



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

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*Chair Howard*  
**RECEIVED** *2/2*

**JAN 28 1999**

**FEB 01 1999**  
DIVISION OF AIR  
RESOURCES MANAGEMENT

4APT-ARB

Mr. Howard L. Rhodes, Director  
Division of Air Resources Management  
Florida Department of Environmental Protection  
Twin Towers Office Building  
2600 Blair Stone Road  
Tallahassee, Florida 30365

SUBJ: Proposed Title V Permit for TEC - Polk Power Station

Dear Mr. Rhodes:

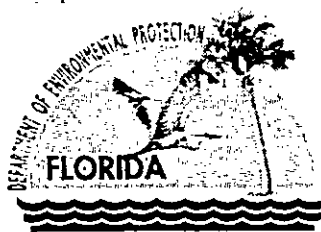
The purpose of this letter is to acknowledge the receipt of the State of Florida's proposed changes to the Tampa Electric Company - Polk Power Station proposed title V permit which was the subject of a U.S. Environmental Protection Agency (EPA) title V objection on October 8, 1998. EPA Region 4 has completed its review of the proposed changes to the permit and believes that the State has adequately addressed each of the issues enumerated in the objection. Therefore, EPA considers the objection to be resolved. Once the State's proposed changes are incorporated into the permit, the State may proceed with permit issuance.

We commend the efforts of your staff for facilitating the resolution of the permit issues. If you have any questions about this letter, please contact Ms. Carla E. Pierce, Chief, Operating Source Section at (404)562-9099.

*Great work Ed. JMS*

Sincerely,  
*James S. Kutzma for*  
Winston A. Smith  
Director  
Air, Pesticides and Toxics  
Management Division

*2/2/99 cc: Ed. Lucc*



Jeb Bush  
Governor

# Department of Environmental Protection

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

David B. Struhs  
Secretary

January 22, 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 Tampa Electric Company PROPOSED Title V Permit for the Polk Power Station to Satisfy EPA Objections  
Permit No. 1050233-001-AV

Dear Mr. Neeley:

This letter is to document changes that the Department proposes to satisfy EPA Region 4 objections to Florida's Proposed Title V permit 1050233-001-AV for Tampa Electric Company, Polk Power Station. These objections were detailed in a letter from EPA Region 4 dated October 8, 1998, in which EPA indicated the primary basis for objection was that the permit does not meet the periodic monitoring requirements of 40 CFR 70.6(a)(3)(i), does not identify 40 CFR 60, Subpart Y as an applicable requirement, and contains inadequate averaging times and startup/shutdown reporting requirements.

The changes proposed in this letter result primarily from a meeting with representatives of Tampa Electric Company (TEC) on November 20, 1998, and conveyed by letter to you on December 18, 1998. That meeting enabled us to clarify many of the issues and identify changes that could be made to the permit that would allow Florida to issue the Final Title V permit for this plant. The changes also reflect responses dated January 5, 1999, to written comments from Mr. David McNeal, received December 19, 1998, and a follow-up telephone conversations between Mr. McNeal and TEC on January 9, 1999; and, Ms. Gracy Danois and TEC on January 15, 1999.

Please review the following proposed changes to the referenced permit. If you concur with our changes, we will issue the FINAL Permit with these changes. The following items and changes are presented in the same order as listed in the October 19, 1998 letter cited above.

## I. EPA Objection Issues

1. **Periodic Monitoring:** Conditions A.1. and B.1., establish the permitted capacity for the combined cycle combustion turbine and the auxiliary boiler, respectively. The origin of these conditions is the PSD permit for this facility. The permit needs to include appropriate periodic monitoring or recordkeeping requirements to reasonably assure compliance with these conditions. In order to satisfy this requirement, the permit must require that the facility maintain fuel usage records to demonstrate compliance with the applicable heat input rate. Since the limits are expressed as hourly limits, the condition should establish an hourly fuel usage recordkeeping.

**RESPONSE:** Tampa Electric is willing to accept the use of the currently required monitoring specified in condition A.12. and suggests the following language be added to condition A.1.: *Monitoring required under condition A.12. shall satisfy periodic monitoring requirements for heat input.*

2. **Periodic Monitoring:** The permit does not require sufficient periodic monitoring to ensure compliance with the applicable SO<sub>2</sub>, PM/PM<sub>10</sub>, CO, VOC, visible emissions, lead, inorganic arsenic, beryllium, and mercury limits in Section III, Subsection A. The TEC-Polk County permit only requires testing once every five years for SO<sub>2</sub>, PM/PM<sub>10</sub>, CO, visible emissions and VOC, and no testing for the remaining pollutants. It is not clear whether or not this monitoring scheme constitutes adequate periodic monitoring to ensure compliance with the limits contained in the permit. As for the lead, inorganic arsenic, beryllium and mercury limitations, EPA is concerned that the concentration of these pollutants could vary significantly with every fuel batch. In order for infrequent testing to be approved as the periodic monitoring method for this facility, the State must provide a technical demonstration that no additional monitoring is warranted to ensure compliance with the limits listed above. The demonstration should identify the rationale for basing the compliance certification on data from a short-term test once every five years. If it is determined that additional monitoring is necessary to ensure compliance with the permit conditions, more frequent testing requirements need to be included in the permit.

Regarding the visible emissions limit, the State needs to use the existing COMs to ensure compliance with the opacity standard. Requiring that the opacity monitor be used for conducting periodic monitoring imposes little or no additional burden on the source.

Additionally, this unit has a continuous emission monitor for SO<sub>2</sub>. While fuel analysis may be adequate for determining SO<sub>2</sub> emissions from fuel oil combustion, that may not be true for syngas because of the variability of the fuel. We believe that using the data gathered by the SO<sub>2</sub> monitors would provide a better compliance demonstration than the fuel sampling analysis.

**RESPONSE:** Testing requirements for the pollutants regulated in Section III, Subsection A. are in compliance with the requirements of Chapter 62-297, F.A.C. NO<sub>x</sub>, SO<sub>2</sub>, CO, and visible emissions are required to be tested annually. VOC and PM/PM<sub>10</sub> are required to be tested prior to renewal. Lead, sulfuric acid mist, arsenic beryllium and mercury are required to perform an initial test, only, by the federally approved PSD permit. Please remember that Rule 62-297.310(7)(b), F.A.C., allows for additional compliance testing if the Department has good cause to believe that a standard is being violated. TEC has provided a synopsis of compliance tests (see attached letter dated December 9, 1998) showing results well below allowable emissions. Additionally, they have provided the results of nine

months of coal sample analyses which show very little variance in the concentrations of heavy metals. Based on the evidence, the Department feels that periodic monitoring is satisfied.

TEC will accept the use of the COMs for periodic monitoring but not for compliance.

TEC will accept the use of the SO<sub>2</sub> CEM for periodic monitoring during syngas firing. The following language is offered for addition under the Monitoring of Operations section for the combustion turbine:

*During syngas firing, the SO<sub>2</sub> emission rate shall be monitored by the CEM for purposes of periodic monitoring.*

Condition A.13. should satisfy periodic monitoring for periods of distillate fuel oil combustion.

No statement was made in the Department's response to objection #2 that would bring someone to the conclusion that there is a condition that specifically precludes the use of COMs data for enforcement.

TEC has provided data on the minimum detection limits (MDL). This discussion is contained in the attached document. For volatile organic compounds, the MDL calculates to emission rates of 1.8 to 2.0 pounds per hour and, for beryllium, an emission rate of 0.00024 pound per hour.

**3. Periodic Monitoring:** Section III, Subsection B, condition B.4 limits the hours of operation for the auxiliary boiler. This subpart needs to include recordkeeping requirements for this condition.

**RESPONSE:** A condition will be added to Section III, Subsection B. requiring recordkeeping of the non-standby hours of operation of the auxiliary boiler.

**4. Periodic Monitoring:** Section III, Subsection C does not contain adequate periodic monitoring requirements to provide reasonable assurance of compliance with the limitations for Visible Emissions, Sulfur Dioxide and Acid Mist. The permit only requires testing once every five years. It is not clear whether this testing frequency would provide reasonable assurance of compliance with the pollutant limitations contained in this subsection. In order to approve the infrequent testing for the pollutants included in this subsection as the periodic monitoring method, the State must provide a technical demonstration that no additional monitoring is warranted to ensure compliance with the limits. The demonstration should identify the rationale for basing the compliance certification on data from a short-term test once every five years. If it is determined that additional monitoring is necessary to ensure compliance with the permit conditions, more frequent testing requirements need to be included in the permit.

Also, daily recordkeeping of the plant production must be kept to ensure that the facility do not exceed the limit contained in condition C.1. This requirement is very important because it is limiting the source's production below 300 tons per day. If the facility exceeded the 300 tons per day production capacity, F.A.C. rule 62-296.402 requires that the facility install and operate continuous emissions monitors for VE, SO<sub>2</sub>, and Acid Mist.

**RESPONSE:** Testing requirements for the pollutants regulated in Section III, Subsection C. are in compliance with the requirements of Chapter 62-297, F.A.C. SO<sub>2</sub> and visible emissions are required to be tested annually. Sulfuric acid mist is required to be tested prior to renewal. Please remember that Rule 62-297.310(7)(b), F.A.C., allows for additional compliance testing if the Department has good cause to believe that a standard is being violated. In addition, this "sulfuric acid plant" is actually a pollution control device for the coal gasification process. It converts hydrogen sulfide (which would have been emitted to the atmosphere) into sulfuric acid. It escapes the permitting requirements of 40 CFR 60, Subpart H, but not the requirements of Rule 62-296.402, F.A.C.

TEC will accept a daily visible emissions observation to satisfy periodic monitoring for visible emissions from the sulfuric acid plant. They also feel that the daily visible emission observation would provide an indicator of acid mist emissions. It was agreed that, due to the lack of other adequate indicators for periodic monitoring and the possibility that the sulfuric acid plant may be subject to compliance assurance monitoring requirements at the time of renewal of the Title V permit that, a daily visible emission observation will satisfy periodic monitoring requirements for this emission unit.

The following condition is offered for addition under the Monitoring of Operations section for the Sulfuric Acid Plant:

*The owner or operator shall observe and record a quantified visible emission observation, six minutes in duration, for the sulfuric acid plant on a daily basis, for the purpose of periodic monitoring.*

A condition will be added to Section III, Subsection C requiring recordkeeping of the daily production of the "sulfuric acid plant".

**5. Periodic Monitoring:** Section III, subsection D, condition D.4 specifies that the facility conducts a Method 22 test once per year. It is not clear whether this infrequent testing provides reasonable assurance of compliance with the visible emission limitation contained in this subsection. In order to approve the infrequent testing for visible emissions, the State must provide a technical demonstration that no additional monitoring is warranted to ensure compliance with the VE limit or require the source to conduct daily VE readings.

**RESPONSE:** The fuel handling system is adequately enclosed and also has the necessary controls in the form of surfactant sprays and baghouses where annual testing would constitute periodic monitoring. Please remember that Rule 62-297.310(7)(b), F.A.C., allows for additional compliance testing if the Department has good cause to believe that a standard is being violated. To better describe the fuel handling system, the description in the PROPOSED permit will be substituted with the following:

The solid fuel handling system consists of a bottom unloading station where water/surfactant spray is applied to the incoming fuel as needed for dust control. The system also includes enclosed conveying systems, rubber skirted drop points from bins, two fuel silos with an associated baghouse, a fuel surge bin with associated baghouse, and two rod mill crushers for slurry production.

Solid fuel is received by truck and is bottom unloaded to the fuel unloading bin. Fugitive emissions are controlled by water spray with surfactant applied at the unloading bin as needed. Fuel is conveyed via enclosed conveyor from the unloading bin to the fuel storage silos. The transfer points from the bin to the belts are rubber skirted. Fugitive emissions from the fuel silos are controlled by an associated baghouse. Fuel is then reclaimed from the silos via enclosed conveyors to the surge bin inside the slurry preparation building. Fugitive emissions from the surge bin are controlled by an associated baghouse. Fuel and water are then mixed in the rod mill crushers to produce a coal slurry.

**6. Reporting and Recordkeeping:** Section III, subsection C, condition C.8 addresses the excess emissions from start-up, shutdown and malfunctions. Condition C.20 requires the reporting of excess emissions due to malfunctions only. This condition needs to also require reporting of excess emissions from start-up and shutdown.

**RESPONSE:** See the response to objection 4., above. This is not an NSPS source, it is a SIP source and our rules do not require the reporting of excess emissions from startup or shutdown.

**7. Missing Applicable Requirement:** Subsection D of the permit needs to include a statement establishing that the source is subject to the requirements of 40 CFR Part 60, subpart Y, Standards of Performance for Coal Preparation Plants.

**RESPONSE:** 40 CFR Part 60, Subpart Y, Standards of Performance for Coal Preparation Plants, will be added to the permitting note beneath the description of the emissions unit which addresses the rules that regulate the emissions unit. Additionally, the visible emissions test method in specific condition **D.4.** will be changed to EPA Method 9, as required by the subpart.

**8. Control Equipment Requirements:** The description provided in Subsection E of this permit describes various pieces of control equipment. The permit does not contain any references to the control equipment nor does it contain adequate periodic monitoring requirements for the equipment. The State needs to explain and provide information in the statement of basis supporting the decision not to require parametric monitoring of the control equipment in the permit.

**RESPONSE:** The emissions unit is a regulated emissions unit solely because the tons per day throughput of coal was limited by the PSD permit. If not for the throughput requirement the emissions unit would be unregulated. Since the only parameter requiring monitoring is tons per day throughput, the requirements contained in conditions E.3. and E.4. constitute periodic monitoring for the emissions unit. To eliminate confusion, we will remove the reference to the afterburner from the description.

**9. Averaging Times:** In order for the emissions standards in conditions A.5 and A.6 to be practicably enforceable, appropriate averaging times must be specified in the permit. If the pounds per hours standards are the ones for which the facility would have to demonstrate compliance, the 30-day rolling average is not the appropriate averaging time. Also, for condition A.5, it is unclear whether the facility

would have to demonstrate compliance with the limitations listed under “Basis” or the “LB/HR” numbers or both.

**RESPONSE:** The factors under the column titled “BASIS” are the basis for the pound per hour values. The 30-day rolling average is a federally enforceable requirement established in the PSD permit and approved by EPA Region 4. This requirement was established by the preconstruction review process, not the Title V process.

## II. EPA General Comments

1. **Section II, condition 11:** Please replace “Operating Source Section” with “Air & EPCRA Enforcement Branch, Air Compliance Section.”

**RESPONSE:** The address for EPA will be changed, as follows:

United States Environmental Protection Agency  
Region 4  
Air, Pesticides & Toxics Management Division  
Air and EPCRA Branch  
Air Compliance Section  
61 Forsyth Street  
Atlanta, Georgia 30303  
Telephone: 404/562-9099  
Fax: 404/562-9095

2. **Section III, subsection A, condition A.3.b:** The equation should read:

$$[\text{Load}(\%)] / 100\% * \text{hrs. of operation} \leq 876 \text{ hrs}$$

**RESPONSE:** The equation currently reads:  $[\text{Load}(\%)] / 100\% * \text{Hours of Operation} \leq 876 \text{ Hours}$ . Assuming the abbreviation of the word “Hours” and using the lower case of the word “Operation” will remove this comment, the changes will be made to condition A.3.b.

3. **Section III, subsection A, condition A.48:** EPA recommends that this condition be moved to the “Emissions Limitations and Standards” section since it is related to the NOx limit that the facility would have to comply with after the demonstration period.

**RESPONSE:** Condition A.48. will be moved to the “Emissions Limitations and Standards” section of Section III., Subsection A and the other affected specific conditions will be renumbered, as necessary.

**4. Section III, subsection A, conditions A.7 and A.51.**: EPA recommends that the State combine conditions A.7 and A.51, since they refer to the same parameter and are based on the same PSD permit requirement. We also recommend that the resulting condition be placed in the "Emissions Limitations and Standards" portion of subsection A.

**RESPONSE:** Conditions A.7. and A.51. will be linked using a statement "see specific condition X.xx."

**5. Section III, subsection A, condition A.49.**: Section III, subsection A, condition A.49 states that results from NOx testing conducted on the combustion turbine every two months for 12 to 18 months after the demonstration will not be used for compliance purposes. The State needs to provide the basis for this decision in the statement of basis.

**RESPONSE:** We cannot answer a preconstruction issue established prior to the Title V permitting. The process is a research and development project for the U. S. Department of Energy's Clean Coal Technology Demonstration.

**6. Section III, subsection B, conditions B.7 and B.52.**: EPA recommends that the State combine conditions B.7 and B.52, since they refer to the same parameter and are based on the same PSD permit requirement. We also recommend that the resulting condition be placed in the "Emissions Limitations and Standards" portion of subsection B.

**RESPONSE:** Conditions B.7. and B.52. will be linked using a statement "see specific condition X.xx."

**7. Section III, subsection B, conditions B.19 and B.32.**: EPA recommends that the State should combine conditions B.19 and B.32, since they refer to the same parameter and are based on the same NSPS subpart. We also recommend that the resulting condition be placed in the "Emissions Limitations and Standards" portion of subsection B.

**RESPONSE:** Condition B.19. will be removed and the rule citation of B.19. will be added to the rule citation of condition B.32. The remaining specific conditions will be renumbered, as required.

**8. Section III, subsection C, condition C.3.**: Section III, subsection C, C.3: The intent of this condition is unclear. It seems that this condition is intended to limit the fuel used by this plant to propane. If this is the case, the State should rephrase the condition to clearly state that intent.

**RESPONSE:** Condition C.3. will be changed to read "The conversion furnace fires only propane."



As you know, the 90 day period ended January 6th. All parties involved have been expeditiously seeking resolution of these issues. We feel that EPA's concerns have been adequately addressed and we look forward to issuing final permits. Please advise as soon as possible if you concur with the specific changes detailed above. Please call me at 850/921-9503 if you have any questions. You may also contact Mr. Scott M. Sheplak, P.E., at 850/921-9532, or Mr. Edward J. Svec at 850/921-8985, if you need any additional information.

Sincerely,



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

CF/es

cc: Scott M. Sheplak  
Pat Comer  
James Hunter, TEC



TAMPA ELECTRIC

January 13, 1999

Gracy Danois  
Region IV  
Air Pesticide and Toxics Management Division  
Operating Permits Section  
61 Forsyth Street  
Atlanta, Ga 30303

Re: EPA's Review of the Proposed Title V Permit  
Tampa Electric Company  
Polk Power Station  
Permit No. 1050233-001-AV

Dear Ms. Danois:

The following is provided as a response to the January 8, 1999 telephone conversation between David McNeal and Patrick Shell concerning resolution of EPA objections to the Polk Power Station title V permit. Mr. McNeal requested the following items from Tampa Electric:

- 1) Suggested permitting language for the use of the combustion turbine's SO<sub>2</sub> CEM for purpose of periodic monitoring, and
- 2) suggested permitting language for a daily visible emission observation for the sulfuric acid plant.

The following is the suggested permitting language for these items:

**Item 1:** This condition is offered for addition under the Monitoring of Operations section for the Combustion Turbine:

*During syngas firing the SO<sub>2</sub> emission rate shall be monitored by the CEM for the purposes of periodic monitoring.*

Condition A.13 should satisfy periodic monitoring for periods of distillate combustion.

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JAN 22 1999

BUREAU OF  
AIR REGULATION

Via US Mail  
Via Facsimile

Gracy Danois  
January 13, 1999  
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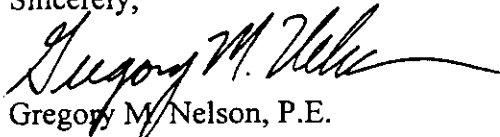
**Item 2:** This condition is offered for addition under the Monitoring of Operations section for the Sulfuric Acid Plant:

*The owner or operator shall observe and record a quantified visible emission observation for the sulfuric acid plant stack on a daily basis, for the purposes of periodic monitoring.*

Tampa Electric is suggesting the use of this quantified visible emission observation in lieu of the use of Method 22 for the daily visible emission observation. This change is offered to alleviate concerns over the inadequacy of Method 22 to quantify visible emissions.

If you have any questions or concerns about the response to the objections please contact Patrick Shell or me at (813)641-5210.

Sincerely,



Gregory M. Nelson, P.E.  
Manager

Environmental Planning

1/25/99  
c: S Scott Sheplak, FDEP  
Edward Svec, FDEP



**RECEIVED**

JAN 06 1999

**BUREAU OF  
AIR REGULATION**

January 4, 1999

Mr. Scott Sheplak  
Bureau of Air Regulation  
Florida Department of Environmental Protection  
Twin Towers Office Building  
111 South Magnolia Drive, Suite 4  
Tallahassee, Florida 32399-2400

**Via Facsimile and FedEx  
Airbill No. 808009421710**

**Re: Tampa Electric Company (TEC)  
Polk Power Station  
EPA's Initial Comments on DEP's Response  
to the October 4<sup>th</sup> Objection Letter**

Dear Mr. Sheplak:

We hereby offer the following response to EPA's initial comments concerning DEP's December 18, 1998 letter to Douglas Neeley addressing proposed changes to the Polk Power Station (PPS) Title V permit.

**Item 1:**

Tampa Electric is willing to accept the use of the currently required monitoring specified in condition A.12 as a means to satisfy EPA's concerns. Tampa Electric suggests the following language:

Addition to A.1

*Monitoring required under condition A.12 shall satisfy periodic monitoring requirements for heat input.*

**Item 2:**

**SO<sub>2</sub> Periodic Monitoring:**

Tampa Electric is willing to accept the use of the acid rain SO<sub>2</sub> CEM to satisfy periodic monitoring requirements for the combustion turbine.

Mr. Scott Sheplak

January 4, 1999

Page 2 of 3

**Minimum Detection Limits:**

The following tables were provided which contained references to minimum detection limits:

VOC (lb/hr)	Limit	5/15/97	6/15/98	8/29/97	10/24/98
CT-Oil	32	-	-	<MDL	<MDL
CT-Syngas	2	0.15*	<MDL	-	-

\* One run was <MDL

MDL- Minimum Detection Limit

CT-Syngas Metals	Limit	5/15/97
Arsenic (lb/hr)	0.08	0.0057
Beryllium (lb/hr)	0.001	<MDL
Mercury (lb/hr)	0.025	0.0049
H <sub>2</sub> SO <sub>4</sub> (lb/hr)	55	NT

NT- Not tested, no test requirement in the permit.

VOC emission rates were determined using EPA Reference Method 18. The minimum detection emission rates for these tests were based on 1 PPM VOC concentration (the gas chromatograph's MDL) and the stack gas flow rates. The minimum detection emission rates are provided below.

Test	Minimum Detection Emission Rate
6/15/98	2.0 lb/hr
8/29/97	1.8 lb/hr
10/24/98	1.8 lb/hr

The beryllium emission rate was determined using EPA Reference Method 29 and Method 19. The minimum detection limit for Beryllium is 0.08 micrograms/m<sup>3</sup>. Using the average stack gas flow rate and the minimum detection limit concentration, the minimum detectable emission rate was 0.00024 lb/hr.

**Item3:**

Tampa Electric is willing to accept a condition requiring daily visible emissions observations using EPA Reference Method 22 to satisfy periodic monitoring for visible emissions from the PPS acid plant. Tampa Electric also believes that the daily visible emission observation will provide an indication of sulfuric acid mist periodic monitoring.

In an effort to satisfy EPA's concerns, Tampa Electric has extensively investigated the possibility of using acid plant operating parameters to satisfy periodic monitoring for SO<sub>2</sub> and sulfuric acid mist. The sulfuric acid plant at the PPS is part of the Department of Energy's Clean Coal demonstration project at the PPS and as such is a new and unconventional technology. Further, it is Tampa Electric's belief that the operation of a sulfuric acid plant as a SO<sub>2</sub> control device presents unique operating scenarios which were not considered in sulfuric acid plant rule making. Because the PPS acid plant is a new and unique process, Tampa Electric does not have enough data and operational experience to recommend a process parameter that can be utilized as a

Mr. Scott Sheplak

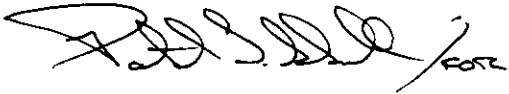
January 4, 1999

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candidate for SO<sub>2</sub> and H<sub>2</sub>SO<sub>4</sub> periodic monitoring at this time. Tampa Electric will continue to study the issue of periodic monitoring for the acid plant, but requests that five year SO<sub>2</sub> and H<sub>2</sub>SO<sub>4</sub> testing be utilized until the renewal of the Title V permit at which time Tampa Electric may be able to recommend an alternative.

I hope that this information provides a sufficient response to satisfy the objections made by EPA to the proposed PPS Title V permit. If you have any questions or need further data please contact Patrick Shell or me at (813) 641-5210.

Sincerely,

A handwritten signature in black ink, appearing to read 'James Hunter', with a stylized flourish at the end.

James Hunter  
Administrator-Air Programs  
Environmental Planning

EP\gm\PLS116

Cc: E. Svec, FDEP



Lawton Chiles  
Governor

# Department of Environmental Protection

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

Virginia B. Wetherell  
Secretary

January 5, 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 Satisfy EPA Objections, Comments on Initial Responses  
Tampa Electric Company, Polk Power Station, Proposed Title V Permit 1050233-001-AV

Dear Mr. Neeley:

This letter addresses the comments received on December 31, 1998 on the Department's proposal to satisfy EPA Region 4 objections to Florida's Proposed Title V permit 1050233-001-AV for Tampa Electric Company, Polk Power Station. The original objections were detailed in a letter from EPA Region 4 dated October 8, 1998. The Department's response to the objection letter was dated December 18, 1998.

Please review the following responses to the comments and the attached supporting information contained in a letter from Tampa Electric dated January 4, 1999. If you concur with these responses, we will issue the Final permit with the changes addressed our letter of December 18, 1998, incorporating the responses of this letter.

## EPA Comments

**1. We do not agree with the response to issue #1. Condition B of the PSD permit clearly establishes heat input as a limit for this facility. Further, specific PSD condition M requires the source to maintain daily records of syngas and fuel oil consumption "to determine compliance with the syngas and fuel oil firing heat input limitation..."**

**\*\* Potential solutions to this problem are:**

- a. Tie condition A.12. to A.1. Under NSPS, they have to maintain records of fuel consumption. Subpart GG requires hourly monitoring; PSD permit requires daily monitoring.
- b. Under Acid Rain, the plant has to collect fuel usage data. If they use that data, the monitoring requirements for heat input will likely be satisfied.

**RESPONSE:** Tampa Electric is willing to accept the use of the currently required monitoring specified in condition A.12. and suggests the following language be added to condition A.1.: *Monitoring required under condition A.12. shall satisfy periodic monitoring requirements for heat input.*

2. Regarding issue #2, the facility has SO<sub>2</sub> monitors. It has been our position that, when available, the CEM becomes the preferred periodic monitoring option. Since this is a demonstration project, requiring the recordkeeping of fuel analysis lab reports and recordkeeping requirements of excess emissions events would not be unreasonable. As we mentioned during our telephone discussions earlier today, we are willing to consider process records for periodic monitoring purposes which will demonstrate operation of the plant within the permit limits.

For example, we accessed the 1997 and 1998 third quarter Acid Rain Division data for Polk. The equivalent SO<sub>2</sub> emission rates are 0.22 lb and 0.23 lb per million BTU, respectively. These calculated emission rates are above the permitted emission rate for syngas for the post demonstration period. To prevent possible misinterpretations, we suggest that the 'Basis' column in condition A6, which contains the SO<sub>2</sub> standards (0.048 lb per million BTU for oil firing (low sulfur #2) and 0.17 lb per million BTU for syngas firing) for the post demonstration period be added to condition A5 with the correct equivalent lb per million BTU for the lb per hour limits for the demonstration period.

According to your response, the plant is accepting the use of COMs for periodic monitoring, but the company will not "accept" these monitors for compliance. TECO needs to be aware that, due to the any credible evidence rule, results from the COMs can be potentially be used to cite a violation of the applicable opacity standard. Although we are not suggesting that the permit must contain language identifying the COMs as a compliance method, we would object to any permit condition that specifically precludes the use of COMs data for enforcement.

One other concern that we have regarding the response to Objection Item No. 2 is that some of the test results cited as proof that emissions of certain pollutants (i.e., volatile organic compound emissions from oil combustion and beryllium emissions from syngas combustion) were below allowable limits are reported as being below the minimum detection limit (MDL). Although one might presume that an emission rate below the MDL would correspond to an emission rate below the applicable limit, clearly identifying the MDL with the test results would provide much more conclusive proof of this fact.

**RESPONSE:** Tampa Electric is willing to accept the use of the Acid Rain SO<sub>2</sub> CEM to satisfy periodic monitoring requirements for the combustion turbine.

No statement was made in the Department's response to objection #2 that would bring someone to the conclusion that there is a condition that specifically precludes the use of COMs data for enforcement.

Tampa Electric has provided data on the minimum detection limits (MDL). This discussion is contained in the attached document. For volatile organic compounds, the MDL calculated to emission rates of 1.8 to 2.0 pounds per hour and a beryllium emission rate of 0.00024 pound per hour.

3. On objection issue #4, once again, we question the rationale for having such infrequent testing for visible emissions, SO<sub>2</sub>, and acid mist. We question the adequacy of this periodic monitoring scheme to support a yearly compliance certification. With respect to opacity, we would encourage the use of periodic (i.e., daily) opacity readings as a monitoring approach. To us, it appears that this level of monitoring would substantially increase the credibility of the annual compliance certification without being burdensome. With respect to SO<sub>2</sub> and acid mist, we would like TECO to address the issue of whether there are any sulfuric acid plant operating parameters that could be used as an indicators of



**SO<sub>2</sub> and acid mist emissions since we are not convinced that the proposed periodic testing schedule alone will provide reasonable assurance of compliance.**

**RESPONSE:** Tampa Electric will accept a daily visible emissions requirement using EPA Reference Method 22 to satisfy periodic monitoring for visible emissions from the sulfuric acid plant. They also feel that the daily visible emission observation would provide an indicator of acid mist emissions. However, they do not currently have enough operational data or experience with this unique process to recommend other process parameters which would be indicators of sulfur dioxide or acid mist emissions. They are requesting that they be allowed time to gain this experience and then incorporate any appropriate process parameters when the permit is due for renewal.

As you know, the 90 day period ends January 6th. All parties involved have been expeditiously seeking resolution of these issues. We feel that EPA's concerns have now been adequately addressed and we look forward to issuing final permits. Please advise as soon as possible if you concur with the specific changes detailed above. Please call me at 850/921-9503 if you have any questions. You may also contact Mr. Scott M. Sheplak, P.E., at 850/921-9532, or Mr. Edward J. Svec at 850/921-8985, if you need any additional information.

Sincerely,



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

CF/es

Attachments

cc: Scott M. Sheplak  
Pat Comer  
James Hunter, TEC