

TAMPA ELECTRIC

October 12, 1998

AL  
**RECEIVED**

OCT 15 1998

BUREAU OF  
AIR REGULATION

Mr. David Zell  
Air Permitting Engineer  
Florida Department of Environmental Protection  
Southwest District  
3804 Coconut Palm Drive  
Tampa, Florida 33619

Via FedEx  
Airbill No. 805858542435

**Re: F.J. Gannon Station Unit 3  
Wood-Derived Fuel (WDF) Air Test Burn/Operating Permit Amendment  
DEP Project No. 0570040-008-AC**

Dear Mr. Zell:

Tampa Electric Company (TEC) has received your request for additional information dated September 8, 1998, regarding the cited project. The F.J. Gannon Station Unit 3 WDF project is not subject to the requirements of the Prevention of Significant Deterioration (PSD) rule contained in 62-210.400, Florida Administrative Code (F.A.C.) TEC offers the following comments and clarification.

1. Pursuant to 62-210.200(188) and (186), F.A.C., the change to include coal/WDF blend as a Unit 3 fuel is an operational change only because the unit is not currently permitted to burn WDF. Unit 3 is capable of combusting the coal/WDF blend without any physical change to the equipment.
2. This operational change will result in an increase in actual emissions of particulate matter (PM), respirable particulate matter (PM<sub>10</sub>), beryllium, and lead, per 62-210.200(12)(d), F.A.C. An increase in actual emissions refers to prior actual emissions compared to representative actual annual emissions.
3. Only the change in emissions due to the combustion of WDF is evaluated for PSD applicability since F.J. Gannon Station Unit 3 is currently permitted to burn coal. The combustion of the coal portion of the coal/WDF blend is not a modification as defined under 62-210.200(188), F.A.C.
4. Attachment B of TEC's application dated August 1998, (and as revised with this submittal), demonstrates that the increase in actual emissions of PM, PM<sub>10</sub>,

TAMPA ELECTRIC COMPANY  
P. O. BOX 111 TAMPA, FL 33601-0111

(813) 228-4111

AN EQUAL OPPORTUNITY COMPANY  
HTTP://WWW.TECOENERGY.COM

CUSTOMER SERVICE:  
HILLSBOROUGH COUNTY (813) 223-0800  
OUTSIDE HILLSBOROUGH COUNTY 1 (888) 223-0800

Mr. David Zell  
October 12, 1998  
Page 2 of 2

beryllium, and lead due to WDF combustion are less than the applicable PSD significant emission rates. The same attachment demonstrates that no increase in actual emissions due to WDF combustion will occur for sulfur dioxide (SO<sub>2</sub>) and nitrogen oxides (NO<sub>x</sub>).

5. Because a significant increase in actual emissions will not occur due to the combustion of coal/WDF blend, the PSD requirements of 62-212-400, F.A.C. do not apply to this F.J. Gannon Station Unit 3 permit modification.

Attachment A is a response to the Hillsborough County Environmental Protection Commission comments of September 3, 1998.

TEC trusts that the information provided above will allow FDEP to resume processing the permit amendment to allow combustion of coal/WDF blend in F.J. Gannon Station Unit 3. Please contact me if you should have any other questions or require additional clarification.

Sincerely,



Theresa J.L. Watley  
Consulting Engineer  
Environmental Planning

EPgmTJLW615

Attachments

c/att: Mr. Clair Fancy-FDEP  
Mr. Jerry Kissel-FDEP SW  
Mr. Richard Kirby-EPCHC

## ATTACHMENT A

F.J. Gannon Station Unit 3 Coal/WDF Permit Application  
Response to Hillsborough County Environmental Protection Commission Comments of  
September 3, 1998

### EPC Comment No. 1

**If you look only at the test results in section 4.0, the test results do fall within permitted limits. Solely based on that, this unit would apparently be able to accommodate the proposed fuel within the existing limits. However, those same test results do show an increase in several pollutants using the WDF fuel blend.**

### *TEC Response No. 1*

*TEC agrees that Unit No. 3 is able to accommodate the combustion of coal/WDF blend within the existing permit limits. TEC notes that the emissions increase noted in EPC Comment No.1 was due to normal variability in the coals used for the base case and blend test burns. The daily fuel analysis test results used to support this assessment were presented in Appendix E-3 of the Emissions Test Report (Attachment D of the permit application).*

### EPC Comment No. 2

**Attachment B, note 2, says the material content in the fuel ratio is based on the ratio of ash, sulfur, and nitrogen in the paper pellets versus the coal samples. The emissions changes are not based on test results. The PSD analysis goes on to project an apparent emissions decrease based on the fuel ratio.**

### *TEC Response No. 2*

*The emissions changes are based on fuel analysis test results. The emissions changes are not based on emissions test results because the coal/WDF blend emission test results represent the combustion of the entire blend, not just the WDF portion of the blend. However, because the combustion of coal is currently a permitted activity for Unit 3, only the emission changes due to combustion of WDF are evaluated in determining whether a significant emissions increase will occur due to coal/WDF combustion. The fuel analysis test results were used to make this determination because a distinction between emissions due to the coal and WDF portions of the blend can not be made using emission test results.*

### EPC Comment No. 3

The applicability analysis only addresses the contribution of the WDF, implying that there will be a 616.2 tpy decrease in SO<sub>2</sub> emissions, for example. It completely ignores the emissions contributed by coal portion of the fuel blend and the stack test results.

#### *TEC Response No. 3*

*The applicability is appropriately limited to WDF because coal is a currently permitted fuel for Unit 3. The stack test results were not used for the applicability analysis for the reason explained in TEC Response No. 2.*

### EPC Comment No. 4

If you use the test results, section 4.0, there is an increase in the emissions from the coal baseline to the WDF on both the CEMS and the stack test results. For example:

CEMS Data	Baseline	Fuel Blend	Units
Opacity	4	4	Percent
SO <sub>2</sub>	1.80	1.84	lb/MMBtu
NO <sub>x</sub>	0.92	0.96	lb/MMBtu
<b>Stack Test Results</b>			
PM	0.03	0.03	lb/MMBtu
H <sub>2</sub> SO <sub>4</sub>	0.04	0.04	lb/MMBtu
SO <sub>2</sub>	1.83	1.99	lb/MMBtu
VOC	0.003	0.006	lb/MMBtu
HCl	0.04	0.07	lb/MMBtu
VE	0	0	Percent

#### *TEC Response No. 4*

*The referenced increase in emissions is due to variability in the coal as explained in TEC Response No. 1. As explained in TEC Response No. 2 and No. 3, using continuous emissions monitoring system (CEMS) data or stack test results is not a valid approach to the PSD applicability determination because the fuel blend results include the combustion of coal, a currently permitted fuel. Only emissions due to WDF combustion are properly considered in the PSD applicability analysis.*

**EPC Comment No. 5**

**If you use the more conservative SO<sub>2</sub> CEMS increase of 0.04 lb/MMBtu, the SO<sub>2</sub> emissions increase would be 160.55 tpy.**

*TEC Response No. 5*

*As explained above, EPC's approach to the emissions change calculation is flawed. Attachment B of the permit application presents the correct changes in actual emissions.*

**EPC Comment No. 6**

**Why is there such a large difference between the actual annual heat input between 1996 and 1997 on the PSD applicability analysis chart? Note: our copy of the 1996 AOR for Unit 3 showed a total of 6,951,725 MMBtu for coal only.**

*TEC Response No. 6*

*The difference between the actual annual heat input in 1996 and 1997 for F.J. Gannon Station Unit 3 was primarily due to a two month major outage on Unit 3 in 1996. (As a note, the annual heat input for the entire F.J. Gannon Station only differed by approximately 150,000 MMBtu between 1996 and 1997.) TEC agrees, however, that the correct annual heat input for Unit 3 for 1996 is 6,951,725 MMBtu for coal only. Attachment B of the permit application has been amended as attached to reflect the correct 1996 and 1997 heat input. For consistency, the annual heat input for all fuels was used for both years.*

**EPC Comment No. 7**

**Where did the 94% coal/6 % WDF Blend numbers come from that are included in table 3 of the test results (section 4).**

*TEC Response No. 7*

*The 94% coal/6 % WDF Blend numbers included in Table 3 of the Test Results (Section 4) were mathematically calculated from the individual weekly composite fuel analysis test results of the coal and WDF used in the fuel blend test. These fuel analysis test results were presented in Appendix E-3 of the Emissions Test Report (Attachment D of the permit application).*

### **EPC Comment No. 8**

**As discussed with Rick Kirby, this application does appear to constitute a modification of the coal yard permit to allow the bunkering of WDF.**

#### *TEC Response No. 8*

*WDF bunkering is addressed in the fuel yard modification permit application currently being processed by FDEP.*

### **EPC Comment No. 9**

**Also, I noted that the reason the test were postponed from 1997 to 1998 was because of handling problems with the WDF that required modifications in the handling yard.**

#### *TEC Response No. 9*

*The test commencement was postponed (with Department authorization) from July 1997 to March 1998 because TEC experienced numerous challenges during the initial process of testing the WDF. These challenges included:*

- clogged hoppers*
- tripped fuel feeders*
- restricted unit operations,*
- scheduled compliance test conflicts and*
- untimely WDF deliveries.*

*To address these concerns, TEC requested WDF size modifications from our suppliers; incorporated skirting and a rough-surface on the conveyor belts to reduce spillage; extended test burns into the drier season and after compliance tests had been completed; and coordinated WDF deliveries to better coincide with burn plans. As such, the WDF test burn appropriately allowed TEC the opportunity to determine the operational (as well as environmental) viability of this alternative fuel project.*

### **EPC Comment No. 10**

**The authorization says the test should be conducted with a blend of 8-10 % paper pellets, 8-10 % WDF, and 80 % coal. This test was apparently conducted with 93.7 % coal and 6.3 % paper pellets.**

#### *TEC Response No. 10*

*TEC disagrees with EPC's restatement of the test authorization. The test authorizes a fuel blend of up to 20% WDF (i.e., 8-10% paper pellets and 8-10% yard trash/wood*

*chips). As such, TEC's fuel blend test consisted of approximately 6% WDF. Please recall that as defined in the test burn request and authorization, WDF (wood derived fuel) consists of paper pellets, yard trash, and wood/wood chips.*

**EPC Comment No. 11**

**Note: this is the first time we have seen the test results of the WDF tests which were originally authorized in March 1997, but postponed until May and June 1998.**

*TEC Response No. 11*

*The August 1998 submittal of the WDF emission test results was the first and only submittal of the WDF tests which were originally authorized in March 1997, but not conducted until March - June 1998, for the reasons outlined in TEC Response No. 9. In addition, TEC references correspondence to the Department dated August 28, 1997; November 24, 1997; March 31, 1998; May 27, 1998; and July 16, 1998. These correspondences speak to the necessity of various test delays and/or time extensions .*

**ATTACHMENT B**

PSD Applicability Analysis for Sulfur Dioxide, Nitrogen Oxides, and Particulate Matter

Pollutant	Actual Annual Heat Input <sup>1</sup>			Actual Annual Emissions <sup>1</sup>			10 pct of Actual Annual Emission (tpy)	Material Content in Fuel Ratio <sup>2</sup>	Maximum Heat Input from WDF <sup>3</sup> (MMBtu/yr)	Actual Emission Rate (lb/MMBtu)	Potential WDF Annual Emission (tpy)	Change (tpy)	Significant Emission Rate (tpy)
	1996	1997	Average	1996	1997	Average							
	(MMBtu/yr)	(MMBtu/yr)	(MMBtu/yr)	(tpy)	(tpy)	(tpy)							
Sulfur dioxide	6,994,766	9,985,871	8,490,319	6,406	9,772	8,089	808.9	0.1364	1,400,724	1.9055	182.0	-626.9	40
Nitrogen oxides	6,994,766	9,985,871	8,490,319	5,520	5,093	5,307	530.65	0.4540	1,400,724	1.2500	397.4	-133.2	40
Particulate matter	6,994,766	9,985,871	8,490,319	105	150	128	12.75	1.2316	1,400,724	0.0300	25.9	13.2	25
Respirable particulate matter	6,994,766	9,985,871	8,490,319	104	150	127	12.7	1.2316	1,400,724	0.0299	25.8	13.1	15

PSD Applicability Analysis for Beryllium, Lead, and Sulfuric Acid Mist

Pollutant	Actual Emission Rate <sup>4</sup> (lb/MMBtu)	Actual Annual Heat Input <sup>1</sup> (MMBtu/yr)	Actual Annual Emission (tpy)	10 pct of Actual Annual Emission (tpy)	Material Content in Fuel Ratio <sup>5</sup>	Maximum Heat Input from WDF <sup>3</sup> (MMBtu/yr)	Emission Rate (lb/MMBtu)	Potential WDF Annual Emission (tpy)	Change (tpy)	Significant Emission Rate (tpy)
Beryllium	2.24E-07	8,490,319	9.51E-04	9.509E-05	1.3387	1,400,724	2.24E-07	2.10E-04	1.15E-04	4.00E-04
Lead	3.58E-06	8,490,319	1.52E-02	1.52E-03	0.8468	1,400,724	3.58E-06	2.12E-03	6.04E-04	6.00E-01
Sulfuric Acid Mist	0.04	8,490,319	169.8	17.0	0.1190	1,400,724	0.04	3.3	-13.6	7

<sup>1</sup>From TEC Annual Operating Report Calculation Sheets for 1996 and 1997.

<sup>2</sup>Ratio of sulfur, nitrogen, and ash in paper pellets vs. coal, dry basis. Based on paper pellet sample I.D. No. AA43968 analysis and coal sample I.D. No. AA43034 analysis.

<sup>3</sup>Based on obtaining 10 percent of the heat input from paper pellets over the period of 1 year (1,599 MMBtu/hr x 8,760 hr/yr x 0.1 = 1,400,724 MMBtu/yr).

<sup>4</sup>From attached Baseline Test Metals Emission Rate table for beryllium and lead. From Data Summary Table, Stack Test Report for sulfuric acid mist.

<sup>5</sup>Ratio of beryllium, lead, and sulfur in paper pellets vs. coal, dry basis. Based on paper pellet sample I.D. No. AA43968 analysis and coal sample I.D. No. AA43034 analysis.



---

(7) "Acid Rain Part" - That separate portion of the Title V source permit specifying the Federal Acid Rain Program requirements for an Acid Rain source, each Acid Rain unit at an Acid Rain source, and for the owners, operators and the designated representative of the Acid Rain source or the Acid Rain unit.

(8) "Acid Rain Program or Federal Acid Rain Program" - The national sulfur dioxide and nitrogen oxides air pollution control and emissions reduction program established pursuant to 42 U.S.C. Sections 7651-7651o and 40 CFR Parts 72, 73, 75, 76, 77, and 78, adopted and incorporated by reference in Rule 62-204.800, F.A.C.

(9) "Acid Rain Source" - A Title V source with one or more Acid Rain units.

(10) "Acid Rain Unit" - A fossil fuel-fired combustion device listed as subject to any Acid Rain emissions reduction requirement or Acid Rain emissions limitation at 40 CFR 72.6, adopted and incorporated by reference in Rule 62-204.800, F.A.C.

(11) "Acrylonitrile" - An organic chemical, formula  $C_3H_3N$ , used in the production of various resins, polymers and acrylic fibers. Synonyms for acrylonitrile are: 2- propenitrile, acrylon, acrylonitrile monomer, cyanoethylene, AN, VCN, and vinyl cyanide. The Chemical Abstract Service registration number is 107-13-1.

(12) "Actual Emissions" - The actual rate of emission of a pollutant from an emissions unit as determined in accordance with the following provisions:

(a) In general, actual emissions as of a particular date shall equal the average rate, in tons per year, at which the emissions unit actually emitted the pollutant during a two year period which precedes the particular date and which is representative of the normal operation of the emissions unit. The Department may allow the use of a different time period upon a determination that it is more representative of the normal operation of the emissions unit. Actual emissions shall be calculated using the emissions unit's actual operating hours, production rates and types of materials processed, stored, or combusted during the selected time period.

(b) The Department may presume that unit-specific allowable emissions for an emissions unit are equivalent to the actual emissions of the emissions unit provided that, for any regulated air pollutant, such unit-specific allowable emissions limits are federally enforceable.

(c) For any emissions unit (other than an electric utility steam generating unit specified in subparagraph (d) of this definition) which has not begun normal operations on a particular date, actual emissions shall equal the potential emissions of the emissions unit on that date.

(d) For an electric utility steam generating unit (other than a new unit or the replacement of an existing unit) actual emissions of the unit following a physical or operational change shall equal the representative actual annual emissions of the unit following the physical or operational change, provided the owner or operator maintains and submits to the Department on an annual basis, for a period of 5 years representative of normal post-change operations of the unit, within the period not longer than 10 years following the change, information demonstrating that the physical or operational change did not result in an emissions increase. The definition of

---

"representative actual annual emissions" found in 40 CFR 52.21(b)(33) is adopted and incorporated by reference in Rule 62-204.800, F.A.C.

(13) "Actual SO<sub>2</sub> Emissions Rate" - For purposes of the Acid Rain Program, the annual average sulfur dioxide emissions rate for the unit (expressed in pounds per million British thermal units (lb/mmBtu)), for the specified calendar year, provided that if the unit is listed in the National Allowance Data Base (NADB), effective March 23, 1993, and defined at 40 CFR 72.2, adopted and incorporated by reference in Rule 62-204.800, F.A.C., the 1985 sulfur dioxide actual emissions rate for the unit shall be the rate specified by data field, SO<sub>2</sub>RTE.

(14) "Administrator" - The Administrator of the United States Environmental Protection Agency or the Administrator's designee.

(15) "Adverse Impact on Visibility" - An impairment to visibility which interferes with the management, protection, preservation, or enjoyment of the visitor's visual experience of a Federal Class I area. This determination shall be made during the permitting process, utilizing EPA-approved methods of visibility impairment analysis and taking into account such factors as the geographic extent, intensity, duration, frequency, and time of visibility impairments, and how these factors correlate with the times of visitor use of the Federal Class I area and the frequency and timing of natural conditions that reduce visibility.

(16) "Affected Pollutant" - In a nonattainment area or area of influence for any pollutant other than ozone, the pollutant for which the area is designated nonattainment. In the case of an ozone nonattainment area classified as marginal or higher, the affected pollutants are volatile organic compounds (VOC) and nitrogen oxides (NO<sub>x</sub>). For a transitional ozone nonattainment area, the affected pollutant is VOC only. A pollutant is no longer an affected pollutant upon redesignation of the nonattainment area to an attainment area by the U.S. Environmental Protection Agency.

(17) "Affected States" - All states, specifically, Alabama, Georgia, or Mississippi or any combination thereof, whose air quality may be affected by the operation of, or that are within 50 miles of, a Title V source for which a permit, permit revision, or permit renewal is being proposed under Chapter 62-213, F.A.C.

(18) "Air Curtain Incinerator" - A portable or stationary combustion device that directs a plane of high velocity forced draft air through a manifold head into a pit with vertical walls in such a manner as to maintain a curtain of air over the surface of the pit and a recirculating motion of air under the curtain.

(19) "Air Dried Coating" - Coatings which are dried by the use of air or forced warm air at temperatures up to 194 degrees Fahrenheit (90 degrees Celsius).

(20) "Air Emissions Bubble" or "Bubble" - An air pollution control strategy wherein a facility complies with a multi-unit aggregate emissions limit or cap, in lieu of unit-specific limits, on a pollutant-specific basis for carbon monoxide, nitrogen oxides, sulfur dioxide, particulate matter, PM<sub>10</sub>, or volatile organic compounds (VOCs).

(b) In the case of a facility, the emissions of the applicable pollutant would be equal to or greater than the significant emission rate in Chapter 62-212, F.A.C., Table 212.400-2, or, in the case of modification, there would be a significant net emissions increase of the pollutant.

(186) "Method of Operation" - For purposes of the Title V source permitting program, a procedure to operate one or more specific emissions units within a Title V source in a particular manner which may affect air pollutant emissions.

(187) "Mode of Operation" - For purposes of the Title V source permitting program, a method of operation that involves two or more specific air emissions units in emissions trading pursuant to Rule 62-213.415, F.A.C.

(188) "Modification" - Either (a) or (b), as follows:

(a) Any physical change in, change in the method of operation of, or addition to a facility which would result in an increase in the actual emissions of any air pollutant subject to regulation under the Act, including any not previously emitted, from any emissions unit or facility.

1. A physical change or change in the method of operation shall not include:
  - a. Routine maintenance, repair, or replacement of component parts of an emissions unit; or
  - b. A change in ownership of an emissions unit or facility.
2. For any pollutant that is specifically regulated by the EPA under the Clean Air Act, a change in the method of operation shall not include an increase in the hours of operation or in the production rate, unless such change would be prohibited under any federally enforceable permit condition which was established after January 6, 1975.
3. For any pollutant that is not specifically regulated by the EPA under the Clean Air Act, a change in the method of operation shall not include an increase in the hours of operation or in the production rate, unless such change would exceed any restriction on hours of operation or production rate included in any applicable Department air construction or air operation permit.

(b) Any change which would be defined as a modification under:

1. 40 CFR 60.2, adopted and incorporated by reference in Rule 62-204.800, F.A.C.;
2. 40 CFR 61.15, adopted and incorporated by reference in Rule 62-204.800, F.A.C.;
3. 40 CFR 52.01, adopted and incorporated by reference in Rule 62-204.800, F.A.C.; or
4. 42 U.S.C. s. 7412(a).

(189) "Molten Sulfur Storage and Handling Facility" - A facility designed and utilized for unloading, transferring or storing elemental sulfur in liquid form from ships, barges, railcars, trucks or other methods of water or land transport to heated storage tanks.



# Department of Environmental Protection

Lawton Chiles  
Governor

Southwest District  
3804 Coconut Palm Drive  
Tampa, Florida 33619

RECEIVED  
SEP 10 1998  
BUREAU OF  
AIR REGULATION  
Virginia B. Wetherell  
Secretary

Ms. Theresa J. L. Watley,  
Consulting Engineer, Environmental Planning  
Tampa Electric Company  
P.O. Box 111  
Tampa, Florida 33601-0111

September 8, 1998

Dear Ms. Watley:

Re: TECO F. J. Gannon Unit 3  
Wood Derived Fuel Air Test Burn/Operating Permit Amendment  
(DEP Project No. 0570040-008-AC)

On August 10, 1998, the Department received your air pollution operation permit amendment application for F.J. Gannon Unit 3. This request was for the permit (AO29-172179) to be amended to allow for the firing of a coal and wood derived fuel (WDF) blend in this unit. In order to continue processing the application, the Department will need additional information pursuant to Rule 62-4.070(1), F.A.C.

Our understanding of the PSD situation regarding this application is as follows:

1. That this change constitutes a modification in that it is a physical and operational change (the addition of a fuel for which the unit was not previously equipped to burn) that results in an increase in actual emissions.
2. The "increase in actual emissions" mentioned above refers to prior actual emissions compared to future actual (i.e. allowable) emissions in accordance with the definition of actual emissions in Rule 62-210.200(12)(d), F.A.C.
3. If the increase in actual emissions referred to above, on a tons/year basis, exceeds the PSD significant levels as shown in Table 212.400-2 contained in Rule 62-212, F.A.C. then PSD is triggered.

The PSD Applicability Analysis submitted with your request did not directly address PSD applicability on the above basis, but rather addressed the change in emissions on a fuel trade-off basis using differences in fuel analysis between all coal and a coal/10% WDF blend. Regardless of the change in hourly emission rate (and the test burn test results (CEM and stack test based) do show an increase in emissions for SO<sub>2</sub>, NO<sub>x</sub>, and VOC when firing the coal/WDF blend), on an actual to allowable basis this modification to add WDF would be a PSD triggering situation.

For your information, by copy of this letter to Mr. Al Linero of the Tallahassee BAR New Source Review Section, we are requesting a determination as to whether they concur that our above interpretation is correct.

In response to this request for more information, please submit further justification as to the non-applicability of PSD, or transfer this request to Tallahassee NSR Section (along with the applicable fee) as a PSD application.

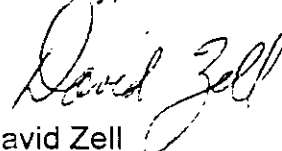
In addition to the above, please find attached a Hillsborough County EPC letter of September 3, 1998 which raises other issues and questions which may have to be addressed when the more fundamental issues above are resolved.

-----

"Notice: Pursuant to the provisions of Section 120.600, F.S. and Subsection 62-12.070(5), F.A.C., if the Department does not receive a response to this request for information within 90 days of the date of this letter, the Department will issue a final order denying your application. You need to respond within 30 days after you receive this letter, responding to as many of the information requests as possible and indicating when a response to any unanswered questions will be submitted. If the response will require longer than 90 days to develop, an application for new construction should be withdrawn and resubmitted when completed information is available. Or for operating permits, you should develop a specific time table for the submission of the requested information for Department review and consideration. Failure to comply with a time table accepted by the Department will be grounds for the Department to issue a Final Order for Denial for lack of timely response. A denial for lack of information or response will be unbiased as to the merits of the application. The applicant can reapply as soon as the requested information is available."

If you have any questions concerning this letter, please call me at (813) 744-6100 extension 118.

Sincerely,



David Zell  
Air Permitting Engineer  
Southwest District Office

DRZ/

attachment

copies to:

- Al Linero, Tallahassee DARM BAR, NSR Section
- Leroy Shelton, Hillsborough County EPC, Air Management Division

**COMMISSION**

DOTTIE BERGER  
JOE CHILLURA  
CHRIS HART  
JIM NORMAN  
JAN PLATT  
THOMAS SCOTT  
ED TURANCHIK



ADMINISTRATIVE OFFICES, LEGAL &  
WATER MANAGEMENT DIVISION  
1900 - 9TH AVENUE  
TAMPA, FLORIDA 33605  
TELEPHONE (813) 272-5960  
FAX (813) 272-5157

AIR MANAGEMENT DIVISION  
TELEPHONE (813) 272-5530

WASTE MANAGEMENT DIVISION  
TELEPHONE (813) 272-5788

WETLANDS MANAGEMENT DIVISION  
TELEPHONE (813) 272-7104

**EXECUTIVE DIRECTOR**

ROGER P. STEWART

September 3, 1998

Jerry Kissell, P.E.  
Florida Department of Environmental Protection  
Southwest District  
3804 Coconut Palm Drive  
Tampa, FL 33619

RECEIVED

SEP 04 1998

D E P

Dear Jerry;

The following comments are offered on the proposed Air operating Permit for TECO Gannon's Unit 3 to burn Wood Derived Fuel.

**Test Results:**

1. If you look only at the test results in section 4.0, the test results do fall within permitted limits. Solely based on that, this unit would apparently be able to accommodate the proposed fuel within the existing limits. However, those same test results do show an increase in emissions in several pollutants using the WDF fuel blend.

**The PSD applicability analysis (Attachment B):**

2. Attachment B, note 2, says the material content in fuel ratio is based on the ratio of ash, sulfur, and nitrogen in paper pellets versus coal samples. The emissions changes are not based on the test results. The PSD analysis goes on to project an apparent emissions decrease based on the fuel ratio.

3. The applicability analysis only addresses the contribution of the WDF, implying that there will be a 616.2 tpy decrease in SO<sub>2</sub> emissions, for example. It completely ignores the emissions contributed by coal portion of the fuel blend and the stack test results.

4. If you use the test results, section 4.0, there is an increase in the emissions from the coal baseline to the WDF on both the CEMS and the stack test results. For example:

CEMS Data:	Baseline	Fuel Blend	Units
Opacity	4	4	%
SO <sub>2</sub>	1.80	1.84	lb/MMBtu
NOx	0.92	0.96	lb/MMBtu



Jerry Kissell, P.E.

September 3, 1998

page 2 of 2

**Stack Test Data:**

PM	0.03	0.03	lb/MMBtu
H <sub>2</sub> SO <sub>4</sub>	0.04	0.04	lb/MMBtu
SO <sub>2</sub>	1.83	1.99	lb/MMBtu
VOC	0.003	0.006	lb/MMBtu
HCl	0.04	0.07	lb/MMBtu
VE	C	0	%

5. If you use the more conservative SO<sub>2</sub> CEMS increase of 0.04 lb/MMBtu, the SO<sub>2</sub> emissions increase would be 160.55 tpy.

6. Why is there such a large difference between the actual annual heat input between 1996 & 1997 on the PSD applicability analysis chart? Note: our copy of the 1996 AOR for unit 3 showed a total of 6,951,725 MMBtu for coal only.

7. Where did the 94% Coal/6% WDF Blend numbers come from that are included in table 3 of the test results (section 4.0)?

8. As discussed with Rick Kirby, this application does appear to constitute a modification of the coal yard permit to allow the bunkering of WDF.

9. Also, I noted that the reason the test were postponed from 1997 to 1998 was because of handling problems with the WDF that required modifications in the handling yard.

10. The test authorization says the test should be conducted with a blend of 8-10% paper pellets, 8-10% WDF, and 80% coal. This test was apparently conducted with 93.7% coal and 6.3% paper pellets.

11. Note: this is the first time we have seen the test results of the WDF tests which were originally authorized in March 1997, but postponed until May & June 1998.

If you have any questions, please contact us at (813)-272-5530.

Sincerely,



Leroy Shelton  
Chief, Air Toxics