File

Department of Environmental Protection

Jeb Bush
Governor

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

David B. Struhs
Secretary

September 15, 1999

Mr. R. Douglas Neeley, Chief
Air and Radiation Technology Branch
Air, Pesticides and Toxics Management Division
United States Environmental Protection Agency
Region 4
61 Forsyth Street, SW
Atlanta, GA 30303-8909

Re: Proposed Changes to the Proposed Title V Permit for the Gulf Power – Crist Plant, to Address EPA Objections

Dear Mr. Neeley:

This letter is to document changes that Gulf Power Company and the Department propose to satisfy EPA Region 4 objections to Florida's Proposed Title V permit for the Gulf Power – Crist Plant. These objections were detailed in a letter from EPA Region 4 dated July 22, 1999. Enclosed, please find a hard copy of the response from Gulf Power that was faxed to you on Tuesday, September 7, the Department's responses to your comments that Gulf Power identified as needing Department clarification, and a new Statement of Basis.

Based on the outcome of our teleconference on Friday, September 10, with David McNeal and Elizabeth Bartlett, of your staff, we believe that the following responses will satisfy your concerns. Resolution of this objection is crucial in order for Gulf Power to receive a Final Title V permit, including the Southern Company's multi-state NO_X averaging plan, by December 31, 1999. Upon your concurrence with the responses listed below, the Department will issue a Final Title V permit that contains the changes as indicated.

Should you have any questions regarding this submission, please contact Mr. Jonathan Holtom, P.E., at (850) 921-9531.

Sincerely,

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

Enclosures

cc: Mr. James Vick, Gulf Power Company
Mr. G. Dwain Waters, Gulf Power Company (E-mail)
Ms. Elizabeth Bartlett, USEPA Region 4 (E-mail)

CHF/jh

Gulf Power Company – Crist Electric Generating Plant

Department Responses to EPA Objections
Initial Title V Permit

The following responses address the EPA comments that Gulf Power has indicated as needing Department clarification.

EPA Comment Number 2.

Compliance Testing: The permit is not clear about the frequency of testing that the facility needs to follow for particulate matter (PM) and visible emissions (VE). Condition A.15 states that the source must conduct annual testing for PM and VE. However, conditions A.21, A.27, A.28, and A.29 establish that the facility will conduct testing once a year if fuel oil is burned for more than 400 hours, and no testing is required otherwise. The permit needs to be clear about which one of these conditions the facility must follow to demonstrate compliance with the PM and VE limits. The same comment applies to conditions B.17 and B.26, and C.17 and C.26. Additionally, the permit needs to include the regulatory basis for conditions A.15, B.17 and C.17.

Furthermore, EPA is concerned with the interaction of these conditions. The statement of basis indicates that the source will conduct annual testing for particulate matter for units 4-7. Therefore, we do not understand why the testing waivers are included for these units since they seem not to apply.

In response to this comment, condition A.15. is changed:

From:
A.15. Annual Tests Required. Units -001, -002 and -003 must conduct annual testing for particulate matter and visible emissions in accordance with the requirements listed below.

To:
A.15. Annual Tests Required. Except as provided in Specific Conditions **A.27. – 29.**, units -001, -002 and -003 shall conduct annual testing for particulate matter and visible emissions in accordance with the requirements listed below.
[Rule 62-297.310(7)(a)4., F.A.C.]

In addition, the following rule citation will be added to conditions B.17. and C.17.: [Rule 62-297.310(7)(a)4., F.A.C.]. The following permitting note will be added to conditions B.17. and C.17.: {Permitting Note: The annual SO_2 test that is required by Rule 62-297.310(7), F.A.C., can be done during the annual RATA as satisfaction of this requirement, provided all other testing requirements specified in the permit are met.}

EPA Comment Number 3.

Appropriate Averaging Times: In order for the emissions standard for particulate matter contained in conditions A.7, B.7, and C.7 to be practicably enforceable, the appropriate averaging time must be specified in the permit. An approach that can be used to address this deficiency is to include general language in the permit to indicate that the averaging times for all specified emission standards are tied to or based on the run time of the test method(s) used for determining compliance.

As a result of this comment, the following permitting note has been added following specific conditions A.7., B.7. & C.7.:
{Permitting Note: The averaging time shall correspond to the cumulative sample time, as specified in the reference test method (see specific condition **A.18., B.21., C.21. (as appropriate)**).}

EPA Comment Number 4.

Periodic Monitoring: Conditions B.17 and C.17 of the permit require the source to conduct annual testing for particulate matter. The statement of basis for the permit states that this testing frequency "is justified by the low emission rate documented in previous emissions tests while firing coal" and that the "Department has determined that sources with emissions less than half of the effective standard shall test annually."

While EPA has in the past accepted this approach as adequate periodic monitoring for particulate matter, it has done so only for uncontrolled natural gas and fuel oil fired units. The units addressed in conditions B.17 and C.17 use add-on control equipment to comply with the applicable particulate matter standard. In order to provide reasonable assurance of compliance, the results of an annual stack testing will have to be supplemented with additional monitoring. Furthermore, the results of an annual test alone would not constitute an adequate basis for the annual certification of compliance that the facility will have to submit for these units.

The most common approach to addressing periodic monitoring for particulate emission limits on units with add-on controls is to establish either an opacity or a control device parameter indicator range that would provide evidence of proper control device operation. The primary goal of such monitoring is to provide reasonable assurance of compliance, and one way of achieving this goal is to use opacity data or control device operating parameter data from previous successful compliance tests to identify a range of values that has corresponded to compliance in the past. Operating within the range of values identified in this manner would provide assurance that the control device is operating properly and would serve as the basis for an annual compliance certification. Depending upon the margin of compliance during the tests used to establish the opacity or control device indicator range, going outside the range could represent either a period of time when an exceedance of the applicable standard is likely or it could represent a trigger for initiating corrective action to prevent an exceedance of the standard. In order to avoid any confusion regarding the consequences of going outside the indicator range, the permit must clearly state if doing so is evidence that a standard has been exceeded and must specify whether corrective action must be taken when a source operates outside the established indicator range.

The Department does not agree with Gulf Power's response. Instead, we propose that the following two new conditions be added to the permit:

B.38. Periodic Monitoring Requirements. Periodic monitoring for particulate matter shall be COMs. For any calendar quarter in which more than five percent of the COMs readings show 20% or greater opacity (excluding start-up, shut-down and periods of COMs outages), a steady state particulate matter stack test shall be performed and submitted within the following calendar quarter. The stack test shall comply with all of the testing and reporting requirements contained in the preceding specific conditions. Units are not required to be brought on-line solely for the purpose of performing this special compliance test. If the unit does not operate in the following quarter, the special compliance test may be postponed until the unit is brought back on-line. Once back on-line, the special test shall be performed within 20 days.
[Rule 62-213.440(4), F.A.C.]

C.39. Periodic Monitoring Requirements. Periodic monitoring for particulate matter shall be COMs. For any calendar quarter in which more than five percent of the COMs readings show 20% or greater opacity for unit 6 and 30% or greater opacity for unit 7 (excluding start-up, shut-down and periods of COMs outages), a steady state particulate matter stack test shall be performed and submitted within the following calendar quarter. The stack test shall comply with all of the testing and reporting requirements contained in the preceding specific conditions. Units are not required to be brought on-line solely for the purpose of performing this special compliance test. If the unit does not operate in the following quarter, the special compliance test may be postponed until the unit is brought back on-line. Once back on-line, the special test shall be performed within 20 days.
[Rule 62-213.440(4), F.A.C.]

For units 4, 5 and 6, 20% opacity is an acceptable trigger for the need to perform a special compliance test. However, using 30% opacity as the benchmark for additional testing at unit 7 is justified based on a linear extrapolation of historical particulate matter test vs. opacity data that indicates compliance with the particulate matter limit at 30% opacity. It has been requested by Gulf Power due to the inherent tendencies of this unit to routinely operate at levels above 20% opacity.

EPA Comment Number 8.

Acid Rain: Please note that the Phase II Averaging Plan submitted by the source is an enforceable part of this permit. The Averaging Plan, Phase II NO_x Compliance and Phase II Acid Rain Permit Application should be referenced and attached as enforceable parts of the Title V permit. We note that Phase II permit applications, Phase II NO_x Compliance Plans and the Phase II Averaging Plans submitted by this source are referenced in Section IV, Condition A.1. of the proposed permit and on page 1 of the permit in a section entitled, "Referenced attachments made part of this permit". However, the forms and the referenced dates of these two parts of the permit do not coincide and do not appear to reflect the complete signed forms as submitted by the source. It is

important that the specific forms and applications (signed and dated by the designated representative) be attached to the permit as enforceable parts of the permit and that they are completely and accurately referenced.

In response to this comment, the referenced attachment dates have been updated to reflect the correct submission dates. The Acid Rain forms that will be included in the Title V permit are as follows:

Phase II Acid Rain Permit Application/Compliance Plan Received December 18, 1995
Phase II Acid Rain NO_X Compliance Plan Received December 22, 1997
Revised Phase II Acid Rain NO_X Averaging Plan Received August 24, 1999

EPA Comment Number 9.

Acid Rain: The language contained in section 70.6(a)(1)(ii), regarding Acid Rain Program requirements in title V is not addressed in the Acid Rain Part of the permit and does not appear to be included in elsewhere in the body of the proposed permit. This condition needs to be added to the proposed title V permit for this source.

As a result of this comment, two new conditions have been added to the Acid Rain section. Th e remainder of the existing conditions have been renumbered accordingly.

A.5. No permit revision shall be required for increases in emissions that are authorized by allowances acquired pursuant to the Federal Acid Rain Program, provided that such increases do not require a permit revision pursuant to Rule 62-213.400, F.A.C.
[40 CFR 70.6(a)(4)(i); and, Rule 62-213.440(1)(c)1., F.A.C.]

A.6. Where an applicable requirement of the Act is more stringent than applicable regulations promulgated under Title IV of the Act, both provisions shall be incorporated into the permit and shall be enforceable by the Administrator.
[40 CFR 70.6(a)(1)(ii); and, Rule 62-210.200, F.A.C., Definitions – Applicable Requirements.]

EPA General Comment Number 1.

Section II, condition 1: Please make sure that Appendix TV-2 reflects the updated version of condition 51, as it is contained in Appendix TV-3.

As a result of this comment, Appendix TV-2 has been replaced with Appendix TV-3 and all references have been updated.

EPA General Comment Number 2.

Section II, condition 12: Please correct the address, telephone and fax number for the Air Enforcement Section. All required reports should be sent to the Air Enforcement Section (AES), not the Operating Source Section. The correct telephone and fax numbers for AES are 404/562-9055 and 404/562-9163, respectively. Additionally, please delete the information concerning the submission of Acid Rain information. Region 4 does not have an Acid Rain Section.

As a result of this comment, the requested changes have been made.

EPA General Comment Number 3.

See new Statement of Basis, attached.

EPA General Comment Number 4.

Section IV, Acid Rain Part: Please note that the allowances allocated to the Crist Plant units 4,5,6,7, as indicated under Section IV, Condition A.2 of the proposed permit have been changed. This revision was published in the Federal Register on September 28, 1998 (Vol. 63 No. 187, pp 51706-51765). We recommend that the allowances that are indicated for these units be adjusted to reflect the revised allocation.

As a result of this comment, the Acid Rain section has been updated to reflect the revised allowances as follows:

Unit Number	Phase II Allowances

1	35
2	3
3	4
4	2467
5	2430
6	8396
7	12522

EPA General Comment Number 5.

Appendix CP-1, Alternate Phase II NO_X Compliance Plan, was only intended to address the initial issuance of the Title V/Acid Rain permit. It does not address any future revisions to the averaging plan. Future revisions will be subject to a different compliance plan.

STATEMENT OF BASIS

Gulf Power Company
Crist Electric Generating Plant
Facility ID No.: 0330045
Escambia County

Initial Title V Air Operation Permit
PROPOSED Permit No.: 0330045-001-AV

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

This facility consists of seven fossil fuel fired steam generators (boilers) and two fly ash silos. Boilers 4 and 5 are substitution Acid Rain Phase I Units. Boilers 6 and 7 are Acid Rain Phase I Units. All seven boilers will be subject to the Acid Rain Phase II requirements. Natural gas is the primary fuel for boilers 1, 2 and 3. Pulverized coal is the primary fuel for boilers 4, 5, 6 and 7. Fuel oil is used as supplemental fuel in all seven of the boilers. Also included in this permit are miscellaneous unregulated/insignificant emissions units and/or activities.

Emissions unit number -001 is a Riley front wall-fired, dry bottom boiler designated as "Boiler Number 1". It is rated at a maximum heat input of 420 million Btu per hour (MMBtu/hour) when firing natural gas and 320 MMBtu/hour when firing fuel oil. Natural gas is the primary fuel. Emissions unit number -002 is a Riley front wall-fired, dry bottom boiler designated as "Boiler Number 2". It is rated at a maximum heat input of 420 MMBtu/hour when firing natural gas and 320 MMBtu/hour when firing fuel oil. Natural gas is the primary fuel. Emissions unit number -003 is a Riley front wall-fired, dry bottom boiler designated as "Boiler Number 3". It is rated at a maximum heat input of 550 million Btu per hour (MMBtu/hour) when firing natural gas and/or fuel oil. Natural gas is the primary fuel. All three units are regulated under Acid Rain, Phase II. These emissions units pre-date PSD regulations, but are regulated under Rule 62-296.405, F.A.C., Fossil Fuel Fired Steam Generators with more than 250 million Btu per Hour Heat Input. Emissions from these boilers are uncontrolled. The Department feels that additional periodic monitoring for particulate matter emissions is not needed for these units. For each of the past ten years, these units have burned fuel oil for less than 400 hours. Under the approval granted by an alternate sampling procedure (ASP 97-B-01) accepted by EPA, as long as these units do not burn liquid or solid fuel for greater than 400 hours per year, annual particulate matter tests are not required.

Emissions unit number -004 is a Combustion Engineering tangentially fired, dry bottom boiler designated as "Boiler Number 4". It is rated at a maximum heat input of 1,096.7 million Btu per hour (MMBtu/hour) when firing pulverized coal, natural gas or distillate No. 2 fuel oil (used as back-up fuel). Emissions unit number -005 is a Combustion Engineering tangentially fired, dry bottom boiler designated as "Boiler Number 5". It is rated at a maximum heat input of 1,096.7 million Btu per hour (MMBtu/hour) when firing pulverized coal, natural gas or distillate No. 2 fuel oil (used as back-up fuel). Both units are Phase I Substitution and Phase II Acid Rain Units. These emissions units pre-date PSD regulations, but are regulated under Rule 62-296.405, F.A.C., Fossil Fuel Fired Steam Generators with more than 250 million Btu per Hour Heat Input. PM emissions from units -004 and

-005 are controlled by hot side (Buell Model # Bal. 2x34n333-4-3p) and cold side (Buell Model # 1.1x48k33-1p) electrostatic precipitators.

Emissions unit number -006 is a Foster Wheeler front wall fired, dry bottom boiler designated as "Boiler Number 6". It is rated at a maximum heat input of 3,704.8 million Btu per hour (MMBtu/hour) when firing pulverized coal, natural gas or distillate fuel oil (used as back-up fuel). Emissions unit number -007 is a Foster Wheeler front and rear wall fired, dry bottom boiler designated as "Boiler Number 7". It is rated at a maximum heat input of 6,406.4 million Btu per hour (MMBtu/hour) when firing pulverized coal, natural gas or distillate fuel oil (used as back-up fuel). These emissions units are regulated under Acid Rain, Phase I. These emissions units pre-date PSD regulations, but are regulated under Rule 62-296.405, F.A.C., Fossil Fuel Fired Steam Generators with more than 250 million Btu per Hour Heat Input. Particulate matter emissions from unit -006 are controlled by a cold side electrostatic precipitator (Wheelabrator Model # HaRDE). Particulate matter emissions from unit -007 are controlled by cold side Buell electrostatic precipitators. NO_X emissions from units -006 and -007 are controlled by Foster Wheeler Low NO_x Burners.

Periodic monitoring for particulate matter will be through the use of COMs. For any calendar quarter in which more than five percent of the COMs readings on units 4, 5 and 6 show 20% or greater opacity (30% for unit 7), a steady-state particulate matter stack test will be required to be performed and submitted within the following calendar quarter. If the unit does not operate in the following quarter, it shall be tested within 20 days of coming back on-line. These units are subject to a steady-state PM emission limit of 0.1 lb/MMBtu, and 0.3 lb/MMBtu for soot blowing. They are also subject to an opacity standard of 40%. The applicant has presented historical PM test results which show that the steady-state and soot blowing average results are significantly less than the applicable standards. A five year average of results of particulate matter emission testing, in lb/MMBtu, for this facility is given below:

Unit #	Steady-state	Soot-blowing
4	0.011	0.016
5	0.039	0.035
6	0.007	0.010
7	0.041	0.062

The Department and EPA have previously determined that sources without controls, whose emissions are less than half of the applicable standard, shall test annually. Given the historically low documented PM emissions combined with the company's agreement to conduct a PM stack test following any quarter in which their COMs data shows that greater than 5% of the readings are greater 20% (30% for unit 7), the Department believes that periodic monitoring for particulate matter is more than reasonably addressed. Using 30% opacity as the benchmark for additional testing at unit 7 is justified based on a linear extrapolation of historical particulate test vs. opacity data that indicates compliance with the particulate limit at 30% opacity. It has been requested by Gulf Power due to the inherent tendencies of this unit to routinely operate at levels above 20% opacity.

Units 4, 5, 6 and 7 are utilizing CEMS for compliance purposes for NO_X, SO_2 and opacity.

Emissions unit number 8 consists of two Fly Ash Storage Silos. Fly ash collection systems from precipitators on boilers numbers 4, 5, 6 & 7 to three transfer tanks are totally enclosed with no emission points. Three blowers pneumatically convey dry fly ash to 2 silos at a maximum solids rate of 150 tons per hour to either silo or to both. The majority of the solids (99.4%) settles by gravity upon entering the silo, the residual particulates are controlled by a baghouse on each silo. Each baghouse is a Pulse Jet Fabric Filter - model #100 - WMWC - 420 (IIG) manufactured by Flex-Kleen. Dry fly ash will be transported in closed tanker trucks away from the site

(approximately 20% sold annually) or conditioned (12-15% water added) fly ash will be transported to an approved landfill area on the site. This emissions unit is regulated under Rule 62-210.300, F.A.C., Permits Required and Rule 62-296.320, F.A.C., General Pollutant Emission Limiting Standards. There is one baghouse on each silo. Historical test data presented by Gulf Power shows less than 2.2% opacity from these units for the past 5 years. Based on these results, the Department does not feel that additional periodic monitoring is necessary.

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

Based on the initial Title V permit application received June 14, 1996, this facility is a major source of hazardous air pollutants (HAPs).

One Energy Place
Pensacola, Florida 32520

850.444.6111

GULF POWER
A SOUTHERN COMPANY

September 2, 1999

HAND DELIVERED

Mr. Scott M. Sheplak , P.E.
Bureau of Air Regulation
Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Dear Mr. Sheplak:

RE: EPA Objection to Proposed Title V Permit
Plant Crist: 0330045-001-AV

Attached, please find Gulf Power's response to the Department's letter dated 7/28/99 (received July 30, 1999) regarding EPA's formal objection of the Crist Title V Permit No. 033045-001-AV. As outlined in the above referenced correspondence, Gulf Power would like to make a written reply to EPA within the 45 day window allowed for an applicant to include supportive materials in the record relevant to the issues raised by the objection.

As you may recall from our meeting on August 6, 1999, many of the issues identified by EPA address specific issues regarding format and errors that FDEP needs to directly address. Please incorporate your comments on these relative issues with ours and send a response to EPA before September 13, 1999. If possible, Gulf Power would like to review your final draft before it is routed to EPA.

Additionally, Gulf Power believes a face to face meeting with EPA maybe needed to address any unresolved issues. Therefore, Gulf Power requests FDEP schedule a meeting with EPA Region IV as soon as possible to address our responses and to continue any discussions regarding the de-coupling of the Title IV and V programs in Florida should it still be needed.

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

Sincerely,

G. Dwain Waters Q.E.P.

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

cc/watt: Danny Herrin, Southern Company Services
Robert G. Moore, Gulf Power Company
James O Vick, Gulf Power Company
Joe Martin, Gulf Power Company
John Dominey, Gulf Power Company
Kim Flowers Gulf Power Company
Ken Peacock, Gulf Power Company
Tracy Reeder, Gulf Power Company
Angela Morrison, Hopping, Green, Sams & Smith

Gulf Power's Response to EPA's Region IV Letter of Objection dated July 22, 1999 regarding the Crist Title V Permit

(Permit No. 0335045-001-AV)
9/2/99

Background: On July 30, 1999, Gulf Power received notification from FDEP that EPA issued a formal objection to the Crist Title V permit. In accordance with Florida law, the FDEP can not issue a final Title V Crist permit until the objection is resolved or withdrawn. Gulf Power may file a written reply to the objection within 45 days from the day FDEP serves notice to the applicant (i.e. September 13). Within 90 days (i.e. October 27), FDEP will have to resolve the objection by issuing a permit that satisfies EPA or EPA will assume authority for the permit. At this point, FDEP's role is one of a mediator between Gulf Power and EPA. All correspondence with EPA must flow through FDEP. Outlined below are Gulf Power comments regarding the issues raised by EPA which directly effect operations at Plant Crist. FDEP has agreed to provide additional comments other general process issues identified by EPA's letter of objection. Gulf Power's comments with those by FDEP will be forwarded by FDEP to EPA Region IV before September 13, 1999.

U.S. EPA Region 4 Objection

Proposed Part 70 Operating Permit
Gulf Power Company
Crist Electric Generating Plant
Permit no. 033045-001-AV

1. EPA Objection Issues

1. Periodic Monitoring: The permit does not require sufficient periodic monitoring to ensure compliance with the applicable particulate matter limit for units 1-3. Condition A.15 of the permit only requires an annual test, which, according to conditions A.21, A.27, A.28, and A.29, may not even be required since this unit's primary fuel is natural gas (see Objection Issue 2). In most cases, this does not constitute adequate periodic monitoring to ensure continuous compliance with the particulate matter. The permit must require the source to conduct more frequent monitoring or a technical demonstration must be included in the statement of basis explaining why the State has chosen not to require any additional PM testing. The demonstration needs to identify the rationale for basing the compliance certification on data from a test performed once a year.

Response: EPA accepted identical periodic monitoring permit language for Title V permits negotiated with FP&L. Florida has an approved alternative sampling procedure (ASP Number 97-B-01) dated July 2, 1997 which authorizes owners of natural gas fossil fuel steam generators to forgo particulate matter compliance testing on an annual basis and prior to renewal of an operation permit. Additionally, the order states that the Department (FDEP) shall not require submission of particulate matter emission compliance test results for any fossil fuel steam generator emissions unit that burned liquid and/or solid fuel for a total of no more than 400 hours during the year prior to renewal. The units identified in the issue are Crist Units 1-2-3. These units have not burned liquid fuel for more than 400 hours for generation per year in the past 10 years. Opacity and sulfur dioxide monitors were operated voluntarily on each unit (Crist 1-2-3) from approximately 1975 to 1994. During this time there were no excess emissions reported for any quarter above those allowed under Chapter 62-210.700 F.A.C. For this reason and due to the exemption of opacity monitoring allowed under the Clean Air Act Amendments of 1990 for gas units, Gulf Power upon agreement from FDEP removed the opacity and sulfur dioxide monitors from service on Crist Units 1-2-3 in 1994. Gulf Power believes the above information is sufficient as a technical demonstration for periodic monitoring to ensure compliance with the applicable particulate matter limit for Crist Units 1-2-3. (See Attachment A for ASP Number 97-B-01)

2. Compliance Testing: The permit is not clear about the frequency of testing that the facility needs to follow for particulate matter (PM) and visible emissions (VE). Condition A.15 states that the source must conduct annual testing for PM and VE. However, conditions A.21, A.27, A.28, and A.29 establish that the facility will conduct testing once a year if fuel oil is burned for more than 400 hours, and no testing is required otherwise. The permit needs to be clear about which one of these conditions the facility must follow to demonstrate compliance with the PM and VE limits. The same comment applies to conditions B.17 and B.26, and C.17 and C.26. Additionally, the permit needs to include the regulatory basis for conditions A.15, B.17 and C.17.

   Furthermore, EPA is concerned with the interaction of these conditions. The statement of basis indicates that the source will conduct annual testing for particulate matter for units 4-7. Therefore, we do not understand why the testing waivers are included for these units since they seem not to apply.

Response: Gulf Power somewhat agrees with EPA's item #2 objection in that the permit language is difficult to determine exactly what is required of the applicant. Gulf Power believes this issue can be corrected through better permit language or by the use of permit notes to direct the reader to the bottom line testing requirement of the permit (See item #1 above for Crist 1-2-3). It should be noted that this issue should not apply to Crist 4 & 5(EPA's reference to Condition B 17) and Crist 6 & 7 (Reference to Condition C.17) because they are coal fired generating units and conduct annual tests. Conditions B.17 and C.17 could be corrected by deleting any reference to "SO2" testing since CEMS are being used for compliance. Gulf Power suggests the following language for Condition A.15. Similar language is suggested for Conditions B.17 (Units 4 & 5) and C.17 (Units 6 & 7):

A. 15 Annual Tests Required. Units 001, 002, and 003 must conduct annual testing for particulate matter and visible emissions, except as provided under Condition A.21, A.27, and A.29 ~~in accordance with the requirements~~ listed below.

3. Appropriate Averaging Times: In order for the emissions standard for particulate matter contained in conditions A.7, B.7, and C.7 to be practicably enforceable, the appropriate averaging time must be specified in the permit. An approach that can be used to address this deficiency is to include general language in the permit to indicate that the averaging times for all specified emission standards are tied to or based on the run time of the test method(s) used for determining compliance.

Response: Conditions A.7, B.7 and C.7 make reference to averaging time by measurement by the applicable compliance method. Gulf Power believes the averaging times have been specified in the permit for opacity by the use of CEMs for compliance using a block 6 minute average under Condition B19 (Permit Note) and C19 (Permit Note). Additionally, compliance to sulfur dioxide standards are outlined by CEMs using a 24 hour average under Condition B23 and C23. Particulate Matter compliance is outlined under Condition B21 and C21 as the minimum time for a sample collection of a volume of 30 dry standard cubic feet.

4. Periodic Monitoring: Conditions B.17 and C.17 of the permit require the source to conduct annual testing for particulate matter. The statement of basis for the permit states that this testing frequency "is justified by the low emission rate documented in previous emissions tests while firing coal" and that the "Department has determined that sources with emissions less than half of the effective standard shall test annually."

   While EPA has in the past accepted this approach as adequate periodic monitoring for particulate matter, it has done so only for uncontrolled natural gas and fuel oil fired units. The units addressed in conditions B.17 and C.17 use add-on control equipment to comply with the applicable particulate matter standard. In order to provide reasonable assurance

of compliance, the results of an annual stack testing will have to be supplemented with additional monitoring. Furthermore, the results of an annual test alone would not constitute an adequate basis for the annual certification of compliance that the facility will have to submit for these units.

The most common approach to addressing periodic monitoring for particulate emission limits on units with add-on controls is to establish either an opacity or a control device parameter indicator range that would provide evidence of proper control device operation. The primary goal of such monitoring is to provide reasonable assurance of compliance, and one way of achieving this goal is to use opacity data or control device operating parameter data from previous successful compliance tests to identify a range of values that has corresponded to compliance in the past. Operating within the range of values identified in this manner would provide assurance that the control device is operating properly and would serve as the basis for an annual compliance certification. Depending upon the margin of compliance during the tests used to establish the opacity or control device indicator range, going outside the range could represent either a period of time when an exceedance of the applicable standard is likely or it could represent a trigger for initiating corrective action to prevent an exceedance of the standard. In order to avoid any confusion regarding the consequences of going outside the indicator range, the permit must clearly state if doing so is evidence that a standard has been exceeded and must specify whether corrective action must be taken when a source operates outside the established indicator range.

Response: Gulf Power disagrees with the above approach to address periodic monitoring for particulate emission limits. Gulf Power is concerned that the EPA suggested procedure is an attempt to implement Compliance Assurance Monitoring (CAM) before its legal requirement. Nevertheless, Gulf Power is willing to suggest alternative language to better address periodic monitoring for particulate matter for Plant Crist. Gulf Power proposes the following language for Plant Crist:

Periodic Monitoring for particulate matter is an annual particulate compliance test (PCT) for units with add on emission control systems that demonstrate a history (5 year average) of compliance of 40% or less of the applicable Florida particulate standard. Units not meeting this evaluation upon initial Title V permit issuance shall conduct a PCT semi-annually. Additionally, each base load electric generating unit having a continuous opacity monitor (COM) will meet on a quarterly basis EPA's Continuous Emission Monitoring Enforcement Plan (CEP) for the applicable opacity standard at 5% or less of Time on Line. Peaking units shall be evaluated similarly with the exception that start up and shut down operations shall be excluded. Should a unit exceed the 5% time on line evaluation in any quarter, a particulate compliance test (PCT) shall be conducted within the following operating quarter as defined by EPA under the Acid Rain Part 75 rules. (See Attachment B for the Plant Crist unit by unit evaluation.)

5. Periodic Monitoring: Condition C.7 specifies that particulate matter emissions from unit 6 shall not exceed 1,475 tons per year. Based upon the short term limit for this unit [0.1 pound/million British thermal units (BTUs)], heat input capacity (3,704.8 BTU/hour), and 8,760 hours of operation per year, unit 6 could emit 1,622.7 ton/year of particulate matter even if it is continuously meeting the applicable short-term particulate limit. Since this value exceeds the annual emission limit of 1,475 ton/year, the permit must be revised to include conditions specifying the procedures that Gulf Power will use to demonstrate compliance with the annual particulate emission limit for unit 6.

Response: Condition C7 was included in the Title V permit because it was include in an old Crist Unit 6 ESP Construction Permit for informational purposes only. FDEP granted Gulf Power an option of removing the condition upon publication of a public notice of change of the Crist Unit 6 Construction Permit. For the sake of timeliness and need for expediency to acquire a final Title V

permit, Gulf Power has elected to forgo further delay to the process by accepting the annual condition. Gulf Power, however does seek the right to delete this condition in the future upon a more positive timely response scenario. Gulf Power proposes that compliance to the condition shall be determined by submission of an annual certification by the responsible official based on data calculated and submitted in the required Annual Operating Report (AOR).

6. Periodic Monitoring: Condition C.9 specifies that, when burning solid fuel, sulfur dioxide emissions from unit 6 shall not exceed 87,035 tons per year. Although Condition C.16 indicates that monitoring to assure compliance with this limit will be conducted with the SO_2 continuous emission monitor installed on unit 6, data from the flue gas flow rate monitor installed on this unit is needed in order to convert the data from the SO_2 monitor into an hourly mass emission rate that can be totaled in order to verify compliance with the annual SO_2 emission limit. Therefore, Condition C.16 must be revised to require that both the SO_2 and flue gas flow rate monitors be used to determine SO_2 emission rates on unit 6.

Response: Condition C7 was included in the Title V permit because it was include in an old Crist Unit 6 ESP Construction Permit for informational purposes only. FDEP granted Gulf Power an option of removing the condition upon publication of a public notice of change of the Crist Unit 6 Construction Permit. For the sake of timeliness and need for expediency to acquire a final Title V permit, Gulf Power has elected to forgo further delay to the process by accepting the annual condition. Gulf Power, however does seek the right to delete this condition in the future upon a more positive timely response scenario. Gulf Power proposes that compliance to the condition shall be determined by submission of an annual certification by the responsible official based on data calculated and submitted in the required Annual Operating Report (AOR). Gulf Power does not agree with EPA that compliance must be determined by the use of flue gas flow monitors.

7. Periodic Monitoring: Conditions D.7 and D.8 of the permit require that an annual Method 9 test be conducted for these units. In most cases, this does not constitute adequate periodic monitoring to ensure continuous compliance with the visible emissions standard. The permit must require the source to conduct visible emissions observations on a daily basis (Method 22), and that a Method 9 test be conducted within 24 hours of any abnormal qualitative survey. As an alternative to this approach, a technical demonstration can be included in the statement of basis explaining why the State has chosen not to require any additional visible emissions testing. The demonstration needs to identify the rationale for basing the compliance certification on data from a short-term test performed once a year.

Response: Gulf Power does not agree that daily Method 22 visible emissions tests are needed to constitute adequate periodic monitoring for equipment (Fly Ash Silo) referenced in Condition D.7 and D.8. A technical demonstration using annual opacity test results is available to demonstrate that the source is < 50% of the standard. A historical evaluation (five year average) of annual opacity compliance tests for the Crist Fly Ash Silo reveal compliance at an average of less than 1% opacity. Gulf Power believes this is an adequate technical demonstration for periodic monitoring for visible emissions for the Crist Fly Ash Silo. (See Attachment B)

8. Acid Rain: Please note that the Phase II Averaging Plan submitted by the source is an enforceable part of this permit. The Averaging Plan, Phase II NO_x Compliance and Phase II Acid Rain Permit Application should be referenced and attached as enforceable parts of the Title V permit. We note that Phase II permit applications, Phase II NO_x Compliance Plans and the Phase II Averaging Plans submitted by this source are referenced in Section IV, Condition A.1.of the proposed permit and on page 1 of the permit in a section entitled, "Referenced attachments made part of this permit".

However, the forms and the referenced dates of these two parts of the permit do not coincide and do not appear to reflect the complete signed forms as submitted by the source. It is important that the specific forms and applications (signed and dated by the designated representative) be attached to the permit as enforceable parts of the permit and that they are completely and accurately referenced.

Response: FDEP to correct permit language to better reflect this requirement.

9. Acid Rain: The language contained in section 70.6(a)(1)(ii), regarding Acid Rain Program requirements in title V is not addressed in the Acid Rain Part of the permit and does not appear to be included in elsewhere in the body of the proposed permit. This condition needs to be added to the proposed title V permit for this source.

Response: FDEP to correct permit language to better reflect this requirement.

II. General Comments

1. Section II, condition 1: Please make sure that Appendix TV-2 reflects the updated version of condition 51, as it is contained in Appendix TV-3.

Response: FDEP to correct permit language to better reflect this requirement.

2. Section II, condition 12: Please correct the address, telephone and fax number for the Air Enforcement Section. All required reports should be sent to the Air Enforcement Section (AES), not the Operating Source Section. The correct telephone and fax numbers for AES are 404/562-9055 and 404/562-9163, respectively. Additionally, please delete the information concerning the submission of Acid Rain information. Region 4 does not have an Acid Rain Section.

Response: FDEP to correct permit language to better reflect this requirement.

3. Statement of Basis: The statement of basis indicates that each emission unit is subject to a particulate matter emissions limit of 0.1 lb/MMBtu, and this limit is effectively equivalent to 0.149 lb/MMBtu due to rounding. This is also stated for conditions of soot blowing, where the particulate matter emission limit of 0.3 lb/MMBtu would be equivalent to 0.349 lb/MMBtu. However, these statements are incorrect. A measured emission rate of 0.149 lb/MMBtu actually rounds to 0.15 lb/MMBtu rather than 0.1 lb/MMBtu, which is in excess of the emission limit, and therefore not allowable.

   According to the June 6, 1990 memorandum "Performance Test Calculation Guidelines", issued by William G. Laxton, Director of the Technical Support Division, OAQPS, and John S. Seitz, Director of the Stationary Source Compliance Division, OAQPS, when calculating and reporting emission rates and concentrations in determining compliance with the new source performance standards (NSPS) and national emission standards for hazardous pollutants (NESHAP), as well as state implementation plans (SIP's), all emission standards should be considered to have at least two significant figures (SF's), but no more than three. Therefore, since the 0.1 lb/MMBtu emission limit for particulate matter comes from the Florida state SIP, it should be considered to have two SF's. In this case, the emission limit effectively becomes 0.10 lb/MMBtu. In order to comply with the emission limit of 0.1 lb/MMBtu, the highest allowable measured emission rate (measured to four SF's) is 0.1049 lb/MMBtu. Please correct the statement of basis to reflect the above discussion.

Response: Gulf Power does not agree with the EPA objection regarding Florida's particulate emissions standard. Gulf Power recommends that FDEP remove direct reference to the numerical standard in the standard of basis. FDEP should reference the FP&L agreement regarding this issue in finalizing a response.

4. Section IV, Acid Rain Part: Please note that the allowances allocated to the Crist Plant units 4,5,6,7, as indicated under Section IV, Condition A.2 of the proposed permit have been changed. This revision was published in the Federal Register on September 28, 1998 (Vol. 63 No. 187, pp 51706-51765). We recommend that the allowances that are indicated for these units be adjusted to reflect the revised allocation.

Response: FDEP to correct permit language to better reflect this requirement.

5. Appendix CP-1: Appendix CP-1, "Alternate Phase II NO_x Compliance Plan" of the proposed permit for the Gulf Power Company - Crist Plant requires that the designated representative of the Crist Plant provide certification that the NO_x averaging plan has been approved by all the other involved permitting authorities prior to Florida's approval of the plan. The procedure, as indicated in the "Appendix CP-1" of this proposed permit, does not appear to consider future revisions to a previously approved Phase II NO_x Averaging Plan. Each year of a plan, the permittee has the option of submitting a revision to an approved averaging plan by January 1 of the calendar year for which the averaging plan is to become effective. Condition 2 of "Appendix CP-1" specifically addresses the approval of the current Phase II Averaging Plan and does not discuss Florida's approval procedures for revisions to an Phase II NO_x Averaging Plan. Condition 3 of "Appendix CP-1" indicates that should the designated representative fail to submit the required certification under this Appendix then the source would be required to comply to the applicable Phase II NO_x emission limits specified in 40 CFR § 76.5. Please note that 40 CFR § 76.11(b)(3) indicates that when an averaging plan or a revision to an approved averaging plan is not approved, the owner or operator of each unit in the plan shall operate the unit in compliance with the emission limitation that would apply in the absence of an averaging plan or revision to a plan. Therefore, in the case where the permittee has an approved averaging plan but wishes to revise the plan, the approval of the revision is not final until all permitting authorities have approved the revision. Should the revision not be approved, then the permittee is required to comply with the originally approved (assuming it has been approved for multiple years) plan in absence of the revision. Appendix CP-1 should be revised to specify that the conditions contained in the appendix only apply to the particular averaging plan attached to this permit and does not prescribe procedures that should be followed for future revisions to the plan.

   Region 4's concern regarding the Rule 62-214.330(3)(b) requiring the designated representatives of a source in a multi-agency Phase II Averaging Plan to certify that every other affected permitting authority has approved the plan prior to the State of Florida's approval was indicated in a letter sent to Mr. Howard Rhodes from Mr. Douglas Neeley on December 9, 1997. It was Region 4's understanding, at that time, that Florida's Rule 62-214.330 was scheduled to be revised to avoid conflicts (such as has been described above) with 40 CFR Part 76. Appendix CP-1 was prepared so that the approval process would not be delayed in the interim. Please provide Region 4 with a schedule indicating when the revision is to occur.

Response: FDEP to address this issue.

ATTACHMENT B

Opacity Excess Emissions Summary for Crist (1992-1998)

Year		94				95				96				97				98				5 Year Avg
Quarter		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
Crist 4.	% Excess emissions	0.2	0.1	0.3	0.2	0.6	0.1	0.0	0.6	0.1	0.3	0.3	0.3	0.0	0.1	0.2	0.3	0.1	0.0	0.1	0.1	0.2
	% CMS Downtime	0.0	0.5	0.0	0.0	1.0	0.1	0.1	0.1	0.5	0.1	0.3	0.1	0.1	0.1	0.1	0.2	0.4	0.6	0.1	0.5	0.2
	Total Percent	0.2	0.6	0.3	0.2	1.6	0.2	0.1	0.7	0.6	0.4	0.6	0.4	0.1	0.2	0.3	0.5	0.5	0.6	0.2	0.6	0.4
Crist 5	% Excess emissions	0.2	0.3	0.2	0.2	2.0	1.0	1.0	0.8	0.1	0.1	0.4	0.3	0.1	0.4	0.2	0.8	0.1	0.2	0.4	0.0	0.4
	% CMS Downtime	0.0	0.0	0.0	0.0	1.0	0.1	0.2	0.1	0.0	0.1	0.1	0.0	0.1	0.0	0.2	0.1	0.1	0.1	0.1	0.2	0.1
	Total Percent	0.2	0.3	0.2	0.2	3.0	1.1	1.2	0.9	0.1	0.2	0.5	0.3	0.2	0.4	0.4	0.9	0.2	0.3	0.5	0.2	0.6
Crist 6	% Excess emissions	0.9	1.2	0.2	0.2	0.1	0.1	0.2	0.1	0.0	0.1	0.0	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.0	0.1	0.2
	% CMS Downtime	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.4	0.0	0.1	0.1	0.0	0.1
	Total Percent	0.9	1.2	0.2	0.2	0.1	0.1	0.2	0.3	0.0	0.2	0.0	0.1	0.1	0.2	0.2	0.5	0.1	0.2	0.1	0.1	0.3
Crist 7	% Excess emissions	0.4	0.4	0.2	0.5	0.4	0.5	0.3	0.3	0.4	0.2	0.3	0.3	1.0	2.1	0.3	0.5	2.2	0.2	0.8	0.2	0.6
	% CMS Downtime	0.0	0.2	0.5	0.3	0.0	0.1	0.0	0.1	0.1	0.7	0.4	0.0	0.0	0.4	0.0	0.1	0.1	0.0	0.0	0.1	0.2
	Total Percent	0.4	0.6	0.7	0.8	0.4	0.6	0.3	0.4	0.5	0.9	0.7	0.3	1.0	2.5	0.3	0.6	2.3	0.2	0.8	0.3	0.7

Gulf Power Steady State Particulate Emission Tests Summary (1992-1998)

Unit	1994	1995	1996	1997	1998	5 Year Avg
Limit	0.1	0.1	0.1	0.1	0.1	0.1
Crist 4	0.015	0.012	0.012	0.010	0.008	0.011
Crist 5	0.061	0.069	0.029	0.027	0.011	0.039
Crist 6	0.006	0.003	0.003	0.010	0.012	0.007
Crist 7	0.037	0.016	0.037	0.041	0.072	0.041
Smith 1	0.017	0.021	0.017	0.019	0.029	0.021
Smith 2	0.021	0.015	0.028	0.025	0.049	0.028
Scholz 1	0.018	0.023	0.035	0.024	0.016	0.023
Scholz 2	0.020	0.013	0.016	0.013	0.010	0.014

PLANT CRIST FLYASH SILO
OPACITY EVALUATION

	OPACITY	
YEAR	"A" SILO	"B" SILO
1998	0%	0%
1997	0%	0%
1996	0%	0%
1995	0.8%	0.2%
1994	2.2%	2.1%
AVERAGE	0.6%	0.46%

-fil-

One Energy Place
Pensacola, Florida 32520

850.444.6111

GULF POWER
A SOUTHERN COMPANY

September 2, 1999

HAND DELIVERED

Mr. Scott M. Sheplak , P.E.
Bureau of Air Regulation
Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Dear Mr. Sheplak:

RE: EPA Objection to Proposed Title V Permit
Plant Crist: 0330045-001-AV

Attached, please find Gulf Power's response to the Department's letter dated 7/28/99 (received July 30, 1999) regarding EPA's formal objection of the Crist Title V Permit No. 033045-001-AV. As outlined in the above referenced correspondence, Gulf Power would like to make a written reply to EPA within the 45 day window allowed for an applicant to include supportive materials in the record relevant to the issues raised by the objection.

As you may recall from our meeting on August 6, 1999, many of the issues identified by EPA address specific issues regarding format and errors that FDEP needs to directly address. Please incorporate your comments on these relative issues with ours and send a response to EPA before September 13, 1999. If possible, Gulf Power would like to review your final draft before it is routed to EPA.

Additionally, Gulf Power believes a face to face meeting with EPA maybe needed to address any unresolved issues. Therefore, Gulf Power requests FDEP schedule a meeting with EPA Region IV as soon as possible to address our responses and to continue any discussions regarding the de-coupling of the Title IV and V programs in Florida should it still be needed.

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

Sincerely,

G. Dwain Waters Q.E.P.

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

cc/watt: Danny Herrin, Southern Company Services
Robert G. Moore, Gulf Power Company
James O Vick, Gulf Power Company
Joe Martin, Gulf Power Company
John Dominey, Gulf Power Company
Kim Flowers Gulf Power Company
Ken Peacock, Gulf Power Company
Tracy Reeder, Gulf Power Company
Angela Morrison, Hopping, Green, Sams & Smith

File

INTEROFFICE MEMORANDUM

Date: 23-Jul-1999 12:13pm
From: Danois.Gracy
Danois.Gracy@epamail.epa.gov
Dept:
Tel No:

To: sheplak_s (sheplak_s@dep.state.fl.us)
To: holton_j (holton_j@dep.state.fl.us)

Subject: Objection Letter: GPC - Crist Electric Generating Plant

Permit No. 0330045-001-AV

The objection letter is attached. The letter was faxed to Howard yesterday around 5:00 p.m.

Gracy

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

JUL 2 2 1999

4APT-ARB

Howard L. Rhodes, Director
Air Resources Management Division
Florida Department of Environmental Protection
Mail Station 5500
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

SUBJ: EPA's Review of Proposed Title V Permit
Gulf Power Company
Crist Electric Generating Plant
Permit No. 033045-001-AV

Dear Mr. Rhodes:

The purpose of this letter is to provide comments to the Florida Department of Environmental Protection (DEP) on the proposed title V operating permit for Gulf Power Company - Crist Electric Generating Plant, which was posted on DEP's web site on June 8, 1999. Based on the Environmental Protection Agency's (EPA's) review of the proposed permit and the supporting information for this facility, EPA formally objects, under the authority of Section 505(b) of the Clean Air Act (the Act) and 40 C.F.R. § 70.8(c) (see also Florida Regulation 62-213.450), to the issuance of the title V permit for this facility. The basis of EPA's objection is that the permit does not fully meet the periodic monitoring requirements of 40 C.F.R. § 70.6(a)(3)(i), and has inadequate provisions to address various Acid Rain program requirements.

Section 70.8(c) requires EPA to object to the issuance of a proposed permit in writing within 45 days of receipt of the proposed permit (and all necessary supporting information) if EPA determines that the permit is not in compliance with the applicable requirements under the Act or 40 C.F.R. Part 70. Section 70.8(c)(4) and Section 505(c) of the Act further provide that if the State fails to revise and resubmit a proposed permit within 90 days to satisfy the objection, the authority to issue or deny the permit passes to EPA and EPA will act accordingly. Because the objection issues must be fully addressed within the 90 days, we suggest that the revised permit be submitted in advance in order that any outstanding issues may be addressed prior to the expiration of the 90-day period.

Pursuant to 40 C.F.R. § 70.8(c), this letter and its enclosure contain a detailed explanation of the objection issues and the changes necessary to make the permit consistent with the requirements of 40 C.F.R. Part 70. The enclosure also contains general comments applicable to the permit.

If you have any questions or wish to discuss this further, please contact Mr. Gregg Worley, Chief, Operating Source Section at (404) 562-9141. Should your staff need additional information they may contact Ms. Gracy R. Danois, Florida Title V Contact, at (404) 562-9119, or Ms. Angelia Souder-Blackwell, Associate Regional Counsel, at (404) 562-9527.

Sincerely,

Winston A. Smith
Director
Air, Pesticides & Toxics
Management Division

Enclosure

cc: Mr. Robert G. Moore
Gulf Power Company

Enclosure

U.S. EPA Region 4 Objection
Proposed Part 70 Operating Permit
Gulf Power Company
Crist Electric Generating Plant
Permit no. 033045-001-AV

I. EPA Objection Issues

1. Periodic Monitoring: The permit does not require sufficient periodic monitoring to ensure compliance with the applicable particulate matter limit for units 1-3. Condition A.15 of the permit only requires an annual test, which, according to conditions A.21, A.27, A.28, and A.29, may not even be required since this unit's primary fuel is natural gas (see Objection Issue 2). In most cases, this does not constitute adequate periodic monitoring to ensure continuous compliance with the particulate matter. The permit must require the source to conduct more frequent monitoring or a technical demonstration must be included in the statement of basis explaining why the State has chosen not to require any additional PM testing. The demonstration needs to identify the rationale for basing the compliance certification on data from a test performed once a year.

2. Compliance Testing: The permit is not clear about the frequency of testing that the facility needs to follow for particulate matter (PM) and visible emissions (VE). Condition A.15 states that the source must conduct annual testing for PM and VE. However, conditions A.21, A.27, A.28, and A.29 establish that the facility will conduct testing once a year if fuel oil is burned for more than 400 hours, and no testing is required otherwise. The permit needs to be clear about which one of these conditions the facility must follow to demonstrate compliance with the PM and VE limits. The same comment applies to conditions B.17 and B.26, and C.17 and C.26. Additionally, the permit needs to include the regulatory basis for conditions A.15, B.17 and C.17.

   Furthermore, EPA is concerned with the interaction of these conditions. The statement of basis indicates that the source will conduct annual testing for particulate matter for units 4-7. Therefore, we do not understand why the testing waivers are included for these units since they seem not to apply.

3. Appropriate Averaging Times: In order for the emissions standard for particulate matter contained in conditions A.7, B.7, and C.7 to be practicably enforceable, the appropriate averaging time must be specified in the permit. An approach that can be used to address this deficiency is to include general language in the permit to indicate that the averaging times for all specified emission standards are tied to or based on the run time of the test method(s) used for determining compliance.

4. Periodic Monitoring: Conditions B.17 and C.17 of the permit require the source to conduct annual testing for particulate matter. The statement of basis for the permit states that this testing frequency "is justified by the low emission rate documented in previous emissions tests while firing coal" and that the "Department has determined that sources with emissions less than half of the effective standard shall test annually."

While EPA has in the past accepted this approach as adequate periodic monitoring for particulate matter, it has done so only for uncontrolled natural gas and fuel oil fired units. The units addressed in conditions B.17 and C.17 use add-on control equipment to comply with the applicable particulate matter standard. In order to provide reasonable assurance of compliance, the results of an annual stack testing will have to be supplemented with additional monitoring. Furthermore, the results of an annual test alone would not constitute an adequate basis for the annual certification of compliance that the facility will have to submit for these units.

The most common approach to addressing periodic monitoring for particulate emission limits on units with add-on controls is to establish either an opacity or a control device parameter indicator range that would provide evidence of proper control device operation. The primary goal of such monitoring is to provide reasonable assurance of compliance, and one way of achieving this goal is to use opacity data or control device operating parameter data from previous successful compliance tests to identify a range of values that has corresponded to compliance in the past. Operating within the range of values identified in this manner would provide assurance that the control device is operating properly and would serve as the basis for an annual compliance certification. Depending upon the margin of compliance during the tests used to establish the opacity or control device indicator range, going outside the range could represent either a period of time when an exceedance of the applicable standard is likely or it could represent a trigger for initiating corrective action to prevent an exceedance of the standard. In order to avoid any confusion regarding the consequences of going outside the indicator range, the permit must clearly state if doing so is evidence that a standard has been exceeded and must specify whether corrective action must be taken when a source operates outside the established indicator range.

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specifying the procedures that Gulf Power will use to demonstrate compliance with the annual particulate emission limit for unit 6.

6. Periodic Monitoring: Condition C.9 specifies that, when burning solid fuel, sulfur dioxide emissions from unit 6 shall not exceed 87,035 tons per year. Although Condition C.16 indicates that monitoring to assure compliance with this limit will be conducted with the SO_2 continuous emission monitor installed on unit 6, data from the flue gas flow rate monitor installed on this unit is needed in order to convert the data from the SO_2 monitor into an hourly mass emission rate that can be totaled in order to verify compliance with the annual SO_2 emission limit. Therefore, Condition C.16 must be revised to require that both the SO_2 and flue gas flow rate monitors be used to determine SO_2 emission rates on unit 6.

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8. Acid Rain: Please note that the Phase II Averaging Plan submitted by the source is an enforceable part of this permit. The Averaging Plan, Phase II NO_x Compliance and Phase II Acid Rain Permit Application should be referenced and attached as enforceable parts of the Title V permit. We note that Phase II permit applications, Phase II NO_x Compliance Plans and the Phase II Averaging Plans submitted by this source are referenced in Section IV, Condition A.1.of the proposed permit and on page 1 of the permit in a section entitled, "Referenced attachments made part of this permit". However, the forms and the referenced dates of these two parts of the permit do not coincide and do not appear to reflect the complete signed forms as submitted by the source. It is important that the specific forms and applications (signed and dated by the designated representative) be attached to the permit as enforceable parts of the permit and that they are completely and accurately referenced.

9. Acid Rain: The language contained in section 70.6(a)(1)(ii), regarding Acid Rain Program requirements in title V is not addressed in the Acid Rain Part of the permit and does not appear to be included in elsewhere in the body of the proposed permit. This condition needs to be added to the proposed title V permit for this source.

II. General Comments

1. Section II, condition 1: Please make sure that Appendix TV-2 reflects the updated version of condition 51, as it is contained in Appendix TV-3.

2. Section II, condition 12: Please correct the address, telephone and fax number for the Air Enforcement Section. All required reports should be sent to the Air Enforcement Section (AES), not the Operating Source Section. The correct telephone and fax numbers for AES are 404/562-9055 and 404/562-9163, respectively. Additionally, please delete the information concerning the submission of Acid Rain information. Region 4 does not have an Acid Rain Section.

3. Statement of Basis: The statement of basis indicates that each emission unit is subject to a particulate matter emissions limit of 0.1 lb/MMBtu, and this limit is effectively equivalent to 0.149 lb/MMBtu due to rounding. This is also stated for conditions of soot blowing, where the particulate matter emission limit of 0.3 lb/MMBtu would be equivalent to 0.349 lb/MMBtu. However, these statements are incorrect. A measured emission rate of 0.149 lb/MMBtu actually rounds to 0.15 lb/MMBtu rather than 0.1 lb/MMBtu, which is in excess of the emission limit, and therefore not allowable.

   According to the June 6, 1990 memorandum "Performance Test Calculation Guidelines", issued by William G. Laxton, Director of the Technical Support Division, OAQPS, and John S. Seitz, Director of the Stationary Source Compliance Division, OAQPS, when calculating and reporting emission rates and concentrations in determining compliance with the new source performance standards (NSPS) and national emission standards for hazardous pollutants (NESHAP), as well as state implementation plans (SIP's), all emission standards should be considered to have at least two significant figures (SF's), but no more than three. Therefore, since the 0.1 lb/MMBtu emission limit for particulate matter comes from the Florida state SIP, it should be considered to have two SF's. In this case, the emission limit effectively becomes 0.10 lb/MMBtu. In order to comply with the emission limit of 0.1 lb/MMBtu, the highest allowable measured emission rate (measured to four SF's) is 0.1049 lb/MMBtu. Please correct the statement of basis to reflect the above discussion.

4. Section IV, Acid Rain Part: Please note that the allowances allocated to the Crist Plant units 4,5,6,7, as indicated under Section IV, Condition A.2 of the proposed permit have been changed. This revision was published in the Federal Register on September 28, 1998 (Vol. 63 No. 187, pp 51706-51765). We recommend that

the allowances that are indicated for these units be adjusted to reflect the revised allocation.

5. Appendix CP-1: Appendix CP-1, "Alternate Phase II NO_x Compliance Plan" of the proposed permit for the Gulf Power Company - Crist Plant requires that the designated representative of the Crist Plant provide certification that the NO_x averaging plan has been approved by all the other involved permitting authorities prior to Florida's approval of the plan. The procedure, as indicated in the "Appendix CP-1" of this proposed permit, does not appear to consider future revisions to a previously approved Phase II NO_x Averaging Plan. Each year of a plan, the permittee has the option of submitting a revision to an approved averaging plan by January 1 of the calendar year for which the averaging plan is to become effective. Condition 2 of "Appendix CP-1" specifically addresses the approval of the current Phase II Averaging Plan and does not discuss Florida's approval procedures for revisions to an Phase II NO_x Averaging Plan. Condition 3 of "Appendix CP-1" indicates that should the designated representative fail to submit the required certification under this Appendix then the source would be required to comply to the applicable Phase II NO_x emission limits specified in 40 CFR § 76.5. Please note that 40 CFR § 76.11(b)(3) indicates that when an averaging plan or a revision to an approved averaging plan is not approved, the owner or operator of each unit in the plan shall operate the unit in compliance with the emission limitation that would apply in the absence of an averaging plan or revision to a plan. Therefore, in the case where the permittee has an approved averaging plan but wishes to revise the plan, the approval of the revision is not final until all permitting authorities have approved the revision. Should the revision not be approved, then the permittee is required to comply with the originally approved (assuming it has been approved for multiple years) plan in absence of the revision. Appendix CP-1 should be revised to specify that the conditions contained in the appendix only apply to the particular averaging plan attached to this permit and does not prescribe procedures that should be followed for future revisions to the plan.

Region 4's concern regarding the Rule 62-214.330(3)(b) requiring the designated representatives of a source in a multi-agency Phase II Averaging Plan to certify that every other affected permitting authority has approved the plan prior to the State of Florida's approval was indicated in a letter sent to Mr. Howard Rhodes from Mr. Douglas Neeley on December 9, 1997. It was Region 4's understanding, at that time, that Florida's Rule 62-214.330 was scheduled to be revised to avoid conflicts (such as has been described above) with 40 CFR Part 76. Appendix CP-1 was prepared so that the approval process would not be delayed in the interim. Please provide Region 4 with a schedule indicating when the revision is to occur.

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

JUL 22 1999

4APT-ARB

Howard L. Rhodes, Director
Air Resources Management Division
Florida Department of Environmental Protection
Mail Station 5500
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

SUBJ: EPA's Review of Proposed Title V Permit
Gulf Power Company
Crist Electric Generating Plant
Permit No. 033045-001-AV

Dear Mr. Rhodes:

The purpose of this letter is to provide comments to the Florida Department of Environmental Protection (DEP) on the proposed title V operating permit for Gulf Power Company - Crist Electric Generating Plant, which was posted on DEP's web site on June 8, 1999. Based on the Environmental Protection Agency's (EPA's) review of the proposed permit and the supporting information for this facility, EPA formally objects, under the authority of Section 505(b) of the Clean Air Act (the Act) and 40 C.F.R. § 70.8(c) (see also Florida Regulation 62-213.450), to the issuance of the title V permit for this facility. The basis of EPA's objection is that the permit does not fully meet the periodic monitoring requirements of 40 C.F.R. § 70.6(a)(3)(i), and has inadequate provisions to address various Acid Rain program requirements.

Section 70.8(c) requires EPA to object to the issuance of a proposed permit in writing within 45 days of receipt of the proposed permit (and all necessary supporting information) if EPA determines that the permit is not in compliance with the applicable requirements under the Act or 40 C.F.R. Part 70. Section 70.8(c)(4) and Section 505(c) of the Act further provide that if the State fails to revise and resubmit a proposed permit within 90 days to satisfy the objection, the authority to issue or deny the permit passes to EPA and EPA will act accordingly. Because the objection issues must be fully addressed within the 90 days, we suggest that the revised permit be submitted in advance in order that any outstanding issues may be addressed prior to the expiration of the 90-day period.

Pursuant to 40 C.F.R. § 70.8(c), this letter and its enclosure contain a detailed explanation of the objection issues and the changes necessary to make the permit consistent with the requirements of 40 C.F.R. Part 70. The enclosure also contains general comments applicable to the permit.

If you have any questions or wish to discuss this further, please contact Mr. Gregg Worley, Chief, Operating Source Section at (404) 562-9141. Should your staff need additional information they may contact Ms. Gracy R. Danois, Florida Title V Contact, at (404) 562-9119, or Ms. Angelia Souder-Blackwell, Associate Regional Counsel, at (404) 562-9527.

Sincerely,

Winston A. Smith
Director
Air, Pesticides & Toxics
Management Division

Enclosure

cc: Mr. Robert G. Moore
Gulf Power Company

Enclosure

U.S. EPA Region 4 Objection
Proposed Part 70 Operating Permit
Gulf Power Company
Crist Electric Generating Plant
Permit no. 033045-001-AV

I. EPA Objection Issues

1. Periodic Monitoring: The permit does not require sufficient periodic monitoring to ensure compliance with the applicable particulate matter limit for units 1-3. Condition A.15 of the permit only requires an annual test, which, according to conditions A.21, A.27, A.28, and A.29, may not even be required since this unit's primary fuel is natural gas (see Objection Issue 2). In most cases, this does not constitute adequate periodic monitoring to ensure continuous compliance with the particulate matter. The permit must require the source to conduct more frequent monitoring or a technical demonstration must be included in the statement of basis explaining why the State has chosen not to require any additional PM testing. The demonstration needs to identify the rationale for basing the compliance certification on data from a test performed once a year.

2. Compliance Testing: The permit is not clear about the frequency of testing that the facility needs to follow for particulate matter (PM) and visible emissions (VE). Condition A.15 states that the source must conduct annual testing for PM and VE. However, conditions A.21, A.27, A.28, and A.29 establish that the facility will conduct testing once a year if fuel oil is burned for more than 400 hours, and no testing is required otherwise. The permit needs to be clear about which one of these conditions the facility must follow to demonstrate compliance with the PM and VE limits. The same comment applies to conditions B.17 and B.26, and C.17 and C.26. Additionally, the permit needs to include the regulatory basis for conditions A.15, B.17 and C.17.

   Furthermore, EPA is concerned with the interaction of these conditions. The statement of basis indicates that the source will conduct annual testing for particulate matter for units 4-7. Therefore, we do not understand why the testing waivers are included for these units since they seem not to apply.

3. Appropriate Averaging Times: In order for the emissions standard for particulate matter contained in conditions A.7, B.7, and C.7 to be practicably enforceable, the appropriate averaging time must be specified in the permit. An approach that can be used to address this deficiency is to include general language in the permit to indicate that the averaging times for all specified emission standards are tied to or based on the run time of the test method(s) used for determining compliance.

4. Periodic Monitoring: Conditions B.17 and C.17 of the permit require the source to conduct annual testing for particulate matter. The statement of basis for the permit states that this testing frequency "is justified by the low emission rate documented in previous emissions tests while firing coal" and that the "Department has determined that sources with emissions less than half of the effective standard shall test annually."

While EPA has in the past accepted this approach as adequate periodic monitoring for particulate matter, it has done so only for uncontrolled natural gas and fuel oil fired units. The units addressed in conditions B.17 and C.17 use add-on control equipment to comply with the applicable particulate matter standard. In order to provide reasonable assurance of compliance, the results of an annual stack testing will have to be supplemented with additional monitoring. Furthermore, the results of an annual test alone would not constitute an adequate basis for the annual certification of compliance that the facility will have to submit for these units.

The most common approach to addressing periodic monitoring for particulate emission limits on units with add-on controls is to establish either an opacity or a control device parameter indicator range that would provide evidence of proper control device operation. The primary goal of such monitoring is to provide reasonable assurance of compliance, and one way of achieving this goal is to use opacity data or control device operating parameter data from previous successful compliance tests to identify a range of values that has corresponded to compliance in the past. Operating within the range of values identified in this manner would provide assurance that the control device is operating properly and would serve as the basis for an annual compliance certification. Depending upon the margin of compliance during the tests used to establish the opacity or control device indicator range, going outside the range could represent either a period of time when an exceedance of the applicable standard is likely or it could represent a trigger for initiating corrective action to prevent an exceedance of the standard. In order to avoid any confusion regarding the consequences of going outside the indicator range, the permit must clearly state if doing so is evidence that a standard has been exceeded and must specify whether corrective action must be taken when a source operates outside the established indicator range.

5. Periodic Monitoring: Condition C.7 specifies that particulate matter emissions from unit 6 shall not exceed 1,475 tons per year. Based upon the short term limit for this unit [0.1 pound/million British thermal units (BTUs)], heat input capacity (3,704.8 BTU/hour), and 8,760 hours of operation per year, unit 6 could emit 1,622.7 ton/year of particulate matter even if it is continuously meeting the applicable short-term particulate limit. Since this value exceeds the annual emission limit of 1,475 ton/year, the permit must be revised to include conditions

specifying the procedures that Gulf Power will use to demonstrate compliance with the annual particulate emission limit for unit 6.

6. Periodic Monitoring: Condition C.9 specifies that, when burning solid fuel, sulfur dioxide emissions from unit 6 shall not exceed 87,035 tons per year. Although Condition C.16 indicates that monitoring to assure compliance with this limit will be conducted with the SO_2 continuous emission monitor installed on unit 6, data from the flue gas flow rate monitor installed on this unit is needed in order to convert the data from the SO_2 monitor into an hourly mass emission rate that can be totaled in order to verify compliance with the annual SO_2 emission limit. Therefore, Condition C.16 must be revised to require that both the SO_2 and flue gas flow rate monitors be used to determine SO_2 emission rates on unit 6.

7. Periodic Monitoring: Conditions D.7 and D.8 of the permit require that an annual Method 9 test be conducted for these units. In most cases, this does not constitute adequate periodic monitoring to ensure continuous compliance with the visible emissions standard. The permit must require the source to conduct visible emissions observations on a daily basis (Method 22), and that a Method 9 test be conducted within 24 hours of any abnormal qualitative survey. As an alternative to this approach, a technical demonstration can be included in the statement of basis explaining why the State has chosen not to require any additional visible emissions testing. The demonstration needs to identify the rationale for basing the compliance certification on data from a short-term test performed once a year.

8. Acid Rain: Please note that the Phase II Averaging Plan submitted by the source is an enforceable part of this permit. The Averaging Plan, Phase II NO_x Compliance and Phase II Acid Rain Permit Application should be referenced and attached as enforceable parts of the Title V permit. We note that Phase II permit applications, Phase II NO_x Compliance Plans and the Phase II Averaging Plans submitted by this source are referenced in Section IV, Condition A.1.of the proposed permit and on page 1 of the permit in a section entitled, "Referenced attachments made part of this permit". However, the forms and the referenced dates of these two parts of the permit do not coincide and do not appear to reflect the complete signed forms as submitted by the source. It is important that the specific forms and applications (signed and dated by the designated representative) be attached to the permit as enforceable parts of the permit and that they are completely and accurately referenced.

9. Acid Rain: The language contained in section 70.6(a)(1)(ii), regarding Acid Rain Program requirements in title V is not addressed in the Acid Rain Part of the permit and does not appear to be included in elsewhere in the body of the proposed permit. This condition needs to be added to the proposed title V permit for this source.

II. General Comments

1. Section II, condition 1: Please make sure that Appendix TV-2 reflects the updated version of condition 51, as it is contained in Appendix TV-3.

2. Section II, condition 12: Please correct the address, telephone and fax number for the Air Enforcement Section. All required reports should be sent to the Air Enforcement Section (AES), not the Operating Source Section. The correct telephone and fax numbers for AES are 404/562-9055 and 404/562-9163, respectively. Additionally, please delete the information concerning the submission of Acid Rain information. Region 4 does not have an Acid Rain Section.

3. Statement of Basis: The statement of basis indicates that each emission unit is subject to a particulate matter emissions limit of 0.1 lb/MMBtu, and this limit is effectively equivalent to 0.149 lb/MMBtu due to rounding. This is also stated for conditions of soot blowing, where the particulate matter emission limit of 0.3 lb/MMBtu would be equivalent to 0.349 lb/MMBtu. However, these statements are incorrect. A measured emission rate of 0.149 lb/MMBtu actually rounds to 0.15 lb/MMBtu rather than 0.1 lb/MMBtu, which is in excess of the emission limit, and therefore not allowable.

   According to the June 6, 1990 memorandum "Performance Test Calculation Guidelines", issued by William G. Laxton, Director of the Technical Support Division, OAQPS, and John S. Seitz, Director of the Stationary Source Compliance Division, OAQPS, when calculating and reporting emission rates and concentrations in determining compliance with the new source performance standards (NSPS) and national emission standards for hazardous pollutants (NESHAP), as well as state implementation plans (SIP's), all emission standards should be considered to have at least two significant figures (SF's), but no more than three. Therefore, since the 0.1 lb/MMBtu emission limit for particulate matter comes from the Florida state SIP, it should be considered to have two SF's. In this case, the emission limit effectively becomes 0.10 lb/MMBtu. In order to comply with the emission limit of 0.1 lb/MMBtu, the highest allowable measured emission rate (measured to four SF's) is 0.1049 lb/MMBtu. Please correct the statement of basis to reflect the above discussion.

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the allowances that are indicated for these units be adjusted to reflect the revised allocation.

5. Appendix CP-1: Appendix CP-1, "Alternate Phase II NO_x Compliance Plan" of the proposed permit for the Gulf Power Company - Crist Plant requires that the designated representative of the Crist Plant provide certification that the NO_x averaging plan has been approved by all the other involved permitting authorities prior to Florida's approval of the plan. The procedure, as indicated in the "Appendix CP-1" of this proposed permit, does not appear to consider future revisions to a previously approved Phase II NO_x Averaging Plan. Each year of a plan, the permittee has the option of submitting a revision to an approved averaging plan by January 1 of the calendar year for which the averaging plan is to become effective. Condition 2 of "Appendix CP-1" specifically addresses the approval of the current Phase II Averaging Plan and does not discuss Florida's approval procedures for revisions to an Phase II NO_x Averaging Plan. Condition 3 of "Appendix CP-1" indicates that should the designated representative fail to submit the required certification under this Appendix then the source would be required to comply to the applicable Phase II NO_x emission limits specified in 40 CFR § 76.5. Please note that 40 CFR § 76.11(b)(3) indicates that when an averaging plan or a revision to an approved averaging plan is not approved, the owner or operator of each unit in the plan shall operate the unit in compliance with the emission limitation that would apply in the absence of an averaging plan or revision to a plan. Therefore, in the case where the permittee has an approved averaging plan but wishes to revise the plan, the approval of the revision is not final until all permitting authorities have approved the revision. Should the revision not be approved, then the permittee is required to comply with the originally approved (assuming it has been approved for multiple years) plan in absence of the revision. Appendix CP-1 should be revised to specify that the conditions contained in the appendix only apply to the particular averaging plan attached to this permit and does not prescribe procedures that should be followed for future revisions to the plan.

Region 4's concern regarding the Rule 62-214.330(3)(b) requiring the designated representatives of a source in a multi-agency Phase II Averaging Plan to certify that every other affected permitting authority has approved the plan prior to the State of Florida's approval was indicated in a letter sent to Mr. Howard Rhodes from Mr. Douglas Neeley on December 9, 1997. It was Region 4's understanding, at that time, that Florida's Rule 62-214.330 was scheduled to be revised to avoid conflicts (such as has been described above) with 40 CFR Part 76. Appendix CP-1 was prepared so that the approval process would not be delayed in the interim. Please provide Region 4 with a schedule indicating when the revision is to occur.

URGENT!

OPTIONAL FORM 99 (7-90)

FAX TRANSMITTAL # of pages ▸ 8

To Howard L. Rhodes	From Winston A. Smith
Dept./Agency FL DEP	Phone # (404) 562-9077
Fax # (850) 922-6979	Fax # (404) 562-9066

NSN 7540-01-317-7368 5099-101 GENERAL SERVICES ADMINISTRATION

Please deliver immediately!

Gulf Power's Response to EPA's Region IV Letter of Objection dated July 22, 1999 regarding the Crist Title V Permit

(Permit No. 0335045-001-AV)
9/2/99

Background: On July 30, 1999, Gulf Power received notification from FDEP that EPA issued a formal objection to the Crist Title V permit. In accordance with Florida law, the FDEP can not issue a final Title V Crist permit until the objection is resolved or withdrawn. Gulf Power may file a written reply to the objection within 45 days from the day FDEP serves notice to the applicant (i.e. September 13). Within 90 days (i.e. October 27), FDEP will have to resolve the objection by issuing a permit that satisfies EPA or EPA will assume authority for the permit. At this point, FDEP's role is one of a mediator between Gulf Power and EPA. All correspondence with EPA must flow through FDEP. Outlined below are Gulf Power comments regarding the issues raised by EPA which directly effect operations at Plant Crist. FDEP has agreed to provide additional comments other general process issues identified by EPA's letter of objection. Gulf Power's comments with those by FDEP will be forwarded by FDEP to EPA Region IV before September 13, 1999.

U.S. EPA Region 4 Objection

Proposed Part 70 Operating Permit
Gulf Power Company
Crist Electric Generating Plant
Permit no. 033045-001-AV

1. EPA Objection Issues

1. Periodic Monitoring: The permit does not require sufficient periodic monitoring to ensure compliance with the applicable particulate matter limit for units 1-3. Condition A.15 of the permit only requires an annual test, which, according to conditions A.21, A.27, A.28, and A.29, may not even be required since this unit's primary fuel is natural gas (see Objection Issue 2). In most cases, this does not constitute adequate periodic monitoring to ensure continuous compliance with the particulate matter. The permit must require the source to conduct more frequent monitoring or a technical demonstration must be included in the statement of basis explaining why the State has chosen not to require any additional PM testing. The demonstration needs to identify the rationale for basing the compliance certification on data from a test performed once a year.

Response: EPA accepted identical periodic monitoring permit language for Title V permits negotiated with FP&L. Florida has an approved alternative sampling procedure (ASP Number 97-B-01) dated July 2, 1997 which authorizes owners of natural gas fossil fuel steam generators to forgo particulate matter compliance testing on an annual basis and prior to renewal of an operation permit. Additionally, the order states that the Department (FDEP) shall not require submission of particulate matter emission compliance test results for any fossil fuel steam generator emissions unit that burned liquid and/or solid fuel for a total of no more than 400 hours during the year prior to renewal. The units identified in the issue are Crist Units 1-2-3. These units have not burned liquid fuel for more than 400 hours for generation per year in the past 10 years. Opacity and sulfur dioxide monitors were operated voluntarily on each unit (Crist 1-2-3) from approximately 1975 to 1994. During this time there were no excess emissions reported for any quarter above those allowed under Chapter 62-210.700 F.A.C. For this reason and due to the exemption of opacity monitoring allowed under the Clean Air Act Amendments of 1990 for gas units, Gulf Power upon agreement from FDEP removed the opacity and sulfur dioxide monitors from service on Crist Units 1-2-3 in 1994. Gulf Power believes the above information is sufficient as a technical demonstration for periodic monitoring to ensure compliance with the applicable particulate matter limit for Crist Units 1-2-3. (See Attachment A for ASP Number 97-B-01)

2. Compliance Testing: The permit is not clear about the frequency of testing that the facility needs to follow for particulate matter (PM) and visible emissions (VE). Condition A.15 states that the source must conduct annual testing for PM and VE. However, conditions A.21, A.27, A.28, and A.29 establish that the facility will conduct testing once a year if fuel oil is burned for more than 400 hours, and no testing is required otherwise. The permit needs to be clear about which one of these conditions the facility must follow to demonstrate compliance with the PM and VE limits. The same comment applies to conditions B.17 and B.26, and C.17 and C.26. Additionally, the permit needs to include the regulatory basis for conditions A.15, B.17 and C.17.

   Furthermore, EPA is concerned with the interaction of these conditions. The statement of basis indicates that the source will conduct annual testing for particulate matter for units 4-7. Therefore, we do not understand why the testing waivers are included for these units since they seem not to apply.

Response: Gulf Power somewhat agrees with EPA's item #2 objection in that the permit language is difficult to determine exactly what is required of the applicant. Gulf Power believes this issue can be corrected through better permit language or by the use of permit notes to direct the reader to the bottom line testing requirement of the permit (See item #1 above for Crist 1-2-3). It should be noted that this issue should not apply to Crist 4 & 5(EPA's reference to Condition B 17) and Crist 6 & 7 (Reference to Condition C.17) because they are coal fired generating units and conduct annual tests. Conditions B.17 and C.17 could be corrected by deleting any reference to "SO2" testing since CEMS are being used for compliance. Gulf Power suggests the following language for Condition A.15. Similar language is suggested for Conditions B.17 (Units 4 & 5) and C.17 (Units 6 & 7):

A. 15 Annual Tests Required. Units 001, 002, and 003 must conduct annual testing for particulate matter and visible emissions, except as provided under Condition A.21, A.27, and A.29 ~~in accordance with the requirements~~ listed below.

3. Appropriate Averaging Times: In order for the emissions standard for particulate matter contained in conditions A.7, B.7, and C.7 to be practicably enforceable, the appropriate averaging time must be specified in the permit. An approach that can be used to address this deficiency is to include general language in the permit to indicate that the averaging times for all specified emission standards are tied to or based on the run time of the test method(s) used for determining compliance.

Response: Conditions A.7, B.7 and C.7 make reference to averaging time by measurement by the applicable compliance method. Gulf Power believes the averaging times have been specified in the permit for opacity by the use of CEMs for compliance using a block 6 minute average under Condition B19 (Permit Note) and C19 (Permit Note). Additionally, compliance to sulfur dioxide standards are outlined by CEMs using a 24 hour average under Condition B23 and C23. Particulate Matter compliance is outlined under Condition B21 and C21 as the minimum time for a sample collection of a volume of 30 dry standard cubic feet.

4. Periodic Monitoring: Conditions B.17 and C.17 of the permit require the source to conduct annual testing for particulate matter. The statement of basis for the permit states that this testing frequency "is justified by the low emission rate documented in previous emissions tests while firing coal" and that the "Department has determined that sources with emissions less than half of the effective standard shall test annually."

   While EPA has in the past accepted this approach as adequate periodic monitoring for particulate matter, it has done so only for uncontrolled natural gas and fuel oil fired units. The units addressed in conditions B.17 and C.17 use add-on control equipment to comply with the applicable particulate matter standard. In order to provide reasonable assurance

of compliance, the results of an annual stack testing will have to be supplemented with additional monitoring. Furthermore, the results of an annual test alone would not constitute an adequate basis for the annual certification of compliance that the facility will have to submit for these units.

The most common approach to addressing periodic monitoring for particulate emission limits on units with add-on controls is to establish either an opacity or a control device parameter indicator range that would provide evidence of proper control device operation. The primary goal of such monitoring is to provide reasonable assurance of compliance, and one way of achieving this goal is to use opacity data or control device operating parameter data from previous successful compliance tests to identify a range of values that has corresponded to compliance in the past. Operating within the range of values identified in this manner would provide assurance that the control device is operating properly and would serve as the basis for an annual compliance certification. Depending upon the margin of compliance during the tests used to establish the opacity or control device indicator range, going outside the range could represent either a period of time when an exceedance of the applicable standard is likely or it could represent a trigger for initiating corrective action to prevent an exceedance of the standard. In order to avoid any confusion regarding the consequences of going outside the indicator range, the permit must clearly state if doing so is evidence that a standard has been exceeded and must specify whether corrective action must be taken when a source operates outside the established indicator range.

Response: Gulf Power disagrees with the above approach to address periodic monitoring for particulate emission limits. Gulf Power is concerned that the EPA suggested procedure is an attempt to implement Compliance Assurance Monitoring (CAM) before its legal requirement. Nevertheless, Gulf Power is willing to suggest alternative language to better address periodic monitoring for particulate matter for Plant Crist. Gulf Power proposes the following language for Plant Crist:

Periodic Monitoring for particulate matter is an annual particulate compliance test (PCT) for units with add on emission control systems that demonstrate a history (5 year average) of compliance of 40% or less of the applicable Florida particulate standard. Units not meeting this evaluation upon initial Title V permit issuance shall conduct a PCT semi-annually. Additionally, each base load electric generating unit having a continuous opacity monitor (COM) will meet on a quarterly basis EPA's Continuous Emission Monitoring Enforcement Plan (CEP) for the applicable opacity standard at 5% or less of Time on Line. Peaking units shall be evaluated similarly with the exception that start up and shut down operations shall be excluded. Should a unit exceed the 5% time on line evaluation in any quarter, a particulate compliance test (PCT) shall be conducted within the following operating quarter as defined by EPA under the Acid Rain Part 75 rules. (See Attachment B for the Plant Crist unit by unit evaluation.)

5. Periodic Monitoring: Condition C.7 specifies that particulate matter emissions from unit 6 shall not exceed 1,475 tons per year. Based upon the short term limit for this unit [0.1 pound/million British thermal units (BTUs)], heat input capacity (3,704.8 BTU/hour), and 8,760 hours of operation per year, unit 6 could emit 1,622.7 ton/year of particulate matter even if it is continuously meeting the applicable short-term particulate limit. Since this value exceeds the annual emission limit of 1,475 ton/year, the permit must be revised to include conditions specifying the procedures that Gulf Power will use to demonstrate compliance with the annual particulate emission limit for unit 6.

Response: Condition C7 was included in the Title V permit because it was include in an old Crist Unit 6 ESP Construction Permit for informational purposes only. FDEP granted Gulf Power an option of removing the condition upon publication of a public notice of change of the Crist Unit 6 Construction Permit. For the sake of timeliness and need for expediency to acquire a final Title V

permit, Gulf Power has elected to forgo further delay to the process by accepting the annual condition. Gulf Power, however does seek the right to delete this condition in the future upon a more positive timely response scenario. Gulf Power proposes that compliance to the condition shall be determined by submission of an annual certification by the responsible official based on data calculated and submitted in the required Annual Operating Report (AOR).

6. Periodic Monitoring: Condition C.9 specifies that, when burning solid fuel, sulfur dioxide emissions from unit 6 shall not exceed 87,035 tons per year. Although Condition C.16 indicates that monitoring to assure compliance with this limit will be conducted with the SO_2 continuous emission monitor installed on unit 6, data from the flue gas flow rate monitor installed on this unit is needed in order to convert the data from the SO_2 monitor into an hourly mass emission rate that can be totaled in order to verify compliance with the annual SO_2 emission limit. Therefore, Condition C.16 must be revised to require that both the SO_2 and flue gas flow rate monitors be used to determine SO_2 emission rates on unit 6.

Response: Condition C7 was included in the Title V permit because it was include in an old Crist Unit 6 ESP Construction Permit for informational purposes only. FDEP granted Gulf Power an option of removing the condition upon publication of a public notice of change of the Crist Unit 6 Construction Permit. For the sake of timeliness and need for expediency to acquire a final Title V permit, Gulf Power has elected to forgo further delay to the process by accepting the annual condition. Gulf Power, however does seek the right to delete this condition in the future upon a more positive timely response scenario. Gulf Power proposes that compliance to the condition shall be determined by submission of an annual certification by the responsible official based on data calculated and submitted in the required Annual Operating Report (AOR). Gulf Power does not agree with EPA that compliance must be determined by the use of flue gas flow monitors.

7. Periodic Monitoring: Conditions D.7 and D.8 of the permit require that an annual Method 9 test be conducted for these units. In most cases, this does not constitute adequate periodic monitoring to ensure continuous compliance with the visible emissions standard. The permit must require the source to conduct visible emissions observations on a daily basis (Method 22), and that a Method 9 test be conducted within 24 hours of any abnormal qualitative survey. As an alternative to this approach, a technical demonstration can be included in the statement of basis explaining why the State has chosen not to require any additional visible emissions testing. The demonstration needs to identify the rationale for basing the compliance certification on data from a short-term test performed once a year.

Response: Gulf Power does not agree that daily Method 22 visible emissions tests are needed to constitute adequate periodic monitoring for equipment (Fly Ash Silo) referenced in Condition D.7 and D.8. A technical demonstration using annual opacity test results is available to demonstrate that the source is < 50% of the standard. A historical evaluation (five year average) of annual opacity compliance tests for the Crist Fly Ash Silo reveal compliance at an average of less than 1% opacity. Gulf Power believes this is an adequate technical demonstration for periodic monitoring for visible emissions for the Crist Fly Ash Silo. (See Attachment B)

8. Acid Rain: Please note that the Phase II Averaging Plan submitted by the source is an enforceable part of this permit. The Averaging Plan, Phase II NO_x Compliance and Phase II Acid Rain Permit Application should be referenced and attached as enforceable parts of the Title V permit. We note that Phase II permit applications, Phase II NO_x Compliance Plans and the Phase II Averaging Plans submitted by this source are referenced in Section IV, Condition A.1.of the proposed permit and on page 1 of the permit in a section entitled, "Referenced attachments made part of this permit".

However, the forms and the referenced dates of these two parts of the permit do not coincide and do not appear to reflect the complete signed forms as submitted by the source. It is important that the specific forms and applications (signed and dated by the designated representative) be attached to the permit as enforceable parts of the permit and that they are completely and accurately referenced.

Response: FDEP to correct permit language to better reflect this requirement.

9. Acid Rain: The language contained in section 70.6(a)(1)(ii), regarding Acid Rain Program requirements in title V is not addressed in the Acid Rain Part of the permit and does not appear to be included in elsewhere in the body of the proposed permit. This condition needs to be added to the proposed title V permit for this source.

Response: FDEP to correct permit language to better reflect this requirement.

II. General Comments

1. Section II, condition 1: Please make sure that Appendix TV-2 reflects the updated version of condition 51, as it is contained in Appendix TV-3.

Response: FDEP to correct permit language to better reflect this requirement.

2. Section II, condition 12: Please correct the address, telephone and fax number for the Air Enforcement Section. All required reports should be sent to the Air Enforcement Section (AES), not the Operating Source Section. The correct telephone and fax numbers for AES are 404/562-9055 and 404/562-9163, respectively. Additionally, please delete the information concerning the submission of Acid Rain information. Region 4 does not have an Acid Rain Section.

Response: FDEP to correct permit language to better reflect this requirement.

3. Statement of Basis: The statement of basis indicates that each emission unit is subject to a particulate matter emissions limit of 0.1 lb/MMBtu, and this limit is effectively equivalent to 0.149 lb/MMBtu due to rounding. This is also stated for conditions of soot blowing, where the particulate matter emission limit of 0.3 lb/MMBtu would be equivalent to 0.349 lb/MMBtu. However, these statements are incorrect. A measured emission rate of 0.149 lb/MMBtu actually rounds to 0.15 lb/MMBtu rather than 0.1 lb/MMBtu, which is in excess of the emission limit, and therefore not allowable.

   According to the June 6, 1990 memorandum "Performance Test Calculation Guidelines", issued by William G. Laxton, Director of the Technical Support Division, OAQPS, and John S. Seitz, Director of the Stationary Source Compliance Division, OAQPS, when calculating and reporting emission rates and concentrations in determining compliance with the new source performance standards (NSPS) and national emission standards for hazardous pollutants (NESHAP), as well as state implementation plans (SIP's), all emission standards should be considered to have at least two significant figures (SF's), but no more than three. Therefore, since the 0.1 lb/MMBtu emission limit for particulate matter comes from the Florida state SIP, it should be considered to have two SF's. In this case, the emission limit effectively becomes 0.10 lb/MMBtu. In order to comply with the emission limit of 0.1 lb/MMBtu, the highest allowable measured emission rate (measured to four SF's) is 0.1049 lb/MMBtu. Please correct the statement of basis to reflect the above discussion.

Response: Gulf Power does not agree with the EPA objection regarding Florida's particulate emissions standard. Gulf Power recommends that FDEP remove direct reference to the numerical standard in the standard of basis. FDEP should reference the FP&L agreement regarding this issue in finalizing a response.

4. Section IV, Acid Rain Part: Please note that the allowances allocated to the Crist Plant units 4,5,6,7, as indicated under Section IV, Condition A.2 of the proposed permit have been changed. This revision was published in the Federal Register on September 28, 1998 (Vol. 63 No. 187, pp 51706-51765). We recommend that the allowances that are indicated for these units be adjusted to reflect the revised allocation.

Response: FDEP to correct permit language to better reflect this requirement.

5. Appendix CP-1: Appendix CP-1, "Alternate Phase II NO_x Compliance Plan" of the proposed permit for the Gulf Power Company - Crist Plant requires that the designated representative of the Crist Plant provide certification that the NO_x averaging plan has been approved by all the other involved permitting authorities prior to Florida's approval of the plan. The procedure, as indicated in the "Appendix CP-1" of this proposed permit, does not appear to consider future revisions to a previously approved Phase II NO_x Averaging Plan. Each year of a plan, the permittee has the option of submitting a revision to an approved averaging plan by January 1 of the calendar year for which the averaging plan is to become effective. Condition 2 of "Appendix CP-1" specifically addresses the approval of the current Phase II Averaging Plan and does not discuss Florida's approval procedures for revisions to an Phase II NO_x Averaging Plan. Condition 3 of "Appendix CP-1" indicates that should the designated representative fail to submit the required certification under this Appendix then the source would be required to comply to the applicable Phase II NO_x emission limits specified in 40 CFR § 76.5. Please note that 40 CFR § 76.11(b)(3) indicates that when an averaging plan or a revision to an approved averaging plan is not approved, the owner or operator of each unit in the plan shall operate the unit in compliance with the emission limitation that would apply in the absence of an averaging plan or revision to a plan. Therefore, in the case where the permittee has an approved averaging plan but wishes to revise the plan, the approval of the revision is not final until all permitting authorities have approved the revision. Should the revision not be approved, then the permittee is required to comply with the originally approved (assuming it has been approved for multiple years) plan in absence of the revision. Appendix CP-1 should be revised to specify that the conditions contained in the appendix only apply to the particular averaging plan attached to this permit and does not prescribe procedures that should be followed for future revisions to the plan.

   Region 4's concern regarding the Rule 62-214.330(3)(b) requiring the designated representatives of a source in a multi-agency Phase II Averaging Plan to certify that every other affected permitting authority has approved the plan prior to the State of Florida's approval was indicated in a letter sent to Mr. Howard Rhodes from Mr. Douglas Neeley on December 9, 1997. It was Region 4's understanding, at that time, that Florida's Rule 62-214.330 was scheduled to be revised to avoid conflicts (such as has been described above) with 40 CFR Part 76. Appendix CP-1 was prepared so that the approval process would not be delayed in the interim. Please provide Region 4 with a schedule indicating when the revision is to occur.

Response: FDEP to address this issue.

ATTACHMENT B

Opacity Excess Emissions Summary for Crist (1992-1998)

Year		94				95				96				97				98				5 Year Avg
Quarter		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	
Crist 4.	% Excess emissions	0.2	0.1	0.3	0.2	0.6	0.1	0.0	0.6	0.1	0.3	0.3	0.3	0.0	0.1	0.2	0.3	0.1	0.0	0.1	0.1	0.2
	% CMS Downtime	0.0	0.5	0.0	0.0	1.0	0.1	0.1	0.1	0.5	0.1	0.3	0.1	0.1	0.1	0.1	0.2	0.4	0.6	0.1	0.5	0.2
	Total Percent	0.2	0.6	0.3	0.2	1.6	0.2	0.1	0.7	0.6	0.4	0.6	0.4	0.1	0.2	0.3	0.5	0.5	0.6	0.2	0.6	0.4
Crist 5	% Excess emissions	0.2	0.3	0.2	0.2	2.0	1.0	1.0	0.8	0.1	0.1	0.4	0.3	0.1	0.4	0.2	0.8	0.1	0.2	0.4	0.0	0.4
	% CMS Downtime	0.0	0.0	0.0	0.0	1.0	0.1	0.2	0.1	0.0	0.1	0.1	0.0	0.1	0.0	0.2	0.1	0.1	0.1	0.1	0.2	0.1
	Total Percent	0.2	0.3	0.2	0.2	3.0	1.1	1.2	0.9	0.1	0.2	0.5	0.3	0.2	0.4	0.4	0.9	0.2	0.3	0.5	0.2	0.6
Crist 6	% Excess emissions	0.9	1.2	0.2	0.2	0.1	0.1	0.2	0.1	0.0	0.1	0.0	0.1	0.1	0.1	0.2	0.1	0.1	0.1	0.0	0.1	0.2
	% CMS Downtime	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.1	0.0	0.0	0.0	0.1	0.0	0.4	0.0	0.1	0.1	0.0	0.1
	Total Percent	0.9	1.2	0.2	0.2	0.1	0.1	0.2	0.3	0.0	0.2	0.0	0.1	0.1	0.2	0.2	0.5	0.1	0.2	0.1	0.1	0.3
Crist 7	% Excess emissions	0.4	0.4	0.2	0.5	0.4	0.5	0.3	0.3	0.4	0.2	0.3	0.3	1.0	2.1	0.3	0.5	2.2	0.2	0.8	0.2	0.6
	% CMS Downtime	0.0	0.2	0.5	0.3	0.0	0.1	0.0	0.1	0.1	0.7	0.4	0.0	0.0	0.4	0.0	0.1	0.1	0.0	0.0	0.1	0.2
	Total Percent	0.4	0.6	0.7	0.8	0.4	0.6	0.3	0.4	0.5	0.9	0.7	0.3	1.0	2.5	0.3	0.6	2.3	0.2	0.8	0.3	0.7

Gulf Power Steady State Particulate Emission Tests Summary (1992-1998)

Unit	1994	1995	1996	1997	1998	5 Year Avg
Limit	0.1	0.1	0.1	0.1	0.1	0.1
Crist 4	0.015	0.012	0.012	0.010	0.008	0.011
Crist 5	0.061	0.069	0.029	0.027	0.011	0.039
Crist 6	0.006	0.003	0.003	0.010	0.012	0.007
Crist 7	0.037	0.016	0.037	0.041	0.072	0.041
Smith 1	0.017	0.021	0.017	0.019	0.029	0.021
Smith 2	0.021	0.015	0.028	0.025	0.049	0.028
Scholz 1	0.018	0.023	0.035	0.024	0.016	0.023
Scholz 2	0.020	0.013	0.016	0.013	0.010	0.014

PLANT CRIST FLYASH SILO
OPACITY EVALUATION

	OPACITY	
YEAR	"A" SILO	"B" SILO
1998	0%	0%
1997	0%	0%
1996	0%	0%
1995	0.8%	0.2%
1994	2.2%	2.1%
AVERAGE	0.6%	0.46%

Gulf Power Company
Crist Electric Generating Plant

PROPOSED Permit No.: 0330045-001-AV
Facility ID No.: 0330045

ASP Number 97-B-01
(With Scrivener's Order Dated July 9, 1997)

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

In the matter of:	)	
	)	
Florida Electric Power Coordinating Group, Inc.,	)	ASP No. 97-B-01
	)	
Petitioner.	)	

ORDER ON REQUEST FOR ALTERNATE PROCEDURES AND REQUIREMENTS

Pursuant to Rule 62-297.620, Florida Administrative Code (F.A.C.), the Florida Electric Coordinating Group, Incorporated, (FCG) petitioned for approval to: (1) Exempt fossil fuel steam generators which burn liquid and/or solid fuel for less than 400 hours during the federal fiscal year from the requirement to conduct an annual particulate matter compliance test; and, (2) Exempt fossil fuel steam generators which burn liquid and/or solid fuel for less than 400 hours during the federal fiscal year from the requirement to conduct an annual particulate matter compliance test during the year prior to renewal of an operation permit. This Order is intended to clarify particulate testing requirements for those fossil fuel steam generators which primarily burn gaseous fuels including, but not necessarily limited to natural gas.

Having considered the provisions of Rule 62-296.405(1), F.A.C., Rule 62-297.310(7), F.A.C., and all supporting documentation, the following Findings of Fact, Conclusions of Law, and Order are entered:

FINDINGS OF FACT

1. The Florida Electric Power Coordinating Group, Incorporated, petitioned the Department to exempt those fossil fuel steam generators which have a heat input of more than 250 million Btu per hour and burn solid and/or liquid fuel less than 400 hours during the year from the requirement to conduct an annual particulate matter compliance test. [Exhibit 1]

2. Rule 62-296.405(1)(a), F.A.C., applies to those fossil fuel steam generators that are not subject to the federal standards of performance for new stationary sources (NSPS) in 40 CFR 60 and which have a heat input of more than 250 million Btu per hour.

3. Rule 62-296.405(1)(a), F.A.C., limits visible emissions from affected fossil fuel steam generators to, "20 percent opacity except for either one six-minute period per hour during which

not exceed 40 percent. The option selected shall be specified in the emissions unit's construction and operation permits. Emissions units governed by this visible emission limit shall test for particulate emission compliance annually and as otherwise required by Rule 62-297, F.A.C."

4. Rule 62-296.405(1)(a), F.A.C., further states, "Emissions units electing to test for particulate matter emission compliance quarterly shall be allowed visible emissions of 40 percent opacity. The results of such tests shall be submitted to the Department. Upon demonstration that the particulate standard has been regularly complied with, the Secretary, upon petition by the applicant, shall reduce the frequency of particulate testing to no less than once annually.

5. Rule 297.310(7)(a)1., F.A.C., states, "The owner or operator of a new or modified emissions unit that is subject to an emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining an operation permit for such emissions unit."

6. Rule 297.310(7)(a)2., F.A.C., states, "The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision.

7. Rule 297.310(7)(a)3., F.A.C., further states, "In renewing an air operation permit pursuant to Rule 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal: a. Did not operate; or, b. In the case of a fuel burning emissions unit, burned liquid and/or solid fuel for a total of no more than 400 hours."

8. Rule 297.310(7)(a)4., F.A.C., states, "During each federal fiscal year (October 1 -- September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for: a. Visible emissions, if there is an applicable standard; b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; 30 tons per year or more of acrylonitrile; or 100 tons per year or more of any other regulated air pollutant...."

9. Rule 297.310(7)(a)5., F.A.C., states. "An annual compliance test for particulate matter emissions shall not be required for any fuel burning emissions unit that, in a federal fiscal year, does not burn liquid and/or solid fuel, other than during startup, for a total of more than 400 hours."

10. Rule 297.310(7)(a)6., F.A.C., states, "For fossil fuel steam generators on a semi-annual particulate matter emission compliance testing schedule, a compliance test shall not be

required for any six-month period in which liquid and/or solid fuel is not burned for more than 200 hours other than during startup."

11. Rule 297.310(7)(a)7., F.A.C., states, "For emissions units electing to conduct particulate matter emission compliance testing quarterly pursuant to Rule 62-296.405(2)(a), F.A.C., a compliance test shall not be required for any quarter in which liquid and/or solid fuel is not burned for more than 100 hours other than during startup." [Note: The reference should be to Rule 62-296.405(1)(a), F.A.C., rather than Rule 62-296.405(2)(a), F.A.C.]

12. The fifth edition of the U. S. Environmental Protection Agency's Compilation of Air Pollutant Emission Factors, AP-42, that emissions of filterable particulate from gas-fired fossil fuel steam generators with a heat input of more than about 10 million Btu per hour may be expected to range from 0.001 to 0.006 pound per million Btu. [Exhibit 2]

13. Rule 62-296.405(1)(b), F.A.C. and the federal standards of performance for new stationary sources in 40 CFR 60.42, Subpart D, limit particulate emissions from uncontrolled fossil fuel fired steam generators with a heat input of more than 250 million Btu to 0.1 pound per million Btu.

CONCLUSIONS OF LAW

1. The Department has jurisdiction to consider the matter pursuant to Section 403.061, Florida Statutes (F.S.), and Rule 62-297.620, F.A.C.

2. Pursuant to Rule 62-297.310(7), F.A.C., the Department may require Petitioner to conduct compliance tests that identify the nature and quantity of pollutant emissions, if, after investigation, it is believed that any applicable emission standard or condition of the applicable permits is being violated.

3. There is reason to believe that a fossil fuel steam generator which does not burn liquid and/or solid fuel (other than during startup) for a total of more than 400 hours in a federal fiscal year and complies with all other applicable limits and permit conditions is in compliance with the applicable particulate mass emission limiting standard.

ORDER

Having considered the requirements of Rule 62-296.405, F.A.C., Rule 62-297.310, F.A.C., and supporting documentation, it is hereby ordered that:

1. An annual compliance test for particulate matter emissions shall not be required for any fuel burning emissions unit that, in a federal fiscal year, does not burn liquid and/or solid fuel, other than during startup, for a total of more than 400 hours;

2. For fossil fuel steam generators on a semi-annual particulate matter emission compliance testing schedule, a compliance test shall not be required for any six-month period in which liquid and/or solid fuel is not burned for more than 200 hours other than during startup;

3. For emissions units electing to conduct particulate matter emission compliance testing quarterly pursuant to Rule 62-296.405(1)(a), F.A.C., a compliance test shall not be required for any quarter in which liquid and/or solid fuel is not burned for more than 100 hours other than during startup;

4. In renewing an air operation permit pursuant to Rule 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of particulate matter emission compliance test results for any fossil fuel steam generator emissions unit that burned liquid and/or solid fuel for a total of no more than 400 hours during the year prior to renewal.

5. Pursuant to Rule 62-297.310(7), F.A.C., owners of affected fossil fuel steam generators may be required to conduct compliance tests that identify the nature and quantity of pollutant emissions, if, after investigation, it is believed that any applicable emission standard or condition of the applicable permits is being violated.

6. Pursuant to Rule 62-297.310(8), F.A.C., owners of affected fossil fuel steam generators shall submit the compliance test report to the District Director of the Department district office having jurisdiction over the emissions unit and, where applicable, the Air Program Administrator of the appropriate Department-approved local air program within 45 days of completion of the test.

PETITION FOR ADMINISTRATIVE REVIEW

The Department will take the action described in this Order unless a timely petition for an administrative hearing is filed pursuant to sections 120.569 and 120.57 of the Florida Statutes, or a party requests mediation as an alternative remedy under section 120.573 before the deadline for filing a petition. Choosing mediation will not adversely affect the right to a hearing if mediation does not result in a settlement. The procedures for petitioning for a hearing are set forth below, followed by the procedures for requesting mediation.

A person whose substantial interests are affected by the Department's proposed decision may petition for an administrative hearing in accordance with 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 must be filed within 21 days of receipt of this Order. A petitioner must 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 (or a request for mediation, as discussed below) 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 of

the Florida Statutes, 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 28-5.207 of the Florida Administrative Code.

A petition must contain the following information:

(a) The name, address, and telephone number of each petitioner, the applicant's name and address, the Department File Number, and the county in which the project is proposed;

(b) A statement of how and when each petitioner received notice of the Department's action or proposed action;

(c) A statement of how each petitioner's substantial interests are affected by the Department's action or proposed action;

(d) A statement of the material facts disputed by each petitioner, if any;

(e) A statement of facts that the petitioner contends warrant reversal or modification of the Department's action or proposed action;

(f) A statement identifying the rules or statutes each petitioner contends require reversal or modification of the Department's action or proposed action; and,

(g) A statement of the relief sought by each petitioner, stating precisely the action each petitioner wants the Department to take with respect to the Department's action or proposed action in the notice of intent.

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 Order. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

A person whose substantial interests are affected by the Department's proposed decision, may elect to pursue mediation by asking all parties to the proceeding to agree to such mediation and by filing with the Department a request for mediation and the written agreement of all such parties to mediate the dispute. The request and agreement must be filed in (received by) the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000, by the same deadline as set forth above for the filing of a petition.

A request for mediation must contain the following information:

(a) The name, address, and telephone number of the person requesting mediation and that person's representative, if any;

(b) A statement of the preliminary agency action;

(c) A statement of the relief sought; and

(d) Either an explanation of how the requester's substantial interests will be affected by the action or proposed action addressed in this notice of intent or a statement clearly identifying the petition for hearing that the requester has already filed, and incorporating it by reference.

The agreement to mediate must include the following:

(a) The names, addresses, and telephone numbers of any persons who may attend the mediation;

(b) The name, address, and telephone number of the mediator selected by the parties, or a provision for selecting a mediator within a specified time;

(c) The agreed allocation of the costs and fees associated with the mediation;

(d) The agreement of the parties on the confidentiality of discussions and documents introduced during mediation;

(e) The date, time, and place of the first mediation session, or a deadline for holding the first session, if no mediator has yet been chosen;

(f) The name of each party's representative who shall have authority to settle or recommend settlement; and

(g) The signatures of all parties or their authorized representatives.

As provided in section 120.573 of the Florida Statutes, the timely agreement of all parties to mediate will toll the time limitations imposed by sections 120.569 and 120.57 for requesting and holding an administrative hearing. Unless otherwise agreed by the parties, the mediation must be concluded within sixty days of the execution of the agreement. If mediation results in settlement of the administrative dispute, the Department must enter a final order incorporating the agreement of the parties. Persons whose substantial interests will be affected by such a modified final decision of the Department have a right to petition for a hearing only in accordance with the requirements for such petitions set forth above. If mediation terminates without settlement of the dispute, the Department shall notify all parties in writing that the administrative hearing processes under sections 120.569 and 120.57 remain available for disposition of the dispute, and the notice will

specify the deadlines that then will apply for challenging the agency action and electing remedies under those two statutes.

In addition to the above, a person subject to regulation has a right to apply for a variance from or waiver of the requirements of particular rules, on certain conditions, under section 120.542 of the Florida Statutes. The relief provided by this state statute applies only to state rules, not statutes, and not to any federal regulatory requirements. Applying for a variance or waiver does not substitute or extend the time for filing a petition for an administrative hearing or exercising any other right that a person may have in relation to the action proposed in this notice of intent.

The application for a variance or waiver is made by filing a petition with the Office of General Counsel of the Department, 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000.

The petition must specify the following information:

(a) The name, address, and telephone number of the petitioner;

(b) The name, address, and telephone number of the attorney or qualified representative of the petitioner, if any;

(c) Each rule or portion of a rule from which a variance or waiver is requested;

(d) The citation to the statute underlying (implemented by) the rule identified in (c) above;

(e) The type of action requested;

(f) The specific facts that would justify a variance or waiver for the petitioner;

(g) The reason why the variance or waiver would serve the purposes of the underlying statute (implemented by the rule); and

(h) A statement whether the variance or waiver is permanent or temporary and, if temporary, a statement of the dates showing the duration of the variance or waiver requested.

The Department will grant a variance or waiver, when the petition demonstrates both that the application of the rule would create a substantial hardship or violate principles of fairness, as each of those terms is defined in section 120.542(2) of the Florida Statutes, and that the purpose of the underlying statute will be or has been achieved by other means by the petitioner. Persons subject to regulation pursuant to any federally delegated or approved air program should be aware that Florida is specifically not authorized to issue variances or waivers from any requirements of any such federally delegated or approved program. The requirements of the program remain fully

each of those terms is defined in section 120.542(2) of the Florida Statutes, and that the purpose of the underlying statute will be or has been achieved by other means by the petitioner. Persons subject to regulation pursuant to any federally delegated or approved air program should be aware that Florida is specifically not authorized to issue variances or waivers from any requirements of any such federally delegated or approved program. The requirements of the program remain fully enforceable by the Administrator of the EPA and by any person under the Clean Air Act unless and until the Administrator separately approves any variance or waiver in accordance with the procedures of the federal program.

This Order constitutes final agency action unless a petition is filed in accordance with the above paragraphs. Upon timely filing of a petition, this Order will not be effective until further Order of the Department.

RIGHT TO APPEAL

Any party to this Order has the right to seek judicial review of the Order pursuant to Section 120.68, F.S., by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, 3900 Commonwealth Boulevard, Mail Station 35, Tallahassee, Florida 32399-3000; and, by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date the Notice of Agency Action is filed with the Clerk of the Department.

DONE AND ORDERED this 17 day of March, 1997 in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

Howard L. Rhodes

HOWARD L. RHODES, Director
Division of Air Resources Management
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400
(904) 488-0114

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that a copy of the foregoing was mailed to Rich Piper, Chair, Florida Power Coordinating Group, Inc., 405 Reo Street, Suite 100, Tampa, Florida 33609-1004, on this 18th day of March 1997.

Clerk Stamp

FILING AND ACKNOWLEDGMENT
FILED, on this date, pursuant to §120.52(7), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Martha O'Neal 3-18-97
Clerk Date

FLORIDA ELECTRIC POWER COORDINATING GROUP, INC. (FCG)
1005 RED STREET, SUITE 100 • (813) 289-5644 • FAX (813) 289-5648
TAMPA, FLORIDA 33609-1004

January 28, 1997

Clair H. Fancy, P.E.
Chief, Bureau of Air Regulation
Florida Department of Environmental Protection
2600 Blair Stone Road, MS 5505
Tallahassee, FL 32301

RE: Comments Regarding Draft Title V Permits

Dear Mr. Fancy:

The Florida Electric Power Coordinating Group, Inc. (FCG), which is made up of 36 utilities owned by investors, municipalities, and cooperatives, has been following the implementation of Title V in Florida and recently submitted comments to you on draft Title V permit conditions by letter dated December 4, 1996. As indicated in that letter, representatives from the FCG would like to meet with you and other members of your air permitting staff to discuss some significant concerns that FCG member companies have regarding conditions that may be included in Title V permits issued by your office. While we will be discussing these issues with you and your staff in greater detail at that meeting, we would like to explain some of our concerns in this letter.

Primarily, the FCG members are concerned that the Title V permits may contain conditions that are much different in important respects than those conditions currently included in existing air permits. During the rulemaking workshops and seminars conducted by the Department to discuss the rules implementing the Title V permitting program, representations were made on several occasions that industry could expect to see permit conditions that were substantively similar to existing permit conditions and that primarily the format was changing. Representations were also made to industry that Title V did not impose additional substantive requirements beyond what was already required under the Department's rules. Based on the first draft Title V permit that we have reviewed, we are concerned that there may be some attempt to change the substantive requirements on existing facilities through the Title V permitting process, and we would like to discuss this with you at the meeting we have scheduled for January 30, 1997.

1. Federal Enforceability--The FCG has long been concerned about the designation of non-federally enforceable permit terms and conditions. We are concerned about this issue because the Department's first draft Title V permits have included language stating that *all* terms and conditions would become federally enforceable once the permit is issued. This approach is consistent with the Department's guidance memorandum dated September 13, 1996 (DAPM-PER/V-18), but we understand that the Department may now intend to remove all references to

the federal enforceability of permit terms and conditions. We are also concerned about this approach because a Title V permit is generally federally enforceable and, without any designation of non-federally enforceable terms and conditions, the entire permit could be interpreted to be federally enforceable. As we stated in the December 4 letter as well as our letter dated October 11, 1996, all terms and conditions in a Title V permit do *not* become enforceable by the U.S. Environmental Protection Agency and citizens under the Clean Air Act simply by inclusion in a Title V permit. To make it clear which provisions in a Title V permit are not federally enforceable (which are being included because of state or local requirements only), it is very important to specifically designate those conditions as having no federally enforceable basis. Such a designation is actually required under the federal Title V rules, which provide that permitting agencies are to "specifically designate as not being federally enforceable under the Act any terms and conditions included in the permit that are not required under the Act or under any of its applicable requirements." 40 CFR § 70.6(b). We would like to discuss with you our concerns about this issue and to again specifically request that when Title V permits are issued by the Department, conditions having no federally enforceable basis clearly be identified as such.

2. PM Testing on Gas--The FCG understands that the Department may attempt to require annual particulate matter compliance testing while firing natural gas to determine compliance with the 0.1 lb/mmBtu emission limit established under Rule 62-296.405(1)(b), F.A.C. The FCG member companies feel strongly that compliance testing for particulate matter should not be required while firing natural gas. The Department has not historically required particulate matter compliance testing while firing natural gas, it is not required under the current permits for these units, and it should not be necessary since natural gas is such a clean fuel. Typically only *de minimis* amounts of particulate matter would be expected from the firing of natural gas, so compliance testing would not provide meaningful information to the Department, and the expense to conduct such tests is not justified. We understand that Department representatives suggested that industry could pursue an alternative test procedure under Rule 62-297.620, F.A.C., to allow a visible emissions test to be used in lieu of a stack test for determining compliance with the particulate matter limit. While certainly a visible emissions test would be preferable over a stack test, neither of these tests should be needed to demonstrate compliance with the particulate matter limit of 0.1 lb/mmBtu while burning natural gas. The FCG strongly urges that the Department reconsider its position on this issue and clarify that compliance testing for particulate matter while firing natural gas is not required.

3. Excess Emissions--By letter dated December 5, 1996, the U.S. Environmental Protection Agency (EPA) submitted a letter commenting on a draft Title V permit that had been issued by the Department and indicated some concern regarding excess emission provisions included in conditions that were quoted from Rule 62-210.700, F.A.C. Because the permit conditions cited simply quote the applicable provisions of the Department's rules regarding

excess emissions and because these rules have been approved as part of Florida's State Implementation Plan, the permit conditions are appropriate to be included in the permit. We understand that the Department intends to include as applicable requirements in Title V permit conditions the provisions of Rule 62-210.700, F.A.C. If the Department receives any further adverse comments regarding the excess emissions rule under 62-210.700, F.A.C., we would appreciate your contacting us. Because this issue is so important to us, we would like to discuss it with you in greater detail at our meeting on January 30.

4. Compliance Testing for Combustion Turbines--While the Department's November 22, 1995, guidance regarding the compliance testing requirements for combustion turbines clearly states that the use of heat input curves based on ambient temperatures and humidities is to be included as a permit condition *only* if requested by a permittee, we understand that the Department may intend to include this requirement in Title V permits for all combustion turbines. As we are sure you recall, the FCG worked over a period of several months with the Department on the development of the guidance memorandum and it was clearly understood by FCG members that the heat input curves would not be mandated but would remain voluntary for any existing combustion turbine. It was also understood by FCG members that the requirement to conduct testing at 95 to 100 percent of capacity would be required only if the permit applicant requested the use of heat input curves. We understand that the Department may be interpreting the requirement to use heat input curves and to test at 95 to 100 percent of permitted capacity to be mandatory for all combustion turbines. We would like to clarify this with you during our meeting. Also, we would like to confirm that, regardless of whether a combustion turbine uses heat input curves or tests at 95 to 100 percent of permitted capacity, it is necessary to test at four load points and correct to ISO *only* to determine compliance with the nitrogen oxides (NOx) standard under New Source Performance Standard Subpart GG under 40 CFR § 60.332 and not annually thereafter.

5. Test Methods--The FCG is concerned about the possibility of the Department requiring a full permit revision to authorize the use of an approved test method not specifically identified in a Title V permit, even though the Department may have separately approved the use of the particular test method for a unit (i.e., through a compliance test protocol). It is the FCG's position that language should be included in all Title V permits indicating that other test methods approved by the Department may be used. Further, a full permit revision (including public notice) should *not* be necessary when a test method not previously identified in the permit is approved for use by a unit. The Department's subsequent approval of test methods should simply be included in the next permit renewal cycle. The FCG understands that the Department planned to confirm this approach with the U.S. Environmental Protection Agency Region IV, and we would like to discuss this issue with you at the January 30 meeting to learn of the agency's response.

6. Quarterly Reports--The FCG understands that the Department may be interpreting the quarterly reporting requirements under Rule 62-296.405(1)(g), F.A.C., to apply regardless of whether continuous emissions monitors were required under the preceding Rule 62-296.405(1)(f), F.A.C. It is the FCG's position that quarterly reports are required under Rule 62-296.405(1)(g) only when continuous emissions monitors are required under the preceding paragraph (f). While this may not be entirely clear from the language of the rules, paragraphs (f) and (g) were originally included in a separate rule on "continuous emission monitoring requirements" where it was very clear that the requirements of paragraph (g) applied *only* if continuous emission monitoring was required under paragraph (f). Research indicates that Rule 17-2.710, F.A.C. (copy attached), where these provisions were originally located, was first transferred to Rule 17-297.500, F.A.C. (which later became Rule 62-297.500), later repealed in November of 1994, and ultimately replaced with what is now Rule 62-296.405(1)(f) and (g), F.A.C. To the extent that an emissions unit is not subject to Rule 62-296.405(1)(f) and is not required to install and operate continuous emissions monitors (e.g., oil- and gas-fired units), the quarterly reporting requirements of paragraph (g) should not apply.

7. Trivial Activities--As you may recall, in May of 1996, the FCG submitted to the Department a list of small, *de minimis* emissions units and activities that it considered to be "trivial," consistent with the list developed by EPA as part of the Title V "White Paper" and incorporated by reference by the Department in its March 15, 1996, guidance memorandum (DARM-PER/V-15-Revised). We never received a response from the Department and now understand that the Department may not have made a determination as to whether any of the emission units or activities on the list should qualify as "trivial." This is an important issue to the FCG because only "trivial" activities can be omitted from the Title V permit application and permit, and ultimately omitted from emission estimates in the annual air operation reports under Rule 62-210.370(3), F.A.C. The FCG remains hopeful that the Department will consider its request to determine that most, if not all, of the emission units and activities on the May, 1996, list to be "trivial." We would like to discuss a possible resolution of this issue with you and your staff at the January 30 meeting.

8. Permit Shield--The FCG continues to be concerned about the language in Conditions 5 and 20 of Appendix TV-1, Title V Conditions, which circumvents the permit shield provisions under Section 403.0872(15), Florida Statutes, and Rule 62-213.460, F.A.C. The FCG believes that these conditions should be deleted in their entirety. To the extent that the Department attempt to caveat the applicability of those conditions, the FCG believes that it is important to cite to not only the regulatory citation for the permit shield but the statutory citation as well.

Thank you again for considering the FCG's comments on the draft Title V permits. We very much appreciate the cooperation we have received from the Department throughout the

Title V implementation process, and we look forward to our meeting later this week. If you have any questions in the meantime, please call me at 561-625-7661.

Sincerely,

Rich Piper

Rich Piper, Chair
FCG Air Subcommittee

Enclosures

cc: Howard L. Rhodes, DEP
John Brown, DEP
Pat Comer, DEP OGC
Scott M. Sheplak, DEP
Edward Svec, DEP
FCG Air Subcommittee
Angela Morrison, HGSS

sssc1

AP-42
FIFTH EDITION
JANUARY 1995

COMPILATION OF AIR POLLUTANT EMISSION FACTORS

VOLUME I: STATIONARY POINT AND AREA SOURCES

Office Of Air Quality Planning And Standards
Office Of Air And Radiation
U. S. Environmental Protection Agency
Research Triangle Park, NC 27711

January 1995

Exhibit 3

1.4 Natural Gas Combustion

1.4.1 General[1-2]

Natural gas is one of the major fuels used throughout the country. It is used mainly for industrial process steam and heat production; for residential and commercial space heating; and for electric power generation. Natural gas consists of a high percentage of methane (generally above 80 percent) and varying amounts of ethane, propane, butane, and inerts (typically nitrogen, carbon dioxide, and helium). Gas processing plants are required for the recovery of liquefiable constituents and removal of hydrogen sulfide before the gas is used (see Section 5.3, Natural Gas Processing). The average gross heating value of natural gas is approximately 8900 kilocalories per standard cubic meter (1000 British thermal units per standard cubic foot), usually varying from 8000 to 9400 kcal/scm (900 to 1100 Btu/scf).

1.4.2 Emissions And Controls[3-5]

Even though natural gas is considered to be a relatively clean-burning fuel, some emissions can result from combustion. For example, improper operating conditions, including poor air/fuel mixing, insufficient air, etc., may cause large amounts of smoke, carbon monoxide (CO), and organic compound emissions. Moreover, because a sulfur-containing mercaptan is added to natural gas to permit leak detection, small amounts of sulfur oxides will be produced in the combustion process.

Nitrogen oxides (NO_x) are the major pollutants of concern when burning natural gas. Nitrogen oxide emissions depend primarily on the peak temperature within the combustion chamber as well as the furnace-zone oxygen concentration, nitrogen concentration, and time of exposure at peak temperatures. Emission levels vary considerably with the type and size of combustor and with operating conditions (particularly combustion air temperature, load, and excess air level in boilers).

Currently, the two most prevalent NO_x control techniques being applied to natural gas-fired boilers (which result in characteristic changes in emission rates) are low NO_x burners and flue gas recirculation. Low NO_x burners reduce NO_x by accomplishing the combustion process in stages. Staging primarily delays the combustion process, resulting in a cooler flame which suppresses NO_x formation. The three most common types of low NO_x burners being applied to natural gas-fired boilers are staged air burners, staged fuel burners, and radiant fiber burners. Nitrogen oxide emission reductions of 40 to 85 percent (relative to uncontrolled emission levels) have been observed for low NO_x burners. Other combustion staging techniques which have been applied to natural gas-fired boilers include low excess air, reduced air preheat, and staged combustion (e.g., burners-out-of-service and overfire air). The degree of staging is a key operating parameter influencing NO_x emission rates for these systems.

In a flue gas recirculation (FGR) system, a portion of the flue gas is recycled from the stack to the burner windbox. Upon entering the windbox, the gas is mixed with combustion air prior to being fed to the burner. The FGR system reduces NO_x emissions by two mechanisms. The recycled flue gas is made up of combustion products which are as inerts during combustion of the fuel/air mixture. This additional mass is heated in the combustion zone, thereby lowering the peak flame temperature and reducing the amount of NO_x formed. To a lesser extent, FGR also reduces NO_x emissions by lowering the oxygen concentration in the primary flame zone. The amount of flue gas recirculated is a key operating parameter influencing NO_x emission rates for these systems. Flue gas

recirculation is normally used in combination with low NO_x burners. When used in combination, these techniques are capable of reducing uncontrolled NO_x emissions by 60 to 90 percent.

Two post-combustion technologies that may be applied to natural gas-fired boilers to reduce NO_x emissions by further amounts are selective noncatalytic reduction and selective catalytic reduction. These systems inject ammonia (or urea) into combustion flue gases to reduce inlet NO_x emission rates by 40 to 70 percent.

Although not measured, all particulate matter (PM) from natural gas combustion has been estimated to be less than 1 micrometer in size. Particulate matter is composed of filterable and condensable fractions, based on the EPA sampling method. Filterable and condensable emission rates are of the same order of magnitude for boilers; for residential furnaces, most of the PM is in the form of condensable material.

The rates of CO and trace organic emissions from boilers and furnaces depend on the efficiency of natural gas combustion. These emissions are minimized by combustion practices that promote high combustion temperatures, long residence times at those temperatures, and turbulent mixing of fuel and combustion air. In some cases, the addition of NO_x control systems such as FGR and low NO_x burners reduces combustion efficiency (due to lower combustion temperatures), resulting in higher CO and organic emissions relative to uncontrolled boilers.

Emission factors for natural gas combustion in boilers and furnaces are presented in Tables 1.4-1, 1.4-2, and 1.4-3.[6] For the purposes of developing emission factors, natural gas combustors have been organized into four general categories: utility/large industrial boilers, small industrial boilers, commercial boilers, and residential furnaces. Boilers and furnaces within these categories share the same general design and operating characteristics and hence have similar emission characteristics when combusting natural gas. The primary factor used to demarcate the individual combustor categories is heat input.

Table 1.4-1 (Metric And English Units). EMISSION FACTORS FOR PARTICULATE MATTER (PM) FROM NATURAL GAS COMBUSTION[a]

Combustor Type (Size, 10^6 Btu/hr Heat Input) (SCC)[b]	Filterable PM[c]			Condensable PM[d]		
	kg/10^6 m^3	lb/10^6 ft^3	RATING	kg/10^6 m^3	lb/10^6 ft^3	RATING
Utility/large industrial boilers (> 100) (1-01-006-01, 1-01-006-04)	16 - 80	1 - 5	D	ND	ND	NA
Small industrial boilers (10 - 100) (1-02-006-02)	99	6.2	D	120	7.5	D
Commercial boilers (0.3 - < 10) (1-03-006-03)	72	4.5	C	120	7.5	C
Residential furnaces (< 0.3) (No SCC)	2.8	0.18	C	180	11	D

[a] References 9-14. All factors represent uncontrolled emissions. Units are kg of pollutant/10^6 cubic meters natural gas fired and lb of pollutant/10^6 cubic feet natural gas fired. Based on an average natural gas higher heating value of 8270 kcal/m^3 (1000 Btu/scf). The emission factors in this table may be converted to other natural gas heating values by multiplying the given emission factor by the ratio of the specified heating value to this average heating value. ND = no data. NA = not applicable.

[b] SCC = Source Classification Code.

[c] Filterable PM is that particulate matter collected on or prior to the filter of an EPA Method 5 (or equivalent) sampling train.

[d] Condensable PM is that particulate matter collected using EPA Method 202, (or equivalent). Total PM is the sum of the filterable PM and condensable PM. All PM emissions can be assumed to be less than 10 micrometers in aerodynamic equivalent diameter (PM-10).

Table 1.4-2 (Metric And English Units). EMISSION FACTORS FOR SULFUR DIOXIDE (SO_2), NITROGEN OXIDES (NO_x), AND CARBON MONOXIDE (CO) FROM NATURAL GAS COMBUSTION[a]

Combustor Type (Size, 10^6 Btu/hr Heat Input) (SCC)[b]	SO_2[c]			NO_x[d]			CO[e]		
	kg/10^6 m^3	lb/10^6 ft^3	RATING	kg/10^6 m^3	lb/10^6 ft^3	RATING	kg/10^6 m^3	lb/10^6 ft^3	RATING
Utility/large Industrial Boilers (>100) (1-01-006-01, 1-01-006-04)									
Uncontrolled	9.6	0.6	A	8800	550[f]	A	640	40	A
Controlled - Low NO_x burners	9.6	0.6	A	1300	81[f]	D	ND	ND	NA
Controlled - Flue gas recirculation	9.6	0.6	A	850	53[f]	D	ND	ND	NA
Small Industrial Boilers (10 - 100) (1-02-006-02)									
Uncontrolled	9.6	0.6	A	2240	140	A	560	35	A
Controlled - Low NO_x burners	9.6	0.6	A	1300	81[f]	D	980	61	D
Controlled - Flue gas recirculation	9.6	0.6	A	480	30	C	590	37	C
Commercial Boilers (0.3 - <10) (1-03-006-03)									
Uncontrolled	9.6	0.6	A	1600	100	B	330	21	C
Controlled - Low NO_x burners	9.6	0.6	A	270	17	C	425	27	C
Controlled - Flue gas recirculation	9.6	0.6	A	580	36	D	ND	ND	NA
Residential Furnaces (<0.3) (No SCC)									
Uncontrolled	9.6	0.6	A	1500	94	B	640	40	B

[a] Units are kg of pollutant/10^6 cubic meters natural gas fired and lb of pollutant/10^6 cubic feet natural gas fired. Based on an average natural gas fired higher heating value of 8270 kcal/m^3 (1000 Btu/scf). The emission factors in this table may be converted to other natural gas heating values by multiplying the given emission factor by the ratio of the specified heating value to this average heating value. ND = no data. NA = not applicable.

[b] SCC = Source Classification Code.

[c] Reference 7. Based on average sulfur content of natural gas, 4600 g/10^6 Nm^3 (2000 gr/10^6 scf).

Table 1.4-2 (cont.).

[d] References 10,15-19. Expressed as NO_2.. For tangentially fired units, use 4400 kg/10^6 m^3 (275 lb/10^6 ft^3). At reduced loads, multiply factor by load reduction coefficient in Figure 1.4-1. Note that NO_x emissions from controlled boilers will be reduced at low load conditions.

[e] References 9-10,16-18,20-21.

[f] Emission factors apply to packaged boilers only.

Table 1.4-3 (Metric And English Units). EMISSION FACTORS FOR CARBON DIOXIDE (CO_2) AND TOTAL ORGANIC COMPOUNDS (TOC) FROM NATURAL GAS COMBUSTION[a]

Combustor Type (Size, 10^6 Btu/hr Heat Input) (SCC)[b]	CO_2[c]			TOC[d]		
	kg/10^6 m^3	lb/10^6 ft^3	RATING	kg/10^6 m^3	lb/10^6 ft^3	RATING
Utility/large industrial boilers (> 100) (1-01-006-01, 1-01-006-04)	ND[e]	ND	NA	28[f]	1.7[f]	C
Small industrial boilers (10 - 100) (1-02-006-02)	1.9 E+06	1.2 E+05	D	92[g]	5.8[g]	C
Commercial boilers (0.3 - < 10) (1-03-006-03)	1.9 E+06	1.2 E+05	C	128[h]	8.0[h]	C
Residential furnaces (No SCC)	2.0 E+06	1.3 E+05	D	180[h]	11[h]	D

[a] All factors represent uncontrolled emissions. Units are kg of pollutant/10^6 cubic meters and lb of pollutant/10^6 cubic feet. Based on an average natural gas higher heating value of 8270 kcal/m^3 (1000 Btu/scf). The emission factors in this table may be converted to other natural gas heating values by multiplying the given factor by the ratio of the specified heating value to this average heating value. NA = not applicable.

[b] SCC = Source Classification Code.

[c] References 10,22-23.

[d] References 9-10,18.

[e] ND = no data.

[f] Reference 8: methane comprises 17% of organic compounds.

[g] Reference 8: methane comprises 52% of organic compounds.

[h] Reference 8: methane comprises 34% of organic compounds.

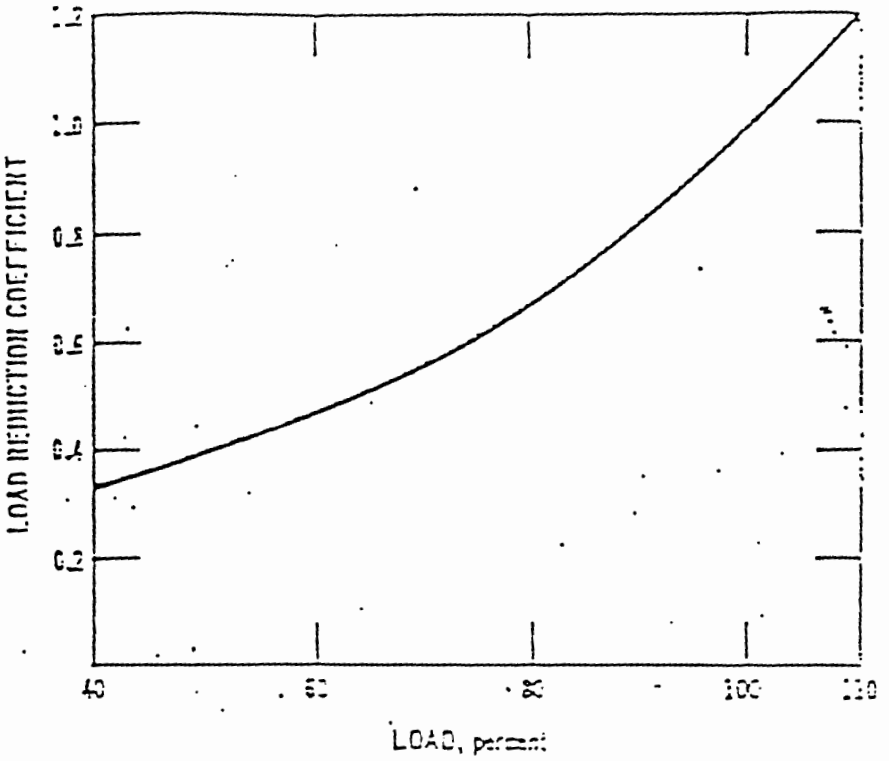

Figure 1.4-1. Load reduction coefficient as a function of boiler load. (Used to determine NO_x reductions at reduced loads in large boilers.)

References For Section 1.4

1. *Exhaust Gases From Combustion and Industrial Processes*, EPA Contract No. EHSD 71-36, Engineering Science, Inc., Washington, DC, October 1971.

2. *Chemical Engineers' Handbook, Fourth Edition*, J. H. Perry, Editor, McGraw-Hill Book Company, New York, NY, 1963.

Background Information Document For Industrial Boilers, EPA-450/3-82-006a, U. S. Environmental Protection Agency, Research Triangle Park, NC, March 1982.

Background Information Document For Small Steam Generating Units, EPA-450/3-87-000, U. S. Environmental Protection Agency, Research Triangle Park, NC, 1987.

Fine Particulate Emissions From Stationary and Miscellaneous Sources in the South Coast Air Basin, California Air Resources Board Contract No. A6-191-30, KVE, Inc., Tustin, CA, February 1979.

Emission Factor Documentation for AP-42 Section 1.4 - Natural Gas Combustion (Draft), Technical Support Division, Office of Air Quality Planning and Standards, U. S. Environmental Protection Agency, Research Triangle Park, NC, April 1993.

Systematic Field Study of NO_x Emission Control Methods For Utility Boilers, APTD-1163, U. S. Environmental Protection Agency, Research Triangle Park, NC, December 1971.

Compilation of Air Pollutant Emission Factors, Fourth Edition, AP-42, U. S. Environmental Protection Agency, Research Triangle Park, NC, September 1985.

9. J. L. Muhlbaier, "Particulate and Gaseous Emissions From Natural Gas Furnaces and Water Heaters", *Journal of the Air Pollution Control Association*, December 1981.

10. *Field Investigation of Emissions From Combustion Equipment for Space Heating*, EPA-R2-73-084a, U. S. Environmental Protection Agency, Research Triangle Park, NC, June 1973.

11. N. F. Suprenant, *et al.*, *Emissions Assessment of Conventional Stationary Combustion Systems, Volume I: Gas and Oil Fired Residential Heating Sources*, EPA-600/7-79-029b, U. S. Environmental Protection Agency, Washington, DC, May 1979.

12. C. C. Shih, *et al.*, *Emissions Assessment of Conventional Stationary Combustion Systems, Volume III: External Combustion Sources for Electricity Generation*, EPA Contract No. 68-02-2197, TRW, Inc., Redondo Beach, CA, November 1980.

13. N. F. Suprenant, *et al.*, *Emissions Assessment of Conventional Stationary Combustion Systems, Volume IV: Commercial/Institutional Combustion Sources*, EPA Contract No. 68-02-2197, GCA Corporation, Bedford, MA, October 1980.

14. N. F. Suprenant, *et al.*, *Emissions Assessment of Conventional Stationary Combustion Systems, Volume V: Industrial Combustion Sources*, EPA Contract No. 68-02-2197, GCA Corporation, Bedford, MA, October 1980.

15. *Emissions Test on 200 HP Boiler at Kaiser Hospital in Woodland Hills*, Energy Systems Associates, Tustin, CA, June 1986.

16. *Results From Performance Tests: California Milk Producers Boiler No. 5*, Energy Systems Associates, Tustin, CA, November 1984.

17. *Source Test For Measurement of Nitrogen Oxides and Carbon Monoxide Emissions From Boiler Exhaust at GAF Building Materials*, Pacific Environmental Services, Inc., Baldwin Park, CA, May 1991.

18. J. P. Kesselring and W. V. Krill, "A Low-NO_x Burner For Gas-Fired Firetube Boilers", *Proceedings: 1985 Symposium on Stationary Combustion NO_x Control, Volume 2*, EPRI CS-4360, Electric Power Research Institute, Palo Alto, CA, January 1986.

19. *NO_x Emission Control Technology Update*, EPA Contract No. 68-01-6558, Radian Corporation, Research Triangle Park, NC, January 1984.

20. *Background Information Document For Small Steam Generating Units*, EPA-450/3-87-000, U. S. Environmental Protection Agency, Research Triangle Park, NC, 1987.

Evaluation of the Pollutant Emissions From Gas-Fired Forced Air Furnaces: Research Report No. 1503, American Gas Association Laboratories, Cleveland, OH, May 1975.

Thirty-day Field Tests of Industrial Boilers: Site 5 - Gas-fired Low-NO_x Burner, EPA-600/7-81-095a, U. S. Environmental Protection Agency, Research Triangle Park, NC, May 1981.

Private communication from Kim Black (Industrial Combustion) to Ralph Harris (MRI), Independent Third Party Source Tests, February 7, 1992

Department of Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

July 9, 1997

Certified Mail - Return Receipt Requested

Mr. Rich Piper, Chair
Florida Power Coordinating Group, Inc.
405, Reo Street, Suite 100
Tampa, Florida 33609-1004

Dear Mr. Piper:

Enclosed is a copy of a Scrivener's Order correcting an error in the Order concerning particulate matter testing of natural gas fired boilers.

If you have any questions concerning the above, please call Yogesh Manocha at 904/488-6140, or write to me.

Sincerely,

M. D. Harley, P.E., DEE
P.E. Administrator
Emissions Monitoring Section
Bureau of Air Monitoring and
Mobile Sources

MDH:ym

cc: Dotty Diltz, FDEP
Pat Comer, FDEP

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

In the matter of:	)	
	)	
Florida Electric Power Coordinating Group, Inc.,	)	ASP No. 97-B-01
	)	
Petitioner.	)	

ORDER CORRECTING SCRIVENER'S ERROR

The Order which authorizes owners of natural gas fired fossil fuel steam generators to forgo particulate matter compliance testing on an annual basis and prior to renewal of an operation permit entered on the 17th day of March, 1997, is hereby corrected on page 4, paragraph number 4, by deleting the words "pursuant to Rule 62-210.300(2)(a)3.b., c., or d., F.A.C.":

4. In renewing an air operation permit ~~pursuant to Rule 62-210.300(2)(a)3.b., c., or d., F.A.C.,~~ the Department shall not require submission of particulate matter emission compliance test results for any fossil fuel steam generator emissions unit that burned liquid and/or solid fuel for a total of no more than 400 hours during the year prior to renewal.

DONE AND ORDERED this 2 day of July, 1997 in Tallahassee, Florida.

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

HOWARD L. RHODES, Director
Division of Air Resources Management
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400
(904) 488-0114

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that a copy of the foregoing was mailed to Rich Piper, Chair, Florida Power Coordinating Group, Inc., 405 Reo Street, Suite 100, Tampa, Florida 33609-1004, on this 10TH day of July 1997.

Clerk Stamp

FILING AND ACKNOWLEDGMENT
FILED, on this date, pursuant to §120.52(7), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Martha Daniell Wise 7/10/97
Clerk Date