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 Mr. Patrick Shell, P.E.
 Street, Apt. No., or PO Box No.
 PO Box 111
 City, State, ZIP+4
 Tampa, FL 33601-0111
 PS Form 3800, July 1999 See Reverse for Instructions

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1 Article Addressed to:

Mr. Patrick Shell, P.E.
 Administrator - Air Programs
 Tampa Electric Company
 PO Box 111
 Tampa, FL 33601-0111

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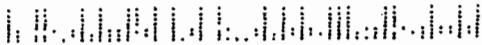
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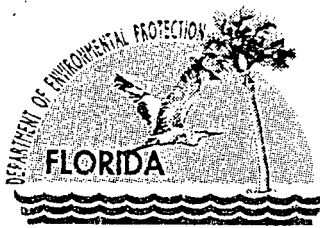
Dept. of Environmental Protection
Division of Air Resources Mgt.
Bureau of Air Regulation, NSR
2600 Blair Stone Rd., MS 5505
Tallahassee, FL 32399-2400

BUREAU OF AIR REGULATION

APR 16 2001

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Jeb Bush
Governor

Department of Environmental Protection

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

David B. Struhs
Secretary

March 28, 2001

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Patrick Shell, P.E.
Administrator - Air Programs
Tampa Electric Company
P.O. Box 111
Tampa, Florida 33601-0111

Re: Air Permit Exemption Request Received March 6, 2001.
Portable Diesel Generators

Dear Mr. Patrick:

The Department reviewed your letter requesting an exemption from air permitting requirements for eleven diesel generators to be operated for summer load at TECO substations in Hillsborough and Polk County, Florida. No problem in granting the requested exemption is anticipated at this time. However, the exact locations of the substations should be specified in the exemption letter including the street addresses and the UTM coordinates if possible. Also, please indicate the proposed method(s) of record keeping that will allow the Department to verify that fuel usage rates will not exceed the limits on which the exemption is based.

We anticipate that the exemption will be granted promptly upon receipt of this additional information. If there are any questions regarding the above, please contact John Reynolds of our staff at 850-921-9530.

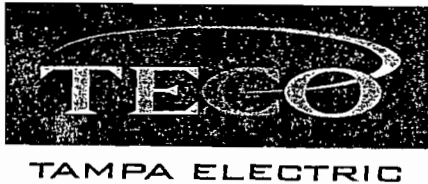
Sincerely,

A. A. Linero, P.E.
Administrator
New Source Review Section

AAL/JR

cc: Jerry Kissel, SWD
Jerry Campbell, EPCHC

"More Protection, Less Process"



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MAR 06 2001
BUREAU OF AIR REGULATION

March 5, 2001

Mr. Clair Fancy
Florida Department of Environmental Protection
2600 Blair Stone Road
Twin Towers Office Building
Tallahassee, Florida 32399-2400

Via FedEx
Airbill No. 7919 9024 3542

Re: Tampa Electric Rental of Additional Generation to Meet Summer Load

Dear Mr. Fancy:

In order to meet an increasing demand for electricity this summer, Tampa Electric Company (TEC) intends to utilize eleven rented mobile generators at eleven different substations throughout Hillsborough and Polk Counties. Each unit is a Caterpillar XQ 2000 Power Module capable of providing up to 1.825 MW of additional generation to serve load during periods of peak demand. The units will be fired exclusively with low sulfur distillate oil and will be limited to 32,000 gallons of fuel oil consumed per year. At this time, the units are expected to be placed in service in late May and operate until October 2001. Below is the list of substations where TEC intends to temporarily site these units.

Hillsborough County

- Clearview Substation
- Eleventh Avenue Substation
- Maritime Substation
- Juneau Substation
- Dale Mabry Substation
- Hampton Substation
- State Road 60 Substation
- Ruskin Substation

Polk County

- Mulberry Substation
- Lake Gum Substation
- South Eloise Substation

Based on this information, TEC believes that these units are exempt from permitting per 62-210.300(3)(a)21 and requests written concurrence from the Department. TEC appreciates the consideration of the Department in this matter.

Mr. Clair Fancy
March 5, 2001
Page 2 of 2

If you have any questions, please feel free to telephone Shannon Todd or me at (813) 641-5125.

Sincerely,

A handwritten signature in black ink, appearing to read "Patrick L. Shell". The signature is fluid and cursive, with a long horizontal stroke extending to the left.

Patrick L. Shell, P.E. *for*
Administrator-Air Programs
Environmental Affairs

EP\gm\SKT241

c: Mr. Jerry Campbell, EPCHC
Ms. Alice Harman, EPCHC
Mr. Jerry Kissel, FDEP SW



d7 AL
pls review
direct response.
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MAR 06 2001

BUREAU OF AIR REGULATION

March 5, 2001

Mr. Clair Fancy
Florida Department of Environmental Protection
2600 Blair Stone Road
Twin Towers Office Building
Tallahassee, Florida 32399-2400

Via FedEx
Airbill No. 7919 9024 3542

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Mr. Clair Fancy
March 5, 2001
Page 2 of 2

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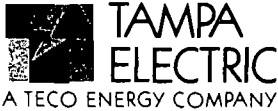
Sincerely,

A handwritten signature in black ink, appearing to read 'Patrick L. Shell', written in a cursive style.

Patrick L. Shell, P.E. *for*
Administrator-Air Programs
Environmental Affairs

EP\gm\SKT241

c: Mr. Jerry Campbell, EPCHC
Ms. Alice Harman, EPCHC
Mr. Jerry Kissel, FDEP SW



October 29, 1996

Mr. Howard Rhodes, Director
Division of Air Resources Management
Florida Department of Environmental Protection
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

**Re: Tampa Electric Company
F. J. Gannon Unit No. 3
Wood Derived Fuel Test Burn Comments**

Dear Mr. Rhodes:

Tampa Electric Company (TEC) is in receipt of correspondence, dated October 22, 1996, from the Environmental Protection Commission of Hillsborough County (EPCHC) to the Florida Department of Environmental Protection regarding TEC's request to Test Burn Wood Derived Fuel (WDF) as a supplemental fuel in Unit No. 3 at F.J. Gannon Station. TEC offers the following history, clarifications and comments to address EPCHC's concerns.

This project was initiated due to inquiries from several area interests, including Hillsborough County, as to whether TEC would be interested in utilizing several solid waste streams as supplemental fuels in our boilers. TEC understands that the municipal waste combustors located in Hillsborough County are operating at or near capacity and the county is exploring options as alternatives to expansion existing facilities. After initial study, TEC concluded that this project presented a viable method of converting solid waste streams to usable energy, benefiting our customers, our community and TEC. Further, TEC concluded that certain portions of the general solid waste stream are not suitable for use as fuel in our units due to potential environmental concerns and/or the low BTU value of the general refuse stream. Thus, TEC limited the Test Burn Request to an 80%/20% blend of coal and a segment of the municipal waste stream described as WDF, respectively.

As is typical preparation for all projects of this type, TEC performed a preliminary review of the applicable regulations. During this review, it became apparent that portions of the WDF fell within the definitions of 40 C.F.R. 60.50b, et. seq. Subpart Eb, a federal rule incorporated by reference in Chapter 62-204.800(7)(b), Florida Administrative Code (F.A.C.). Under this new source performance standard (NSPS), municipal solid waste (MSW) is defined as household, commercial/retail, and/or institutional waste which includes, among other materials, yard waste and refuse derived fuel (RDF), but not wood/wood chips. A brief description of the major components of WDF proposed for use as a supplemental fuel by TEC is given below:

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AIR REGULATION

Mr. Howard Rhodes, Director
October 29, 1996
Page 2 of 3

Yard Trash

The yard trash and yard waste proposed for use by TEC falls within the definitions of these materials in Chapter 62-701.200 (90), F.A.C. and Subpart Eb, respectively. These definitions generally state that yard trash/waste consists of grass, grass clippings, bushes, shrubs, and clippings from bushes and shrubs that are generated by residential, commercial/retail, institutional, and/or industrial sources as part of maintenance activities associated with yards or other private or public lands. Yard waste does not include construction, renovation, and demolition wastes.

Paper Pellets or Pelletized Refuse Derived Fuel (pRDF)

The paper pellets proposed for use by TEC would consist primarily of paper, cardboard and polymer-impregnated or coated paper, such as disposable drinking cups and paper plates. The pelletization process includes sorting the municipal waste stream by hand and mechanical methods to remove metal, hard plastics, textiles, food products, and hazardous substances. This material generally falls within the definition for RDF found in Subpart Eb.

Wood/Wood Chips

The wood/wood chips proposed for use by TEC fall within the definition in Subpart Eb for clean wood. This definition generally states that clean wood consists of untreated wood or untreated wood products including clean untreated lumber, tree stumps (whole or chipped), and tree limbs (whole or chipped). Clean wood does not include yard waste, or construction, renovation, and demolition wastes (including but not limited to railroad ties and telephone poles). In addition, the wood/wood chips proposed for use would be free of listed hazardous substances such as pentachlorophenol, creosote, tar, asphalt and paints containing heavy metals.

As you may know, 40 C.F.R. § 60.50b(j), provides a specific exemption for cofired combustors. This exemption includes a facility that operates as a unit combusting municipal solid waste with other fuels and which is subject to a federally enforceable permit condition limiting the municipal solid waste component to 30% or less of the fuel feed stream measured on a calendar quarter basis. Under the posed test burn protocol, TEC would be defined as a cofired combustor.

In his correspondence, Mr. Choronenko classifies the exemption as a "loophole." TEC is puzzled by this characterization, given the fact that the exemption is contained in section 129(g)(5) of the Clean Air Act Amendments of 1990. 42 U.S.C. § 7429(g)(5). This section of the Clean Air Act Amendments of 1990 authorizes the promulgation of the MSW rules. The exemption is therefore based upon a Congressional determination that facilities meeting the cited definition should not be subject to the MSW standards.

Mr. Howard Rhodes, Director
October 29, 1996
Page 3 of 3

Although the facility is not subject to the NSPS MSW regulations, TEC is currently in the process of preparing "worst case" engineering calculations using emission factors for wood waste and RDF found in Chapter 1.6 (Wood Waste Combustion in Boilers) and Chapter 2.1 (Refuse Combustion) of the EPA publication "Compilation of Air pollutant Emission Factors, AP-42." We believe that this analysis will provide the Department and EPCHC with reasonable assurance concerning the appropriateness of this project. Preliminary calculations indicate that the ambient impacts of the air pollutants of concern are generally below FDEP's ambient reference concentrations.

As described above, TEC believes that this project has potential to be of great value to the community and should be supported by agency interests. TEC is confident that after a review of the technical aspects of the project is completed, you will agree that potential emissions are well within acceptable ranges and do not constitute any type of hazard. A meeting has been scheduled for Thursday, October 31 with the FDEP-Southwest District and EPCHC to discuss any concerns that may have arisen due to this request. In the interim, please feel free to contact me at (813) 641-5087 to further discuss this matter.

Sincerely,



Laura A. Rector
Engineer
Environmental Planning

EPgmLAR074

c: Mr. Iwan Choronenko, EPCHC
Mr. Clair Fancy, FDEP
Mr. Mike Hewitt, FDEP
Mr. Bill Thomas, FDEP

cc: S. Auz



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AUG 22 1996
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AIR REGULATION

August 20, 1996

Mr. Gerald Kissell, P.E.
Air Permitting Supervisor
Southwest District
Florida Department of Environmental Protection
3804 Coconut Palm Drive
Tampa, Florida 33619

Certified Mail No. P 880 007 643
Return Receipt Requested

Re: Tampa Electric Company
F. J. Gannon Unit 3
Request to Conduct Wood Derived Fuel Test Burn
Operating Permit No. AO29-172179

Dear Mr. Kissell:

Tampa Electric Company (TEC) is evaluating the feasibility of using Wood Derived Fuel (WDF) as a supplemental fuel in the Gannon Unit 3 boiler. TEC considers the use of WDF as a supplemental fuel to be a viable method of converting solid waste streams that are typically land-filled to usable energy. WDF consists of a variety of carbonaceous materials that include paper, vegetative matter, and wood wastes.

A brief description of the major components of WDF proposed for use as a supplemental fuel by TEC is given below:

Paper Pellets

Paper pellets consist primarily of paper, cardboard and film plastics that are dried, shredded and formed into fuel pellets. This pelletization process includes sorting the waste stream by hand and mechanical methods to remove metal, hard plastics, textiles, food products, and hazardous substances. Representative fuel analyses for the paper pellets are provided in Attachment A for your review.

Yard Trash

Yard trash as defined in Chapter 62-701.200 (90) of the Florida Administrative Code (F.A.C.) is vegetative matter resulting from landscaping maintenance or land clearing operations and includes materials such as tree and shrub trimmings, grass clippings, palm fronds, trees and tree stumps. Representative fuel analyses for yard waste are provided in Attachment A for your review.

Mr. Gerald Kissell
August 20, 1996
Page 2 of 2

Wood/Wood Chips

The wood/wood chips used by TEC will be derived from clean dry wood. The clean dry wood primarily consists of lumber, pallets and construction wood debris that are free of listed hazardous substances such as pentachlorophenol, creosote, tar, asphalt and paints containing heavy metals. Representative fuel analyses for the wood chips are provided in Attachment A for your review.

TEC has evaluated WDF characteristics with the proposed blending ratio of coal and is confident all existing emission limits will be met during the test burn period. Criteria pollutant emissions will not change because of WDF combustion, with one notable exception. A slight decrease in sulfur dioxide (SO₂) emissions, expected to be marginally measurable, may occur because the supplemental fuel contains less sulfur than the coal now being burned. Particulate matter (PM) emissions are not expected to change due to the ash content of the supplemental fuel and the coal being similar. SO₂ and PM emission calculations for burning the supplemental fuel in Unit 3 are provided in Attachment B. Nitrogen oxide (NO_x) emissions are not expected to change because no modifications will be made to the boiler or the burner, and because combustion temperature will remain unchanged. In fact, the unit will not require any alteration of any kind to accommodate combustion of the supplemental fuel.

TEC proposes to conduct the test burn with a blend of WDF and the typical coal supply for a period of twenty-one (21) days. All testing shall be concluded within sixty (60) days of when WDF is first introduced in Unit 3. A typical coal analysis for Unit 3 is provided for your review in Attachment C and the proposed test burn protocol is provided in Attachment D.

TEC proposes to begin this test burn upon Department approval. Therefore, an expeditious review of this request is appreciated. If you have any questions or comments on this matter, please feel free to contact me at (813) 228-4887.

Sincerely,



Laura A. Rector
Engineer
Environmental Planning

EPgmLAR068

Attachments

c/att: Mr. Clair Fancy-FDEP
Mr. Jerry Campbell-EPCHC

Attachment A
Typical Wood Derived Fuel Analyses

**GANNON STATION UNIT 3
TYPICAL WOOD DERIVED FUEL ANALYSES**

Parameter	Paper Pellets	Yard Waste	Wood Chips	Units
Total Moisture	27.1	29	29.00	%
Ash, as Received	3.71	1.4	0.72	%
Ash, Dry Basis	5.09	1.97	0.82	%
Carbon, as Received	35.16	35.59	41.50	%
Carbon, Dry Basis	48.23	50.13	47.78	%
Fixed Carbon, as Received	10.53	10.92	15.54	%
Fixed Carbon, Dry Basis	14.45	15.38	17.89	%
Hydrogen, as Received	4.77	3.87	5.12	%
Hydrogen, Dry Basis	6.54	5.45	5.89	%
Nitrogen, as Received	0.284	0.39	0.22	%
Nitrogen, Dry Basis	0.389	0.549	0.25	%
Sulfur, as Received	0.101	0.04	0.13	%
Sulfur, Dry Basis	0.138	0.06	0.15	%
Pounds SO ₂ /Million BTU, Coal	0.324	0.145	0.37	lbs. SO ₂ /MMBTU
Volatiles, as Received	58.66	58.68	70.60	%
Volatiles, Dry Basis	80.46	82.65	81.29	%
BTU, as Received	5881.2	5832	7199.00	BTU/lb
BTU, Dry Basis	8067.5	8214	8286.35	BTU/lb
BTU, Moisture-Ash Free, Calc.	8500.2	8379	8354.95	BTU/lb

Attachment B
Estimated Maximum Actual Emission Rates

**GANNON STATION UNIT 3
ESTIMATED MAXIMUM ACTUAL EMISSION RATES**

Data

Parameter ¹	Units	Existing Value	Proposed Value
Unit # 3 Heat Input	MMBtu/hr	1,599	1,599
WDF Heat Content	Btu/lb	N/A	8,068
WDF Sulfur Content	wt pct	N/A	0.14
WDF Ash Content	wt pct	N/A	5.1
Coal	Btu/lb	13,769	13,769
Max. Coal Sulfur Content	wt pct	1.30	1.30
Max. Coal Ash Content	wt pct	7.9	7.9
Allowable SO ₂ Emissions - 7 Day Avg.	lb/MMBtu	2.4	2.4
Allowable SO ₂ Emissions - 7 Day Avg. ²	lb/MMBtu	10.6	10.6
Allowable PM Emissions	lb/MMBtu	0.1	0.1

Calculations

Parameter ¹	Units	Value		
		Coal	WDF	Blend
Existing Actual Scenario	%	100	0	N/A
Usage Rate	lb/hr	116,130	0	116,130
Sulfur In	lb/hr	1,509.7	0	1,509.7
Sulfur Out	lb/hr	1,509.7	0	1,509.7
SO ₂ Emission	lb/hr	3,019.4	0	3,019.4
SO ₂ Emission	lb/MMBtu	1.9	0	1.9
ESP Inlet PM ³	lb/hr	4,599	0	4,599
ESP Outlet PM	lb/hr	46.0	0	46.0
ESP Outlet PM	lb/MMBtu	0.029	0	0.029
Proposed Scenario	%	80.0	20.0	N/A
Usage Rate	lb/hr	101,275	25,319	126,594
Sulfur In	lb/hr	1,316.6	35.4	1,352.0
Sulfur Out	lb/hr	1,316.6	35.4	1,352.0
SO ₂ Emission	lb/hr	2,633.2	70.9	2,704.0
SO ₂ Emission	lb/MMBtu	1.9	0.3	1.7
ESP Inlet PM ³	lb/hr	4,010.5	645.6	4,656.1
ESP Outlet PM	lb/hr	40.1	6.5	46.6
ESP Outlet PM	lb/MMBtu	0.029	0.032	0.029

¹ Fuel sulfur, ash, and heat content represent typical coal and WDF analyses. Values used in this example are representative of paper pellets. Data for fuel sulfur, ash, heat content, and usage rates expressed on a dry basis.

² Combined total for Gannon Units No. 1 through No. 6.

³ Based on AP-42 emission factor of 10 * A, where A equals weight percent ash content.

Attachment C
Typical Coal Analysis

**GANNON STATION UNIT 3
TYPICAL COAL ANALYSIS**

Parameter	Coal	Units
Total Moisture	8.55	%
Ash, as Received	7.07	%
Ash, Dry Basis	7.73	%
Carbon, as Received	70.99	%
Carbon, Dry Basis	77.63	%
Fixed Carbon, as Received	50.35	%
Fixed Carbon, Dry Basis	55.06	%
Hydrogen, as Received	4.75	%
Hydrogen, Dry Basis	5.19	%
Nitrogen, as Received	1.69	%
Nitrogen, Dry Basis	1.85	%
Sulfur, as Received	1.19	%
Sulfur, Dry Basis	1.3	%
Pounds SO ₂ /Million BTU, Coal	1.8	lbs. SO ₂ /MMBTU
Volatiles, as Received	34.03	%
Volatiles, Dry Basis	37.21	%
BTU, as Received	12592	BTU/lb
BTU, Dry Basis	13769	BTU/lb
BTU, Moisture-Ash Free, Calc.	14923	BTU/lb

Attachment D
Gannon Station Unit 3
Coal/Wood Derived Fuel Test Burn Protocol

**GANNON STATION UNIT 3
COAL/WOOD DERIVED FUEL TEST BURN PROTOCOL**

Tampa Electric Company (TEC) proposes to conduct a comparison fuel burn of 100% coal to up to 80%/20% coal/WDF blend in Gannon Station Unit 3. The baseline test of 100% coal will be conducted for seven (7) days. The blend test burn will be conducted for not more than 21 days. Any leftover blend will be burned immediately upon completion of the 21-day test period. Fuel testing will be done on coal and WDF individually prior to blending given the difficulty in uniformly sampling the coal/WDF blend.

Sulfur dioxide (SO₂), nitrogen oxides (NO_x), and opacity emissions data shall be reported using continuous emissions monitors (CEMS), located in the stack during baseline and trial burn tests. These systems will be quality assured pursuant to 40 CFR 75, Appendix B. The data assessment report from 40 CFR 60, Appendix F, for the most recent relative accuracy test audit (RATA) and most recent cylinder gas audit (CGA), will be submitted with the trial burn test report. Upon completion of all testing, TEC will compile test results in a report to be submitted to the Department within 60 days of completion of the coal/WDF test burn.

The baseline test will be conducted for no less than seven (7) days with the source operating under normal conditions. During the baseline test period, EPA reference method emissions testing will be performed for particulate matter and sulfuric acid mist. During these tests Unit #3 will be operated at 90%-100% of maximum capacity.

The trial burn testing (80% coal, 20% WDF) will be conducted for twenty-one (21) days with the unit operating under normal conditions. During the trial burn period, EPA reference method emissions testing will be performed for particulate matter and sulfuric acid mist. During these tests Unit #3 will be operated at 90%-100% of maximum capacity.

The following table summarizes information to be collected during the baseline and blend fuel burns:

SO ₂		NO _x	FUEL ANALYSIS	PARTICULATE AND ACID MIST
BASELINE TEST (7 DAYS)	Weekly composite fuel analysis and CEM data during reference tests	CEM data	Weekly composite fuel analysis ¹	EPA Reference Methods
BLEND TEST (21 DAYS)	Weekly composite fuel analysis and CEM data during reference tests	CEM data	Weekly composite fuel analysis ¹	EPA Reference Methods

Stack testing will consist of three (3) runs under sootblowing conditions for each parameter. As indicated in our air operating permits, sootblowing conditions will be used to demonstrate non-sootblowing emission limits (*i.e.*, worst case operating scenario).

During stack testing, Unit 3 will be operated at 90%-100% of maximum capacity.

¹Composite weekly fuel analysis results will be supplied during the baseline and test burn scenarios. Fuel analysis to include the following:

Fuel Analysis: Sulfur, wt. %, Volatiles, Content, wt. %, Nitrogen, wt. %, Ash, wt. %, Calorific Value, BTU/#, Carbon, wt. %, Moisture, wt. %

Trace Metals Analysis (Trace Element): Beryllium, Chromium, Lead, Mercury, Nickel, Vanadium, Zinc



August 9, 1996

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Mr. Gerald Kissell, P.E.
Air Permitting Supervisor
Southwest District
Florida Department of Environmental Protection
3804 Coconut Palm Drive
Tampa, Florida 33619

Certified Mail No. P 880 007 628
Return Receipt Requested

**Re: Tampa Electric Company
F. J. Gannon Station Unit 3
Tire Derived Fuel Test Burn
Air Operating Permit Amendment
Permit No. AO29-172179**

Dear Mr. Kissell:

Enclosed please find four sealed copies of a permit application to amend the F.J. Gannon Unit 3 Air Operating Permit for your review and approval. TEC is requesting that the permit be amended to allow for the firing of a coal and tire derived fuel blend in F.J. Gannon Unit 3. Please note as previously discussed with the Department, the tire-derived fuel testing was done at approximately 80% of maximum capacity.

I look forward to working on this permit process with the Department to ensure an expeditious review and issuance of this permit amendment. Please feel free to call me at (813) 228-4839 if you have any questions in this matter.

Sincerely,

Janice K. Taylor
Senior Engineer
Environmental Planning

EPgmJKT772

Enclosures

c: Mr. Clair Fancy-FDEP
Mr. Jim McDonald-FDEP
Mr. Jerry Campbell-EPCHC



August 9, 1996

Mr. Gerald Kissell, P.E.
Air Permitting Supervisor
Southwest District
Florida Department of Environmental Protection
3804 Coconut Palm Drive
Tampa, Florida 33619

**Re: Tampa Electric Company
F. J. Gannon Station Unit 4
Tire Derived Fuel Test Burn
Permit No. AO29-255208**

Dear Mr. Kissell:

As you know, the Department issued Tampa Electric Company (TEC) a letter of authorization dated May 14, 1996 to conduct a test burn using tire derived fuel (TDF) in Gannon Unit #4. Pursuant to this authorization, the test was conducted on June 27 and June 28, 1996.

Analysis of the Unit 4 TDF stack test data showed no increase in any of the tested pollutants, with one exception. Particulate matter in the east stack increased over baseline, while particulate matter in the west stack remained equivalent to baseline. This is not characteristic of this unit's operation as the west stack has historically measured "worst case."

Although we had few indications at the time of testing, an after the fact review of the Units operational data clearly indicates a problem on the east side of the precipitator. You may recall that we were experiencing problems with the Unit as evidenced by the cancellation of the Unit 4 petcoke test burn.

Based on this information, TEC respectfully requests to conduct a new baseline and TDF particulate matter emissions test on the east stack along with an extension of the letter of authorization until

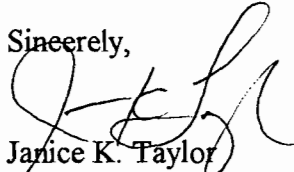
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AIR REGULATION

**Certified Mail No. P 880 007 632
Return Receipt Requested**

Mr. Gerald Kissell, P.E.
August 9, 1996
Page 2 of 2

October 31, 1996. I will be calling next week to schedule a meeting with you and your staff to discuss these issues. In the meantime, if you have any questions, please feel free to call me at (813) 228-4839. Thank you in advance for your consideration.

Sincerely,



Janice K. Taylor
Senior Engineer
Environmental Planning

EP\gm\JKT773

Enclosures

c: Mr. Clair Fancy-FDEP
Mr. Jim McDonald-FDEP
Mr. Jerry Campbell-EPCHC



Department of Environmental Protection

Lawton Chiles
Governor

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

Virginia B. Wetherell
Secretary

FACSIMILE TRANSMISSION SHEET

DATE 2/21/96

TO: AL LINERO
DEPT: DARM
PHONE: _____

FROM: BILL SCHROEDER
DEPT.: DEP, SOUTHWEST DISTRICT
PHONE: (813) 744-6100 SUNCOM 542-6100 EXT. 114

OPERATOR: _____ EXT. _____

SUBJECT: GENERAL #4 PATEOKE AUTHORIZATION DRAFT

TOTAL NUMBER OF PAGES, INCLUDING COVER PAGE: ~~10~~
2 MACHINE MISSED A PAGE

AIR PROGRAM FAX NUMBER IS (813) 744-6458
SUNCOM 542-6458

"Protect, Conserve and Manage Florida's Environment and Natural Resources"

Printed on recycled paper.



Department of Environmental Protection

Lawton Chiles
Governor

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

Virginia B. Wetherell
Secretary

Mr. Patrick A. Ho, P.E.
Manager, Environmental Planning
Tampa Electric Company
Post Office Box 111
Tampa, FL 33619

DRAFT

Re: Tampa Electric Company
F.J. Gannon Station Unit No. 4
Letter of Authorization to Conduct
Petroleum Coke Test Burn
FDEP Permit Nos. A029-255208, A029-218858
and A029-250139

Dear Mr. Ho:

The Department has reviewed the request that you provided on January 23, 1995. We have also considered the Department's legal authority to allow Tampa Electric Company (TEC) F. J. Gannon Unit 4 to conduct the performance test. Paragraph 403.061(15), Florida Statutes (F.S.) authorizes the Department to consult with any person proposing to construct, install or otherwise acquire a pollution control device or system concerning the efficacy of such device or system, or the pollution problem which may be related to the source, device, or system. Paragraph 403.061(16), F.S., authorizes the Department to encourage voluntary cooperation by persons in order to achieve the purposes of the state environmental control act. Paragraph 403.061(18), F.S., authorizes the Department to encourage and conduct studies, investigations, and research relating to causes and control of pollution. Florida Administrative Code (F.A.C.) Rule 62-210.700(5) authorized the Department to consider variation in industrial equipment and make allowance for excess emissions that provide practical regulatory controls consistent with the public interest.

In accordance with the provisions of Paragraphs 403.061(15), (16), and (18), F.S., you are hereby authorized to conduct performance tests for pollutant emissions of F. J. Gannon Unit 4 while firing a blend of petroleum coke and coal.

The emissions tests are being proposed in order to gather data regarding pollutant emissions while firing a blend of petroleum coke and coal. Screening to determine whether this change results in a modification or to determine Prevention of Significant Deterioration (PSD) applicability shall be in accordance with Chapter 403, F.S.; F.A.C. Chapters 62-210 through 62-297, and 62-4; and, Title 40 Code of Federal

"Protect, Conserve and Manage Florida's Environment and Natural Resources"

Mr. Patrick A. Ho, P.E.
Tampa Electric Company
Date.....

Regulations (CFR; July, 1993 version), which will compare the actual pollutant emissions of the performance tests while firing a blend of petroleum coke and coal. The performance test results will be evaluated by Southwest District and involved parties (i.e., Bureau of Air Regulation (BAR), Environmental Protection Commission of Hillsborough County (EPHC), etc.).

DRAFT

The performance tests shall be subject to the following conditions:

1. The permittee shall notify, in writing, the Southwest District and EPHC at least 15 days prior to commencement of the trial petroleum coke and coal blend performance tests so that the department has the opportunity to conduct a Type II stack audit. Two copies of the written report shall be submitted to this office within 45 days upon completion of the last test run.
2. The trial petroleum coke and coal blend performance tests shall be conducted for not more than 21 days. All testing shall be concluded by April 30, 1996 or as modified by letter.
3. As-burned daily fuel samples shall be collected and analyzed for sulfur content.
4. As-fired ash percent and ash mineral analysis for concentrations of arsenic, barium, cadmium, chromium, lead, mercury, selenium, silver and beryllium in the petroleum coke and coal blend shall be determined upon commencement and at completion of the trial burn.
5. Petroleum coke shall be blended with coal during the trial performance tests in the following concentration: trial petroleum coke and coal test blends limited to a maximum of 20% by weight petroleum coke. The sulfur content of the blend shall not exceed 1.25 percent, by weight (dry basis).
6. The total weight of the petroleum coke burned during the performance tests shall not exceed 15.0 tons/hour for a maximum total usage during the test period of 7,600 tons.
7. Opacity data shall be recorded using continuous emissions monitors (CEMS) during the baseline and performance tests.
8. The sulfur dioxide emission results from the trial petroleum coke and coal blend performance tests shall be compared to baseline tests conducted when firing coal

Mr. Patrick A. Ho, P.E.
Tampa Electric Company
Date.....

DRAFT

only. The sulfur content of the coal used during the baseline tests shall be determined daily on an as-fired basis.

9. Performance tests shall be conducted using EPA Methods, as contained in 40 CFR 60 (Standards of Performance for New Stationary Source), or 40 CFR 61 (National Emission Standards for Hazardous Air Pollutants), or any other method approved by the Department in Accordance with F.A.C. Rule 62-297.620. Tests to be performed and the test methods are listed in Table 1. Any change to the test methods must receive prior approval of the Department.
10. If additional time is needed, the permittee shall request an extension of time and provide the Department with documentation of the progress accomplished to date and shall identify what is left to be done to complete the performance tests.
11. Daily accounting of boiler operations while firing a blend of petroleum coke and coal and while firing coal during the baseline test shall be required. Any change in fuel pretreatment (i.e. flux addition) or in the type or degree of pre-precipitator flue gas conditioning shall be considered as part of this accounting.
12. Complete documentation (recording) of any firing of the petroleum coke and coal blend shall be required (i.e., testing results; materials utilized, by weight; etc,) and kept on file for a minimum of two years.
13. The authorized trial petroleum coke and coal blend performance test shall not result in the release of objectionable odors pursuant to F.A.C. Rule 62-296.320(2).
14. Performance testing shall immediately cease if Gannon Unit 4 operations are not in accordance with the conditions in the applicable permit. Performance testing shall not resume until appropriate measures to correct the problem have been implemented.
15. The performance tests for pollutant emissions shall be conducted under the direct supervision and responsible charge of a professional engineer registered in Florida. The professional engineer shall sign and seal each copy of the stack test report.
16. This Department action is only to authorize the performance of a single trial petroleum coke and coal blend boiler performance/emissions test.

Best Available Copy**DRAFT**

Mr. Patrick A. Ho, P.E.
Tampa Electric Company
Date.....

17. The Department and EPCHC shall be notified in writing on the date of the last test run completion.
18. The performance tests series shall include individual tests for the blend and a baseline test conducted with the source operating at capacity. Capacity is defined as 90-100 percent of the permitted capacity. If it is impracticable to test at this capacity, the source may be tested at less than capacity; in this case subsequent source operation with a petroleum coke and coal blend, if requested and approved by the Department, is limited to 110 percent of the test load until a new test is conducted.
19. Attachments (see Attachment Section) are incorporated.
20. Pursuant to Section 403.815, F.S. and Rule 62-103.150, F.A.C., you (the applicant) are required to publish, at your own expense, the enclosed Notice of Intent to Issue Permit. The notice will be published one time only within 30 days, in the legal ad section of a newspaper of general circulation in the area affected. For the purposes of this rule "publication in a newspaper of general circulation in the affected area" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. Where there is more than one newspaper of general circulation in the county, the newspaper used must be one with significant circulation in the area that may be affected by the permit. If you are uncertain that a newspaper meets these requirements, please contact the Department at the address or telephone number listed above. The applicant shall provide proof of publication to the Department, at 3804 Coconut Palm Drive, Tampa Florida 33619 within seven days of publication. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit.

The Department will issue the authorization with the above conditions unless a petition for an administrative reconsideration (as defined in F.S. 217.01) is filed pursuant to the provisions of Section 120.57, F.S.

The Department intends to issue this authorization based on the belief reasonable assurances have been provided to indicate the proposed project will comply with the appropriate provisions of Florida Statutes (F.S.) Chapter 403 and Florida Administrative Code (F.A.C.) Chapters 62-210 through 62-297 & 62-4.

DRAFT

Mr. Patrick A. HO, P.E.
Tampa Electric Company
Date.....

A person whose substantial interests are affected by this authorization may petition for an administrative proceeding (hearing) in accordance with Section 120.57, 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 2600 Blair Stone Road, Tallahassee, Florida 32399-2400.

Petitions filed by the authorization applicant and the parties listed below must be filed within 14 days of receipt of this intent. Petitions filed by other persons must be filed within 14 days of publication of the public notice or within 14 days of their receipt of this intent, whichever first occurs. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under section 120.57 Florida Statutes.

The Petition shall contain the following information;

- (a) The name, address, and the telephone number of each petitioner, the applicant's name and address, the Department Authorization 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 petitioner, if any;
- (e) A statement of facts which petitioner contends warrants reversal or modification of the Department's action or proposed action;
- (f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and
- (g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this authorization. Persons whose substantial

DRAFT

Mr. Patrick A. Ho, P.E.
Tampa Electric Company
Date.....

interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed (received) within 14 days of receipt of this notice, in the Office of General Counsel at the above address of the Department. Failure to petition within the allotted time frame constitutes a waiver of any rights such person has to request a hearing under Section 120.57, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

Executed in Tampa, Florida

STATE OF FLORIDA DEPARTMENT
OF ENVIRONMENTAL PROTECTION

Richard D. Garrity, Ph.D.
Director of District Management

Attachment

Copies furnished to: Bureau of Air Regulation

CERTIFICATE OF SERVICE

The undersigned duly designated deputy clerk hereby certifies that this INTENT TO ISSUE and all copies were mailed by certified mail before the close of business on _____ to the listed persons.

FILING AND ACKNOWLEDGEMENT FILED, on this date, pursuant to Section 120.52(11), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Clerk

Date

pet_teco.1et

Mr. Patrick A. Ho, P.E.
Tampa Electric Company
Date.....

DRAFT

TABLE 1

**TAMPA ELECTRIC CORPORATION F.J. GANNON STATION UNIT 4
PERFORMANCE TEST METHODS WITH COAL AND COAL-COKE BLEND**

POLLUTANT	TEST METHOD
Particulate Matter	EPA Method 17
Sulfur Dioxide	EPA Method 6 or 6C
Sulfuric Acid Mist	EPA Method 8
Nitrogen Oxides	EPA Method 7 or 7E
Carbon Monoxide	EPA Method 10
Stack Gas Flow	EPA Method 2
Stack Gas Moisture	EPA Method 4
Opacity	EPA Method 9

Specified tests are to be conducted for the petroleum coke and coal blend with the maximum sulfur content, by weight, fired in the boiler while operating at capacity or in accordance with Condition 18 of this letter. Baseline tests are to be conducted while firing with the 1.25 percent by weight (dry basis) sulfur coal and while operating at capacity in accordance with Condition 18 of this letter.

Best Available Copy**DRAFT****STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
NOTICE OF INTENT TO ISSUE AUTHORIZATION**

The Department of Environmental Protection gives notice of its intent to issue a Letter of Authorization to Tampa Electric Company to permit a test burn of petroleum coke in F.J. Gannon Station Unit No. 4. The facility is located at Port Sutton, Tampa, Hillsborough County. MAILING ADDRESS - Tampa Electric Company, Post Office Box 111, Tampa, FL 33619, to the attention of Patrick A. Ho, Manager, Environmental Planning.

A Best Available Control Technology (BACT) determination was not required.

A person whose substantial interests are affected by this proposed permitting decision may petition for an administrative proceeding (hearing) in accordance with Section 120.57, 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 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, within 14 days of publication of this notice. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under section 120.57 Florida Statutes.

The Petition shall contain the following information; (a) The name, address, and the telephone number of each petitioner, the applicant's name and address, the Department authorization 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 petitioner, if any; (e) A statement of facts which petitioner contends warrants reversal or modification of the Department's action or proposed action; (f) A statement of which rules or statutes of the Department's action or proposed action; and (g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

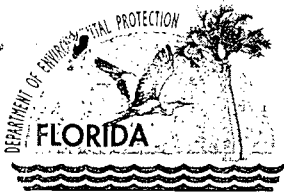
If a petition is filed, the administrative hearing process is designed to formulate agency action. Accordingly, the Department's final action may be different from the position taken by it in this permit. Persons whose substantial interests will be affected by any decision of the Department with regard to the application have the right to petition to become a party to the proceeding. The petition must conform to the requirements specified above and be filed

Best Available Copy

(received) within 14 days of receipt of this notice, in the Office of General Counsel at the above address of the Department. Failure to petition within the allotted time frame constitutes a waiver of any rights such person has to request a hearing under section 170.07, F.S., and to participate as a party to this proceeding. Any subsequent intervention will only be at the approval of the presiding officer upon motion filed pursuant to Rule 28-5.207, F.A.C.

The application is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at 8407 Laurel Fair Circle, Tampa, Florida. DEPARTMENT CONTACT: William E. Schroder, Permitting Engineer.

DRAFT



Department of Environmental Protection

Best Available Copy

Lawton Chiles
Governor

Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

Virginia B. Wetherell
Secretary

Mr. Patrick A. Ho, P.E.
Manager, Environmental Planning
Tampa Electric Company
Post Office Box 111
Tampa, FL 33619

RECEIVED

MAY 22 1995

BUREAU OF
AIR REGULATION

Re: Tampa Electric Company
F.J. Gannon Station Unit No. 4
Letter of Authorization to Conduct
Petroleum Coke Test Burn
FDEP Permit Nos. AO29-255208, AO29-218858
and AO29-250139

Dear Mr. Ho:

The Department has reviewed the request that you provided on January 23, 1995. We have also considered the Department's legal authority to allow Tampa Electric Company (TEC) F. J. Gannon Unit 4 to conduct the performance test. Paragraph 403.061(15), Florida Statutes (F.S.) authorizes the Department to consult with any person proposing to construct, install or otherwise acquire a pollution control device or system concerning the efficacy of such device or system, or the pollution problem which may be related to the source, device, or system. Paragraph 403.061(16), F.S., authorizes the Department to encourage voluntary cooperation by persons in order to achieve the purposes of the state environmental control act. Paragraph 403.061(18), F.S., authorizes the Department to encourage and conduct studies, investigations, and research relating to causes and control of pollution. Florida Administrative Code (F.A.C.) Rule 62-210.700(5) authorized the Department to consider variation in industrial equipment and make allowance for excess emissions that provide practical regulatory controls consistent with the public interest.

In accordance with the provisions of Paragraphs 403.061(15), (16), and (18), F.S., you are hereby authorized to conduct performance tests for pollutant emissions of F. J. Gannon Unit 4 while firing a blend of petroleum coke and coal.

The emissions tests are being proposed in order to gather data regarding pollutant emissions while firing a blend of petroleum coke (petcoke) and coal. Screening to determine whether this change results in a modification or to determine Prevention of Significant Deterioration (PSD) applicability shall be in

Page 1 of 6

Mr. Patrick A. Ho, P.E.
Tampa Electric Company
May 15, 1996

accordance with Chapter 403, F.S.; F.A.C. Chapters 62-210 through 62-297, and 62-4; and, Title 40 Code of Federal Regulations (CFR; July, 1993 version), which will compare the actual pollutant emissions of the performance tests while firing a blend of petroleum coke and coal. The performance test results will be evaluated by Southwest District and involved parties (i.e., Bureau of Air Regulation (BAR), Environmental Protection Commission of Hillsborough County (EPHC), etc.).

The performance tests shall be subject to the following conditions:

1. The permittee shall notify, in writing, the Southwest District and EPCHC at least 15 days prior to commencement of the trial petcoke and coal blend performance tests so that the department has the opportunity to conduct a Type II stack audit. Two copies of the written report shall be submitted to this office within 45 days upon completion of the last test run.
2. Baseline performance testing during coal-only firing shall be conducted over a seven-day period. Baseline emissions testing shall be conducted during this time, with all test runs completed within 5 consecutive days. The trial petcoke and coal blend performance testing shall be conducted for not more than 21 days. Petcoke and coal blend emissions testing shall be conducted during this time, with all test runs completed within 5 consecutive days. All testing shall be conducted within 60 days after the date petcoke is first introduced into Gannon Unit 4. All testing shall be concluded by July 31, 1996, or as modified by letter.
3. As burned fuel samples shall be obtained daily and composited weekly. In the event that a fuel change is made in mid-week, samples collected prior to and after the change shall be composited separately. Samples shall be analyzed for sulfur, nitrogen, beryllium, chromium, lead, mercury, nickel, vanadium, and zinc.
4. Petroleum coke shall be blended with coal during the trial performance tests in the following concentration: trial petroleum coke and coal test blends limited to a maximum of 20% by weight petroleum coke. The sulfur content of the blend shall not exceed 1.25 percent, by weight (dry basis).
5. The total weight of the petroleum coke burned during the performance tests shall not exceed 19.0 tons/hour on an as-

Mr. Patrick A. Ho, P.E.
Tampa Electric Company
May 15, 1996

received basis for a maximum total usage during the test period of 9,627 tons.

6. Opacity data shall be recorded using continuous emissions monitors (CEMS) during the baseline and performance tests.
7. Performance tests shall be conducted using EPA Methods, as contained in 40 CFR 60 (Standards of Performance for New Stationary Source), or 40 CFR 61 (National Emission Standards for Hazardous Air Pollutants), or any other method approved by the Department in Accordance with F.A.C. Rule 62-297.620. Tests to be performed and the test methods are listed in Table 1. Any change to the test methods must receive prior approval of the Department. A test report shall be submitted within 45 days of completion of the petcoke and coal mix test burn period.
8. If additional time is needed, the permittee shall request an extension of time and provide the Department with documentation of the progress accomplished to date and shall identify what is left to be done to complete the performance tests.
9. Daily accounting of boiler operations while firing a blend of petroleum coke and coal and while firing coal during the baseline test shall be required. Any change in fuel pretreatment (i.e. flux addition) or in the type or degree of pre-precipitator flue gas conditioning shall be considered as part of this accounting.
10. Complete documentation (recording) of any firing of the petroleum coke and coal blend shall be required (i.e., testing results; materials utilized, by weight; etc,) and kept on file for a minimum of two years.
11. The authorized trial petroleum coke and coal blend performance test shall not result in the release of objectionable odors pursuant to F.A.C. Rule 62-296.320(2).
12. Performance testing shall immediately cease if Gannon Unit 4 operations are not in accordance with the conditions in the applicable permit. Performance testing shall not resume until appropriate measures to correct the problem have been implemented.
13. The performance tests for pollutant emissions shall be conducted under the direct supervision and responsible charge of a professional engineer registered in Florida.

Mr. Patrick A. Ho, P.E.
Tampa Electric Company
May 15, 1996

The professional engineer shall sign and seal each copy of the stack test report.

14. This Department action is only to authorize the performance of a single trial petroleum coke and coal blend boiler performance/emissions test.
15. The Department and EPCHC shall be notified in writing on the date of the last test run completion.
16. The performance tests series shall include individual tests for the blend and a baseline test conducted with the source operating at capacity. Capacity is defined as 90-100 percent of the permitted capacity. If it is impracticable to test at this capacity, the source may be tested at less than capacity; in this case subsequent source operation with a petroleum coke and coal blend, if requested and approved by the Department, is limited to 110 percent of the test load until a new test is conducted.
17. Pursuant to Section 403.815, F.S. and Rule 62-103.150, F.A.C., you (the applicant) are required to publish, at your own expense, the enclosed Notice of Intent to Issue Permit. The notice will be published one time only within 30 days, in the legal ad section of a newspaper of general circulation in the area affected. For the purposes of this rule "publication in a newspaper of general circulation in the affected area" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. Where there is more than one newspaper of general circulation in the county, the newspaper used must be one with significant circulation in the area that may be affected by the permit. If you are uncertain that a newspaper meets these requirements, please contact the Department at the address or telephone number listed above. The applicant shall provide proof of publication to the Department, at 3804 Coconut Palm Drive, Tampa Florida 33619 within seven days of publication. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit.

The Department will issue the authorization with the above conditions unless a petition for an administrative proceeding (hearing) is filed pursuant to the provisions of Section 120.57, F.S.

Mr. Patrick A. Ho, P.E.
Tampa Electric Company
May 15, 1996

The Department intends to issue this authorization based on the belief reasonable assurances have been provided to indicate the proposed project will comply with the appropriate provisions of Florida Statutes (F.S.) Chapter 403 and Florida Administrative Code (F.A.C.) Chapters 62-210 through 62-297 & 62-4.

A person whose substantial interests are affected by this authorization may petition for an administrative proceeding (hearing) in accordance with Section 120.57, 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 Blvd., Tallahassee, FL 32399-3000.

Petitions filed by the authorization applicant and the parties listed below must be filed within 14 days of receipt of this intent. Petitions filed by other persons must be filed within 14 days of publication of the public notice or within 14 days of their receipt of this intent, whichever first occurs. Petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. Failure to file a petition within this time period shall constitute a waiver of any right such person may have to request an administrative determination (hearing) under section 120.57 Florida Statutes.

The Petition shall contain the following information;

- (a) The name, address, and the telephone number of each petitioner, the applicant's name and address, the Department Authorization 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 petitioner, if any;
- (e) A statement of facts which petitioner contends warrants reversal or modification of the Department's action or proposed action;
- (f) A statement of which rules or statutes petitioner contends require reversal or modification of the Department's action or proposed action; and
- (g) A statement of the relief sought by petitioner, stating precisely the action petitioner wants the Department to take with respect to the Department's action or proposed action.

TABLE 1

TAMPA ELECTRIC CORPORATION F.J. GANNON STATION UNIT 4
 PERFORMANCE TEST METHODS WITH COAL AND COAL-COKE BLEND

POLLUTANT	TEST METHOD
Particulate Matter	EPA Method 17
Sulfur Dioxide	EPA Method 6 or 6C & CEM Data
Sulfuric Acid Mist	EPA Method 8
Nitrogen Oxides	CEM Data*
Carbon Monoxide	EPA Method 10
Stack Gas Flow	EPA Method 2
Stack Gas Moisture	EPA Method 4
Opacity	EPA Method 9

*CEM data will be in the form of daily averages

Specified tests are to be conducted for the petroleum coke and coal blend with the maximum sulfur content, by weight, fired in the boiler while operating at capacity or in accordance with Condition 18 of this letter. Baseline tests are to be conducted while firing with the 1.25 percent by weight (dry basis) sulfur coal and while operating at capacity in accordance with Condition 18 of this letter.

Stack testing will consist of three (3) test runs under sootblowing conditions for each parameter tested. Tests conducted during sootblowing (worst case) conditions shall also demonstrate non-sootblowing emissions. Testing will only be conducted on the West stack, although a velocity and temperature traverse of the East stack will be conducted once during each day of testing.

ATTACHMENTS

Best Available Copy



January 23, 1995

Mr. Gerald Kessel, P.E.
Air Permitting Supervisor
Southwest District
Florida Department of Environmental Protection
3804 Coconut Palm Drive
Tampa, Florida 33619

RECEIVED
JAN 24 1995

Department of Environmental Protection
SOUTHWEST DISTRICT

CERTIFIED MAIL # P278 133 765
RETURN RECEIPT REQUESTED

RE: Tampa Electric Company
F.J. Gannon Station - Units 1, 2, 3 and 4
Request to Conduct Petroleum Coke Test Burn
Permit Nos. AO29-204434, AO29-189206, AO29-172179 and AO29-160269

Dear Mr. Kessel:

TEC has recently completed a petroleum coke test burn in Big Bend Unit 4, and based upon its initial success, is evaluating the feasibility of utilizing petroleum coke as a supplemental fuel in the Gannon Station's Units 1, 2, 3, and 4 boilers. Units 1, 2, 3, and 4 are currently operating under the referenced FDEP permits, respectively. TEC is requesting permission to conduct a test burn of petroleum coke in Gannon Station Unit 4.

TEC proposes to blend up to 20 percent petroleum coke with coal in Gannon Station Unit 4 during a representative test burn for these units. As you know, Units 1, 2, 3, and 4 are all Babcox & Wilcox cyclone fired boilers with high efficiency electrostatic precipitators. Therefore, TEC believes a test burn on Unit 4 will be representative for this system. An analysis of petroleum coke (Attachment 1) and coal (Attachment 2) are enclosed for your use.

TEC has evaluated petroleum coke characteristics at the proposed blending ratio and is confident all existing emission limits will be met during the test burn period. Emission calculations for sulfur dioxide (SO₂) and particulate matter (PM) are shown in Attachment 3. The lower ash content of petroleum coke should not cause an increase in PM emissions during this test burn. As shown in Attachment 3, SO₂ and PM emissions will be below the permitted limits in all of the operating scenarios. It is estimated that nitrogen oxide (NO_x) emissions will remain unchanged. Please note that for these emissions calculations, 5.5 percent sulfur and 0.4 percent ash content were used for the petroleum coke.

TEC proposes to begin this test burn immediately upon FDEP approval. Therefore, your expeditious review of this request is appreciated. Please feel free to contact Ms. Janice Taylor or me at 228-4839 should you have further questions.

Sincerely,

Patrick A. Ho, P.E.
Manager
Environmental Planning

EP/MLK/T699

Enclosures

TAMPA ELECTRIC COMPANY
P.O. Box 111 Tampa, Florida 33601-0111 (813) 228-4111

An Equal Opportunity Company

CC: EPC (ASSIGNED TO J. TAYLOR)
- AK 1/21/95

CC: A. LINERO (FYI)

TYPICAL PETROLEUM COKE ANALYSIS

TYPICAL ANALYSIS, DRY BASIS	RANGE
Sulfur, wt.%	4.0 - 5.5
Volatiles, Content, wt.%	9 - 14
Vanadium, ppm	1100 - 1900
Nickel, ppm	100 - 200
Iron, ppm	50 - 100
Silicon, ppm	100 - 500
Nitrogen, wt.%	.6 - 1.6
Ash, wt.%	< 1.0
Calorific Value, BTU/#	13,500 - 14,000
Carbon, wt.%	85.0 - 95.0
Moisture, wt.%	7 - 10

PETROLEUM COKE TRACE METAL ANALYSIS

FROM TYPICAL SUPPLIER

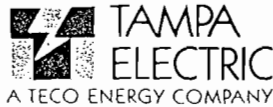
TRACE ELEMENT	RESULTS	
	SUPPLIER 1 mg/kg (ppm)	SUPPLIER 2 mg/kg (ppm)
ALUMINUM	279.0	69.8
ANTINONY	< 0.5	< 0.5
ARSENIC	< 0.1	< 0.1
BARIUM	5.98	5.20
BERYLLIUM	< 0.01	< 0.01
CADMIUM	< 0.01	< 0.01
CHROMIUM	19.8	15.6
COPPER	< 0.5	< 0.5
FLUORINE	4.3	5.7
LEAD	< 0.5	< 0.5
MANGANESE	1.87	1.09
MERCURY	< 0.05	< 0.05
NICKEL	105.0	203.0
SELENIUM	< 0.1	< .01
SILICON	577.0	514.0
SILVER	< 0.5	< 0.5
SODIUM	215.0	223.0
THALLIUM	< 0.01	< 0.01
VANADIUM	534.0	750.0
ZINC	15.7	15.8

**EXISTING COAL
TYPICAL COAL & REPORT**

<u>ANALYZE</u>	<u>RESULT</u>	<u>UNITS</u>
Total Moisture	8.55	%
Ash, as Received	7.07	%
Ash, Dry Basis	7.73	%
BTU, as Received	12592.00	BTU/Lb.
BTU, Dry Basis	13769.00	BTU/Lb.
BTU, Moisture-Ash Free, Calc.	14923.00	BTU/Lb.
Sulfur, as Received	1.19	%
Sulfur, Dry Basis	1.30	%
Pounds SO ₂ /Million BTU, Coal	1.80	Lbs. SO ₂ /MMBTU
Volatiles, as Received	34.03	%
Volatiles, Dry Basis	37.21	%
Fixed Carbon, as Received	50.35	%
Fixed Carbon, Dry Basis	55.06	%
Carbon, as Received	70.99	%
Carbon, Dry Basis	77.63	%
Hydrogen, as Received	4.75	%
Hydrogen, Dry Basis	5.19	%
Nitrogen, as Received	1.69	%
Nitrogen, Dry Basis	1.85	%
Chlorine, as Received	0.19	%
Chlorine, Dry Basis	0.21	%
Oxygen, as Received (Calculated)	5.57	%
Oxygen, Dry Basis, Calculated	6.09	%
ASH		
Magnesium Oxide, MgO, X-Ray	1.36	%
Sodium Oxide, Na ₂ O, X-Ray	0.44	%
Titanium Dioxide, TiO ₂ , X-Ray	1.16	%
Iron Oxide, Fe ₂ O ₃ , X-Ray	17.77	%
Silicon Dioxide, SiO ₂ , X-Ray	45.76	%
Sulfur Trioxide, SO ₃ , X-Ray	1.35	%
Calcium Oxide, CaO, X-Ray	2.56	%
Potassium Oxide, K ₂ O, X-Ray	2.66	%
Phosphorus, P ₂ O ₅ , X-Ray	0.39	%
Aluminum Oxide, Al ₂ O ₃ , X-Ray	23.99	%
Silica Value, Ash Mineral Analy	67.85	%
T250 from Ash Mineral Analyses	2480	Degrees F
Undetermined, Ash Mineral Analys	2.56	%
Slagging Index	0.45	0.6-2.0 Medium
Fouling Index	0.15	0.2-0.5 Medium

**PROPOSED COAL
TYPICAL COAL & ASH REPORT**

<u>ANALYZE</u>	<u>RESULT</u>	<u>UNITS</u>
Total Moisture	28.1	%
Ash, as Received	4.21	%
Ash, Dry Basis	5.86	%
BTU, as Received	8650	BTU/Lb.
BTU, Dry Basis	12031	BTU/Lb.
BTU, Moisture-Ash Free,	12780	BTU/Lb.
Sulfur, as Received	0.223	%
Sulfur, Dry Basis	0.310	%
Pounds SO ₂ /Million BTU,	0.490	Lbs. SO ₂ /MMBTU
Volatiles, as Received	33.76	%
Volatiles, Dry Basis	46.96	%
Fixed Carbon, as Received	33.93	%
Fixed Carbon, Dry Basis	47.18	%
Carbon, as Received	51.19	%
Carbon, Dry Basis	71.19	%
Hydrogen, as Received	3.41	%
Hydrogen, Dry Basis	4.74	%
Nitrogen, as Received	0.755	%
Nitrogen, Dry Basis	1.05	%
Chlorine, as Received	0.018	%
Chlorine, Dry Basis	0.025	%
Oxygen, as Received	12.1	%
Oxygen, Dry Basis,	16.8	%
ASH		
Magnesium Oxide, MgO,	5.01	%
Sodium Oxide, Na ₂ O, X-	1.54	%
Titanium Dioxide, TiO ₂ ,	1.53	%
Iron Oxide, Fe ₂ O ₃ , X-Ray	3.63	%
Silicon Dioxide, SiO ₂ , X-	27.93	%
Sulfur Trioxide, SO ₃ , X-	17.78	%
Calcium Oxide, CaO, X-	21.46	%
Potassium Oxide, K ₂ O, X-	0.30	%
Phosphorus, P ₂ O ₅ , X-Ray	0.73	%
Aluminum Oxide, Al ₂ O ₃ ,	14.69	%
Silica Value, Ash Mineral	48.14	%
T250 from Ash Mineral	2196	Degrees F
Undetermined, Ash	5.4	%
Fouling Index	1.11	0.2-0.5 Medium



RECEIVED
SEP 25 1995

September 21, 1995

Bureau of
Air Regulation

Mr. Sayed Arif
Florida Department of Environmental Protection
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

**Re: Tampa Electric Company
Gannon Station-Unit 4
Pet Coke Test Burn**

Dear Mr. Arif:

On January 23, 1995, Tampa Electric Company (TEC) requested approval from the Southwest District of the Florida Department of Environmental Protection (FDEP) to perform a petroleum test burn at the Gannon Station Unit 4. Subsequently, this request was routed to your office for review and processing. Based upon our telephone conversation, TEC offers the following responses:

FDEP Comment: It appears the tables provided to demonstrate the estimated maximum actual emission rates used the incorrect % sulfur numbers.

TEC Response: FDEP is correct that the sulfur numbers used in the tables were the lbs. SO₂/MMBTU. These emissions calculations should be based upon % sulfur (dry weight basis). The correct table (Enclosure 1) for Gannon Unit 4 is enclosed.

FDEP Comment: FDEP requested copies of Gannon Units 1-4 construction permits.

TEC Response: Please find enclosed copies of the requested construction permits.

FDEP Comment: Provide one (1) year historical as-received % sulfur.

TEC Response: Enclosure 3 shows weekly results for % sulfur (dry basis) for the calendar year of 1994.

Mr. Sayed Arif
September 21, 1995
Page 2 of 2

FDEP Comment: FDEP requested the location for our CEM measurements for Unit 4.

TEC Response: CEM measurements are taken in the stacks.

FDEP Comment: Provide location map of Gannon Station in relation to the City of Tampa downtown.

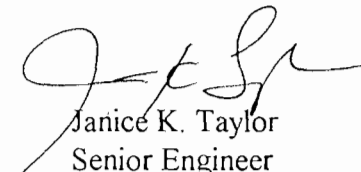
TEC Response: Please see Enclosure 4.

Also, please find enclosed (Enclosure 5) TEC's test plan detailing Gannon Unit 4's test burn protocols along with supporting documentation for the Department's use.

TEC believes that this additional information satisfactorily addresses the Department's questions and requests the approval of this test burn in an expeditious manner.

If you have any questions, please feel free to call me at (813) 228-4839. Thank you for your assistance.

Sincerely,



Janice K. Taylor
Senior Engineer
Environmental Planning

EPgmJKT721

Enclosures

ENCLOSURE 1

SAMPLE NUMBER	LOCATION CODE	SUBMITTAL DATE	DRY BASIS % SULFUR
FL02375	GN-WK-4	01/10/94	1.27
FL02430	GN-WK-4	01/17/94	1.38
FL02470	GN-WK-4	01/24/94	1.29
FL02507	GN-WK-4	01/31/94	1.26
FL02565	GN-WK-4	02/07/94	1.27
FL02616	GN-WK-4	02/14/94	1.3
FL02645	GN-WK-4	02/21/94	1.35
AA15143	GN-WK-4	02/28/94	1.29
AA15251	GN-WK-4	03/07/94	1.29
AA15449	GN-WK-4	03/15/94	1.31
AA15520	GN-WK-4	03/21/94	1.29
AA15616	GN-WK-4	03/28/94	1.33
AA15689	GN-WK-4	04/04/94	1.32
AA15864	GN-WK-4	04/11/94	1.25
AA15967	GN-WK-4	04/18/94	1.22
AA16070	GN-WK-4	04/25/94	1.25
AA16199	GN-WK-4	05/02/94	1.28
AA16376	GN-WK-4	05/09/94	1.32
AA16489	GN-WK-4	05/16/94	1.31
AA16586	GN-WK-4	05/23/94	1.27
AA16763	GN-WK-4	06/02/94	1.33
AA16819	GN-WK-4	06/06/94	1.23
AA17000	GN-WK-4	06/14/94	1.21
AA17111	GN-WK-4	06/20/94	1.29
AA17209	GN-WK-4	06/27/94	1.33
AA17341	GN-WK-4	07/05/94	1.31
AA17465	GN-WK-4	07/11/94	1.26
AA17650	GN-WK-4	07/18/94	1.29
AA17862	GN-WK-4	07/26/94	1.23
AA18043	GN-WK-4	08/01/94	1.25
AA18293	GN-WK-4	08/09/94	1.24
AA18433	GN-WK-4	08/16/94	1.23
AA18519	GN-WK-4	08/22/94	1.19
AA19727	GN-WK-4	10/24/94	1.2
AA19883	GN-WK-4	10/31/94	1.24
AA20013	GN-WK-4	11/07/94	1.21
AA20152	GN-WK-4	11/14/94	1.21
AA20270	GN-WK-4	11/21/94	1.17
AA20334	GN-WK-4	11/28/94	1.19
AA20491	GN-WK-4	12/05/94	1.08
AA20680	GN-WK-4	12/12/94	0.971
AA20814	GN-WK-4	12/19/94	1.15
AA20955	GN-WK-4	12/30/94	1.17

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**GANNON STATION UNIT 4
COAL/PETROLEUM COKE TEST BURN PROTOCOL**

Tampa Electric Company (TEC) proposes to conduct a comparison fuel burn of 100% coal to up to 80%/20% coal/petroleum coke blend in Gannon Station Unit 4. The baseline test of 100% coal will be conducted for seven (7) days. The blend test burn will be conducted for 21 days. Any leftover blend will be burned immediately upon completion of the 21-day test period.

TEC proposes to evaluate the regulated criteria pollutants for this unit which include SO₂ and particulate matter. In addition TEC will monitor NO_x, test for sulfuric acid mist and provide metal analyses of fuel. Upon completion of all testing, TEC will compile test results in a report to be submitted to the Department within 60 days of completion of the coal/petroleum test burn.

The following table summarizes information to be collected during the baseline and blend fuel burns:

	SO ₂	NO _x	METALS	PARTICULATE AND ACID MIST
BASELINE TEST (7 DAYS)	- Weekly composite fuel analysis - EPA stack test methods	- CEM data ¹	- Weekly composite fuel analysis	- EPA stack test methods ²
BLEND TEST (21 DAYS)	- Weekly composite fuel analysis - EPA stack test methods	- CEM data ¹	- Weekly composite fuel analysis	- EPA stack test methods ²

Stack testing will consist of three (3) runs under sootblowing conditions for each parameter. As indicated in our air operating permits, sootblowing conditions will be used to demonstrate non-sootblowing emission limits (*i.e.*, worst case operating scenario).

During stack testing, Unit 4 will be operated at 90%-100% of maximum capacity.

EP/g.mVKT722

¹ NO_x CEM data in the form of daily averages will be provided.

² EPA stack testing methods will be used to conduct testing on the West Stack. As shown on the attachment, the West Stack provides for the worst case operating scenario.

F.J. GANNON BOILER NO. 4 STACK EMISSIONS
 STACK EMISSIONS AND VELOCITY COMPARISON
 EAST VS. WEST

1995 ANNUAL COMPLIANCE TEST			
4/26/95	EAST STACK	WEST STACK	% CHANGE E TO W
VOLUMETRIC FLOW dscf/min			
SOOTBLOWING	233012 dscf/min	210526 dscf/min	-9.65%
NON-SOOTBLOWING	n/a	n/a	
SO ₂ lb/MMBtu	1.78 lb/MMBtu	1.82 lb/MMBtu	2.25%
PARTICULATE lb/MMBtu			
SOOTBLOWING	0.023 lb/MMBtu	0.03 lb/MMBtu	30.43%
NON-SOOTBLOWING	n/a	n/a	
lbs/hr			
SOOTBLOWING	22.8 lbs/hr	26.4 lbs/hr	15.79%
NON-SOOTBLOWING	n/a	n/a	

1994 ANNUAL COMPLIANCE TEST			
4/12/94	EAST STACK	WEST STACK	% CHANGE E TO W
VOLUMETRIC FLOW dscf/min			
SOOTBLOWING	256774 dscf/min	240359 dscf/min	-6.39%
NON-SOOTBLOWING	256718 dscf/min	245620 dscf/min	-4.32%
SO ₂ lb/MMBtu	1.49 lb/MMBtu	1.85 lb/MMBtu	24.16%
PARTICULATE lb/MMBtu			
SOOTBLOWING	0.030 lb/MMBtu	0.030 lb/MMBtu	0.00%
NON-SOOTBLOWING	0.026 lb/MMBtu	0.028 lb/MMBtu	7.69%
lbs/hr			
SOOTBLOWING	27.5 lbs/hr	31.7 lbs/hr	15.27%
NON-SOOTBLOWING	26.5 lbs/hr	31.9 lbs/hr	20.38%

1993 ANNUAL COMPLIANCE TEST			
3/17/93	EAST STACK	WEST STACK	% CHANGE E TO W
VOLUMETRIC FLOW dscf/min			
SOOTBLOWING	222567 dscf/min	217304 dscf/min	-2.36%
NON-SOOTBLOWING	218233 dscf/min	214533 dscf/min	-1.70%
SO ₂ lb/MMBtu	1.73 lb/MMBtu	1.72 lb/MMBtu	-0.58%
PARTICULATE lb/MMBtu			
SOOTBLOWING	0.019 lb/MMBtu	0.025 lb/MMBtu	31.58%
NON-SOOTBLOWING	0.019 lb/MMBtu	0.026 lb/MMBtu	36.84%
lbs/hr			
SOOTBLOWING	19.1 lbs/hr	25.4 lbs/hr	32.98%
NON-SOOTBLOWING	18.6 lbs./hr	26.1 lbs/hr	40.82%

1992 ANNUAL COMPLIANCE TEST			
3/24/92	EAST STACK	WEST STACK	% CHANGE E TO W
VOLUMETRIC FLOW dscf/min			
SOOTBLOWING	222888 dscf/min	213345 dscf/min	-4.28%
NON-SOOTBLOWING	221727 dscf/min	212770 dscf/min	-4.04%
SO ₂ lb/MMBtu	1.53 lb/MMBtu	1.64 lb/MMBtu	7.19%
PARTICULATE lb/MMBtu			
SOOTBLOWING	0.009 lb/MMBtu	0.014 lb/MMBtu	55.56%
NON-SOOTBLOWING	0.009 lb/MMBtu	0.017 lb/MMBtu	88.89%
lbs/hr			
SOOTBLOWING	9.2 lbs/hr	12.1 lbs/hr	31.52%
NON-SOOTBLOWING	9.2 lbs./hr	14.6 lbs/hr	58.70%

**TEC GANNON UNIT 4 PETROLEUM COKE TEST BURN
ESTIMATED MAXIMUM ACTUAL EMISSION RATES**

Data

Parameter ¹	Units	Existing Value	Proposed Value
Unit # 4 Heat Input	MMBtu/hr	1,876	1,876
Pet. Coke Heat Content	Btu/lb	N/A	14,400
Max. Pet. Coke Sulfur Content	Wt %	N/A	4.80
Max. Pet. Coke Ash Content	Wt %	N/A	0.4
Coal	Btu/lb	13,769	12,031
Max. Coal Sulfur Content	Wt %	1.3	0.31
Max. Coal Ash Content	Wt %	7.7	5.9
Allowable SO ₂ Emissions - 7 Day Avg. ¹	lb/MMBtu	2.4	2.4
Allowable SO ₂ Emissions - 7 Day Avg. ²	lb/MMBtu	10.6	10.6
Allowable PM Emissions	lb/MMBtu	0.1	0.1

Calculations

Parameter ¹	Units	Value		
		Coal	Pet. Coke	Blend
Existing Actual Scenario	%	100	0	N/A
Usage Rate	lb/hr	136,248	0	136,248
Sulfur In	lb/hr	1771.2	0	1771.2
Sulfur Out	lb/hr	1771.2	0	1771.2
SO ₂ Emission	lb/hr	3542.4	0	3542.4
SO ₂ Emission	lb/MMBtu	1.9	0	1.9
ESP Inlet PM ₃	lb/hr	5245.5	0	5245.5
ESP Outlet PM	lb/hr	52.5	0	52.5
ESP Outlet PM	lb/MMBtu	0.028	0	0.028
Proposed Test Burn Scenario	%	80.0	20.0	N/A
Usage Rate	lb/hr	119,904	30,050	149,954
Sulfur In	lb/hr	372.0	1442.4	1814.4
Sulfur Out	lb/hr	372.0	1442.4	1814.4
SO ₂ Emission	lb/hr	744.0	2884.8	3628.8
SO ₂ Emission	lb/MMBtu	0.5	6.7	1.9
ESP Inlet PM ₃	lb/hr	3537.2	60.1	3597.3
ESP Outlet PM	lb/hr	35.4	0.6	36.0
ESP Outlet PM	lb/MMBtu	0.025	0.000	0.019

- 1 Fuel sulfur, ash, and heat content represent typical coal and petroleum coke analyses. Data for fuel sulfur, ash, heat content, and usage rates expressed on a dry basis.
- 2 Combined total for Gannon Units No. 1 through No. 6.
- 3 Based on AP-42 emission factor of 10 * A, where A equals weight % ash content.

COMMISSION

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TELEPHONE (813)272-7104

M E M O R A N D U M

RECEIVED
MAR 2 1995

Bureau of
Air Regulation

DATE: February 28, 1995

TO: Al Linero, FDEP, DARM

THROUGH: Jerry Campbell, P.E., Assistant Director

FROM: RCK Richard C. Kirby IV, P.E., Chief, Air Permitting Section

SUBJECT: Tampa Electric Company - F J Gannon Station - Units 1, 2,
3 and 4, Request to Conduct Petroleum Coke Test Burn

The Tampa Electric Company (TEC) request for authorization to burn petroleum coke in units 1-4 at the referenced facility has been reviewed by this office. We offer the following comments.

1. The results of sample analyses from a recent test burn of petroleum coke/coal mixture at TEC's Big Bend plant showed that an increase in SO₂, NO_x, and particulate matter occurred. (See attached memo to Al Linero). This is based on the comparison of the baseline tests done on 100% coal versus the blended mixture. Obviously, there is not a direct correlation because the coal quality at the two stations is different, and Big Bend has a FGD system. Still Gannon has shorter stacks and is closer to the urban core. If there is the same increase in emissions, it would have a very real impact on the community.
2. While we do not oppose a limited test burn of petroleum coke, we do have many concerns which would need to be answered prior to recommending any long term approvals.
3. The test burns should be authorized through a letter with conditions similar to the Big Bend approval (see attached correspondence from Hamilton Oven to Patrick Ho). Based on the report they submitted for Big Bend, we strongly suggest that they be asked to submit a test protocol to the EPC for prior approval. This could alleviate some of the problems we

Al Linero, FDEP, DARM
February 28, 1995
Page 2

experienced previously. One of our fundamental concerns was the lack of information on the amount of coke burned during the various tests. This sort of thing could be cleared up with a written and approved protocol.

4. TEC has suggested that only Unit 4 be tested and those results be accepted as representative of the other three units. Our file review indicates that while Units 1 and 2 are similar in boiler and ESP capacity, Units 3 and 4 are unique. Unless a compelling argument can be made otherwise, we recommend that Units 3 and 4 be tested separately - as well as either Unit 1 or 2.

Please keep us advised and thanks for the opportunity to provide comments.

Attachments

cag