx emissions limit as outlined in Condition 20. The methodology for determining compliance should be detailed in Condition 43 to include the same methodology originally outlined in establishing the NOx baseline for Units 1 & 2, (i.e. annual CEMS concentration * heat input by fuel sampling & analysis.). Emissions for the existing diesel fired combustion turbine (Smith CT) shall be determined using fuel sampling and analytical methods and AP-42 emission factors (This unit does not have CEM system).

30. **Custom Fuel Monitoring Schedule (Condition 44, page 13 of 14).** New Part 75 rules allow for monthly validation of the sulfur content for natural gas pipeline fuels. This Condition should be revised to reflect EPA's latest guidelines regarding a one year sampling period to qualify for the standard default value of 0.0006 lbs/mmBtu for natural gas allowed under the Acid Rain Program.

31. **Annual NOx Testing.** To be consistent with other provisions in the permit and because NOx CEMS are being used for compliance, the table on page BD-7 should be corrected to state that NOx stack testing is required on an initial basis only rather than annually.

32. **Monitoring and Recordkeeping Requirements.** Condition 46 on page 14 of 14 states that the permittee must comply with all applicable requirements of Subpart Da, 40 CFR Part 60. One of the monitoring requirements established in Subpart Da is to install a continuous emissions monitor for nitrogen oxides, along with a wattmeter. Because it is impracticable to continuously monitor and record the emissions or megawatt output from the duct burner alone, Gulf Power requests that this Condition of the permit be revised to clarify that such monitoring and recordkeeping are not required. We understand that EPA will also need to approve this approach. The duct burners proposed for Smith Unit 3 are slightly larger than typically used in a combined cycle configuration, and smaller duct burners (less than 250 mmBtu/hour heat input) are already exempt from the requirement to continuously monitor emissions under NSPS Subpart Db. When EPA promulgated the Subpart Db regulations, it specifically recognized the impracticability of continuously monitoring emissions from a duct burner. See 40 CFR 60.48b(h); 51 Federal Register 42768, 42787 (Nov. 25, 1986). The larger size of the Subpart Da duct burners does not affect the impracticability of

continuously monitoring the emissions or megawatt output, and therefore Gulf requests that this be addressed in the permit.

133594.4

Welcome to Hopping Green Sams & Smith's "home" on the Internet. In the very same year that the firm developed its presence on the world wide web, we celebrated our 20th anniversary after our beginnings in 1979 with seven lawyers and some demanding cases. While the firm embraces creativity and innovation, there is one guiding principle of the firm that has remained constant, we start with our clients. They come to us with a variety of government-related problems. An existing or proposed agency rule puts a company at a competitive disadvantage, or threatens to delay or block the project altogether, an applicant is having trouble getting a license, proposed legislation could create a problem, or solve one. Government authorization is needed to do business in an innovative way to meet the demands of the next century.

At Hopping Green Sams & Smith, we remain eager to take on any challenge like these for manufacturers, utilities, hospitals, land developers, licensed professionals, farmers, mining companies, trade associations, even government agencies - anyone with a problem with government. Our firm has long worked in the area of environmental law, but our practice is actually much broader. It includes:

- Governmental and Administrative Law
- Business and Professional Regulation
- Environmental and Land Use Regulation
- Civil Trials and Appeals
- Legislative Representation

Because the fields in which we practice are at the cutting edge of law and emerging public policy, our work on each matter is custom-made - according to the needs and interests of each client. We don't use a cookie-cutter and in each case the client's goal is our goal. Our work on each matter is fitted to the needs and interests of each client by utilizing a rich mixture of personalities, a range of professional backgrounds, and ever-increasing experience. Our focus, like our clients, is on where the law and public policy are going, not where they have been. Enjoy our web site. We hope that you find it informative and of benefit to you in learning more about us.

Sincerely,

Wade L. Hopping

Florida Department of Environmental Protection

Jeb Bush
Governor

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

David Struhs
Secretary

FAX TRANSMITTAL SHEET

DATE: 12.17

TO: KATY FORNEY

PHONE: _____ FAX: 404-562-9095

FROM: MIKE KHAN PHONE: 850-921-9530

Division of Air Resources Management FAX: **850.922.6979**

RE: _____

CC: _____

Total number of pages including cover sheet: 8

Message

KATY - I sent you an e-mail about this fax.

Mike Khan

If there are any problems with this fax transmittal, please call the above phone number.

GULF POWER COMPANY'S SUGGESTIONS
DRAFT 12/14/99

PERMITTEE:

Gulf Power Company
One Energy Place
Pensacola, Florida 32520-0328

File No.	PSD-FL-269 (PA99-40)
FID No.	0050014
SIC No.	4911
Expires:	December 31, 2002

Authorized Representative:

Robert G. Moore, V.P. Power Generation/Transmission

PROJECT AND LOCATION:

Permit pursuant to the requirements for the Prevention of Significant Deterioration of Air Quality (PSD Permit) for the construction of: two nominal 170 megawatt (MW), gas-fired, stationary combustion turbine-electrical ~~generators; two supplementally fired (275 MMBtu/hr) heat~~generators with duct-fired recovery steam generators ~~(HRSGs); a nominal~~(HRSGs) that will raise sufficient steam to produce approximately another 200 MWs from the steam generator. The unit will achieve a nominal 566 megawatts at annual average site conditions with duct burners. The unit is capable of a maximum of approximately 574 megawatts in combined cycle operation with power augmentation and evaporative cooling at 95 degrees F. The ~~200 MW steam electrical generator;~~maximum heat input of the combustion turbine is a nominal 1751 MBTU/hr (LHV at 65 degrees F) each. The maximum heat input of the two duct burners is a nominal 275 MBTU/hr (LHV at 65 degrees F) each. The plant will also include two 121 foot stacks; a small heater for the gas pipeline; and a 10-cell, mechanical draft salt water cooling tower. The unit will achieve approximately 566 megawatt in combined cycle operation at referenced conditions. The unit is designated as Unit 3 and will be located at the Lansing Smith Electric Generating Plant, 4300 Highway 2300, Southport, Bay County. UTM coordinates are: Zone 16; 625.03 km E; 3349.08 km N.

STATEMENT OF BASIS:

This PSD permit is issued under the provisions of Chapter 403 of the Florida Statutes (F.S.), and Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.) and 40CFR52.21. The above named permittee is authorized to modify the facility in accordance with the conditions of this permit and as described in the application, approved drawings, plans, and other documents on file with the Department of Environmental Protection (Department).

Attached Appendices and Tables made a part of this permit:

Appendix BD	BACT Determination
Appendix GC	Construction Permit General Conditions

PREVENTION OF SIGNIFICANT DETERIORATION PERMIT PSD-FL-269

SECTION I - FACILITY INFORMATION

Howard L. Rhodes, Director
Division of Air Resources
Management

PREVENTION OF SIGNIFICANT DETERIORATION PERMIT PSD-FL-269

SECTION I - FACILITY INFORMATION

FACILITY DESCRIPTION

The existing Lansing Smith Electric Generating Plant consists of two oil or coal-fired steam units and one oil-fired combustion (peaking) turbine with a combined summer net generating capacity of approximately 386 megawatts (MW).

The proposed Gulf Smith Unit 3 is a nominal 566 MW combined cycle plant. It will include two nominal 170 MW stationary gas combustion turbines burning natural gaswith duct-fired recovery steam generators (HRSGs) that will raise sufficient steam to produce approximately another 200 MWs from the steam generator. The unit will achieve a nominal 566 megawatt at annual average site conditions with duct burners. The unit is capable of a maximum of approximately 574 megawatts in combined cycle operation with power augmentation and evaporative cooling at 95 degrees F. The maximum heat input of the combustion turbine is a nominal 1751 ~~gas; two supplementally gas-fired heat recovery steam generators; a nominal 200 MW steam electric generator;~~MBTU/hr (LHV at 65 degrees F) each. The maximum heat input of the two duct burners is a nominal 275 MBTU/hr (LHV at 65 degrees F) each. The plant will also include two 121 foot stacks; a small heater for the gas pipeline; and a 10-cell mechanical draft salt water cooling tower. Simple cycle operation is not included within this permitting action. New major support facilities for Unit 3 include water treatment and storage facilities.

Emissions from Gulf Smith Unit 3 will be controlled by Dry Low NO_X (DLN) combustors firing exclusively pipeline quality natural gas. Inherently clean fuels and good combustion practices will be employed to control all pollutants.

EMISSION UNITS

This permit addresses the following emission units:

EMISSION UNIT	SYSTEM	EMISSION UNIT DESCRIPTION
004	Power Generation	One nominal 170 MW Gas Combustion Turbine complete with HRSG and Duct Burner
005	Power Generation	One nominal 170 MW Gas Combustion Turbine complete with HRSG and Duct Burner
006	Water Cooling	Cooling Tower

REGULATORY CLASSIFICATION

The facility is classified as a Major or Title V Source of air pollution because emissions of at least one regulated air pollutant, such as particulate matter (PM/PM_{10}), sulfur dioxide (SO_2), nitrogen oxides (NO_X), carbon monoxide (CO), or volatile organic compounds (VOC) exceeds 100 tons per year (TPY).

This facility is within an industry included in the list of the 28 Major Facility Categories per Table 62-212.400-1, F.A.C. Because emissions are greater than 100 TPY for at least one criteria pollutant, the facility is also a Major Facility with respect to Rule 62-212.400, Prevention of

Significant Deterioration (PSD). Pursuant to Table 62-212.400-2, this facility modification results in emissions increases greater than 40 TPY of ~~NO_x~~, SO_2/SAM, 25/15 TPY of PM/PM_{10}, 100 TPY of CO and 40 TPY of VOCs. These pollutants require review per the PSD rules and a determination for Best Available Control Technology (BACT) per Rule 62-212.400, F.A.C.

There will be no net increase in NOx emissions because of an applicant-proposed, facilitywide annual emission limit.

This Project is subject to the applicable requirements of Chapter 403. Part II, F.S., Electric Power Plant and Transmission Line Siting because the steam electric generating capacity of this facility is greater than 75 MW. [F.S Chapter 403.503 (12) Definitions]

This facility is also subject to certain Acid Rain provisions of Title IV of the Clean Air Act..

PERMIT SCHEDULE

- xx/xx/99 Notice of Intent published in The
- 11/01/99 Distributed Intent to Issue Permit
- 10/06/99 Application deemed complete and sufficient for PSD review.
- 06/07/99 Received PSD Application

RELEVANT DOCUMENTS:

The documents listed below are the basis of the permit. They are specifically related to this permitting action, but not all are incorporated into this permit. These documents are on file with the Department.

- Application received on June 7, 1999
- Department/BAR letters to Gulf dated June 28, and September 23, 1999
- Comments from the Fish and Wildlife Service dated
- Gulf (through ECT) letters dated September 7 and October 6, 1999
- Department's Intent to Issue and Public Notice Package dated November 1, 1999.
- Letters from EPA Region IV dated
- Department's Final Determination and Best Available Control Technology Determination issued concurrently with this Final Permit.

PREVENTION OF SIGNIFICANT DETERIORATION PERMIT PSD-FL-269
SECTION II - ADMINISTRATIVE REQUIREMENTS

GENERAL AND ADMINISTRATIVE REQUIREMENTS

1. Regulating Agencies: All documents related to applications for permits to construct, operate or modify an emissions unit should be submitted to the Bureau of Air Regulation (BAR), Florida Department of Environmental Protection (FDEP), at 2600 Blairstone Road, Tallahassee, Florida 32399-2400 and phone number (850)488-0114. All documents related to reports, tests, and notifications should be submitted to the DEP Northwest District Office, 160 Governmental Center, Pensacola, Florida 32501-5794 and phone number 850/595-8300.
2. General Conditions: The owner and operator is subject to and shall operate under the attached General Permit Conditions G.1 through G.15 listed in Appendix GC of this permit. General Permit Conditions are binding and enforceable pursuant to Chapter 403 of the Florida Statutes. [Rule 62-4.160, F.A.C.]
3. Terminology: The terms used in this permit have specific meanings as defined in the corresponding chapters of the Florida Administrative Code.
4. Forms and Application Procedures: The permittee shall use the applicable forms listed in Rule 62-210.900, F.A.C. and follow the application procedures in Chapter 62-4, F.A.C. [Rule 62-210.900, F.A.C.]
5. Modifications: The permittee shall give written notification to the Department when there is any modification to this facility. This notice shall be submitted sufficiently in advance of any critical date involved to allow sufficient time for review, discussion, and revision of plans, if necessary. Such notice shall include, but not be limited to, information describing the precise nature of the change; modifications to any emission control system; production capacity of the facility before and after the change; and the anticipated completion date of the change. [Chapters 62-210 and 62-212, F.A.C.]
6. Expiration: Approval to construct shall become invalid if construction is not commenced within 18 months after receipt of such approval, or if construction is discontinued for a period of 18 months or more, or if construction is not completed within a reasonable time. The Department may extend the 18-month period upon a satisfactory showing that an extension is justified. [62-4.070(4), 62-4.210(2)&(3), 62-210.300(1)(a)].
7. BACT Determination: In accordance with paragraph (4) of 40 CFR 51.166(j) the Best Available Control Technology (BACT) determination shall be reviewed and modified as appropriate in the event of a plant conversion. This paragraph states: "For phased construction projects, the determination of best available control technology shall be reviewed and modified as appropriate at the latest reasonable time which occurs no later than 18 months prior to commencement of construction of each independent phase of the project. At such time, the owner or operator of the applicable stationary source may be required to demonstrate the adequacy of any previous determination of best available control technology for the source." ~~This reassessment will also be conducted for this project if there are any increases in heat input limits, hours of operation, oil firing, low or baseload operation, short-term or annual emission~~

~~limits, annual fuel heat input limits or similar changes.~~ [40 CFR 51.166, Rule 62-4.070 F.A.C.]

8. Permit Extension: The permittee, for good cause, may request that this PSD permit be extended. Such a request shall be submitted to the Bureau of Air Regulation prior to 60 days before the expiration of the permit (Rule 62-4.080, F.A.C.).

9. Application for Title IV Permit: ~~An~~A copy of the application for a Title IV Acid Rain Permit~~,~~ must be submitted to the U.S. Environmental Protection Agency Region IV office in Atlanta, Georgia and ~~a copy~~the original must be submitted to the DEP's Bureau of Air Regulation in Tallahassee 24 months before the date on which the new unit begins serving an electrical generator (greater than 25 MW). [40 CFR 72]

10. Application for Title V Permit: An application for a Title V operating permit, pursuant to Chapter 62-213, F.A.C., must be submitted to the DEP's Bureau of Air Regulation, and a copy to the Department's Northwest District Office. [Chapter 62-213, F.A.C.]

11. New or Additional Conditions: Pursuant to Rule 62-4.080, F.A.C., for good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time. [Rule 62-4.080, F.A.C.]

12. Annual Reports: Pursuant to Rule 62-210.370(2), F.A.C., Annual Operation Reports, the permittee is required to submit annual reports on the actual operating rates and emissions from this facility. Annual operating reports shall be sent to the DEP's Northwest District Office by March 1st of each year.

13. Stack Testing Facilities: Stack sampling facilities shall be installed in accordance with Rule 62-297.310(6), F.A.C.

14. Quarterly Reports: Quarterly excess emission reports, in accordance with 40 CFR 60.7 (a)(7) (c) (1998 version), shall be submitted to the DEP's Northwest District Office.

APPLICABLE STANDARDS AND REGULATIONS:

1. Unless otherwise indicated in this permit, the construction and operation of the subject emission unit(s) shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of Chapter 403, F.S. and Florida Administrative Code Chapters 62-4, 62-17, 62-204, 62-210, 62-212, 62-213, 62-214, 62-296, and 62-297; and the applicable requirements of the Code of Federal Regulations Section 40, Parts 52, 60, 72, 73, and 75.
2. Issuance of this permit does not relieve the facility owner or operator from compliance with any applicable federal, state, or local permitting requirements or regulations. [Rule 62-210.300, F.A.C.]
3. These emission units shall comply with all applicable requirements of 40CFR60, Subpart A, General Provisions including:
   - 40CFR60.7, Notification and Recordkeeping
   - 40CFR60.8, Performance Tests
   - 40CFR60.11, Compliance with Standards and Maintenance Requirements
   - 40CFR60.12, Circumvention
   - 40CFR60.13, Monitoring Requirements
   - 40CFR60.19, General Notification and Reporting requirements
4. ARMS Emissions Units 004 and 005. Power Generation, each consisting of a nominal 170 megawatt combustion turbine-electrical generator and a supplementally fired (275 MMBtu/hr) heat recovery steam generator equipped with a natural gas fired duct burner. The CT's will include provisions for the optional use of evaporative coolers and steam power augmentation. The emissions units shall comply with all applicable provisions of 40CFR60, Subpart Da, Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978, adopted by reference in Rule 62-204.800(7), F.A.C.; and 40CFR60, Subpart GG, Standards of Performance for Stationary Gas Turbines, adopted by reference in Rule 62-204.800(7)(b), F.A.C., except as noted herein. The Subpart GG requirement to correct test data to ISO conditions applies. However, such correction is not used for compliance determinations with the ~~BACT~~applicant-proposed standard(s).
5. ARMS Emission Unit 006. Cooling Tower is ~~a regulated~~an unregulated emission unit. The Cooling Tower is not subject to a NESHAP because Chromium-based chemical treatment is not used.
6. All notifications and reports required by the above specific conditions shall be submitted to the DEP's Northwest District Office.

GENERAL OPERATION REQUIREMENTS

7. Fuels: Only pipeline natural gas shall be fired in the unit. [Applicant Request, Rule 62-210.200, F.A.C. (Definitions - Potential Emissions)]

~~14. Combustion Turbine Capacity: The maximum heat input rate, based on the lower heating value (LHV) of the fuel to this Unit at ambient conditions of 65°F temperature, 100% load, and 14.7 psi pressure shall not exceed 1,751 million Btu per hour (mmBtu/hr) when firing natural gas. The maximum heat input rates will vary depending upon ambient conditions and the combustion turbine characteristics. Manufacturer's curves corrected for site conditions or equations for correction to other ambient conditions shall be provided to the Department of Environmental Protection (DEP) within 45 days of completing the initial compliance testing. [Design, Rule 62-210.200, F.A.C. (Definitions - Potential Emissions)]~~

~~9. Heat Recovery Steam Generator equipped with Duct Burner. The maximum heat input rate of each natural gas fired duct burner shall not exceed 275 MMBtu/hour (LHV). [Design, Rule 62-210.200, F.A.C. (Definitions - Potential Emissions)]~~

8. Unconfined Particulate Emissions: During the construction period, unconfined particulate matter emissions shall be minimized by dust suppressing techniques such as covering and/or application of water or chemicals to the affected areas, as necessary.

~~12.~~9. Plant Operation - Problems: If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by fire, wind or other cause, the owner or operator shall notify the DEP Northwest District office as soon as possible, but at least within (1) working day, excluding weekends and holidays. The notification shall include: pertinent information as to the cause of the problem; the steps being taken to correct the problem and prevent future recurrence; and where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with the conditions of this permit and the regulations. [Rule 62-4.130, F.A.C.]

10. Operating Procedures: Operating procedures shall include good operating practices and proper training of all operators and supervisors. The good operating practices shall meet the guidelines and procedures as established by the equipment manufacturers. ~~All operators (including supervisors) of air pollution control devicesshall be properly trained in plant specific equipment.~~ [Rule 62-4.070(3), F.A.C.]

~~13. Circumvention: The owner or operator shall not circumvent the air pollution control equipment or allow the emission of air pollutants without this equipment operating properly. [Rules 62-210.650, F.A.C.]~~

~~14.~~11. Maximum allowable hours of operation for the 566 MW Combined Cycle Plant are 8760 hours per year while firing natural gas. Operation in the steam power augmentation mode is limited to 1000 hours per year. [Applicant Request, Rule 62-210.200, F.A.C. (Definitions – Potential Emissions)]

CONTROL TECHNOLOGY

~~15.~~12. Dry Low NO_X (DLN) combustors shall be installed on the stationary combustion turbine and Low NO_X burners shall be installed in the duct burner arrangement to comply with the

NO_X emissions limits listed in Specific Conditions ~~19 and 20 [Design, Rules 62-4.070 and 62-212.400, F.A.C.]~~15 and 16 [Applicant Request]

~~16.~~13. The permittee shall design these units to accommodate adequate testing and sampling locations for compliance with the applicable emission limits (per each unit) listed in Specific Conditions No. ~~19~~15 through ~~24.~~20 . [Rule 62-4.070 , Rule 62-204.800, F.A.C., and 40 CFR60.40a(b)]

~~17.DLN systems shall each be tuned upon initial operation to optimize emissions reductions and shall be maintained to minimize NO_X emissions and CO emissions. [Rule 62-4.070, and 62-210.650 F.A.C.]~~

14. ~~18.~~ Drift eliminators shall be installed on the cooling tower to reduce PM/PM_{10} emissions.

EMISSION LIMITS AND STANDARDS

15. ~~19.~~ The following table is a summary of the BACT determination and is followed by the applicable specific conditions. ~~Values for NO_X are corrected to 15 % O_2 on a dry basis.~~ These limits ~~or their equivalent in terms of lb/hr or NSPS units~~, as well as the applicable averaging times, are followed by the applicable specific conditions. Each Unit shall be tested to comply with the applicable NSPS and with the BACT limits as indicated below: [Rules 62-212.400, 62-204.800(7)(b) (Subpart GG and Da), 62-210.200 (Definitions-Potential Emissions) F.A.C.]

Emission Unit		CO BACT	SO_2/SAM BACT	VOC BACT	PM/Visibility (% Opacity)	Technology and Comments
~~C.T.'s : Standard Duct Burners~~	~~9 ppm 10.6 ppm~~	~~13 ppm 16 ppm~~	~~2 gr/100 scf natural gas~~	~~3 ppm 4 ppm~~	~~10 - gas 10 - gas~~	~~Dry Low NO_x Combustors Natural Gas, Good Combustion~~
C.T.'s : Duct Burners		78.6lb/hr	Pipeline quality natural gas	10.2 lb/hr	10 - gas	Natural Gas, Good Combustion
~~Steam power Augmentation~~	~~13.6 ppm~~	~~23 ppm~~	~~2 gr/100 scf natural gas~~	~~6 ppm~~	~~10 - gas~~	~~Unit limited to 1000 hours per year of operation~~
Steam power Augmentation		116.6 lb/hr	Pipeline quality natural gas	16.8lb/hr	10 - gas	Unit limited to 1000 hours per year of operation
~~Cooling Tower~~					~~18.2 lb/hr~~	~~Drift Eliminators~~
Cooling Tower						Drift Eliminators

~~□~~16. ~~20.~~ Nitrogen Oxides (NO_X) Emissions:

- The ~~concentration of~~ NO_X in the stack exhaust gas, with the combustion turbine operating and the duct burner on shall not exceed ~~10.6 ppmvd at 15% O_2 (24 hour block)~~ 82.9 lb/hr (30-day rolling average). The concentration of NO_X in the stack exhaust gas, with the

combustion turbine operating with steam augmentation and the duct burner on shall not exceed 113.3 lb/hr (30-day rolling average) ~~13.6 ppmvd at 15% O_2 (24 hour block)~~. Compliance will be determined by the continuous emission monitor system (CEMS) and periods of excess emissions caused by startup, shutdown or malfunction shall be excluded. ~~Emissions of NOx in the stack exhaust gas (at ISO conditions) with the combustion turbine operating with the duct burner on shall not exceed 82.9 pounds per hour (lb/hr) and 113.3 lb/hr with steam augementation to be demonstrated by initial stack test [Rule 62-212.400, F.A.C.]~~

- Emissions of NO_X from the duct burner shall not exceed 0.1 lb/MMBtu, which is more stringent than the NSPS. ~~[BACT, Rule 62-212.400, F.A.C.]~~
- ~~Notwithstanding the applicable NO_X limits noted above, reasonable measures shall be implemented to maintain the concentration of NO_X in the exhaust gas at 9 ppmvd at 15% O_2 or lower with duct burners off. Any tuning of the combustors for Dry Low NO_X operation while firing gas shall result in initial subsequent NO_X concentrations of 9 ppmvd @15% O_2 or lower. [Rules 62-212.400 and 62-4.070, F.A.C.]~~
- When NO_X monitoring data is not available, substitution for missing gas analyzer data shall be handled as required by Title IV (40 CFR 75) to calculate any specified average ~~time~~. Heat input for these periods shall be determined by fuel sampling and fuel measurement.
- Facility-wide NO_X emissions cap: In addition to individual (point source) emission limits and NO_X averaging plan requirements, the Lansing Smith facility shall be required to comply with a facility-wide NO_X emissions cap of 6666 TPY. ~~CEMS shall be the method of compliance.~~ See specific condition ~~43~~39 for reporting and record-keeping requirements.
- ~~The installation of low NO_X burners and a new burner management system are authorized for existing Smith Unit 1 (EU-001) as a means of complying with the facility-wide cap. Upon installation and commissioning of these burners, an engineering report shall be submitted to the Department summarizing the observed changes (before versus after) in NO_X, CO and PM_{10}.~~

17. ~~21.~~ Carbon Monoxide (CO) Emissions: Emissions of CO in the stack exhaust gas (at ISO conditions) with the combustion turbine operating and duct burner on shall not exceed ~~neither 23 ppm nor~~ 78.7 lb/hr and with steam augmentation 116.6 lb/hr without steam augmentation to be demonstrated by stack test using EPA Method 10. [Rule 62-212.400, F.A.C.].

- ~~Notwithstanding the applicable CO limits noted above, reasonable measures shall be implemented to maintain the concentration of CO in the exhaust gas at 13 ppmvd at 15% O_2 or lower with duct burners off. [Rules 62-212.400 and 62-4.070, F.A.C.]~~

~~24.~~18. Volatile Organic Compounds (VOC) Emissions: Emissions of VOC in the stack exhaust gas (at ISO conditions) with the combustion turbine operating and duct burner on shall not exceed~~neither 4 ppm nor~~ 10.2 lb/hr with steam augmentation ~~neither 6 ppm no~~r 16.8 lb/hr

without steam augmentation to be demonstrated by initial stack test using EPA Method 18, 25 or 25A. [Rule 62-212.400, F.A.C.]

~~Notwithstanding the applicable VOC limits noted above, reasonable measures shall be implemented to maintain the concentration of VOC in the exhaust gas at 3 ppmvd at 15% O_2 or lower with duct burners off. [Rules 62-212.400 and 62-4.070, F.A.C.]~~

~~4.~~19. Sulfur Dioxide (SO_2) emissions: SO_2 emissions shall be limited by firing pipeline natural gas ~~(sulfur content less than 20 grains per 100 standard cubic foot)~~. Compliance with this requirement in conjunction with implementation of the Custom Fuel Monitoring Schedule in Specific Condition ~~44~~40 will demonstrate compliance with the applicable NSPS SO_2 emissions limitations from the duct burner or the combustion turbine. ~~Emissions of SO_2 shall not exceed 52.3 tons per year.~~ [40CFR60 Subpart GG and Rules 62-4.070, 62-212.400, and 62-204.800(7), F.A.C. ~~to avoid PSD Review~~]

20. Visible emissions (VE): VE emissions shall serve as a surrogate for PM/PM_{10} emissions from the combustion turbine operating with or without steam augmentation and/or the duct burner and shall not exceed 10 percent opacity from the stack in use. [Rules 62-4.070, 62-212.400, and 62-204.800(7), F.A.C.]

EXCESS EMISSIONS

~~31.~~21. Excess emissions resulting from startup, shutdown, or malfunction shall be permitted provided that best operational practices are adhered to and the duration of excess emissions shall be minimized. Excess emissions occurrences shall in no case exceed two hours in any 24-hour period except during a "warm start-up" or "cold start-up" to combined cycle plant operation. During cold start-up to combined cycle operation, up to four additional hours of excess emissions are allowed per unit. Cold start-up is defined as a startup following a steam turbine shutdown lasting at least 48 hours. During warm start-up, up to three additional hours of excess emissions are allowed per unit. Warm start-up is defined as a startup following a steam turbine shutdown lasting over 8 hours. [BACT, G.E. Combined Cycle Startup Curves Data and Rule 62-210.700, F.A.C.].

~~7.~~22. Excess emissions entirely or in part by poor maintenance, poor operation, or any other equipment or process failure that may reasonably be prevented during startup, shutdown or malfunction, shall be prohibited pursuant to Rule 62-210.700, F.A.C. These emissions shall be included in the ~~24-hr~~30-day rolling average for NO_X.

~~33.~~23. Excess Emissions Report: If excess emissions occur for more than two hours due to malfunction, the owner or operator shall notify DEP's Northwest District office within (1) working day of: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. In addition, the Department may request a written summary report of the incident. Pursuant to the New Source Performance Standards, all excess emissions shall also be reported in accordance with 40 CFR 60.7, Subpart A. Following this format, 40 CFR 60.7, periods of startup, shutdown, malfunction, shall be monitored, recorded, and reported as excess emissions only when emission levels (in terms of applicable averaging periods) exceed the permitted standards listed

in Specific Condition No. ~~19~~15 through ~~24.~~20. [Rules 62-4.130, 62-204.800, 62-210.700(6), F.A.C., and 40 CFR 60.7 (1998 version)].

COMPLIANCE DETERMINATION

24. Compliance with the allowable emission limiting standards shall be determined within 60 days after achieving the maximum production rate, but not later than 180 days of initial operation of the unit, and annually thereafter as indicated in this permit, by using the following reference methods as described in 40 CFR 60, Appendix A (1998 version), and adopted by reference in Chapter 62-204.800, F.A.C.

~~38.~~25. Initial (I) performance tests shall be performed by the deadlines in Specific Condition ~~28.~~24. Initial tests shall also be conducted after any substantial modifications (and shake down period not to exceed 100 days after re-starting the CT) of air pollution control equipment such as installation of SCR or change of combustors. Annual (A) compliance tests shall be performed during every federal fiscal year (October 1 - September 30) pursuant to Rule 62-297.310(7), F.A.C., on these units as indicated. The following reference methods shall be used. No other test methods may be used for compliance testing unless prior DEP approval is received in writing.

- EPA Reference Method 9, "Visual Determination of the Opacity of Emissions from Stationary Sources" (I, A).
- EPA Reference Method 10, "Determination of Carbon Monoxide Emissions from Stationary Sources" (I, A).
- EPA Reference Method 20, "Determination of Oxides of Nitrogen Oxide, Sulfur Dioxide and Diluent Emissions from Stationary Gas Turbines." Initial test only for compliance with 40CFR60 Subpart GG, Da. Initial (only) NO_X compliance test for the duct burners (Specific Condition 20) shall be accomplished via testing with duct burners "on" as compared to "off" and computing the difference.
- EPA Reference Method 18, 25 and/or 25A, "Determination of Volatile Organic Concentrations." Initial test only.

~~11.~~26. Continuous compliance with the NO_X emission limits: Continuous compliance with the NO_X emission limits of 82.9 and 113.3 lb/hr shall be demonstrated with the CEM system based on the applicable averaging time of ~~24-hr block~~30-day rolling average (DLN). Based on CEMS data, a separate compliance determination is conducted at the end of each operating day and a new average emission rate is calculated from the arithmetic ~~average~~daily averages of all valid hourly emission rates from the previous 29 operating days. Valid hourly emission rates shall not include periods of start up, shutdown, or malfunction unless ~~prohibited~~not authorized by 62-210.700 F.A.C. A valid hourly emission rate shall be calculated for each hour in which at least two NO_X concentrations are obtained at least 15 minutes apart. ~~These~~Thirty-day rolling average rates above the limits established in Condition 16 shall be considered excess emissions periods and shall be reported as required in Condition 37. Compliance ~~41.~~ with the 0.1 lb/mmBtu limit for the duct burners will be demonstrated through continuous compliance

with the combined duct burner and combustion turbine limits of 82.9 and 113.3 lb/hr (steam augmentation). [Rules 62-4.070 F.A.C., 62-210.700, F.A.C., ~~40 CFR 75 and BACT~~]

~~12.~~27. Compliance with the SO_2 and PM/PM_{10} emission limits: Not withstanding the requirements of Rule 62-297.340, F.A.C., the use of pipeline natural gas, is the method for determining compliance for SO_2 and PM_{10}. For the purposes of demonstrating compliance with the 40 CFR 60.333 SO_2 standard, ASTM methods D4084-82 or D3246-81 (or equivalent) for sulfur content of gaseous fuel shall be utilized in accordance with the EPA-approved custom fuel monitoring schedule or natural gas supplier data may be submitted or the natural gas sulfur content referenced in 40 CFR 75 Appendix D may be utilized. However, the applicant is responsible for ensuring that the procedures in 40 ~~CFR60.335 or 40 CFR75~~CFR 60.335 or 40 CFR 75 are used when determination of fuel sulfur content is made. 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) (1998 version).

~~Compliance with the cooling tower PM limit shall be accomplished via an annual inspection of each of the ten cells and completing all identified maintenance and operation requirements. [BACT]~~

28. Compliance with CO emission limit: An initial test for CO shall be conducted concurrently with the initial NO_X test, as required. The initial NO_X and CO test results shall be the average of three valid one-hour runs. Annual compliance testing for CO may be conducted at less than capacity when compliance testing is conducted concurrent with the annual RATA testing for the NO_X CEMS required pursuant to 40 CFR 75. Alternatively to annual testing in a given year, periodic tuning data may be provided to demonstrate compliance in the year the tuning is conducted.

29. Compliance with the VOC emission limit: An initial test is required to demonstrate compliance with the VOC emission limit. Thereafter, the CO emission limit and periodic tuning data will be employed as surrogate and no annual testing is required.

30. Testing procedures: Testing of emissions shall be conducted with the combustion turbine operating at permitted capacity. Permitted capacity is defined as 95-100 percent of the maximum heat input rate allowed by the permit, corrected for the average ambient air temperature during the test (with 100 percent represented by a curve depicting heat input vs. ambient temperature). If it is impracticable to test at permitted capacity, the source may be tested at less than permitted capacity. In this case, subsequent operation is limited by adjusting the entire heat input vs. ambient temperature curve downward by an increment equal to the difference between the maximum permitted heat input (corrected for ambient temperature) and 105 percent of the value reached during the test 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 purposes of additional compliance testing to regain the permitted capacity. Procedures for these tests shall meet all applicable requirements (i.e., testing time frequency, minimum compliance duration, etc.) of Chapters 62-204 and 62-297, F.A.C.

31. Test Notification: The DEP's Northwest District office shall be notified, in writing, at least 30 days prior to the initial performance tests and at least 15 days before annual compliance test(s).

32. Special Compliance Tests: The DEP may request a special compliance test pursuant to Rule 62-297.310(7), F.A.C., when, after investigation (such as complaints, increased visible emissions, or questionable maintenance of control equipment), there is reason to believe that any applicable emission standard is being violated.

33. Test Results: Compliance test results shall be submitted to the DEP's Northwest District office no later than 45 days after completion of the last test run. [Rule 62-297.310(8), F.A.C.].

NOTIFICATION, REPORTING, AND RECORDKEEPING

34. Records: All measurements, records, and other data required to be maintained by Gulf shall be recorded in a permanent form and retained for at least five (5) years following the date on which such measurements, records, or data are recorded. These records shall be made available to DEP representatives upon request.

~~58.~~35. Compliance Test Reports: The test report shall provide sufficient detail on the tested emission unit and the procedures used to allow the Department to determine if the test was properly conducted and if the test results were properly computed. At a minimum, the test report shall provide the applicable information listed in Rule 62-297.310(8), F.A.C.

MONITORING REQUIREMENTS

~~59.~~36. Continuous Monitoring System: The permittee shall install, calibrate, maintain, and operate a continuous emission monitor in the stack to measure and record the nitrogen oxides emissions from these units. Periods when NO_X emissions (~~ppmvd @ 15% oxygen~~)lb/hr, 30-day rolling averages) are above the standards, listed in Specific Condition No ~~19 and 20,~~15 and 16, shall be reported to the DEP Northwest District Office within one working day (verbally) followed up by a written explanation postmarked not later than three (3) working days (alternatively by facsimile within one working day). [Rules 62-204.800, 62-210.700, 62-4.130, 62-4.160(8), F.A.C and 40 CFR 60.7 (1998 version)].

37. CEMS for reporting excess emissions: Subject to EPA approval, the NO_X CEMS shall be used in lieu of the requirement for reporting excess emissions in accordance with 40 CFR 60.334(c)(1), Subpart GG (1998 version). Upon request from DEP, the CEMS emission rates for NO_X on the CT shall be corrected to ISO conditions to demonstrate compliance with the NO_X standard established in 40 CFR 60.332.

~~23.~~38. Continuous Monitoring System Reports: The monitoring devices shall comply with the certification and quality assurance, and any other applicable requirements of Rule 62-297.520, F.A.C., 40 CFR 60.13, including certification of each device in accordance with 40 CFR 60, Appendix B, Performance Specifications and 40 CFR 60.7(a)(5) or 40 CFR Part 75. Quality assurance procedures must conform to all applicable sections of 40 CFR 60, Appendix F or ~~40CFR75.~~40 CFR 75. The monitoring plan, consisting of data on CEM equipment specifications, manufacturer, type, calibration and maintenance needs, and its proposed

location shall be provided to the DEP Emissions Monitoring Section Administrator and EPA for review no later than 45 days prior to the first scheduled certification test pursuant to 40 CFR 75.62.

~~24.~~39. CEMS for reporting facility-wide NO_X emissions: The NO_X CEMS for Units 1, 2, and 3 shall be used for ensuring compliance with the facility-wide cap. The annual average emission rates in lb/mmBtu shall be multiplied by the annual heat input rates (as determined by the fuel sampling and analysis and quantities of fuel used). For the oil-fired peaking turbine (Emissions Unit EU-003) emissions ~~may~~will be calculated by using ~~a DEP approved method.~~the following formula: fuel usage (measured by a fuel meter) multiplied by heating value of fuel (determined by fuel supplier data) multiplied by AP-42 emission factor = NOx emissions . Monthly records shall be maintained of the facility-wide NO_X emissions and the owner/operator shall calculate the facility-wide cap on a monthly basis for each prior consecutive 12-month period. These records shall be made available to inspectors as necessary. Additionally, a summary shall be filed with each Annual Operating Report as a means of demonstrating compliance with the facility-wide cap for each consecutive 12-month period. ~~[BACT Determination]~~[Applicant Request]

40. Natural Gas Monitoring Schedule: 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 requirements are met~~:~~. Monitoring of the nitrogen content is not required.

- The permittee shall apply for an Acid Rain permit within the deadlines specified in 40 CFR 72.30.
- The permittee shall submit a monitoring plan, certified by signature of the Designated Representative, that commits to using a primary fuel of pipeline supplied natural gas (~~sulfur content less than 20 gr/100 scf~~ pursuant to 40 CFR 75.11(d)(2)).
- Each unit shall be monitored for SO_2 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_2 emissions must be accounted for as required pursuant to 40 CFR 75.11(d).
- Gulf shall notify DEP of any change in natural gas supply for reexamination of this monitoring schedule. A substantial change in natural gas quality (i.e., sulfur content variation of greater than 1 grain per 100 cubic foot of natural gas) shall be considered as a change in the natural gas supply. Sulfur content of the natural gas will be monitored weekly by the natural gas supplier during the interim period when this monitoring schedule is being reexamined.

41. Determination of Process Variables:

- The permittee shall operate and maintain equipment and/or instruments necessary to determine process variables, such as process weight input or heat input, when such data is

needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.

- Equipment and/or instruments used to directly or indirectly determine such process variables, including devices such as belt scales, weigh 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]

42. Subpart Da Monitoring and Recordkeeping Requirements: The permittee shall comply with all applicable requirements of this Subpart [40 CFR 60, Subpart Da]. Pending EPA approval, the requirements under 40 CFR 60.46a, 60.47a, 60.48a, and 60.49a regarding 30-day rolling averages and continuous monitoring systems for emissions of nitrogen oxides and for electrical output are inapplicable (because it of impracticability) and therefore waived.

APPENDIX BD
BEST AVAILABLE CONTROL TECHNOLOGY DETERMINATION (BACT)

Gulf Power Company Lansing Smith Plant
Permit No. PSD-FL-269 and PA 99-40
Southport, Bay County, Florida

BACKGROUND

The applicant, Gulf Power Company (Gulf), proposes to install a combined-cycle power plant at its Lansing Smith Plant located at 4300 Highway 2300, Southport, Bay County. The proposed project will result in "significant increases" with respect to Table 62-212.400-2, Florida Administrative Code (F.A.C.) of emissions of particulate matter (PM and PM_{10}), carbon monoxide (CO), volatile organic compounds (VOC) sulfur dioxide (SO_2) and sulfuric acid mist (SAM), as well as nitrogen oxides (NO_X). However, the applicant is proposing ~~concurrent installation of low NO_X burners on existing Smith Unit 1, as well as~~ a facility-wide NO_X cap~~, thereby~~ to ensur~~e~~ing no net increase in NO_X emissions. The project is therefore subject to review for the Prevention of Significant Deterioration (PSD) and a determination of Best Available Control Technology (BACT) in accordance with Rules 62-212.400, F.A.C.

The primary units to be installed are two nominal 170 MW, General Electric 7FA combustion turbine-electrical generators, fired exclusively with pipeline natural gas. The project includes two supplementary-fired heat recovery steam generators (HRSGs) and a steam turbine-electrical generator to produce an additional 200 MW of electrical power. The units will exhaust through individual 121 foot stacks. Descriptions of the process, project, air quality effects, and rule applicability are given in the Technical Evaluation and Preliminary Determination dated November 2, 1999, accompanying the Department's Intent to Issue.

DATE OF RECEIPT OF A BACT APPLICATION:

The application was received on June 7, 1999 and included a proposed BACT proposal. Additional information concerning the application was submitted on September 7 and October 6.

REVIEW GROUP MEMBERS:

Michael P. Halpin, P.E., Review Engineer

BACT DETERMINATION REQUESTED BY THE APPLICANT:

POLLUTANT	CONTROL TECHNOLOGY	PROPOSED LIMIT
Particulate Matter	Pipeline Nat. Gas /Comb. Controls	10% Opacity
Volatile Organic Compounds	As Above	3 ppmvd (CTs) - gas 4 ppmvd (w/duct burners) - gas 6 ppmvd (w/DB & stm. aug.) - gas
Carbon Monoxide	As Above	13 ppmvd (CTs) - gas 16 ppmvd (w/duct burners) - gas 23 ppmvd (w/DB & stm. aug.) - gas
Sulfur Dioxide /SAM	As Above	2 gr/100 scf - gas
Nitrogen Oxides	Dry Low NO_x Combustors (CTs) Dry Low NO_x Burners (Unit 1 Boiler)	9 ppmvd (CTs) @ 15% O_2 gas ** 10.6 ppmvd (w/DB) @ 15% O_2 ** 13.6 ppmvd (w/DB & stm. aug.) **

** NOTE: The proposed NO_X emission rates listed are for informational purposes only.

According to the application, the unit will emit approximately 757 tons per year (TPY) of NO_X, 701 TPY of CO, 93 TPY of VOC, 105 TPY of SO_2, 12 TPY of SAM and 263.5 ~~253~~ TPY of PM/PM_{10}.

BACT DETERMINATION PROCEDURE:

In accordance with Chapter 62-212, F.A.C., this BACT determination is based on the maximum degree of reduction of each pollutant emitted which the Department of Environmental Protection (Department), on a case by case basis, taking into account energy, environmental and economic impacts, and other costs, determines is achievable through application of production processes and available methods, systems, and techniques. In addition, the regulations state that, in making the BACT determination, the Department shall give consideration to:

- Any Environmental Protection Agency determination of BACT pursuant to Section 169, and any emission limitation contained in 40 CFR Part 60 - Standards of Performance for New Stationary Sources or 40 CFR Part 61 - National Emission Standards for Hazardous Air Pollutants.
- All scientific, engineering, and technical material and other information available to the Department.
- The emission limiting standards or BACT determination of any other state.
- The social and economic impact of the application of such technology.

The EPA currently stresses that BACT should be determined using the "top-down" approach. The first step in this approach is to determine, for the emission unit in question, the most stringent control available for a similar or identical emission unit or emission unit category. If it is shown that this level of control is technically or economically unfeasible for the emission unit in question, then the next most stringent level of control is determined and similarly evaluated. This process continues until the BACT level under consideration cannot be eliminated by any substantial or unique technical, environmental, or economic objections.

Since this project is not subject to PSD or BACT for NO_X, a related technology review will not be covered herein. This is discussed in detail within the Technical Evaluation and Preliminary Determination, including the details of a federally enforceable facility-wide cap.

STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES:

The minimum basis for a BACT determination is 40 CFR 60, Subpart GG, Standards of Performance for Stationary Gas Turbines (NSPS). Subpart GG was adopted by the Department by reference in Rule 62-204.800, F.A.C. The key emission limits required by Subpart GG are 75 ppm NO_X @15% O_2. (assuming 25 percent efficiency) and 150 ppm SO_2 @15% O_2 (or <0.8% sulfur in fuel). The BACT proposed by Gulf complies with Subpart GG NSPS which allows NO_X emissions of approximately 110 ppm for the high efficiency unit to be purchased.

The 275 MMBtu duct burners required for supplementary gas-firing of the HRSGs are subject to 40 CFR 60, Subpart Da, Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978. The BACT proposed by Gulf is nearly half of the key historically applicable NSPS requirement of 0.20 pounds of NO_X per million

Btu heat input (lb. NO_X/MMBtu). It is well below the revised Subpart Da output-based limit of 1.6 lb. NO_X/MW-hr promulgated on September 3, 1998. No National Emission Standards for Hazardous Air Pollutants exist for stationary gas turbines or gas-fired duct burners.

DETERMINATIONS BY EPA AND STATES:

The following table is a sample of information on recent limitations set by EPA and the States for comparable stationary gas turbine.

Project Location	Power Output and Duty	CO - ppm (or lb./MMBtu)	VOC - ppm (or lb./MMBtu)	PM - lb./MMBtu (or gr./dscf or lb./hr)	Technology and Comments
Lakeland, FL	350 MW CC	25 - NG or 10 by Ox Cat 75 - FO @ 15% O_2	4 - NG 10 - FO	10% Opacity	Clean Fuels Good Combustion
Mid-GA Cogen.	308 MW CC	10 - NG 30 - FO	6 - NG 30 - FO	18 lb./hr ± NG 55 lb./hr ± FO	Clean Fuels Good Combustion
Fort Myers, FL	1500 MW CC	12 - NG @15% O_2	1.4 - NG	10% Opacity	Clean Fuels Good Combustion
Tiger Bay, FL	270 MW CC	0.045 lb./MMBtu-NG 0.053 lb./MMBtu-FO		0.053 ± NG 0.009 ± FO	Clean Fuels Good Combustion
Hines Polk, FL	485 MW CC	25 - NG 30 - FO	7 - NG 7 - FO	0.006 - NG 0.01 ± FO	Clean Fuels Good Combustion
Tallahassee, FL	260 MW CC	25 - NG 90 - FO			Clean Fuels Good Combustion
Eco-Electrica, PR	461 MW CC	33 - NG/LPG @15% O_2 33 - FO @15% O_2	1.5/2.5 - NG/LPG 6 - FO	0.0053 - NG/LPG 0.0390 ± FO	Clean Fuels Good Combustion
Sithe/IPP, NY	1012 MW CC	13 - NG		10% Opacity	Clean Fuels Good Combustion
Hermiston, OR	474 MW CC	15 - NG			Clean Fuels Good Combustion
Duke, FL	500 MW CC	12 - NG	1.4 - NG	10% Opacity	Clean Fuels Good Combustion
Barry, AL	800 MW CC	0.034 lb./MMBtu - NG/CT 0.057 lb./MMBtu - CT/DB	0.015 lb./MMBtu After CT / DB	0.011 lb./MMBtu CT/DB- 10% Op.	Gas Only Good Combustion

CC = Combined Cycle
DB = Duct Burner
NG = Natural Gas
CT = Combustion Turbine
CON = Continuous
HSCR = Hot SCR
FO = Fuel Oil
ISO = 59°F
DLN = Dry Low NO_X Combustion
SCR = Selective Catalytic Reduction
LPG = Liquefied Propane Gas
WI = Water or Steam Injection
GE = General Electric
WH = Westinghouse
ABB = Asea Brown Bovari
ppm = parts per million

OTHER INFORMATION AVAILABLE TO THE DEPARTMENT:

Besides the information submitted by the applicant and that mentioned above, other information available to the Department consists of:

- Letter from EPA Region IV dated August 11, 1998
- DOE website information on Advanced Turbine Systems Project
- Alternative Control Techniques Document - NO_X Emissions from Stationary Gas Turbines
- General Electric 39th Turbine State-of-the-Art Technology Seminar Proceedings
- GE Power Generation - Speedtronic™ Mark V Gas Turbine Control System
- GE Combined Cycle Startup Curves

COMBUSTION TURBINE AND DUCT BURNER CONTROL TECHNOLOGIES:

The applicant presented an analyses of the different available control technologies for all of the pollutants subject to PSD review and a BACT determination. Technologies for control of pollutants other than NO_X are discussed herein.

Carbon Monoxide (CO) Control

CO is emitted from combustion turbines due to incomplete fuel combustion. Combustion design and catalytic oxidation are the control alternatives that are viable for the project. The most stringent control technology for CO emissions is the use of an oxidation catalyst.

Most installations using catalytic oxidation are located in the Northeast. Among them are the 272 Berkshire, Massachusetts facility, 240 MW Brooklyn Navalyard Facility, the 240 MW Masspower facility, the 165 MW Pittsfield Generating Plant in Massachusetts, and the 345 MW Selkirk Generating Plant in New York. However, catalytic oxidation was recently installed at a cogeneration plant at Reedy Creek (Walt Disney World), Florida to avoid PSD review which would have been required due to increased operation at low load. Additionally, Seminole Electric recently proposed catalytic oxidation in order to meet the permitted limit at its planned 244 MW Westinghouse 501FD combined cycle unit in Hardee County, Florida.

Most combustion turbines incorporate good combustion to minimize emissions of CO. These installations typically achieve emissions between 10 and 30 ppm at full load, even as they achieve relatively low NO_X emissions by SCR or dry low NO_X means. By comparison, the CT value of 13 ppm baseload proposed by Gulf appears relatively low, but consistent with the capabilities of DLN-2.6 technology as discussed above. This proposed limits are achievable through good combustion practice. When simultaneously operating the combustion turbine and the duct burner, CO concentrations will be less than 16 ppm and with steam augmentation up to 23 ppm. This is within the range of limits set for combustion turbines operating alone. Annual emissions of CO are expected to be at a maximum of 701 tons per year for all operating modes combined.

Volatile Organic Compound (VOC) Control

Volatile organic compound (VOC) emissions, like CO emissions, are formed due to incomplete combustion of fuel. There are no viable add-on control techniques as the combustion turbine itself is very efficient at destroying VOC. The applicant has proposed good combustion practices to control VOC for both the turbine and the duct burner. The CT proposed limit is 3 ppm. According to GE, even lower VOC emissions were achieved during recent tests of the DLN-2.6 technology when firing natural gas.[1] VOC concentrations will be less than 6 ppm for simultaneous operation of the combustion turbines, duct burners firing and steam augmentation.

Particulate Matter (PM/PM_{10}) Control

Particulate matter is generated by various physical and chemical processes during combustion and will be affected by the design and operation of the NO_X controls. The particulate matter emitted from this unit will mainly be less than 10 microns in diameter (PM_{10}).

Natural gas will be the only fuel fired and is efficiently combusted in gas turbines. Clean fuels are necessary to avoid damaging turbine blades and other components already exposed to very high temperature and pressure. Natural gas is an inherently clean fuel and contains no ash.

A technology review indicated that the top control option for PM_{10} is a combination of good combustion practices, fuel quality, and filtration of inlet air. This has been chosen as BACT by the applicant, the Department concurs. Annual emissions of PM/PM_{10} are expected to be a maximum of ~~253~~ 263.5 tons per year for simultaneous operation of the combustion turbines, duct burners firing and steam augmentation.

Drift eliminators shall be installed on the salt-water cooling tower to reduce PM/PM_{10}. The drift eliminators shall be designed and maintained to reduce drift to 0.001 percent of the circulating water flow rate. No PM testing is required because the Department's Emission Monitoring Section has determined that there is no appropriate PM test method for this type of cooling tower.

BACKGROUND ON SELECTED GAS TURBINE AND DUCT BURNER

Gulf Power has purchased two 170 MW General Electric MS7241FA gas turbines and two HRSGs with duct burners to drive a steam turbine-electrical generator.

The first commercial GE 7F Class unit was installed at the Virginia Power Chesterfield Station in 1990.[2] The initial units had a firing temperature of 2300°F and a combined cycle efficiency exceeding 50 percent. By the mid-90s, the line was improved by higher combustor pressure, a firing temperature of 2400°F, and a combined cycle efficiency of approximately 56 percent based on a 167 MW combustion turbine. The line was redesignated as the 7FA Class.

The first GE 7F/FA project in Florida was at the FPL Martin Plant in 1993 and entered commercial service in 1994.[3] The units were equipped with DLN-2 combustors with a permitted NO_X limit of 25 ppmvd. These actually achieved emissions of 13-25 ppmvd of NO_X, 0-3 ppm of CO, and 0-0.17 ppm of VOC.[4] The City of Tallahassee recently received approval to install a GE 7FA Class unit at its Purdom Plant.[5] Although permitted emissions are 12 ppmvd of NO_X, the City obtained a performance guarantee from GE of 9 ppmvd.[6] FPL also obtained a guarantee and permit limit of 9 ppmvd NO_X for six GE 7241FA turbines to be installed at the Fort Myers Repowering project.[7] The Santa Rosa Energy Center in Pace, Florida also received a permit with a 9 ppmvd NO_X limit for a GE 7241 turbine with DLN-2.6 burners.[8]

Most recently, the Department issued draft BACT determinations for the simple cycle Oleander project in Brevard County and the TEC project in Polk County. The Department also issued draft permits for combined cycle projects in Volusia (Duke Energy), and Osceola (Kissimmee Utilities), and Palm Beach (Lake Worth). Four of these draft permits also include NO_X limits of 9 ppmvd based on the DLN-2.6 technology installed on F Class units. The TEC simple cycle project has a requirement to meet the "new and clean" guarantee emission limit of 9 ppmvd, but is only required to comply with a limit of 10.5 ppmvd based on CEMS thereafter.

GE's approach of progressively refining such technology is a proven one for the large frame units. Recently GE Frame 7FA units met performance guarantees of 9 ppmvd with "DLN-2.6" burners at Fort St. Vrain, Colorado and Clark County, Washington.[9] Although the permitted limit is 15 ppmvd, GE has already achieved emission levels of approximately 6-7 ppmvd on gas at a dual-fuel 7EA (120 MW combined cycle) KUA Cane Island Unit 2.[10] Unit 2 is equipped with DLN-2 combustors. According to GE, similar performance is expected soon on the 7FA line such as the ones that will be installed for the Gulf Power Lansing Smith Project. Performance guarantees less than 9 ppmvd can be expected using the DLN-2.6 combustors for units delivered in a couple of years.[11]

General Electric, other manufacturers, and their customers are relying on further advancement and refinement of DLN technology to provide sufficient NO_X control for their combined cycle turbines in Florida. Caution is still advised, however, based on some unexpected setbacks in GE's line of smaller aero-derivative units. Where required by BACT determinations of certain states, General Electric incorporates SCR in combined cycle projects.[12]

The 9 ppm NO_x limit on natural gas (10.6 ppm while firing duct burners) requested by Gulf is comparable with recent BACT determinations for F Class combined cycle units, such as those previously listed.

DEPARTMENT BACT DETERMINATION

Following are the BACT limits determined for the Gulf project assuming full load. The emission limits or their equivalents in terms of NSPS units, as well as the applicable averaging times, are given in the permit Specific Conditions No. 19 through 24.

POLLUTANT	CONTROL TECHNOLOGY	PROPOSED BACT LIMIT
PM/PM_{10}, VE	Pipeline Natural Gas Good Combustion	10 Percent Opacity 0.1 lb/MMBtu for Duct Burner
VOC	As Above	~~3 ppm (CT on, DB off)~~ 10.2 lb/hr ~~4 ppm~~ 16.8 lb/hr (CT and DB on) ~~6 ppm~~ (DB and Stm. Aug.)
CO	As Above	~~13 ppm (CT on, DB off)~~ ~~16~~78.6 lb/hr ~~ppm~~ (CT and DB on) ~~23 ppm~~ 116.6 lb/hr (DB and Stm. Aug.)
SO_2 /SAM	As Above	~~2 gr/100 scf gas~~ Pipeline quality natural gas
Cooling Tower PM	~~Annual Inspection / O&M Plan~~ Drift Eliminators	~~18.2 lb/hr~~

RATIONALE FOR DEPARTMENT'S DETERMINATION

- Gulf can obtain a guarantee from GE for DLN-2.6 combustors which have been demonstrated to meet all of the above limits on a 7FA Class gas turbine.
- The turbine emission limits with the duct burners on or off comply with the NSPS and are less than or equal to recent Department BACT determinations applicable to new units at start-up.
- Although the project will "net out" of PSD review for NO_X, these limits will be incorporated into the permit.
- PM_{10} emissions will be very low and difficult to measure. The Department will set a visible emission standard of 10 percent opacity.
- CO emissions from Gulf's project are typical (approximately 11 ppm). The Department will set CO limits achievable by good combustion equal to 13 ppm. Although this unit will fire no oil, short-term emission limits of up to 116.6 lb/hr (23 ppm) are considered reasonable. The Department will require annual testing ~~for the baseload emission limit~~.

- VOC emissions of 3 ppm proposed by Gulf are typical values of prior determinations of BACT. Good Combustion is sufficient to achieve these low levels with the DLN-2.6 combustors while firing natural gas. A maximum VOC emission limit of 6 ppm while firing duct burners and utilizing steam augmentation for up to 1000 hours per year is determined to be BACT.
- Gulf evaluated the use of an oxidation catalyst designed for 80 percent reduction and having a three-year catalyst life. The oxidation catalyst control system was estimated by Gulf to increase the total capital cost of the project by $2,605,195. Gulf estimated levelized costs for CO catalyst control at about $1,600 per ton to control CO emissions to 140 TPY (from 701 TPY).
- BACT for PM_{10} was determined to be good combustion practices consisting of: inlet air filtering; use of pipeline natural gas; and operation of the unit in accordance with the manufacturer-provided manuals.
- PM_{10} emissions will be very low and difficult to measure. Therefore, the Department will set a Visible Emission standard of 10 percent opacity consistent with the definition of BACT. Examples of installations with similar VE limits include the City of Lakeland, the City of Tallahassee, and the FPL Fort Myers projects in Florida as well as the Barry, Alabama project.

COMPLIANCE PROCEDURES

POLLUTANT	COMPLIANCE PROCEDURE
Visible Emissions	Method 9
Volatile Organic Compounds	Method 18, 25, or 25A (initial tests only)
Carbon Monoxide	Annual Method 10 (can use RATA even if below ~~if at~~ capacity)
NO_X (30-Day ~~24-hr~~ average)	NO_X CEMS, O_2 or CO_2 diluent monitor, and flow device as needed
NO_X (performance)	~~Annual~~ Method 20 ~~(can use RATA if at capacity)~~ (initial test only)

BACT EXCESS EMISSIONS APPROVAL

Pursuant to the Rule 62-210.700 F.A.C., the Department through this BACT determination will allow excess emissions as follows: Valid hourly emission rates shall not included periods of startup, shutdown, or malfunction as defined in Rule 62-210.200 F.A.C., where emissions exceed the applicable NO_X standard. These excess emissions periods shall be reported as required in Specific Condition 29 of the Permit . A valid hourly emission rate shall be calculated for each hour in which at least two NO_X concentrations are obtained at least 15 minutes apart [Rules 62-4.070 F.A.C., 62-210.700 F.A.C and applicant request].

Excess emissions may occur under the following startup scenarios:

Hot Start: For 1 hour following a steam turbine shutdown less than or equal to 8 hours.
Warm Start: For ~~2~~3 hours following a steam turbine shutdown between 8 and 48 hours.
Cold Start: For 4 hours following a steam turbine shutdown greater than or equal to 48 hours.

The *starts* are defined by the amount of time the steam turbine unit has been shutdown, following the normal (hot) shutdown procedure described by General Electric, prior to the startup.[13]

DETAILS OF THE ANALYSIS MAY BE OBTAINED BY CONTACTING:

Michael P. Halpin, P.E., Review Engineer
Department of Environmental Protection
Bureau of Air Regulation
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Recommended By:

C. H. Fancy, P.E., Chief
Bureau of Air Regulation

Date:

Approved By:

Howard L. Rhodes, Director
Division of Air Resources Management

Date:

References

1 Telecon. Vandervort, C., GE, and Linero, A. A., DEP. "VOC Emissions from FA Gas Turbines with DLN-2.6 Combustors."

2 Brochure. General Electric. "GE Gas Turbines - MS7001FA." Circa 1993.

3 Davis, L.B., GE. "Dry Low NO_X Combustion Systems for GE Heavy Duty Gas Turbines." 1994.

4 Report. Florida Power & Light. "Final Dry Low NO_X Verification Testing at Martin Combine Cycle Plant." August 7, 1995.

5 Florida DEP. PSD Permit, City of Tallahassee Purdom Unit 8. May, 1998.

6 City of Tallahassee. PSD/Site Certification Application. April, 1997.

7 Florida DEP. Intent to Issue Permit. FPL Fort Myers Repowering Project. September, 1998.

8 Florida DEP. Final Permit. Santa Rosa Energy Center. December, 1998.

9 Telecon. Schorr, M., GE, and Costello, M., Florida DEP. March 31, 1998. Status of DLN-2.6 Program

10 Florida DEP. Bureau of Air Regulation Monthly Report. June, 1998.

11 Telecon. Schorr, M., GE, and Linero, A.A., Florida DEP. August, 1998. Cost effectiveness of DLN versus SCR.

12 State of Alabama. PSD Permit, Alabama Power/Barry Sithe/IPP (GE 7FA).

13 General Electric. Combined Cycle Startup Curves. June 19, 1998.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

RECEIVED
DEC 15 1999
BUREAU OF AIR REGULATION

DEC 0 9 1999

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 Gulf Power Company - Lansing Smith Generating Plant (PSD-FL-269) located in Bay County, Florida

Dear Mr. Linero:

Thank you for sending the preliminary determination and draft prevention of significant deterioration (PSD) permit dated November 2, 1999, for the above referenced facility. The preliminary determination is for the proposed construction and operation of two combined cycle combustion turbines (CTs) with a total nominal generating capacity of 340 MW to be located near Southport, FL. The combustion turbines proposed for the facility are General Electric (GE), frame 7FA units and will be designated Unit 3. The CTs will combust only pipeline quality natural gas. As proposed, the CTs will be allowed to fire natural gas up to 8,760 hours per year and fire a maximum of 1,000 hours per year in power augmentation mode. In order to offset nitrogen oxide (NO_x) emissions from Unit 3, Gulf Power will be concurrently installing new low-NO_x burners in an existing combustion turbine (Unit 1). Total net emission increases from the proposed project are above the thresholds requiring PSD review for carbon monoxide (CO), sulfur dioxide (SO_2), particulate matter (PM/PM_{10}) and sulfuric acid mist (SAM).

Based on our review of the preliminary determination and draft PSD permit, we have the following comments on topics other than the air impact assessment. Air impact comments are provided at the end of this letter.

1. The CO cost analysis provided by the applicant in the PSD permit application lists an "Energy Penalty" figure that seems to be accounting for the lost revenue caused by a decrease in power output (lost power generation) as described in section 5.4.2 of the application (page 50). Although it is appropriate to calculate the cost of using additional natural gas to compensate for the power consumption resulting from pressure drops across the catalyst bed, lost revenue should not be included in the cost analysis. The "Energy Penalty" figure should be omitted from the cost analysis.

   Additionally, in the CO cost analysis an interest rate of 8.51 percent was used to calculate the cost recovery factor. This interest rate may be appropriate for the Smith Plant; however, it

should be noted that the current version of the U.S. Environmental Protection Agency's (EPA's) *OAQPS Control Cost Manual* uses an interest rate of 7 percent.

2. In Section III, condition 20 of the draft permit, the emission rates for NO_x are set as 10.6 and 13.6 ppmvd on a 24-hr block average as measured by CEMS for duct burning and duct burning with power augmentation, respectively. The averaging period for these emission limits should be much shorter. Elevated emissions from combustion turbines are most likely to occur during startup and shutdown periods, which FDEP has already taken into account in their excess emissions language. Although we take exception to the excess emissions provision (see our next comment below), a compliance averaging period less than 24 hours is reasonable if the excess emission provision is retained.

3. As indicated in condition 25 and 26 of the draft permit, FDEP is proposing to allow excess emissions due to startup, shutdown or malfunction for up to 4 hours in any 24-hour period. 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.

4. The proposed BACT limit for particulate matter (PM_{10}), found in the table in condition 19 of the draft permit, is 10% opacity for visible emissions from the combustion turbines and 18.2 lb/hr of PM_{10} for the cooling towers. This visible emissions opacity limit is proposed as a surrogate for a BACT particulate matter emissions rate limit for the combustion turbines. It is acceptable to use the 10% opacity limit as a surrogate for monitoring and recordkeeping; however, the permit conditions for the combustion turbines should also list the corresponding emission rate for particulate matter (i.e., 9 lb/hr for natural gas)

   Finally, it should be noted that the application lists the PM_{10} worst-case annual emissions for Unit 3 as 264 TPY (Table 2-3), but other areas of the application, the public notice and draft permit list the PM_{10} annual potential emissions for Unit 3 as 253 TPY. Although the correct hourly values were used for modeling purposes, to be consistent the annual emissions should be corrected in the draft permit and public notice.

In terms of the air quality impact assessment provided in support of the Gulf Power Lansing Smith Unit 3 preliminary determination and PSD permit application, we have the following comments. Each of these comments has been discussed with FDEP in order to acquire additional information and ensure mutual understanding of the issues.

1. Property Boundary - The plant site boundary used in the air quality impact modeling (Figure 6-1) does not appear to agree with the identified Unit 3 site location and property boundary (Figures 2-2 and 2-3). FDEP recognized this problem and has performed confirmation modeling using the plant site boundary that was defined as property controlled by Gulf Power

with public access barred by fencing, patrolling, and/or natural barriers (i.e., marsh land combined with industrial waste ponds).

2. Operational Configurations - Table 2-2 presents the H_2SO_4 emissions for various temperatures and operational loads. This table indicates duct burner operations at loads less than 100 percent. Tables 2-1 and C-1 indicate duct burning only when operation at 100 percent load. The proper operational characteristics for duct burning need to be defined.

3. Worst Case Operation Configuration - The worst case plant operational configuration was determined from SCREEN3 modeling of fourteen plant operational scenarios (i.e., three ambient temperatures, three loads, and a combination of evaporative cooling, steam power augmentation, and duct burning). For all SCREEN3 analyses both combustion turbines were assumed to operate simultaneously at the same load. This does not appear to be a realistic assumption and may not provide the operating scenario producing the worst case ambient impacts.

4. Emission Inventory Other Sources - For use in the determination of compliance with PM_{10} National Ambient Air Quality Standards (NAAQS) and PSD increment values, FDEP provided off-site PM_{10} emission sources within 75 km of Gulf Power (Table 6-2). Table 6-3 presents a subset of Table 6-2 sources that were used in the PM_{10} NAAQS and PSD modeling. The following are comments on these tables:

   a. The Table 6-2 PM_{10} sources with blank emission values were not included in the impact analysis. This is appropriate if a blank in the hourly emission rate column means no PM_{10} emissions. Otherwise the missing emission rates should be obtained in order to evaluate their applicability for the cumulative analyses.

   b. Although Florida Coast Paper Corporation is beyond the 53 km area of concern, it includes 16 emission units in the same location with emissions totaling about 1900 TPY. This source is large enough to potentially cause a significant concentration gradient in the vicinity of the proposed source and should be included in the NAAQS and PSD cumulative impact assessments.

5. PSD Cumulative Increment Analysis - The maximum high, second highest 24-hour cumulative (i.e., proposed source plus all off-site sources) PM_{10} Class II PSD increment concentration (Table 7-14) is smaller than the maximum PM_{10} concentration due only to the proposed Unit 3 emissions (Table 7-9). Although possible, this is an unusual result given the other large Gulf Power PM_{10} emissions sources at this same plant.

Thank you for the opportunity to comment on the Gulf Power Lansing Smith Generating Plant preliminary determination and draft PSD permit. If you have any questions regarding these comments, please direct them to either Katy Forney at 404-562-9130 or Stan Krivo at 404-562-9123.

Sincerely,

Douglas Neeley

R. Douglas Neeley
Chief
Air and Radiation Technology Branch
Air, Pesticides and Toxics
Management Division

cc: R. Moore, GP
T. Davis, ECT
NWD
NPS
B. Oven, PPS
Halpin, BAR
Holladay, BAR

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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NOV 2 3 1999

A. A. Linero, P.E.
Administrator
New Source Review Section
Department of Environmental Protection
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32399-2400

Re: Request for custom fuel monitoring at Lansing Smith Unit 3

Dear Mr. Linero:

This is in response to your request for a determination regarding a custom fuel schedule, pursuant to the New Source Performance Standards (NSPS) Subpart GG, Section 60.334(b)(2), dated July 16, 1999. In your request you referenced a custom fuel schedule under which no sampling of natural gas would be required for Lansing Smith Unit 3 which consists of two combustion turbines, two duct-fired heat recovery steam generators and nominal 200 Megawatt steam turbine.

The combustion turbines for which this custom schedule would apply will be affected units under the "Acid Rain Program', Title IV of the Clean Air Act Amendments. Emissions from a Title IV affected unit is required to be monitored according to 40 C.F.R. Part 75 "Continuous Emission Monitoring" for sulfur dioxide (SO_2). Under Part 75, Appendix D, the owner or operator of a gas fired turbine can use the default value of 0.0006 lb./million BTU to account for the unit's SO_2 emissions. The U.S. Environmental Protection Agency (EPA) has recognized that the sulfur content of pipeline natural gas is low enough to warrant the use of default value for SO_2 emissions for pipeline natural gas with a maximum sulfur content of 0.30 grains per 100 standard cubic feet to account for SO_2 emissions under the Acid Rain Program.

Therefore, the EPA Region 4 office approves a custom natural gas fuel monitoring schedule pursuant to 40 C.F.R. 75, Appendix D provided:

- The Permittee applies for an Acid Rain permit within the deadlines specified in 40 C.F.R. 72.30.
- The Permittee shall submit a monitoring plan, certified by signature of the Designated Representative (DR), that commits to using a primary fuel of pipeline supplied natural gas as specified above.

- Each unit is monitoring SO_2 emissions using methods consistent with the requirements of Part 75 and certified by the EPA.

- The customized fuel monitoring plan will only be valid when pipeline natural gas is used as a primary fuel. If the primary fuel is changed to a higher sulfur fuel, SO_2 emissions must be accounted for as required by 40 C.F.R. 75.11(d).

- Gulf Power shall notify the Florida Department of Environmental Protection of any change in natural gas supply for reexamination of this custom monitoring schedule. A substantial change in natural gas quality (i.e., sulfur content variation greater than 1 grain per 100 cubic feet of natural gas) shall be considered as a change in the natural gas supply. Sulfur content of the natural gas will be monitored weekly by the natural gas supplier and reported during the interim period when this monitoring schedule is being reexamined.

Condition 30 should restate the NOx emission limit or refer to the appropriate condition or table containing the emission limit.

This letter addresses only the custom fuel monitoring related issues identified in your November 1, 1999, letter to R. Douglas Neeley. The rest of the permit conditions will be addressed separately.

If you have any questions, please contact Mr. Lynn Haynes of the EPA Region 4 staff at (404) 562-9132 or Mr. David McNeal at (404) 562-9102.

Sincerely,

Gregg M. Worley

Gregg Worley
Chief
Operating Source Section
Air and Radiation Technology Branch
Air, Pesticides and Toxics
Management Division

cc: M. Halpin, BAR
R. Moore, Gulf Power
T. Davis, ECT
NWD
NPS
B. Owen

THE STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

In the Matter of an
Application for Permit by:

Gulf Power Company
One Energy Place
Pensacola, FL 32520
/

OGC CASE NO. _____

DEP File No.: PA 99-40
PROPOSED Permit No.: PSD-FL-269
Lansing Smith Electric Generating Plant
Unit 3 Combined Cycle Unit
Bay County

REQUEST FOR EXTENSION OF TIME

By and through undersigned counsel, Gulf Power Company hereby requests, pursuant to Florida Administrative Code Rule 62-110.106(4), an extension of time, to and including April 3, 2000, in which to file a Petition for Administrative Proceedings in the above-styled matter. As good cause for granting this request, Gulf Power Company states the following:

1. On or about November 5, 1999, Gulf Power Company received from the Department of Environmental Protection (Department) an "Intent to Issue PSD Permit" (Permit No. PSD-FL-269) for Unit 3, Lansing Smith Electric Generating Plant, Bay County, Florida. Along with the Intent to Issue, Gulf Power Company received a proposed PSD permit and "Public Notice of Intent to Issue PSD Permit."

2. The proposed permit contains several provisions that warrant clarification or correction.

3. Representatives of Gulf Power Company will meet and correspond with staff of the Department's Bureau of Air Regulation in an effort to resolve the issues identified by Gulf Power Company.

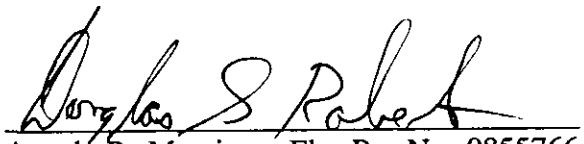
4. This request is filed simply as a protective measure to avoid waiver of Gulf Power Company's right to challenge certain conditions contained in the proposed PSD permit. Grant of this request will not prejudice either party, but will further their mutual interest and likely avoid the need to file a petition and proceed to a formal administrative hearing.

5. Undersigned counsel has contacted Scott Goorland with the Department's Office of General Counsel to discuss Gulf Power Company's request for an extension of time until April 3, 2000. At this time, he has no position on this request.

WHEREFORE, Gulf Power Company respectfully requests that the time for filing of a Petition for Administrative Proceedings in regard to the Department's Intent to Issue PSD Permit for Permit No. PSD-FL-269 be formally extended to and including April 3, 2000.

Respectfully submitted this 19th day of November, 1999.

HOPPING GREEN SAMS & SMITH, P.A.



Angela R. Morrison, Fla. Bar No. 0855766
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123 South Calhoun Street
Post Office Box 6526
Tallahassee, FL 32314
(904) 222-7500

Attorneys for GULF POWER COMPANY

CERTIFICATE OF SERVICE

I HEREBY CERTIFY that a copy of the foregoing has been furnished to the following by U.S. Mail on this 19th day of November, 1999:

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

Scott Goorland, Esq.
Office of General Counsel
Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, FL 32399-2600

Attorney

132636.1

One Energy Place
Pensacola, Florida 32520

850.444.6111

GULF POWER
A SOUTHERN COMPANY

Certified Mail

November 15, 1999

Mr. A. A. Linero, P.E.
Department of Environmental Protection
2600 Blair Stone Road
Mail Station #5505
Tallahassee, Florida 32399-2400

Dear Mr. Linero:

RE: Intent to Issue PSD Permit Public Notice
Plant Smith Unit 3 (Combined Cycle Unit):
DEP File No. PA 99-40 (PSD-FL-269)

Attached, please find a copy of the proof of publication (newspaper affidavit) for the "public notice of intent to issue PSD permit" for Unit 3 at the Smith Electric Generating Plant. The public notice was made on November 10, 1999. The attached newspaper affidavit was received from the Panama City News Herald on November 12, 1999 and thus a copy is being forwarded to you today for your records. This action completes the 7 day proof of publication outlined in your letter dated November 2, 1999.

If you have any questions or need further information regarding the matter, please call me at (850) 444-6527.

Sincerely,

G. Dwain Waters Q.E.P.

G. Dwain Waters, Q.E.P.
Air Quality Programs Coordinator

c: James O Vick, Gulf Power Company
Kim Flowers, Gulf Power Company
Tracy Reeder, Gulf Power Company
Doug Roberts, Hopping, Green, Sams & Smith
Tom Davis, Environmental Consulting & Technology, Inc.

Florida Freedom Newspapers, Inc.

PUBLISHERS OF THE NEWS HERALD
Panama City, Bay County, Florida
Published Daily

State of Florida
County of Bay

Before the undersigned authority appeared _____
Ken Carpenter
, who on oath says that (s)he is Advertising Director of the News Herald, a daily newspaper published at Panama City, in Bay County, Florida; that the attached copy of advertisement, being a Legal Advertisement in the matter of Notice of Intent PSD Permit-Lansing Smith Facility in the _____ Court, was published in said newspaper in the issues of November 10, 1999

Affiant further says that the News Herald is a direct successor of the Panama City News and that this publication, together with its direct predecessor, has been continuously published in said Bay County, Florida, each day (except that the predecessor, Panama City News, was not published on Sundays), and that this publication together with its said predecessor, has been entered as a second class mail matter at the post office in Panama City in said Bay County, Florida, for a period of one year next preceding the first publication of the attached copy of the advertisement, all in accordance with the provisions of section 49.03, Florida Statutes; and affiant further says that (s)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.

State of Florida
County of Bay
Sworn to and subscribed before me this 10th day of November, A. D., 1999 by Ken Carpenter, Advertising Director of The News Herald, who is personally known to me or has produced _____ as identification.

CARLA J. LYNN
MY COMMISSION # CC 702205
EXPIRES: December 14, 2001
Bonded Thru Notary Public Underwriters

Notary Public, State of Florida at Large

5616
PUBLIC NOTICE OF INTENT TO ISSUE PSD PERMIT
STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

DEP File No. PA 99-40
PSD-FL-269
Gulf Power
Lansing Smith Facilty
566 Megawatt Combined Cycle Unit No. 3
Bay County

The Department of Environmental Protection (Department) gives notice of its intent to issue a PSD permit to Gulf Power Company. The permit is to install a gas-fired combined cycle unit at the Lansing Smith Plant in Southport, Bay County. A Best Available Control Technology (BACT) determination was required pursuant to Rule 62-212.400, F.A.C. and 40 CFR52.21 for emissions of particulate matter (PM and PM10), carbon monoxide (CO), volatile organic compounds (VOC) sulfur dioxide (SO2) and sulfuric acid mist (SAM). The applicant's name and address are Gulf Power Company, One Energy Place, Pensacola, Florida 32520.

The unit consists of two nominal 170 megawatt General Electric PG724IFA gas-fired combustion turbine-generators with duct-fired heat recovery steam generators (HRSGs) that will raise sufficient steam to produce approximately another 200 MW via a steam-driven electrical generator. The gas turbines and duct burners will fire only natural gas and are not being permitted for operation in simple cycle (non-steam model). The project also includes: a cooling tower; small heaters to heat the natural gas prior to use; and two relatively short stacks.

The applicant is proposing concurrent installation of low NOX burners on existing Smith Unit 1, as well as a facility-wide NOX cap, thereby ensuring no net increase in NOX and eliminating the requirement for a BACT determination for this pollutant. Nitrogen oxides (NOX) emissions will be controlled by Dry Low NOX (DLN-2.6) combustors capable of achieving emissions of 10.6 parts per million (ppm) by volume at 15 percent oxygen while firing duct burners. Emissions of carbon monoxide (CO) will be controlled to 16 ppm,while emissions of volatile organic compounds (VOC) will be less than 4 ppm. Emissions of sulfur dioxide (SO2), sulfuric acid mist (SAM), and particulate matter PM/PM10) will be very low because of the inherently clean pipeline quality natural gas. The unit will be permitted with steam augmentation for up to 1000 hours per year, during which time NOX emissions will be up to 13.6 ppm, CO emissions up to 23 ppm, and VOC emissions up to 6 ppm.

The following maximum potential annual emissions (in tons per year) summarize the maximum increase in regulat-

The Department will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to Section 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 fourteenth 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 basked 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

ed air pollutants as a result of this project. NOX emission increases at the facility are shown as zero due to a facility-wide NOX cap of 6666 TPY, which is based upon past actual emissions.

Pollutants;	Unit 3 Maximum Emissions;	Maximum Facility Increase
PM/PM14	253	253
SAM	12	12
SO2	105	105
NOX	757	0
VOC	93	93
CO	701	701

Absent this project and the proposed NOX emissions cap, the permitted NOX emissions from the plant (including mandated Phase II reductions) are over 7,342 TPY.

An air quality impact analysis was conducted. Emissions from the facility will not contribute to or cause a violation of any state or federal ambient air quality standards. The maximum predicted PM10PSD Class II increments consumed by all sources in the area, including this project, will be as follows:

Avg. Time;	Allowable Increment (ug/m3);	Increment Consumed (ug/m3);	Percent Consumed
24-hour	30	11	37
Annual	17	1	6

The project by itself has no significant impact on the PSD Class I Bradwell Bay National Wilderness Area.

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 requests for a public meeting concerning the proposed permit issuance action for a period of thirty (30) days from the date of publication of "Public Notice of Intent to Issue Air Construction Permit." Written comments 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.

This PSD permitting action is being coordinated with a certification under the Power Plant Siting Act (Sections 403.501-519, F.S.). If a petition for an administrative hearing on the Department's Intent to Issue is filed by a substantially affected person, that hearing shall be consolidated with the certification hearing, as provided under Section 403.507(3).

ultimate facts alleged, as well as the rules and statutes which entitle the petitioner to relief; and (f) A demand for relief.

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 of 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:

Florida Department of Environmental Protection
Bureau of Air Regulation
111 S. Magnolia Drive, Suite 4
Tallahassee, Florida 32301
Telephone: 850/488-1344
Fax: 850/922-6979

Florida Department of Environmental Protection
Northwest District Office
160 Governmental Center
Pensacola, Florida 32501-8300
Phone: 850/595-8300
Fax: 850-595-4417

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 the Administrator, New Resource Review Section at 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301, or call 850/488-0114, for additional information.

November 10, 1999

CC: M. Halpin
B. Over
NWD
EPA
NPS