TAMPA ELECTRIC

D.E.R.
JUL 16 1999
Southwest District Tampa

July 13, 1999

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

Via Facsimile and
U.S. Mail

RE: Tampa Electric Company (TEC) - F.J. Gannon Station
Slag Tank Emergency Venting Vessel Entry Procedure
FDEP Permit Nos. AO29-204434, AO29-189206, AO29-172179
AO29-255208, AO29-203511, AO29-203512

Dear Mr. Kissell:

In accordance with the Department's letter (dated July 9, 1997) which authorizes emergency atmospheric venting of the Gannon Units 1- 6 slag tanks, TEC provides the following vessel entry procedures:

This document is prepared and provided in accordance with Specific Condition 3 of the FDEP letter authorizing emergency venting of slag tanks dated 7/7/97.

In general, emergency venting of the slag tanks will occur when there is a need to open the slag tank neck and the main vent is plugged or appears to be plugged. For clarification purposes, the main vent is the vent which exhausts combustible gases into the precipitator. As stated in the TEC request, plugging of the main vent line can lead to seriously dangerous situations.

To open a slag tank neck safely, it will first be ensured that the slag tap opening from the boiler is closed. Then, the tank's recently installed purge vent may be opened. Air or another suitable inert gas will then be applied to a nearby access port to allow venting of any combustible gases through the new purge vent. Upon venting completion, the purge vent will immediately be returned to the closed position. The unit, date of, and duration of purging will be recorded. All records will be available for inspection.

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

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

(813) 228-4111

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

If you have any questions regarding this procedure, please feel free to call James Hunter at (813) 641-5033.

Sincerely,

Theresa J.L. Watley

Theresa J.L. Watley
Consulting Engineer
Environmental Planning

EP\gm\TJLW654

c: Mr. Rick Kirby, EPCHC

Appendix H-1, Permit History/ID Number Changes

7-12-99

Tampa Electric Company
F. J. Gannon

[DRAFT/PROPOSED/FINAL]Permit No.: 0570040-002-AV
Facility ID No.: 0570040

Permit History (for tracking purposes):

E.U. ID No	Description	Permit No.	Issue Date	Expiration Date	Extended Date	Revised Date(s)
-001	Steam Generator	AO29-204434	1/31/92	1/31/97		10/11/94
-002	Boiler	AO29-189206	2/7/91	2/6/96	8/14/96	
-003	Coal Fired Boiler	AO29-172179	4/26/90	4/19/95	8/14/96	10/11/94
-004	Coal Fired Boiler	AO29-255208	12/2/94	10/14/99		
-005	Coal Fired Boiler	AO29-203511	1/1/92	1/1/97		
-006	Coal Fired Boiler	AO29-203512	2/15/92	2/15/97		
-007	Gas Turbine	AO29-252615	8/31/94	8/31/99		
-008	Boiler	AO29-216480	4/23/93	9/12/97		
-009	Economizer Ash Silo	AO29-218858	8/29/89	11/6/97		
-010	Fly Ash Silo	AO29-250137	7/20/94	7/12/99		2/6/95
-011	Fly Ash Silo	AO29-250140	7/20/94	7/12/99		2/6/95
-012	Pug Mill & Truck Loading	AO29-250137	7/20/94	7/12/99		2/6/95
-013	Unit 1 Coal Bunker w/Rotoclone	AO29-250139	7/20/94	7/12/99		2/6/95
-014	Unit 2 Coal Bunker w/Rotoclone	AO29-250139	7/20/94	7/12/99		2/6/95
-015	Unit 3 Coal Bunker w/Rotoclone	AO29-250139	7/20/94	7/12/99		2/6/95
-016	Unit 4 Coal Bunker w/Rotoclone	AO29-250139	7/20/94	7/12/99		2/6/95
-017	Unit 5 Coal Bunker w/Rotoclone	AO29-250139	7/20/94	7/12/99		2/6/95
-018	Unit 6 Coal Bunker w/Rotoclone	AO29-250139	7/20/94	7/12/99		2/6/95

(if applicable) ID Number Changes (for tracking purposes):

From: **Facility ID No.:** 40HIL290040

To: **Facility ID No.:** 0570040

[electronic file name: 0570040h.doc]

ROGER P. STEWART
EXECUTIVE DIRECTOR
ADMINISTRATIVE OFFICES
AND
WATER MANAGEMENT DIVISION
1900 - 9TH AVENUE
TAMPA, FLORIDA 33605
TELEPHONE (813) 272-5960

AIR MANAGEMENT DIVISION
TELEPHONE (813) 272-5530

WASTE MANAGEMENT DIVISION
TELEPHONE (813) 272-5788

ECOSYSTEMS MANAGEMENT DIVISION
TELEPHONE (813) 272-7104

August 8, 1994

D. E. R.

AUG 1 1 1994

SOUTHWEST DISTRICT
TAMPA

Mr. Patrick Ho, P.E.
Manager, Environmental Planning
Tampa Electric Company
P.O. Box 111
Tampa, FL 33601-0111

Re: F.J. Gannon Unit #2 - Performance Specification Test (PST)

Dear Mr. Ho:

This is to acknowledge receipt of your recently submitted PST report.

This report has been reviewed by our compliance staff and satisfies the conditions of your permit and Section 17-297, F.A.C. This information has been entered into your computerized source record.

Please note that this letter does not exempt you from any other compliance testing or permit requirements.

If you have any questions, please contact Omana Korah, myself, or any of our air compliance staff at (813) 272-5530.

Sincerely,

Sterlin Woodard
Chief, Air Compliance Section

bm

Florida Department of

Memorandum **Environmental Protection**

TO: File

FROM: Robert Soich RS

Date: 12/15/93

SUBJECT: Burning of on-spec used oil at TECO Gannon electric generating facility.

As a result of hazardous waste inspections and warning letters WL93-0065HW29SWD and WL93-0066HW29SWD the air section has been informed that burning of on-spec used oil has been, and continues to be an on-going practice at Gannon Station. The existing air operating permits do not mention this activity nor is there correspondence in the permit file. At this time, this does not appear to be in conflict with air regulations.

Originally, the inspectors thought that on-spec used oil was burned in the turbine but, TECO personnel clarified that it was burned in the boilers. Approximately 94,000 gallons of on-spec used oil was burned in 1992. This represents 4.82% of the fuel oil burned at Gannon when compared to fuel oil burned, at the facility, as reported on their 1992 AORs.

The State of Florida promotes the burning of both off-spec and on-spec used oil. Burning of off-spec used oil is subject to all the notification and permitting requirements. The burning of on-spec used oil is subject as follows:

" If your current air pollution operation permit, construction permit, or BACT determination does not specifically prohibit the burning of used oil, then you may responsibly burn (on-specification) used oil without any permit modification until the Department notifies you that your permit needs to be revised." (Victoria J. Tschinkel, used oil as a fuel, 1/5/87 memorandum.).

Upon renewal of Gannon Units 1 thru 6 air operating permits, the permit engineer may want to address the burning of on-spec used oil. Are sampling and analysis requirements needed in the specific conditions of the permit to ensure that used oil specifications are adhered to? It should be noted that from the inspection, it appears that TECO does sample the oil to verify that it meets the definition (specifications) of on-spec used oil.

State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION

Interoffice Memorandum

FOR ROUTING TO OTHER THAN THE ADDRESSEE

To: _____ Loctn: _____
To: _____ Loctn: _____
To: _____ Loctn: _____
From: _____ Date: _____

TO: District Managers
District Air Engineers
District Air Permitting Engineers
Local Program Air Directors

THRU: Randy Armstrong
Howard Rhodes
Richard Wilkins

FROM: Clair Fancy

DATE: October 22, 1987

SUBJ: Policy to Regulate Used Oil Burning

On November 29, 1985, the U.S. EPA promulgated final regulations on the burning of used oil fuel. These regulations establish specifications for used oil fuel that may be burned in non-industrial boilers. The Department has adopted the rule by reference and has communicated its position on used oil burning by means of a memorandum sent to managers of electric utilities, asphalt plants, and other industrial burners on January 5, 1987.

At the time that the January 5, 1987 memorandum was distributed, the Department was uncertain how used oil fuel which did not meet the specifications established by the EPA rule should be handled. Since that time, the Bureau of Air Quality Management (BAQM) has been actively involved in developing guidelines to regulate the burning of used oil fuel which does not meet EPA specifications. This memorandum provides a summary of the specification limits established by the EPA for burning used oil in non-industrial boilers as well as presenting the BAQM's policy for regulating the emissions from burning off-specification used oil in industrial furnaces and boilers. The policy to regulate off-specification used oil is based on a paper which was presented at the 1987 Annual Conference of the Florida Section's Air Pollution Control Association by Barry Andrews. A copy of the paper is attached. In addition, this memorandum will address how sources burning either specification or off-specification used oil should be permitted.

D. E. R.

NOV 2 0 1987

DRAFT

Specification Used Oil Burning

Emission Limitations

Non-industrial boilers may only burn oil which is in compliance with the following limitations:

Constituent/Property	Allowable Level
Arsenic	5 ppm maximum
Cadmium	2 ppm maximum
Chromium	10 ppm maximum
Lead	100 ppm maximum
Total Halogens	4,000 ppm maximum *
Flash Point	100 degrees Fahrenheit minimum

* It is presummed that used oil containing greater than 1,000 ppm total halogens has been mixed with a halogenated hazardous waste. Used oil fuels that contain more than 1,000 ppm total halogens should not be burned in non-industrial boilers unless the marketer can show that the used oil does not contain any halogenated hazardous waste.

Industrial boilers and furnaces may also burn specification used oil.

Permitting Guidelines

Specification used oil will be considered to be equivalent to virgin oil. Only in the case that an air permit or BACT determination does specifically prohibit the burning of used oil, will it be necessary to contact the appropriate district or local office to obtain authorizations.

Off-Specification Used Oil Burning

Emission Limitations

Non-industrial boilers may not burn used oil which exceeds the previously mentioned specification levels.

Industrial boilers and furnaces may only burn used oil which complies with the following limitations. These emission limitations are based on the type of fuel burning equipment used as follows:

Asphaltic Concrete Kilns, Light-Weight Aggregate Kilns, Lime Kilns, and Industrial Boilers

Arsenic, Cadmium, and Chromium:

$$\frac{(As)}{3.9 \times 10^{-4}} + \frac{(Cd)}{9.8 \times 10^{-4}} + \frac{(Cr)}{1.4 \times 10^{-3}} \leq 1.0$$

where (As), (Cd), and (Cr) defined by

$$MFR = \frac{(Mw \times Rw) + (M_F \times R_F)}{H_T} \times 10^{-6}$$

where:

MFR - individual metal feed rate in pounds per million Btu of total heat input

Mw - individual metal concentration in used oil (ppm)

Rw - used oil feed rate in pounds per hour

M_F - concentration of metal in the other fuel (ppm)

R_F - feed rate of other fuel in pounds per hour

H_T - total heat input to the device in million Btu/hour

Lead:

MFR shall not exceed 1.6×10^{-2} pounds per million Btu.

Hydrogen Chloride:

CFR shall not exceed 0.70 pounds per million Btu.

where CFR is defined by

$$CFR = \frac{(Cw \times Rw) + (C_F \times R_F)}{H_T} \times 10^{-6}$$

Where:

CFR - total chlorine feed rate in pounds per million Btu

Cw - Chlorine concentration in the used oil (ppm)

C_F - Chlorine concentration in the other fuel (ppm)

DRAFT

Cement Kilns (Wet & Dry)

Arsenic, Cadmium, and Chromium:

$$\frac{(As)}{1.7 \times 10^{-3}} + \frac{(Cd)}{4.3 \times 10^{-3}} + \frac{(Cr)}{6.3 \times 10^{-3}} \leq 1.0$$

Lead:

MFR shall not exceed 6.7×10^{-2} pounds per million Btu.

Hydrogen Chloride:

CFR shall not exceed 1.8 pounds per million Btu.

Permitting Guidelines

For facilities presently burning or planning to burn off-specification used oil it will be necessary to contact the appropriate district or local program office to obtain authorization (permit revision). It is expected that the majority of the requests to burn off-specification used oil will be in compliance with the emission limitation equations presented herein. To expedite approval, the various districts will be provided with worksheets and detailed instructions to quickly determine if an off-specification used oil burner will be in compliance.

Exemptions

Exemptions will be granted to facilities which generate and burn small quantities of off-specification used oil on site. To qualify for this exemption a burner must only burn off-specification used oil fuel that is generated on-site and is burned in quantities that do not exceed one percent of a particular fuel burning equipment's total volume consumption or heat input. On-site burners will be characterized as "small quantity" burners by the following criteria:

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301-8241

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

MEMORANDUM

TO: Managers of Electric Utilities, Asphalt Plants, and Other Industrial Burners

FROM: Victoria J. Tschinkel

DATE: January 5, 1987

RE: Used Oil as a Fuel

On April 28, 1986, I issued a memorandum to inform you of recently promulgated federal rules on the burning of used oil. Because some recipients of that memorandum have voiced concerns about the Department's interpretation of certain provisions of the regulations, this memorandum supersedes all previous communication on the subject of used oil as a fuel.

On November 29, 1985, the U.S. EPA promulgated final RCRA regulations on the burning of used oil fuel. The Department has adopted these regulations by reference. The EPA regulations establish specifications for used oil fuel that may be burned in nonindustrial boilers.

Used Oil Specifications

Constituent/Property	Allowable Level
Arsenic	5 ppm maximum
Cadmium	2 ppm maximum
Chromium	10 ppm maximum
Lead	100 ppm maximum
Total Halogens	4,000 ppm maximum
Flash Point	100 degrees Fahrenheit minimum

Burning of off-specification used oil and hazardous waste fuels in non-industrial boilers is prohibited by the RCRA rules. The April 28 memorandum may have left some readers with the impression that industrial burners were also restricted by these rules to burning fuel that met specifications; however,

industrial boilers and furnaces may burn hazardous waste fuel and used oil fuel, regardless of whether the fuels meet specifications. It should be noted, however, that facilities that burn hazardous waste fuel and off-specification used oil fuel are still subject to administrative requirements such as notification, receipt of an identification number, compliance with the manifest or invoice systems, and, for hazardous waste fuels, compliance with hazardous waste storage standards for hazardous waste fuels.

No level for PCBs is included in the used oil specifications, since the use, including burning for energy recovery, of used oil containing any concentrations of PCBs is prohibited under current federal regulations. Some readers of the April 28 memorandum expressed concern about this statement, asserting that 40 CFR §761.1 makes federal PCB regulations applicable only to substances containing more than 50 ppm PCBs. I have conferred with EPA headquarters concerning the federal position on the issue of burning used oil contaminated with less than 50 ppm PCBs. It is EPA's position that the burning for energy recovery of used oils containing any concentration of PCBs was prohibited as of October 1, 1984. This conclusion is based on 40 CFR §761.20(a), which prohibits use of PCBs in any concentration unless it is specifically authorized under 40 CFR §761.30. Although EPA has authorized the processing and distribution in commerce of PCBs in concentrations of less than 50 PPM for purposes of disposal, 40 CFR §761.20(c)(4), that agency has taken the position that burning for energy recovery is "use" rather than "disposal" and is, therefore, prohibited. Note, however, that PCBs in concentrations of less than 50 ppm may be burned in a high efficiency boiler as an approved PCB disposal method pursuant to 40 CFR §761.60, provided that state air permitting requirements have also been satisfied.

Ms. Jane Kim of the Office of Toxic Substances at EPA headquarters (202/382-3991) has indicated to Department staff that EPA is considering amending federal PCB regulations to allow the burning for energy recovery of used oil containing less than 50 ppm PCBs. Until then, she suggests that companies wishing to burn these oils submit a request to EPA Region IV for authorization with respect to the federal rules. I suggest that interested parties direct any comments on the federal regulation or the anticipated amendment directly to EPA.*

* Since the state PCB rule, Rule 17-34, Florida Administrative Code, only regulates the storage for disposal of PCBs, the use of PCBs is not regulated by the Department. However, Department air rules 17-2, F.A.C., and the basic permitting requirement of Chapter 403 F.S. must be complied with.

Although the specification for total halogens (chemicals containing chlorine, bromine, iodine, or fluorine) is 4,000 ppm, used oil containing over 1,000 ppm will be presumed to have been mixed with a halogenated hazardous waste. In the April 28 memorandum, I stated that used oil fuels with more than 1,000 ppm total halogens should not be burned in boilers unless the marketer can show that the used oil does not contain any halogenated hazardous wastes. To clarify any confusion that this statement may have caused, I would like to make the following points:

1. As noted above, hazardous waste fuel and off-specification used oil fuel may be burned for energy recovery in industrial boilers. We did not intend to suggest that such use is prohibited by the RCRA rule.

2. Also, as previously noted, persons may rebut the presumption that used oil containing more than 1,000 ppm total halogens has been mixed with hazardous waste (for example, by showing that the used oil does not contain significant concentrations of halogenated hazardous constituents). The use of the word "any" may have caused some confusion in our cautionary statement; however, since the management and storage standards for used oil and hazardous waste fuels differ, the Department felt that a strong caution was in order.

Finally, I would like to clarify the discussion in my April 28, 1986, memorandum regarding air permitting considerations for the burning of used oil. In that memorandum I stated that the authorization to burn used oil requires that air construction permits be modified to insure that any changes to permit conditions will be federally enforceable. Upon reconsideration on this point, I am now revising the guidance in the previous memorandum as follows:

1. If your current air pollution operation permit, construction permit, or BACT determination does not specifically prohibit the burning of used oil, then you may responsibly burn "on-specification" used oil without any permit modification until the Department notifies you that your permit needs to be revised.

2. If your air permit or BACT determination specifically prohibits the burning of used oil, or if you are burning "off-specification" used oil, you will need to contact the appropriate Department district office within the next 90 days to discuss what type of authorization is needed.

In addition to the air permitting considerations, facilities that burn more than 10,000 gallons of used oil annually must register with the Department as use oil recyclers in accordance with Florida Administrative Code Rule 17-7, Part V, unless specifically exempted under the provisions of that rule.

By burning used oil in an approved manner, you will help Florida recycle a valuable resource, to cut down on its energy dependence, and to protect our fragile environment. You also will be saving money on your fuel bill. We will all benefit by efforts to properly recycle used oil through its use as a fuel.

If you have any questions or comments, please refer them to David Kelley at (904)488-0300 in the Bureau of Waste Management or Barry Andrews at (904)488-1344 in the Bureau of Air Quality Management.

VJT/ks

Equipment	Size (MMBtu/hr)	Quantity limit/device (gallon/month)
Boilers (1)	0.4 to 1.5	7
	>1.5 to 10	13
	>10 to 50	26
	>50 to 150	55
	>150 to 400	100
	>400	300
Asphaltic Concrete kilns (2)	>18	110
Lime kilns (3)	>60	200
Light-Weight Aggregate kilns (4)	>45	110
Wet Cement kilns (5)	90 to 200	170
	>200	420
Dry Cement kilns (5)	60 to 160	140
	>160	280

(1) No more than two boilers at a time
(2) No more than one asphaltic concrete kiln at a time
(3) No more than two lime kilns at a time
(4) No more than three light-weight aggregate kilns at a time
(5) No more than three cement kilns at a time

Conclusion

The Bureau of Air Quality Management believes that the policy outlined in the memorandum will accomplish the Department's goal to encourage the burning of used oil, yet provide assurance that the public's health and environment will not be threatened.

As with any regulation or policy development, it is difficult to address all the situations and problems that could occur when writing proposals for regulating sources. Any questions regarding the content of this memorandum should be directed to Barry Andrews, Project Engineer, Bureau of Air Quality Management, at (904)488-1344.

CF/plm

Florida Department of Environmental Regulation

Southwest District • 3804 Coconut Palm • Tampa, Florida 33619

Lawton Chiles, Governor 813-744-6100 Virginia B. Wetherell, Secretary

April 13, 1993

MR LYNN ROBINSON
MGR ENV PLANNING
TAMPA ELECTRIC CO
PO BOX 111
TAMPA FL 33601-0111

Dear Permittee:

RE: Permit Expiration Letters for Non-delegated Facility in Hillsborough County

The Department recently delegated air permitting authority to the Environmental Protection Commission of Hillsborough County, except for a few non-delegated facilities, such as yours. This letter is to advise you that in the future, the Department will not continue the practice of notifying your facility of permits due to expire. This service was provided by the County in the past.

For information purposes only please note the following:

Pursuant to Rule 17-4.080(3), F.A.C., *Modification of Permit Conditions*, the permittee, may, for good cause, request that a construction permit be extended. Such a request shall be submitted to the Department at least 60 days prior to the expiration date of the permit.

Pursuant to Rule 17-4.090(1), F.A.C., *Renewals*, an application to renew an operating permit shall be submitted to the Department no later than 60 days prior to the expiration date of the permit.

Thank you for your cooperation in this matter. If you have any questions, please call Mr. J. Harry Kerns, P.E., District Air Engineer, of my staff at (813)744-6100 extension 419.

Sincerely,

W. C. Thomas, P.E.
Air Program Administrator

WCT/HK/ss

cc: Read file
EPCHC

permitx.ltr

Florida Department of Environmental Regulation

Southwest District • 4520 Oak Fair Boulevard • Tampa, Florida 33610-7347

Lawton Chiles, Governor 813-620-6100 Carol M. Browner, Secretary

January 17, 1992

Mr. Lynn F. Robinson, P.E.
Manager, Environmental Planning
Tampa Electric Company
P.O. Box 111
Tampa, Florida 33601-0111

Re: Gannon Units 1-4.
Request to Withdraw Application for Modification.

Dear Mr. Robinson:

On December 23, 1991, the Department received an application from Tampa Electric Company for a "construction/modification" permit to authorize the burning of oily soil/coal mixtures in coal fired Units 1 through 4 at the Gannon Station.

On January 16, 1992, the Department received a request from Tampa Electric Company to withdraw said permit application.

Pursuant to your request, the permit application is withdrawn. Enclosed is Tampa Electric Company's uncashed check.

Sincerely,

J. Harry Kerns

J. Harry Kerns, P.E.
District Air Engineer

copy to: Darrel Graziani, EPCHC

12-048105
CHECK NO. [redacted]

48105

TAMPA ELECTRIC
A TECO ENERGY COMPANY

POST OFFICE BOX 3285
TAMPA, FLORIDA 33601

PAY:

DATE 12 20 91

TWO HUNDRED FIFTY AND NO/100 DOLLARS * $ ********250.00

TO THE ORDER OF FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION

COPY

Not Negotiable

ONLY ONE SIGNATURE REQUIRED ON CHECKS LESS THAN $10,000.00

NCNB NATIONAL BANK OF FLORIDA • TAMPA, FLORIDA

[redacted]

TAMPA ELECTRIC
A TECO ENERGY COMPANY

January 15, 1992

Mr. Harry Kerns
Florida Department of
Environmental Regulation
Southwest District
4520 Oak Fair Boulevard
Tampa, FL 33610-7347

Mr. Darrel Graziani
Environmental Protection Commission
of Hillsborough County
1900 Ninth Avenue
Tampa, FL 33605

RE: Tampa Electric Company
F.J. Gannon Station
Request to Modify Air Operating Permit
Nos. AO29-125315, AO29-189206, AO29-172179
and AO29-160269

Gentlemen:

Pursuant to our discussion on January 7, 1992, Tampa Electric Company requests the return of the permit application to modify the referenced permits. We appreciate your consideration in this matter.

Please feel free to contact Janice Taylor or me at (813) 228-4836, should you have any questions.

Sincerely,

Lynn F. Robinson

Lynn F. Robinson
Manager
Environmental Planning

dh/QQ476

cc: G. Maiers, FDER

TAMPA ELECTRIC COMPANY
P.O. Box 111 Tampa, Florida 33601-0111 (813) 228-4111
P.O. Box 271 Winter Haven, Florida 33882-0271 (813) 294-4171
P.O. Drawer N Plant City, Florida 33564-9009 (813) 752-1115
P.O. Box 588 Dade City, Florida 33526-0588 (904) 567-5101
P.O. Box 907 Ruskin, Florida 33570-0907 (813) 645-6461
(Ruskin Engineering & All Other Inquiries (813) 641-1411)
137 S. Parsons Av. Brandon, Florida 33511-5224 (813) 681-4451
P.O. Box 215 Mulberry, Florida 33860-0215 (813) 425-4988

Florida Department of Environmental Regulation

Southwest District • 4520 Oak Fair Boulevard • Tampa, Florida 33610-7347 • 813-623-5561

Lawton Chiles, Governor Carol Browner, Secretary Richard Garrity, Deputy Assistant Secretary

DATE: 1-7-92

TIME: 2:00 PM

SUBJECT: Gannon Units 1-4

A T T E N D E E S

Name	Affiliation	Telephone
Darrel Graziani	EPC/HC	(813) 272-5530
Janice Taylor	TEC	813 228-4839
Lynn Robinson	Tampa Electric Company	228-4841
THERESA WATLEY	TEC	228-4634
Gary Maier	DER	(813) 620-6100 ext 408
Harry KERNS	FDER	(813) 620-6100 ext. 419

TPA-02
06/81

Florida Department of Environmental Regulation

Southwest District • 4520 Oak Fair Boulevard • Tampa, Florida 33610-7347

Lawton Chiles, Governor 813-623-5561 Carol M. Browner, Secretary

October 22, 1991

Mr. Lynn F. Robinson, P.E.
Manager, Environmental Planning
Tampa Electric Company
P.O. Box 111
Tampa, Florida 33601-0111

Re: Your October 11, 1991 request to amend the operating permits for Gannon Units 1-4 to authorize incineration of petroleum contaminated soil.

Dear Mr. Robinson:

Thank you for giving the Department an opportunity to review the above referenced request. Since Tampa Electric Company did not submit the required permit amendment fees ($250 for each permit), the Department is unable to formally process your request or render a decision. However, in order to most expeditiously reach your goal, I offer the following comments.

Even if the Department were authorized to formally process your request without the required fees, the Department would be unable to grant an operating permit amendment for the project as proposed in your letter. In order for the Department to grant an operating permit amendment, the applicant must provide reasonable assurance to the Department that there will be no increase in actual emissions. If a proposed project is expected to result in an increase in actual emissions, then a "Modification" permit is required pursuant to Rules 17-2.100 and 17-2.660, F.A.C., 40 CFR 60.2 and 40 CFR 60.14.

Conceptually, the Department agrees that incineration of petroleum contaminated soil in a coal fired utility boiler might be an environmentally sound alternative. Florida Power Corporation is currently exploring options with Mr. Gary A. Maier which might be approveable as operating permit amendments. I suggest that Tampa Electric Company do the same, and include the Hillsborough EPC. Mr. Maier's phone number is 623-5561 ext 408.

Sincerely,

W. C. Thomas, P.E.
District Air Program Administrator

copy to: Jerry Campbell, P.E., EPCHC

Harry

TAMPA ELECTRIC
A TECO ENERGY COMPANY

D. E. R.

OCT 15 1991

SOUTHWEST DISTRICT
TAMPA

October 11, 1991

Richard D. Garrity, Ph.D
Florida Department of
Environmental Regulation
Southwest District
4520 Oak Fair Boulevard
Tampa, Florida 33610-7347

Re: Tampa Electric Company - F. J. Gannon Station
Request to Modify AO29-125315, AO29-189206, AO29-172179, and AO29-160269
to Allow Burning of Oily Soil/Coal Mixture

Dear Dr. Garrity:

Pursuant to Ms. Janice Taylor's conversation with Mr. Gary Maier, TEC requests authorization to burn oily soil mixed with coal at F.J. Gannon Station, Boilers 1-4. TEC's rationale for this request is to provide an economical and environmentally sound method of disposal of oily soil on a long term basis.

As a background for you, average data from previous years indicates that TEC may handle or generate up to 1,200 - 55 gallon drums of non-hazardous oily soil during any given year. These oily soils have contained petroleum products, mineral oil, hydraulic oil, or used oil. Presently, after proper waste characterization, oily soils are incinerated, thermally treated, or sent to a secure landfill off-site. TEC would like to incinerate these oily soils more economically on-site by the process described in Attachment A.

Calculations presented in Attachment B indicate that no significant particulate emissions increase would occur during incineration of the above referenced quantity of soil annually. These calculations assume the following: soil loading is 100 percent ash, fly ash production is 30 percent of ash loading, and electrostatic precipitator efficiency is 99.09 percent. To further provide the Department with reasonable assurance that this process is environmentally sound, TEC will include the maximum soil consumption rate during the annual compliance stack test for each unit.

In summary, the enclosed information should adequately assure the Department that the proposed process can provide an economical and environmentally sound method of disposal for oily soil. Therefore, TEC respectfully requests to amend existing air operation permits for Units 1-4 to incorporate soil burning at Gannon Station on a routine basis.

Your expeditious review of this request is appreciated. Should you have any questions please contact Ms. Taylor or me at (813)-228-4836.

Sincerely,

Lynn F. Robinson

Lynn F. Robinson, P.E.
Manager
Environmental Planning

sn/RR255

Attachments

cc/attach: Mr. J.S. Campbell, EPCHC

ATTACHMENT A
PROPOSED SOIL BURNING PROCESS

Drummed oily soil will be emptied into the rail unloading hopper on days when this equipment is not otherwise being utilized. The soil will then be discharged on the rail conveyor and gradually mixed with the bunkering coal through belt-to-belt transfers.

It is expected that the soil-to-coal ratio will be much less than 1 percent. Since the soil is emptied into the rail unloading hopper through a grating, and is additionally processed by passing through the crusher house with the bunkering coal, no soil pretreatment will be instituted.

The soil/coal mixture will then be fed to one of the cyclone boilers. As per industry standard, cyclone boilers typically produce 30percent flyash and 70percent bottom slag by-product.

	Boiler 1	Boiler 2	Boiler 3	Boiler 4
Incineration Temp. F	3000	3000	3000	3000
Residence Time sec.	2 - 5	2 - 5	2 - 5	2 - 5

Implementation of this proposed soil burning process will result in disposal costs savings of approximately $200 per drum.

ATTACHMENT B
ANNUAL INCREASED PARTICULATE EMISSIONS CALCULATIONS

Assumptions : All Soil Ash Generated is PM-10 or Less
Soil Ash Loading is 100 percent
Fly Ash Production is 30 percent of Ash Loading
Electrostatic Precipitator Efficiency is 99.09 percent

Annual Soil Accumulation :
Approximately 1200 drums per year at 500 lbs. per drum

Soil to be Incinerated :
1200 drums/year X 500 lbs./drum X 1 ton/2000 lbs. = 300 tons/year

Increased Flyash to Precipitator :
300 tons/year X 30% = 90 tons/year

Increased Particulate Emissions :
90 tons/year X 0.91 % = 0.82 tons/year

0.82 tons/year is less than the defined significant increase for PM-10, which is 15 tons/year.

MEMORANDUM

TO: File

THRU: J. Harry Kerns

FROM: Gary A. Maier

DATE: February 5, 1991

SUBJECT: Permit #AO29-189206
County: Hillsborough
Project: Gannon Unit No. 2
Tampa Electric Company (TEC)

PATS default date is February 11, 1991.

Hillsborough EPC delivered the 1st draft to DER and TEC on January 17, 1991. TEC submitted comments verbally via telephone on January 28, 1991. I distributed a 2nd draft to all parties on January 29, 1991. I coordinated a meeting with TEC and EPC on February 5, 1991 in order to fine tune the 2nd draft. All parties agree that this 3rd draft is ready to issue.

The permit is for the operation of the F. J. Gannon Boiler #2. This is a 125 $MW_{(E)}$ coal fired steam generator. Particulate matter emissions are controlled by an electrostatic precipitator. Sulfur dioxide emissions are controlled by limiting fuel sulfur.

TEC is not happy with the Department's decision to exercise the authority granted by Section 403.182(6), F.S. and adopt Hillsborough County's opacity Rule 1-3.63(d). Although TEC is contemplating filing a petition for a rule change in Hillsborough County, I do not expect a challenge to this permit.

Because the DER has often wondered whether TEC increases the frequency of soot blowing just prior to annual compliance testing, I tightened up on TEC's excess emissions reporting requirements. Excess emissions due to soot blowing, load change, startup, and shutdown will now be reported in addition to the previous requirement to report only excess emissions due to malfunction. Specific condition #10 is the newly drafted condition. It has been negotiated and drafted in such a manner as to render it virtually unchallengable. TEC is not happy with it, but they understand that a challenge would be futile.

This operating permit renewal does not qualify for the 50% fee reduction in Rule 17-4.050(4)(o), F.A.C. because the compliance testing and reporting requirements were significantly changed.

I recommend that the permit be issued.

COMMISSION
PHYLLIS BUSANSKY
JOE CHILLURA
PAM IORIO
SYLVIA KIMBELL
JAN KAMINIS PLATT
JAMES D. SELVEY
ED TURANCHIK

FAX (813) 272-5157

ENVIRONMENTAL PROTECTION COMMISSION
HILLSBOROUGH COUNTY

ROGER P. STEWART
EXECUTIVE DIRECTOR
MAIN OFFICES
1900 - 9TH AVENUE
TAMPA, FLORIDA 33605
TELEPHONE (813) 272-5960
AIR PROGRAM
TELEPHONE (813) 272-5530
WASTE MANAGEMENT PROGRAM
TELEPHONE (813) 272-5788
ECOSYSTEMS MANAGEMENT DIVISION
TELEPHONE (813) 272-7104

M E M O R A N D U M

DATE: January 14, 1990

TO: Gary Maier THRU J. Harry Kerns, P.E.

FROM: Carlos Gonzalez CG THRU Darrel Graziani AJG

RE: Recommendations to Renew Air Permit for Tampa Electric Company, F.J. Gannon Station Unit No. 2 (AO29-189206)

The above referenced permit application has been reviewed. You may note that Tampa Electric Company's (TECO) request for the one six-minute 27% opacity option in Rule 17-2.600(5) was not granted because the EPC has not adopted this variant. Instead the opacity standard of 20% in our rules (Chapter 1-3. 63(d)) has been incorporated in these recommendations. TECO has been made aware of this.

Enclosed is an inspection report and compliance test data summary.

I recommend approval to issue an operating permit for this source. Enclosed for your signature is the draft of the proposed operating permit and diskette.

CCG:AO189206

PERMIT APPLICATION STATUS SHEET

COMPANY: Tampa Electric Co.

PROCESSOR: G. Maier

PERMIT NO.: A029-189206

DATE RECEIVED: 11/14/90

PE SEAL & SIGNATURE: (Y) N

CHECK: (Y) N

	DATE TASK COMPLETED	INITIALS
DATE RECEIVED BY SECTION:	NOV 2 0 1990	mq
LOGGED BY SECTION SECRETARY:	NOV 2 1 1990	mq
PERMITTING ENGINEER SUBMIT FINISHED PERMIT PACKAGE & RECOMMENDATIONS TO DISTRICT AIR ENGINEER:	02/05/91	H.A.M.
PERMIT PACKAGE TO DISTRICT AIR ADMINISTRATOR:	2/6/91	[illegible]
PERMIT PACKAGE TO DISTRICT DEPUTY ASSISTANT SECRETARY:	2/6/91	[illegible]
PERMIT PACKAGE MAILED OUT:	FEB - 7 1991	mq

DATA FOLLOW UP

ISSUE DATE UPDATED ON PATS:	FEB - 7 1991	mq
UPDATED ON WANG:	FEB - 7 1991	mq

(10-06-89)

APPLICATION TRACKING SYSTEM FEB - 7 1991 11/20/90

APPL NO:189206
APPL RECVD:11/14/90 TYPE CODE:AO SUBCODE:2A LAST UPDATE:11/19/90
DER OFFICE RECVD:TPA DER OFFICE TRANSFER TO:___ APPLICATION COMPLETE:__/__/__
DER PROCESSOR:[redacted] M.A.C.P.
APPL STATUS:AC DATE:11/14/90 (ACTIVE/DENIED/WITHDRAWN/EXEMPT/ISSUED/GENERAL)
RELIEF:__ (SSAC/EXEMPTIONS/VARIANCE)
(Y/N) N MANUAL TRACKING DISTRICT:40 COUNTY:29
(Y/N) N OGC HEARING REQUESTED LAT/LONG:27.54.25/82.25.23
(Y/N) N PUBLIC NOTICE REQD? BASIN-SEQMENT:__.___
(Y/N) N GOV BODY LOCAL APPROVAL REQD? COE #:_____
(Y/N) Y LETTER OF INTENT REQD? _ (I/ISSUE D/DENY) ALT#:___-_____

PROJECT SOURCE NAME:GANNON STATION UNIT #2
STREET:PORT SUTTON RD. CITY:TAMPA
STATE:FL ZIP:_____ PHONE:___-___-____
APPLICATION NAME:TAMPA ELECTRIC CO.
STREET:P.O. BOX 3285 CITY:TAMPA
STATE:FL ZIP:33601 PHONE:___-___-____
AGENT NAME:_____
STREET:_____ CITY:_____
STATE:__ ZIP:_____ PHONE:___-___-____
FEE #1 DATE PAID:11/16/90 AMOUNT PAID:01500 RECEIPT NUMBER:00165091

B DATE APPLICANT INFORMED OF NEED FOR PUBLIC NOTICE - - - __/__/__
C DATE DER SENT DNR APPLICATION/SENT DNR INTENT - - - - - __/__/__--__/__/__
D DATE DER REQ. COMMENTS FROM GOV. BODY FOR LOCAL APP. -. __/__/__
E DATE #1 ADDITIONAL INFO REQ--REC FROM APPLICANT - - - - __/__/__--__/__/__
E DATE #2 ADDITIONAL INFO REQ--REC FROM APPLICANT - - - - __/__/__--__/__/__
E DATE #3 ADDITIONAL INFO REQ--REC FROM APPLICANT - - - - __/__/__--__/__/__
E DATE #4 ADDITIONAL INFO REQ--REC FROM APPLICANT - - - - __/__/__--__/__/__
E DATE #5 ADDITIONAL INFO REQ--REC FROM APPLICANT - - - - __/__/__--__/__/__
E DATE #6 ADDITIONAL INFO REQ--REC FROM APPLICANT - - - - __/__/__--__/__/__
F DATE LAST 45 DAY LETTER WAS SENT - - - - - - - - - - - __/__/__
G DATE FIELD REPORT WAS REQ--REC - - - - - - - - - - - - __/__/__--__/__/__
H DATE DNR REVIEW WAS COMPLETED - - - - - - - - - - - - __/__/__

I DATE APPLICATION WAS COMPLETE - - - - - - - - - - - - 11/14/90
J DATE GOVERNING BODY PROVIDED COMMENTS OR OBJECTIONS - - __/__/__
K DATE NOTICE OF INTENT WAS SENT--REC TO APPLICANT - - - - __/__/__--__/__/__
L DATE PUBLIC NOTICE WAS SENT TO APPLICANT - - - - - - - __/__/__
M DATE PROOF OF PUBLICATION OF PUBLIC NOTICE RECEIVED - - __/__/__
N WAIVER DATE BEGIN--END (DAY 90) - - - - - - - - - - - - __/__/__--__/__/__

COMMENTS:

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

165091

RECEIPT FOR APPLICATION FEES AND MISCELLANEOUS REVENUE

Received from Tampa Electric Date 11/16/90

Address P O Box 3285 Tampa Dollars $ 1500.00

Applicant Name & Address same

Source of Revenue Gannon Station Unit 2

Revenue Code 1032 Application Number A029-189206

PE 2-28256 By Alvine Bury

Florida Department of Environmental Regulation

Southwest District • 4520 Oak Fair Boulevard • Tampa, Florida 33610-7347 • 813-623-5561

Bob Martinez, Governor Dale Twachtmann, Secretary John Shearer, Assistant Secretary
Dr. Richard Garrity, Deputy Assistant Secretary

December 5, 1990

Mr. Carlos Gonzalez
Environmental Protection Commission
of Hillsborough County
1410 N. 21st Street
Tampa, FL. 33605

Re: AO29-189206, Tampa Electric Company
Gannon Unit #2

Dear Mr. Gonzalez:

I reviewed the above referenced application and do not require any additional information. I have no objection if you wish to deem it complete. Please proceed in whatever manner you feel is appropriate.

For your information, day 30 is Thursday, December 13.

Thanks,

Gary A. Maier

Gary A. Maier, B.S. ChE., J.D.

copy to: Darrel Graziani
J. Harry Kerns

Gary

TAMPA ELECTRIC
A TECO ENERGY COMPANY

November 12, 1990

VIA CERTIFIED MAIL
RETURN RECEIPT REQUESTED
#P 242 785 977
#P 242 785 978

Mr. Roger P. Stewart, Director
Environmental Protection Commission
of Hillsborough County
1900 9th Avenue
Tampa, FL 33605

Richard D. Garrity, Ph.D
Florida Department of
Environmental Regulation
Southwest District
4520 Oak Fair Boulevard
Tampa, FL 33610-7347

Re: Tampa Electric Company
Air Operations Permit
Renewal Application Gannon Unit #2

Gentlemen:

Enclosed please find an original and three (3) copies of an application for renewal of permit to operate an air pollution source, including an operation and maintenance plan for the unit, and an authorization letter for the applicant.

The application package, together with a check for $2645 to the Hillsborough County Board of County Commissioners, and a check for $1500 to the Florida Department of Environmental Regulation, are included with Mr. Stewart's copy.

If you should have any questions, please feel free to call.

Sincerely,

Jerry L. Williams
Director
Environmental

JKT/sn/QQ292.DOC

Enclosure

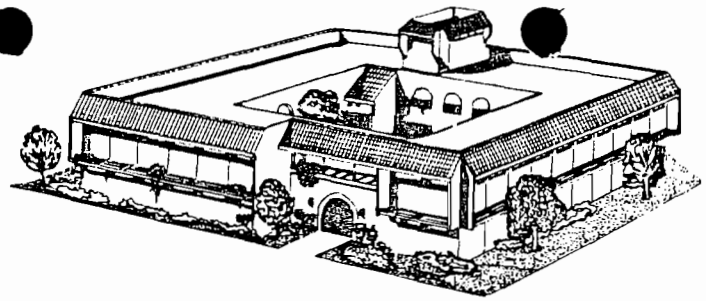
D. E. R.

NOV 14 1990

SOUTHWEST DISTRICT
TAMPA

HILLSBOROUGH COUNTY
ENVIRONMENTAL PROTECTION
COMMISSION

RODNEY COLSON
RON GLICKMAN
PAM IORIO
RUBIN E. PADGETT
JAN KAMINIS PLATT
JAMES D. SELVEY
PICKENS C. TALLEY II



ROGER P. STEWART
DIRECTOR

1900 - 9th AVE
TAMPA, FLORIDA 33605

TELEPHONE (813) 272-5960

D. E. R.

FEB 17 1987

SOUTH WEST DISTRICT
TAMPA

MEMORANDUM

Date ~~February 12, 1987~~

To Tom John thru Bill Thomas

From Victor San Agustin thru Jerry Campbell VSA JC

Subject: Administrative Changes to TECO's Air Permits

This letter serves as a follow-up on the enclosed request by TECO. We have no objections to the requested changes and recommend that all amendments be made by redrafting all affected permits and reflecting the changes accordingly. This type of format is being recommended due to the varying number of attachments already enclosed with the permits. I feel adding more attachments to the affected permits makes "files viewing" a cumbersome process. As we discussed, below are the recommended changes in their FROM: - TO: formats. This memo should cover all the administrative changes they requested. Please note other amendments which were previously made should also be reflected in the redrafted permit. If I can be of further assistance, please call.

. Gannon Unit No. 2 AO 29 - 112912 ✓
Jak 2.14

Specific Condition No. 4 -

FROM: This unit shall be stack tested for particulate matter (under both soot blowing and non-soot blowing operating conditions), sulfur dioxide and visible emissions at intervals of 12 months from the date of August 28, 1985 or within a sixty (60) day period prior to this date. The Method 9 Test period on this source shall be sixty (60) minutes. Testing procedures shall be consistent with the requirements of Section 17-2.700, F.A.C.

TO: This unit shall be stack tested for particulate matter (under both soot blowing and non-soot blowing operating conditions), sulfur dioxide and visible emissions at intervals of 12 months from the date of August 28, 1985 or within a ninety (90) day period prior to this date. The Method 9 Test period on this source shall be sixty (60) minutes. Testing procedures shall be consistent with the requirements of Section 17-2.700, F.A.C. One copy of test data shall be submitted to both the Environmental Protection Commission of Hillsborough County and Florida Department of Environmental Regulation within 45 days of such testing.

Specific Condition No. 7 -

FROM: Submit for this facility, each calendar year, on or before March 1, an emission report for the preceding calendar year containing the following information as per Section 17-4.14, F.A.C.
(A) Annual amount of materials and/or fuel utilized.
(B) Annual emissions (note calculation basis).
(C) Any changes in the information contained in the permit application.

Two copies of all reports shall be submitted only to the Hillsborough County Environmental Protection Commission.

TO: Submit for this facility, each calendar year, on or before March 1, an emissions report for the preceding calendar year containing the following information as per Section 17-4.14, F.A.C.
(A) Annual amount of materials and/or fuels utilized.
(B) Annual emissions (note calculation basis).
(C) Any changes in the information contained in the permit application.

An emission report shall be submitted to both Environmental Protection Commission of Hillsborough County and Florida Department of Environmental Regulation.

Specific Condition No. 10 -

FROM: Four applications to renew this operating permit shall be submitted to the Hillsborough County Environmental Protection Commission 60 days prior to expiration date of this permit.

TO: An original application to renew this operating permit and three copies with original seals and signatures shall be submitted to the Environmental Protection Commission of Hillsborough County at least 60 days prior to the expiration date of this permit.

Gannon Unit No. 3 95792

Specific Condition No. 4 -

FROM: This unit shall be stack tested for particulate matter (under both soot blowing and non-soot blowing operating conditions), sulfur dioxide and visible emissions at intervals of 12 months from the date of August 28, 1985 or within a sixty (60) day period prior to this date. The Method 9 Test period on this source shall be sixty (60) minutes. Testing procedures shall be consistent with the requirements of Section 17-2.700, F.A.C.

TO: This unit shall be stack tested for particulate matter (under both soot blowing and non-soot blowing operating conditions), sulfur dioxide and visible emissions at interval of 12 months from the date of November 20, 1984 or within a ninety (90) day period prior to this date. The DER Method 9 Test period on this source shall be sixty (60) minutes. Testing procedures shall be consistent with the requirements of Section 17-2.700, F.A.C. One copy of test data shall be submitted to both the Environmental Protection Commission of Hillsborough County and Florida Department of Environmental Regulation within 45 days of such testing.

Specific Condition No. 7 -

FROM: A report shall be submitted to both the Department of Environmental Regulation and the Hillsborough County Environmental Protection Commission within 30 days following each calendar quarter detailing any excess opacity readings recorded during the three month period. For the purpose of this report, excess emissions shall be defined as all six minute averages of opacity greater than 20 percent, except as specified in Specific Condition No. 2. The information supplied in this report shall be consistent with the reporting requirements of 40 CFR 51 Appendix P [Section 17-2.710(1), F.A.C.]. This report shall be submitted in duplicate to the Hillsborough County Environmental Protection Commission.

TO: A report shall be submitted to both the Department of Environmental Regulation and the Environmental Protection Commission of Hillsborough County within 30 days following each calendar quarter detailing any excess opacity readings recorded during the three month period. For the purpose of this report, excess emissions shall be defined as all six minute averages of opacity greater than 20 percent, except as specified in Specific Condition No. 2. The information supplied in this report shall be consistent with the reporting requirements of 40 CFR 51 Appendix P [Section 17-2.710(1), F.A.C.].

· Gannon Unit No. 4 300/3 ✓

Specific Condition No. 4 -

FROM: This unit shall be stack tested for particulate matter (under both soot blowing and non-soot blowing operating conditions), sulfur dioxide and visible emissions at intervals of 12 months from the date of May 30, 1984 or within a ninety (90) day period prior to this date. The Method 9 Test period on this source shall be sixty (60) minutes. Testing procedures shall be consistent with the requirements of Section 17-2.700, F.A.C. Two copies of test data shall be submitted to the Air Section of the Hillsborough County Environmental Protection Commission Office within forty-five days of such testing.

TO: This unit shall be stack tested for particulate matter (under both soot blowing and non-soot blowing operating conditions), sulfur dioxide and visible emissions at intervals of 12 months from the date of May 30, 1984 or within a ninety (90) day period prior to this date. The DEP Method 9 Test period on this source shall be sixty (60) minutes. Testing procedures shall be consistent with the requirements of Section 17-2.700, F.A.C. One copy of test data shall be submitted to both the Environmental Protection Commission of Hillsborough County and Florida Department of Environmental Regulation within 45 days of such testing.

Combustion Turbine 1 - Gannon Station 9209-7

Specific Condtion No. 1 -

FROM: Test the emissions for the following pollutant(s) at intervals of 12 months from the date March 15, 1984, or within a ninety (90) day period prior to this date, and submit 2 copies of test data to the Air Section of the Hillsborough County Environmental Protection Commission Office within forty-five days of such testing [Sectin 17-2.700(2), Florida Administrative Code (F.A.C.)].

( ) Particulates	( ) Sulfur Oxides
( ) Fluorides	( ) Nitrogen Oxides
(X) Opacity	( ) Hydrocarbons
	( ) Total Reduced Sulfur

*Fuel analysis may be submitted for required sulfur dioxide emission test.

TO: Test the emissions for the following pollutant(s) at intervals of 12 months from the date March 15, 1984, or within a ninety (90) day period prior to this date, and submit a copy of test data to each of the Air Sections of the Environmental Protection Commission of Hillsborough County and Florida Department of Environmental Regulation within forty-five days of such testing. Testing procedures shall be consistent with the requirements of Section 17-2.700, F.A.C.

( ) Particulates	( ) Sulfur Oxides
( ) Fluorides	( ) Nitrogen Oxides
(X) Opacity	( ) Hydrocarbons
	( ) Total Reduced Sulfur

*Fuel analysis may be submitted for required sulfur dioxide emission test.

Specific Condition No. 5 -

FROM: Submit for this facility, each calendar year, on or beforce March 1, an emission report for the preceding calendar year containing the following information as per Section 17-4.14, F.A.C.

(A) Annual amount of materials and/or fuels utilized.
(B) Annual emissions (note calculation basis).
(C) Any changes in the information contained in the permit application.

Duplicate copies of all reports shall be submitted to the Hillsborough County Environmental Protection Commission.

TO: Submit for this facility, each calendar year, on or before March 1, an emission report for the preceding calendar year containing the following information as per Section 17-4.14, F.A.C.

(A) Annual amount of materials and/or fuels utilized.
(B) Annual emissions (note claculation basis).
(C) Any changes in the inforamtion contained in the permit application.

An emission report shall be submitted to both the Environmental Protection Commission of Hillsborough County and Florida Department of Environ-

Fly Ash Silo 1 - Gannon Station 00047

Specific Condition No. 2 -

FROM: The compliance test shall be conducted using EPA Method #9 (opacity). The Method #9 test interval on this source shall be thirty minutes. Two copies of the test data shall be submitted to the Air Section of the Hillsborough County Environmental Protection Commission within 45 days of testing.

TO: The compliance test shall be conducted using EPA Method #9 (opacity). The Method #9 test interval on this source shall be thirty (30) minutes. A copy of the test data shall be submitted to each of the Air Sections of the Environmental Protection Commission of Hillsborough County and the Florida Department of Environmental Regulation within 45 days of testing.

Specific Condition No. 7 -

FROM: Submit for this facility, each calendar year, on or before March 1, an emission report for the preceding calendar year containing the following information as per Section 17-4.14, F.A.C.

(A) Annual amount of materials and/or fuels utilized.
(B) Annual emissions (note calculation basis).
(C) Any changes in the information contained in the permit application.

This report shall be submitted in duplicate to the Hillsborough County Environmental Protection Commission.

TO: Submit for this facility, each calendar year, on or before March 1, an emission report for the preceding calendar year containing the following information as per Section 17-4.14, F.A.C.

(A) Annual amount of materials and/or fules utilized.
(B) Annual emissions (note calculation basis).
(C) Any changes in the inforamtion contained in the permit application.

An emission report shall be submitted to both the Environmental Protection Commission of Hillsborough County and the Florida Department of Environmental Regulation.

Fly Ash Silo 2 - Gannon Station 00046

Specific Condition No. 1 -

FROM: Test the baghouse for visible emissions at intervals of twelve months from the date of November 15, 1983 or within a ninety (90) day period prior to this date. The compliance test shall be conducted using EPA Method #9 (opacity). The Method #9 test interval on this source shall be thirty (30) minutes. Two copies of the test data shall be submitted to the Air Section of the Hillsborough County Environmental Protection Commission within 45 days of testing.

TO: Test the baghouse for visible emissions at intervals of twelve months from the date of November 15, 1983 or within a ninety (90) day period prior to this date. The compliance test shall be conducted using EPA Method #9 (opacity). The Method #9 test interval on this source shall be thirty (30) minutes. One copy of test data shall be submitted to both the Environmental Protection Commission of Hillsborough County and the Florida Department of Environmental Regulations within 45 days of such testing

Specific Condition No. 6 -

FROM: Submit for this facility, each calendar year, on or before March 1, an emission report for the preceding calendar year containing the following information as per Section 17-4.14, F.A.C.

(A) Annual amount of materials and/or fuel utilized.
(B) Annual emissions (note calculation basis).
(C) Any changes in the information contained in the permit application.

This report shall be submitted in duplicate to the Hillsborough County Environmental Protection Commission.

TO: Submit for this facility, each calendar year, on or before March 1, an emission report for the preceding calendar year containing the following information as per Section 17-4.14, F.A.C.

(A) Annual amount of materials and/or fuels utilized.
(B) Annual emissions (note calculation basis).
(C) Any changes in the information contained in the permit applciation.

The emission report shall be submitted to both the Environmental Protection Commission of Hillsborough County and the Florida Department of Environmental Regulation.

Economizer Silo - Gannon Station S7409 TEC 1

Specific Condition No. 1 -

FROM: Test the baghouse for visible emissions at intervals of twelve months from the date of December 4, 1983 or within a ninety (90) day period prior to this date. The compliance test shall be conducted using EPA Method #9 (opacity). The Method #9 test interval on this source shall be thirty (30) minutes. Two copies of the test data shall be submitted to the Air Section of the Hillsborough County Environmental Protection Commission within 45 days of testing.

TO: Test the baghouse for visible emissions at intervals of twelve months from the date of December 4, 1983 or withing a ninety (90) day period prior to this date. The compliance test shall be conducted using EPA Method #9 (opacity). The Method #9 test interval on this source shall be thirty (30) minutes. One copy of test data shall be submitted to the Environmental Protection Commission of Hillsborough County and the Florida Department of Environmental Regulation within 45 days of such testing.

Specific Condition No. 5 -

FROM: Submit for this facility, each calendar year, on or before March 1, an emission report for the preceding calendar year containing the following information as per Section 17-4.14, F.A.C.

(A) Annual amount of materials and/or fuels utilized.
(B) Annual emissions (note calculation basis).
(C) Any changes in the information contained in the permit application.

This report shall be submitted in duplicate to the Environmental Protection Commission of Hillsborough County.

TO: Submit for this facility, each calendar year, on or before March 1, an emission report for the preceding calendar year containing the following information as per Section 17-4.14, F.A.C.

(A) Annual amount of materials and/or fuels utilized.
(B) Annual emission (note calculation basis).
(C) Any changes in the information contained in the permit application.

An emission report shall be submitted to both the Environmental Protection Commission of Hillsborough County and the Florida Department of Environmental Regulation.

Coal Yard - Gannon Station A029 94044 ✓ TECO-2 #157

Specific Condition No. 2 -

FROM: At 12 month intervals from or ninety days prior to April 30, 1985, the permittee shall conduct thirty minute visible emission tests on the following operations: the east bucket to the east hopper, the west bucket to the west hopper, the rail car to the hopper, either the conveyor E1 or E2 to their respective stockpiles where the initial freefall is at least thirty feet, the hammermill crusher to either the conveyor H1 or H2, the conveyors D1 or D2 to either the conveyors G1 or G2, and either the conveyors J1 or J2 to their respective bunkers.

TO: At 12 month intervals from or ninety days prior to April 30, 1985, the permittee shall conduct thirty minute visible emission tests on the following operations: the east bucket to the east hopper, the west bucket to the west hopper, the rail car to the hopper, either the conveyor E1 or E2 to their respective stockpiles where the initial freefall is at least thirty feet, the hammermill crusher to either the conveyor H1 or H2, the conveyors D1 or D2 to either the conveyors G1 or G2, and either the conveyors J1 or J2 to their respective bunkers. One copy of each test data shall be submitted to both the Environmental Protection Commission of Hillsborough County and the Florida Department of Environmental Regulation.

Specific Condition No. 10 -

FROM: Submit for this facility, each calendar year, on or before March 1, an emission report for the preceding calendar year containing the following information as per Section 17-4.14, F.A.C.

(A) Annual amount of materials and/or fuels utilized.
(B) Annual emissions (note calculation basis).
(C) Any changes in the information contained in the permit application.

Duplicate copies of all reports shall be submitted to the Hillsborough County Environmental Protection Commission.

TO: Submit for this facility, each calendar year, on or before March 1, an emission report for the preceding calendar year containing the following information as per Section 17-4.14, F.A.C.

(A) Annual amount of materials and/or fuels utilized.
(B) Annual emissions (note calculation basis).
(C) Any changes in the inforamtion contained in the permit application.

An emission report shall be submitted to both the Environmental Protection Commission of Hillsborough County and the Florida Department of Environmental Regulation.

Specific Condition No. 11 -

FROM: An application to renew this operating permit shall be submitted to the Hillsborough County Environmental Protection Commission 60 days prior to the expiration date of this permit.

TO: An original application to renew this operating permit and three copies with original seals and signatures shall be submitted to the Environmental Protection Commission of Hillsborough County at least 60 days prior to the expiration date of this permit.

Unit #1 - Big Bend Station 0330 ✓ Teco3

Specific Condition No. 1 -

FROM: This unit shall be stack tested for particulate matter (under both soot blowing and non-soot blowing operating conditions), sulfur dioxide and visible emissions at intervals of 12 months from the date of December 21, 1982 or within a ninety (90) day period prior to this date. The Method 9 Test period on this source shall be sixty (60) minutes. Testing procedures shall be consistent with the requirements of Section 17-2.700, F.A.C. Two copies of the test data shall be submitted to the Air Section of the Hillsborough County Environmental Protection Commission within forty-five days of testing.

TO: This unit shall be stack tested for particulate matter (under both soot blowing and non-soot blowing operating conditions), sulfur dioxide and visible emissions at intervals of 12 months from the date of December 21, 1982 or within a ninety (90) day period prior to this date. The Method 9 Test period on this source shall be sixty (60) minutes. Testing procedures shall be consistent with the requirements of Section 17-2.700, F.A.C. One copy of test data shall be submitted to both the Environmental Protection Commission of Hillsborough County and the Florida Department of Environmental Regulation within 45 days for such testing.

Specific Condition No. 4 -

FROM: Submit for this facility, each claendar year, on or before March 1, an emission report to this agency and the Hillsborough County Pollution Control for the preceding calendar year containing the following information as per Section 17-4.14, F.A.C.

(A) Annual amount of materials and/or fuels utilized.
(B) Annual emissions (note calculation basis).
(C) Any changes in the information contained in the permit application.

TO: Submit for this facility, each calendar year, on or before March 1, an emission report for the preceding calendar year containing the following information as per Section 17-4.14, F.A.C.

(A) Annual amount of materials and/or fuels utilized.
(B) Annual emissions (note calculation basis).
(C) Any changes in the inforamtion contained in the permit application.

TO: ~~An~~ emission report shall be submitted to both the Environmental Protection Commission of Hillsborough County and the Florida Department of Environmental Regulation.

Specific Condition No. 6 -

FROM: A report shall be submitted to both the Department of Environmental Regulation and the Hillsborough County Environmental Protection Commission within 30 days following each calendar quarter detailing any excess opacity readings recorded during the three month period. For the purpose of this report, excess emissions shall be defined as all six minute averages of opacity greater than 20 percent, except as specified in Specific Condition No. 5. The information supplied in this report shall be consistent with the reporting requirements of 40 CFR 51 Appendix P [Section 17-2.710(1), F.A.C.]. This report shall be submitted in duplicate to the Hillsborough County Environmental Protection Commission.

TO: A report shall be submitted to both the Department of Environmental Regulation and the Environmental Protection Commisison of Hillsborough County within 30 days following each calendar quarter detailing any excess opacity readings recorded during the three month period. For the purpose of this report, excess emission shall be defined as all six minute averages of opacity greater than 20 percent, except as specified in Specific Condition No. 5. The information supplied in this report shall be consistent with the reporting requirements of 40 CFR 51 Appendix P [Section 17-2.710(1), F.A.C.].

2/29/87

Unit #2 - Big Bend Station

6932 #101

Specific Condition No. 4 -

FROM: This unit shall be stack tested for particulate matter (under soot blowing and non-soot blowing conditions), sulfur dioxide and visible emissions at intervals of 12 months from the date of November 9, 1984, or within a 90 day period prior to that date. Testing procedures shall be consistent with the requirements of Section 17-2.700, F.A.C.

TO: This unit shall be stack tested for particulate matter (under both soot blowing and non-soot blowing operating conditions), sulfur dioxide and visible emissions at intervals of 12 months from the date of February 19, 1986 or within a ninety (90) day period prior to this date. The Method 9 Test period on this source shall be sixty (60) minutes. Testing procedures shall be consistent with the requirements of Section 17-2.700, F.A.C. One copy of test data shall be submitted to both the Environmental Protection Commission of Hillsborough County and the Florida Department of Environmental Regulation within 45 days ~~for~~ OF such testing.

Last Paragraph of Specific Condition No. 5.c. -

FROM: This equation shall be used and the calculations completed for each of the units 1-3. This information shall be submitted to the Hillsborough County Environmental Protection Commission (Commission) on a quarterly basis no later than 45 days following the calendar quarter. If an exceedance of this standard occurs, then the permittee shall report this event to the Department and the Commission within 24 hours of the determination.

TO: This equation shall be used and the calculations completed for each of the units 1-3. This information shall be submitted to the Environmental Protection Commission of Hillsborough County and the Florida Department of Environmental Regulation on a quarterly basis no later than 45 days following the calendar quarter. If an exceedance of this standard occurs, then the permittee shall report this ev ent to the Department and the Commission within 24 hours of the determination.

Specific Condition No. 8 -

FROM: Submit for this facility, each calendar year, on or before March 1, an emission report for the preceding calendar year containing the following information as per Section 17-4.14, F.A.C.

(A) Annual amount of materials and/or fuels utilized.
(B) Annual emissions (note calculation basis).
(C) Any changes in the information contained in the permit application.

Duplicate copies of all reports shall be submitted to the Hillsborough County Environmental Protection Commission.

TO: Submit for this facility, each calendar year, on or before March 1, an emission report for the preceding calendar year containing the following information as per SEction 17-4.14, F.A.C.

(A) Annual amount of materials and/or fuels utilized.
(B) Annual emissions (note calculation basis).
(C) Any changes in the informations contained in the permit application.

An emission report shall be submitted to both the Environmental Protection Commission of Hillsborough County and the Florida Department of Environmental Regulation.

Specific Condition No. 9 -

FROM: An application to renew this operating permit shall be submitted to the Hillsborough County Environmental Protection Commission 60 days prior to expiration date of this permit.

TO: An original applciation to renew this operating permit and three copies with original seals and signatures shall be submitted to the Environmental Protection Commission of Hillsborough County at least 60 days prior to the expiration date of this permit.

Unit #3 - Big Bend Station

T005

93937
#101

Specific Condition No. 5 -

FROM: This unit shall be stack tested for particulate matter (under soot blowing and non-soot blowing conditions), sulfur dioxide, nitrogen oxides and visible emissions within thirty days of reissuance of this permit and at intervals of 12 months thereafter, or within a 90 day period prior to that date. Testing procedures shall be consistent with the requirements of Section 17-2.700, F.A.C.

TO: This unit shall be stack tested for particulate matter (under both soot blowing and non-soot blowing operating conditions), sulfur dioxide, nitrogen dioxide and visible emissions at intervals of 12 months from the date of August 13, 1986 or within a ninety (90) day period prior to this date. The Method 9 Test period on this source shall be sixty (60) minutes. Testing procedures shall be consistent with the requirements of Section 17-2.700, F.A.C. One copy of test data shall be submitted to both the Environmental Protection Commission of Hillsborough County and the Florida Department of Environmental Regulation within 45 days of such testing.

Last Paragraph of Specific Condition No. 6.c. -

FROM: This equation shall be used and the calculations completed for each of the units 1-3. This information shall be submitted to the Hillsborough County Environmental Protection Commission (Commission) on a quarterly basis no later than 45 days following the calendar quarter. If an exceedance of this standard occurs, then the permittee shall report this event to the Department and the Commission within 24 hours of the determination.

TO: This equation shall be used and the calculations completed for each of the units 1-3. This information shall be submitted to the Environmental Protection Commission of Hillsborough County and the Florida Department of Environmental Regulation on a quarterly basis no later than 45 days following the calendar quarter. If an exceedance of this standard occurs, then the permittee shall report this event to the Department and the Commission within 24 hours of the determination.

Specific Condition No. 10 -

FROM: An application to renew this operating permit shall be submitted to the Hillsborough County Environmental Protection Comission 60 days prior to expiration date of this permit.

TO: An original application to renew this operating permit and three copies with original seals and signatures shall be submitted to the Environmental Protection Commission of Hillsborough County at least 60 days prior to the expiration date of this permit.

Specific Condition No. 9 -

FROM: Submit for this facility, each calendar year, on or before March 1, an emission report for the preceding calendar year containing the following information as per Section 17-4.14, F.A.C.

(A) Annual amount of materials and/or fuels utilized.
(B) Annual emissions (note calculation basis).
(C) Any changes in the information contained in the permit application.

TO: Submit for this facility, each calendar year, on or before March 1, an emission report for the preceding calendar year containing the following information as per Section 17-4.14, F.A.C.

(A) Annual amount of materials and/or fuels utilized.
(B) Annual emissions (note calculation basis).
(C) Any changes in the information contained in the permit application.

An emission report shall be submitted to both the Environmental Protection Commission of Hillsborough County and the Florida Department of Environmental Regulation.

Combustion Turbines 1, 2, and 3 - Big Bend Station (3 Permits)

Specific Condition No. 1 -

FROM: Test the emissions for the following pollutant(s) at intervals of 12 months from the date March 19, 1986 , or within a ninety (90) day period prior to this date, and submit 2 copies of test data to the Air Section of the Hillsborough County Environmental Protection Commission Office within forty-five days of such testing [Section 17-2.700(2), Florida Administrative Code (F.A.C.)].

( ) Particulates	( ) Sulfur Oxides
( ) Fluorides	( ) Nitrogen Oxides
(X) Opacity	( ) Hydrocarbons
	( ) Total Reduced Sulfur

*Fuel analysis may be submitted for required sulfur dioxide emission test.

TO: Test the emissions for the following pollutant(s) at intervals of 12 months from the date March 19, 1986** or within a ninety (90) day period prior to this date, and submit 2 copies of test data to the Air Section of the Environmental Protection Commission of Hillsborough County Office within forty-five days of such testing [Section 17-2.700(2), Florida Administrative Code (F.A.C.)].

( ) Particulates	( ) Sulfur Oxides
( ) Fluorides	( ) Nitrogen Oxides
(X) Opacity	( ) Hydrocarbons
	( ) Total Reduced Sulfur

*Fuel analysis may be submitted for required sulfur dioxide emission test.
**For Turbine 2, use January 22, 1985 and for Turbine 3, use February 13, 1985 instead.

Specific Condition No. 6 (same for each permit) -

FROM: Submit for this facility, each calendar year, on or before March 1, an emission report for the preceding calendar year containing the following information as per Section 17-4.14, F.A.C.

(A) Annual amount of materials and/or fuels utilized.
(B) Annual emissions (note calculation basis).
(C) Any changes in the information contained in the permit application.

Duplicate copies of all reports shall be submitted to the Hillsborough County Environmental Protection Commission.

TO: Submit for this facility, each calendar year, on or before March 1, an emission report for the preceding calendar year containing the following information as per Section 17-4.14, F.A.C.

(A) Annual amount of materials and/or fuels utilized.
(B) Annual emissions (note calculation basis).
(C) Any changes in the information contained in the permit application.

An emission report shall be submitted to both the Environmental Protection Commission of Hillsborough County and the Florida Department of Environmental Regulation.

Fly Ash Silos 1 and 2 - Big Bend Station (2 Permits)

Specific Condition 1 (same for each permit) -

FROM: Test the emissions for the following pollutant(s) within 90 days of the issuance of this permit and at intervals of 12 months thereafter and submit 2 copies of test data to the Air Section of the Hillsborough County Environmental Protection Commission Office within forty-five days of such testing [Section 17-2.700(2), Floriad Administrative Code (F.A.C.)].

(X) Particulates	( ) Sulfur Oxides
( ) Fluorides	( ) Nitrogen Oxides
(X) Opacity	( ) Hydrocarbons
	( ) Total Reduced Sulfur

TO: Test the emissions for the following pollutant(s) within 90 days of issuance of this permit and at intervals of 12 months thereafter and submit a copy of test data to the Environmental Protection Commission of Hillsborough County and the Florida Department of Environmental Regulation within forty-five days of such testing [Section 17-2.700(2), Florida Administrative Code (F.A.C.)].

(X) Particulates	( ) Sulfur Oxides
( ) Fluorides	( ) Nitrogen Oxides
(X) Opacity	( ) Hydrocarbons
	( ) Total Reduced Sulfur

Specific Condition No. 9 (same for each permit) -

FROM: Submit for this facility, each calendar year, on or before March 1, an emission report for the preceding calendar year containing the following information as per Section 17-4.14, F.A.C.

(A) Annual amount of materials and/or fuels utilized.
(B) Annual emissions (note calculation basis).
(C) Any changes in the information contained in the permit application.

Duplicate copies of all reports shall be submitted to the Hillsborough County Environmental Protection Commission.

TO: Submit for this facility, each calendar year, on or before March 1, an emission report for the preceding calendar year containing the following information as per Section 17-4.14, F.A.C.

(A) Annual amount of materials and/or fuels utilized.
(B) Annual emissions (note calculation basis).
(C) Any changes in the information contained in the permit application.

An emission report shall be submitted to both the Environmental Protection Commission of Hillsborough County and the Florida Department of Environmental Regulation.

5/A6-20

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

SOUTHWEST DISTRICT
7601 HIGHWAY 301 NORTH
TAMPA, FLORIDA 33637-9544

813-985-7402
SunCom - 542-8000

BOB MARTINEZ
GOVERNOR

DALE TWACHTMANN
SECRETARY

DR. RICHARD D. GARRITY
DISTRICT MANAGER

March 25, 1987

Mr. A. Spencer Autry
Manager, Environmental Planning
Tampa Electric Company
P.O. Box 111
Tampa, FL 33601-0111

Dear Mr. Autry:

We are in receipt of your letter of January 20 and March 4, 1987 requesting administrative changes to air permits and modifications to operating and maintenance plans, respectively. This letter serves to notify you that after conferring with the Environmental Protection Commission of Hillsborough County, we agree in principle to the proposed changes. The proper paperwork will be initiated as time permits.

Your cooperation in this regard is appreciated.

Sincerely,

W.C. Thomas, P.E.
District Air Engineer

TAMPA ELECTRIC
A TECO ENERGY COMPANY

January 20, 1987

Mr. Bill Thomas
Florida Department of
Environmental Regulation
District Office
7601 Highway 301 North
Tampa, Florida 33610-9544

Re: Tampa Electric Company
Administrative Changes to
Air Permits

Dear Mr. Thomas:

During a recent review of Tampa Electric Company's air permits, administrative inconsistencies where identified that have lead to hardships on us that we feel are not intended by the Department. As shown on the attachment, the inconsistencies involve reporting and application for renewal requirements contained in older air permits. The requested modifications reflect the requirements of the specific conditions listed in our most recent air permits.

In order to communicate our concerns, we discussed the issue with Mr. Tom John, DER, and Mr. Victor San Agustin of the Hillsborough County Environmental Protection Commission on January 14, 1987. Based on this discussion, it is our understanding that neither Mr. John nor Mr. San Agustin are opposed to modifying the applicable air permits to provide consistency as outlined to them.

Tampa Electric Company respectfully requests that the air permits listed on the attachment be modified to reflect consistent administrative conditions as stated. The requested modifications will not change our environmental limits, they only clarify the distribution of compliance related reports and the quantity of renewal applications required.

We would greatly appreciate an expeditious review of our request for permit modifications. Thank you for your cooperation, and please call me if you have any questions.

Sincerely,

A. Spencer Autry
Manager
Environmental Planning

ASA/jst/001/EE

Attachment

cc: Tom John, FDER
Victor San Agustine, HCEPC

INCONSISTENCIES IN ADMINISTRATIVE PROCEDURES

DER AIR PERMITS

TAMPA ELECTRIC COMPANY (TEC)

The following modifications will provide consistent administrative requirements for the compliance reports and permit renewal applications required in TEC's air permits:

1) Specify that one copy of each report (i.e. Annual Emissions Report, Annual Stack Test Report, etc.) listed in the below specific conditions be sent to both the Florida Department of Environmental Regulation and the Hillsborough County Environmental Protection Commission.

Source	Permit Number	Specific Conditions
F.J. Gannon		
Unit 2 - 1	A029-112412	4, 7
Unit 3 - 2	A029-95792	4, 7
Unit 4 - 3	A029-80043	4
Combustion Turbine 1	A029-85099	1, 5
Fly Ash Silo 1	A029-80048	2, 7
Fly Ash Silo 2 - 4	A029-80046 VM	1, 6
Economizer Silo - 5	A029-87409 VM	1, 5
Coal Yard	A029-94044	2, 10
Big Bend		
~~Unit 1~~	~~A029-63296 VM~~	~~1, 4, 6~~
Unit 2 - 6	A029-66329	4, 5.c, 8
Unit 3 - 7	A029-93937	5, 6.c, 9
Combustion Turbine 1 - 8	A029-85100 VM	1, 6
Combustion Turbine 2 - 9	A029-100797	1, 6
Combustion Turbine 3 - 10	A029-100795	1, 6
Fly Ash Silo 1 - 11	A029-90129	1, 9
Fly Ash Silo 2 - 12	A029-90128	1, 9

2) Specify that an application to renew the operating permit, and 3 copies with original seals and signatures, shall be submitted to the Hillsborough County Environmental Protection Commission at least 60 days prior to the expiration date of the permit.

Source	Permit Number	Specific Conditions
F.J. Gannon		
Unit 2	A029-112412	10
~~Coal Yard~~	~~A029-94044~~	~~11~~
Big Bend		
Unit 2	A029-66329	9
Unit 3	A029-93937	10

REQUESTED MODIFICATIONS TO PERMIT #A029-112412

Specific Condition 2. - Typographical error.

Line 2: Reference is Section 17-2.650(2)(c)2.b.(ii) FAC.

Specific Condition 4. - Consistency with recently issued DER permits to TEC.

4. This unit shall be stack tested for particulate matter (under both soot blowing and non soot blowing operating conditions), sulfur dioxide and visible emissions at intervals of 12 months from the date of August 28, 1985 or within a ~~sixty (60)~~ ninety (90) day period prior to this date. The Method 9 Test period on this source shall be sixty (60) minutes. Testing procedures shall be consistent with the requirements of Section 17-2.700, F.A.C.

Specific Condition 5. - Clarification

5. Compliance with the SO_2 emission standards set for the Gannon Station shall be achieved in part by adhering to the Francis J. Gannon Sulfur Dioxide Regulatory Compliance Plan submitted with the application. A quarterly report summarizing the information necessary to determine compliance with the SO_2 standards for this unit and the facility shall be submitted within 45 days following a calendar quarter. The sulfur variability study specified in Section V.A. of the above compliance plan, will be performed on the facility during the last quarter of each year. The results shall be submitted with the quarterly report for that period. The Hillsborough County Environmental Protection Commission and the Department of Environmental Regulation shall each receive a copy of this report.

Note

Strike Through = Requested deletion.
Underline = Requested addition.

026/EE1

1623-80

FRANCIS J. GANNON STATION
SULFUR DIOXIDE
REGULATORY COMPLIANCE
PLAN

PROPOSED
FRANCIS J. GANNON STATION
SULFUR DIOXIDE
REGULATORY COMPLIANCE
PLAN

PROPOSED
FRANCIS J. GANNON STATION
SULFUR DIOXIDE
REGULATORY COMPLIANCE
PLAN

I. Introduction

This compliance plan has been developed to explain how Tampa Electric Company intends to demonstrate that its Gannon Station operations will be maintained in such a manner that current allowable emissions will not be increased and that Florida Ambient Air Quality Standards (AAQS) will be protected.

The current allowable sulfur dioxide emission rate for individual coal burning units at Gannon Station is 2.4 lbs. per million BTU based on a weekly composite fuel analysis. The current allowable sulfur dioxide emission rate for the entire station can be calculated at 10.6 tons per hour, also over a weekly period. Part I of the compliance plan describes how weekly generation data and weekly fuel analyses data will be used to demonstrate compliance with the existing 2.4 lbs/MMBTU and the 10.6 tons per hour limitations.

Allowable emission rates over a 24-hour averaging time are limited by ambient impacts predicted with dispersion modeling. The results of this modeling indicate that maximum emission rates for the protection of AAQS vary inversely with station load. Detailed sulfur variability statistical studies (Entropy, Inc. August 1980) indicate that compliance with a weekly limit 2.4 lbs. per million BTU assures compliance with the 24-hour AAQS up to 10,050 MMBTU per hour (about 83% station load). Part II describes how at load points above 10,050 MMBTU per hour, daily fuel analysis will be performed and examined carefully to ensure operations at appropriate levels.

II. PART I - COMPLIANCE WITH EMISSION LIMITS

The purpose of this portion of the plan is to show compliance with a 2.4 lbs. SO_2/MMBTU emission limit and a 10.6 tons SO_2/hour emission cap over a weekly averaging period and ensure compliance with Florida Ambient Air Quality standards. Inputs to this portion of the plan include weekly station generation data, station heat rate data and weekly composite fuel analysis results.

As shown graphically on Figure 1, the plant operating range to ensure compliance with existing emission limitations is dependant on weekly station load and weekly composite fuel quality (lbs. SO_2/MMBTU). Operating the plant below 8850 MMBTU/HR (73% load) on a weekly average with a 2.4 lb/MMBTU or less fuel automatically ensures compliance with both the emission limit and the emission cap. When the plant is operated above 8850 MMBTU/HR on a weekly average, the fuel quality must be below 2.4 lbs. SO_2/MMBTU. The maximum weekly average heat input for a given fuel quality can be obtained from Figure 1.

Compliance on a weekly basis will be demonstrated in the following manner. A weekly composite fuel analysis will be obtained and the SO_2 emission rate will be calculated using the percent sulfur and the heating value of the fuel in the following equation:

$$\text{lbs } SO_2/\text{MMBTU} = \frac{(\text{percent sulfur})(100)(.95)(2 \text{ lb } SO_2/\text{lb S})(1{,}000{,}000 \text{ BTU/MMBTU})}{(\text{heating value, BTU/lb})}$$

The tons of SO_2/hour will be calculated from the weekly heat input. The weekly heat input is calculated from the weekly generation and the station heat rate as follows:

Heat input, MMBTU/week= (heat rate, MMBTU/KWH) (generation, KWH/week)

The tons SO_2 emitted per hour will then be calculated as follows:

$$\text{tons } SO_2/\text{hour} = \frac{(\text{heat input, MMBTU/week})\ (\text{lb}SO_2/\text{MMBTU})}{(2000 \text{ lb/ton})\ (168 \text{ hours/week})}$$

III. PART II - COMPLIANCE WITH FLORIDA AMBIENT AIR QUALITY STANDARDS

The purpose of this portion of the compliance plan is to ensure protection of the 24 hour and 3 hour Florida AAQS based on actual conditions modeled and actual load conditions.

The primary input to this part of the compliance plan is the peak load availability and forecast for the following day. If this valve is less than 10,050 MMBTU/HR then the sulfur variability statistics and Part I of this plan assure protection of the AAQS and no further action need be taken.

If the projected peak load is above 10,050 MMBTU/HR (see Figure 2), then a fuel analysis of the coal to be burned the following day will be performed. When the result of this fuel analysis is obtained and the lbs SO_2 per MMBTU has been calculated, Figure 2 will be examined to find the maximum allowable operating point. The Plant Superintendent will then be notified of the maximum allowable operating point.

IV. OPERATING FIGURES

GANNON STATION

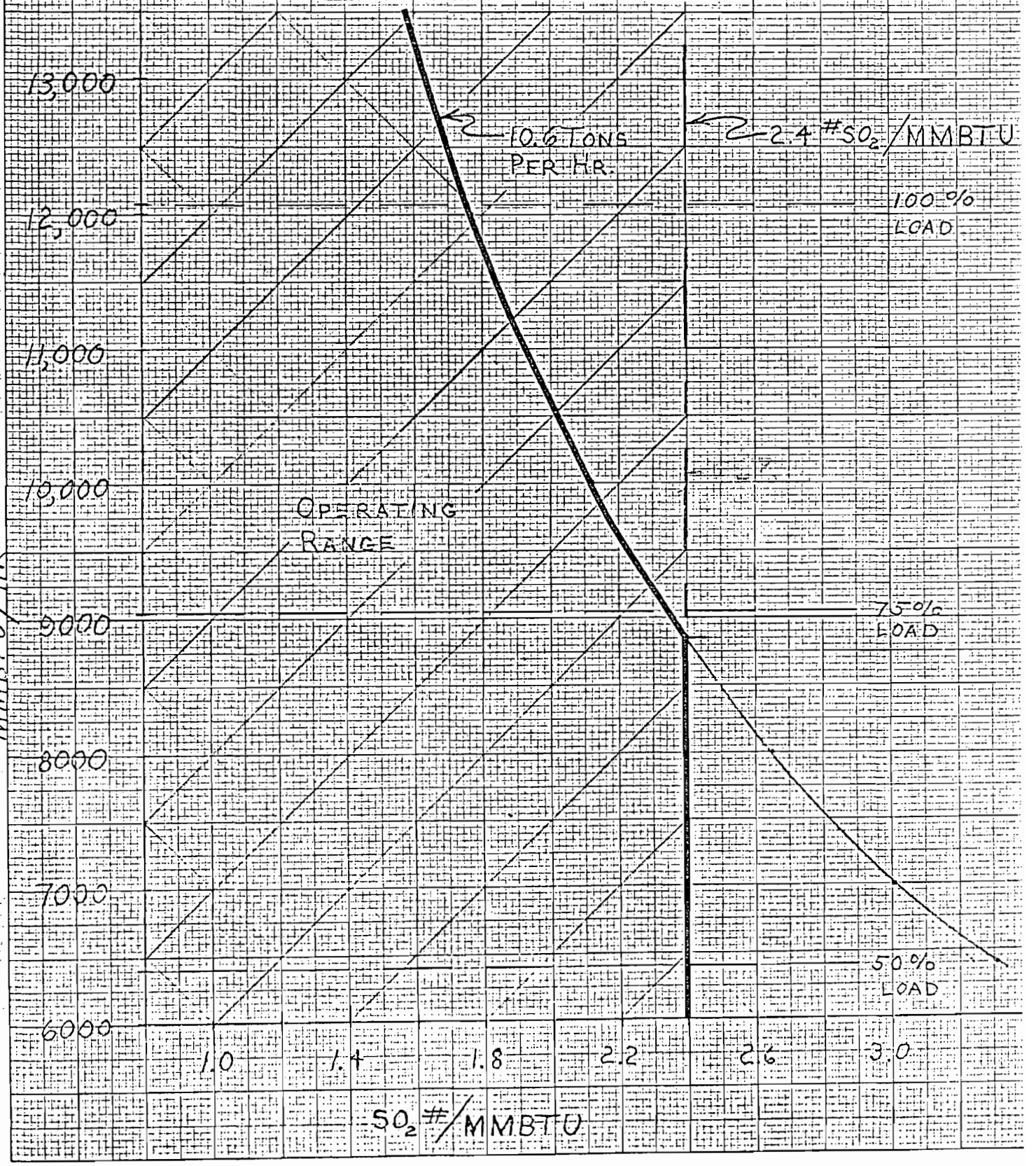
CHART 1

UNITS 1-6

OPERATING CURVES

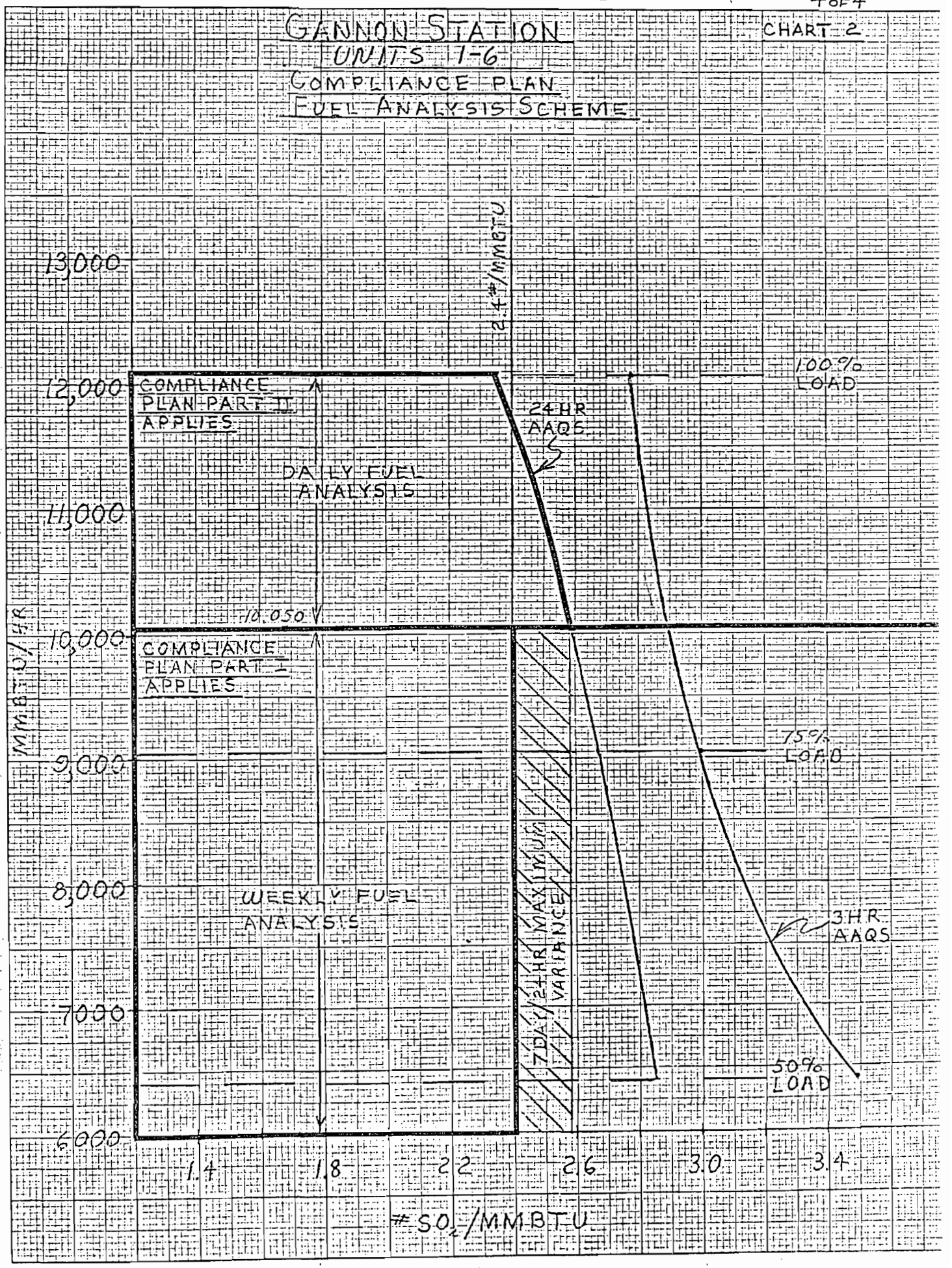
FOR COMPLIANCE WITH

2.4 #/MMBTU & 10.6 TPH WEEKLY



GANNON STATION
UNITS 1-6
COMPLIANCE PLAN
FUEL ANALYSIS SCHEME

CHART 2



V. COMPLIANCE PLAN VERIFICATION

A. Sulfur Variability

An examination of weekly composite fuel analysis results will allow a straightforward evaluation of overall fuel quality in terms of sulfur dioxide emission rate. To provide an extra level of confidence that sulfur variability after conversion has not changed significantly from that currently observed (Entropy, Inc. August 1980), in one week (7 concurrent days) per year, daily fuel samples will be collected, analyzed, and evaluated statistically.

B. Stack Sampling

At some period in each year when daily fuel samples are being collected, a stack test for sulfur dioxide will be conducted for the purpose of comparing those stack test results to fuel analysis results.

*C. Comparative Test Program

A six-month comparative test program will be conducted on one unit after conversion to compare results from coal sampling and analysis with continuous stack monitoring. Results of this program will be presented to the Department.

* Agreed upon and adopted at the Environmental Regulation Commission public hearing, Docket No. 8-25R, October 23, 1980.

VI. REPORTING

A. Frequency - reporting of compliance status shall be performed on a quarterly calendar basis.

B. Content - quarterly reports will consist of:

1. Weekly average emission rate in lbs/MMBTU and tons/hour of sulfur dioxide.

2. Daily emission rates and generation data for those periods necessary under Part II of the plan.

3. Results of sulfur variability testing (Part V. A) and stack sampling (Part V. B) if performed during the calendar quarter.

VII. EPISODE REPORTING

Excess emissions shall be reported to Hillsborough County Environmental Protection Commission. Excess emissions shall be reported in a timely manner, upon completion of fuel analysis data and station loading data. Any episode of excess emissions will be reported as soon as possible by telephone with a written report on the episode to follow within 5 working days.

1.C10

State of Florida
DEPARTMENT OF ENVIRONMENTAL REGULATION

Interoffice Memorandum

FOR ROUTING TO OTHER THAN THE ADDRESSEE
To: Jerry C. Locin:
To: Locin:
To: Locin:
From: Date:

RECEIVED
DEC 10 1985
N.C.E.P.C.

TO: Bill Thomas

THRU: Steve Smallwood

FROM: Larry George

DATE: December 5, 1985

SUBJ: TECO Gannon Station, Sulfur Variability Protocol

In response to your memo of November 18, 1985, we have reviewed the methodology proposed by TECO for the test of sulfur variability of coal for the Gannon Station reconversion. Following are our major concerns:

(1) The sample variance, S^2, used to test against $\sigma^2=(0.10)^2$ is calculated from one 7-consecutive-day sample; this implies that sample variance remains constant in all 52 weeks of a year. This is questionable and has never been verified.

(2) The modified F-test of variance is valid only if the assumed autocorrelation structure of the data is correct; i.e.,

   (a) The time history of data can be fitted exactly by a first order autoregressive model, AR(1).

   (b) The day to day autocorrelation coefficient, ρ, remains constant (in this case they assumed $\rho=0.6$).

These assumptions need to be verified periodically. The parameters used here were adopted from the original studies based on data obtained in the late 1970's (1978-79). How frequently these need to be re-estimated has yet to be established and agreed upon.

In summary, the methodology proposed in the compliance plan and protocol is acceptable provided that the underlying assumptions are correct. One of these assumptions has never been verified. The other assumptions (having to do with the autocorrelation structure) rely on a data base that is more than six years old. Over this length of time, it is reasonable to suspect that the statistics of the sulfur content in the coal, even from the same mine, have changed. Thus, we recommend the company be offered the following alternatives.

(1) Continue the procedure postulated in the compliance plan, but conduct an extensive study to verify the underlying assumptions. Conduct such a study at this time and periodically in the future.

(2) Continue the current procedure but use a more conservative value of the autocorrelation coefficient; e.g., =0.8, and test S^2/σ^2 against 1.09 at = 5% significance level. This would minimize the effect of any errors in the underlying assumptions and eliminate the need for verification studies.

(3) Through mutual agreement, replace the current procedure with a test which is less dependent on those strong assumptions; e.g., the test we suggested in our earlier letter. That suggestion may not be the best method; however, it certainly involves fewer assumptions and might be worth carrying out in the long run to avoid periodic verifications and re-estimations which will require extensive data collection and intensive analysis. The company may have alternative suggestions along these lines.

SC/ks

cc: Dan Williams
Jim Estler
Ken Roberts
Jerry Campbell

TAMPA ELECTRIC
A TECO ENERGY COMPANY

October 15, 1985

Richard D. Garrity, Ph.D.
Manager, Southwest District
Florida Department of
Environmental Regulation
7601 Highway 301 North
Tampa, Florida 33610

Re: Gannon Station Reconversion --
Sulfur Variability Protocol

Dear Dr. Garrity:

On December 11, 1984, Tampa Electric Company submitted to the Department and the Hillsborough County Environmental Protection Commission (HCEPC) a protocol outlining the procedures for determining sulfur variability of coal for the Gannon Station reconversion. The protocol was submitted pursuant to Specific Condition 5a of Permit No. AO29-80043 issued by the Department. The procedure for determining sulfur variability (embodied in Specific Condition 5a) is a part of the regulatory compliance plan approved by the Environmental Regulation Commission (ERC) at the time that it authorized a revision to Florida's State Implementation Plan to accommodate the reconversion of Gannon Station Units 1 through 4 from oil to coal firing. In accordance with the operating permit, coal samples were taken at Gannon Station from December 13-19, 1984, and analyzed statistically. On April 26, 1985, the results were submitted to HCEPC and DER. On September 11, 1985, we received from Mr. Jerry Campbell of the HCEPC the enclosed correspondence which Mr. Campbell indicates is the response of both HCEPC and the Department to our December 11, 1984, submittal.

Although we are somewhat concerned about the length of time it has taken to review what we considered to be a fairly straightforward matter, we are more concerned with Mr. Campbell's suggestion that the sampling required by the regulatory compliance plan be substantially expanded. Mr. Campbell, apparently on the basis of correspondence from Larry George of the Bureau of Air Quality Management in Tallahassee, suggests that sampling be conducted semi-annually and that thirty-one daily fuel samples be taken during each phase of the semi-annual sampling. This is in contrast to the provisions of the ERC approved regulatory compliance plan, contained in the operating permit, that call for an annual determination of sulfur variability based upon the collection and analysis of coal samples taken over seven consecutive days.

The purpose of this letter is to notify both the Department and HCEPC that we are not in agreement with this proposal. We consider this to be a substantial deviation from the require-

ments approved by the ERC and contained in the operating permit. If Mr. Campbell's letter accurately reflects the Department's position, we are unclear as to the reasons why the Department would feel the need to make such a proposal.

We would be pleased to meet with you to discuss this in more detail, should you deem it desirable. In the meantime, we would appreciate your advising us as to the acceptability of the sampling protocol submitted on December 11, 1984, as it relates to the permit condition and the matters approved by the ERC.

Sincerely,

Jerry L. Williams
Director
Environmental

JLW/jrh
099771123L10/2:144

cc: Ms. Victoria J. Tschinkel
Mr. Steve Smallwood
Mr. Roger P. Stewart

HILLSBOROUGH COUNTY
ENVIRONMENTAL PROTECTION
COMMISSION

RODNEY COLSON
RON GLICKMAN
PAM IORIO
RUBIN E. PADGETT
JAN KAMINIS PLATT
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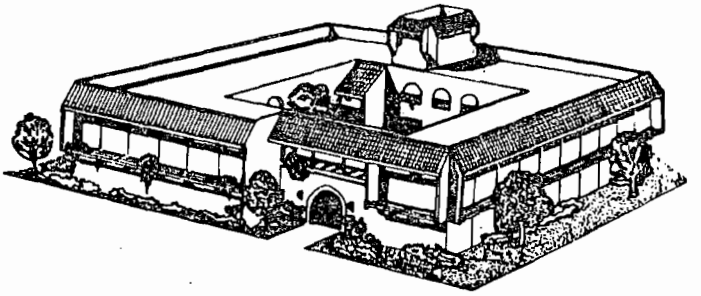
PICKENS C. TALLEY II



ROGER P. STEWART
DIRECTOR

1900 - 8th AVE
TAMPA, FLORIDA 33605

TELEPHONE (813) 272-5960

September 6, 1985

Mr. Spence Autry, Manager
Environmental Planning
Tampa Electric Company
P. O. Box 111
Tampa, FL 33601

Re: Protocol for Determining the Sulfur Variability in the Coal Fired at the Gannon Station

Dear Mr. Autry:

With the assistance of the Bureau of Air Quality Management (BAQM), we have reviewed the protocol you submitted on December 11, 1984. We have also had the opportunity to discuss your proposal with the State's Southwest District office and this letter shall serve as a response from the both of us.

The protocol you submitted would be acceptable if it is expanded to include the BAQM's recommendation (see item #3 of the attached letter of August 13, 1985, from Larry George to Victor San Agustin). The BAQM is suggesting that additional sampling be conducted semi-annually to verify the assumed autocorrelation of 0.6. If TECO is agreeable to this amended protocol, then we ask that you acknowledge such in writing. At that point we would need to discuss the implementation of the plan including the reporting requirements. Perhaps a meeting would be appropriate.

If you have any questions or comments concerning the contents of this letter, please contact me.

Sincerely,

Jerry Campbell

Jerry Campbell, P.E.
Chief, Air Engineering Section
Hillsborough County Environmental
Protection Commission

cc: Bill Thomas, SWFDER
Larry George, BAQM

Attachment

JC/ch

v5A

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32301-8241

BOB GRAHAM
GOVERNOR

VICTORIA J. TSCHINKEL
SECRETARY

August 13, 1985

Mr. Victor San Agustin
Senior Engineer
Air Permitting Group
1900 9th Avenue
Tampa, Florida 33605

Dear Mr. San Agustin:

In response to your letter of June 28, 1985, we have the following suggestions for your consideration.

1. The assumed value of $\sigma^2=0.10^2$ is not an unacceptable value based on their original estimation of variance of the daily mean sulfur content in the coal during 1978-1979.

It would be necessary to reevaluate this value, σ^2, if there is consistent evidence of significant differences existing between $\sigma^2=0.10^2$ and sample variances, S^2, obtained from routine fuel analysis.

2. The procedures of testing S^2/σ^2 against 1.6 is a modified F-test of variance based on an assumed lag-one autocorrelation of $\rho=0.6$ existing in the daily samples. Thus, the value 1.6 is acceptable provided the assumptions are correct. The determination of actual autocorrelation would require a time-series analysis of at least fifty days.

3. In order to avoid the uncertainty of an assumed autocorrelation, a random sampling technique should be applied in computing S^2. We suggest an additional F-test be conducted semi-annually, taking randomly 31 daily samples to calculate S^2, and testing S^2/σ^2 against 1.46 at the $\alpha=5\%$ significance level. This acts as an additional check on the sulfur variability in the coal.

4. Eventually, through future rulemaking, it may be desirable to replace the fuel analysis procedure (with its many underlying assumptions) with a compliance procedure based on direct measurement of in-stack sulfur dioxide levels. This change in procedure would probably require a change in the form of the emission limit specified in Chapter 17-2.

If you have any questions on these comments, please call Shao-Hang Chu at SUNCOM 278-1344.

487-4022
277-

Sincerely,

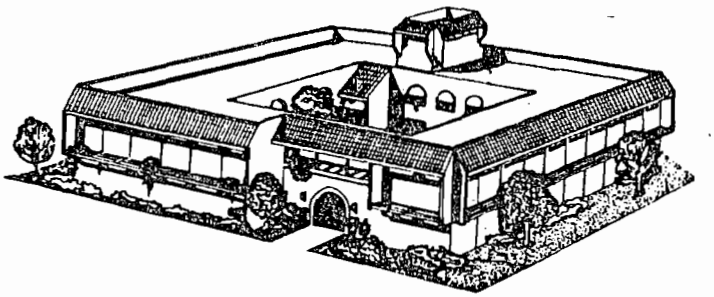
Larry George

Lawrence A. George
Environmental Administrator
Air Modeling & Data Analysis Section
Bureau of Air Quality Management

LAG/SHC/p

cc: Bill Thomas, Southwest District

HILLSBOROUGH COUNTY
ENVIRONMENTAL PROTECTION
COMMISSION
E. L. BING
RODNEY COLSON
MATT JETTON
JOHN R. PAULK
JAN KAMINIS PLATT



ROGER P. STEWART
DIRECTOR

1900 - 9th AVE
TAMPA, FLORIDA 33605

TELEPHONE (813) 272-5960

June 28, 1985

Mr. Larry George, Environmental Administrator
Florida Department of Environmental Regulation
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, FL 32301

RE: SO_2 Regulatory Compliance Plan at Tampa Electric Company's (TECO's) Francis J. Gannon Station

Dear Mr. George:

A specific condition in A029-95792 and 80043, permits to operate Steam Generating Units 3 and 4 requires TECO to adhere to their SO_2 regulatory compliance plan.

A portion of the plan requires TECO to report to our Agency and FDER every month the sulfur content variability of their coal. This letter requests for assistance in evaluating the acceptability of their statistical coal sampling methods and sulfur content variability analyses. Having been informed that your department has two expert statisticians, we request your help in this matter.

A review of the variability analyses indicates the square of the estimated variability (from coal sampling) is divided by the square of an assumed value. The calculated ratio is then compared to a critical value (R=1.6). A ratio less than or equal to this value indicates no significant increase in SO_2 emission variability. A ratio greater than 1.6 indicates otherwise. Our concerns in this regard are, is the assumed value, $\sigma^2=0.10^2$ an acceptable assumption? In addition, is the critical ratio, R=1.6 acceptable?

Due to a possible oversight, there may be additional concerns. We therefore respectfully request that you review TECO's SO_2 regulatory compliance plan and sulfur variability protocol. Both are submitted with this letter. Also enclosed are materials which may be helpful for your review.

Thank you for your cooperation. Please submit your determination as soon as possible. If I can be of any assistance, please call me or Jerry Campbell at SC 571-5960.

Sincerely,

Victor San Agustin

Victor San Agustin
Senior Engineer, Air Permitting Group
Hillsborough County Environmental
Protection Commission

cc: Bill Thomas, FDER

TAMPA ELECTRIC
A TECO ENERGY COMPANY

December 11, 1984

Richard B. Garrity, Ph.D.
Florida Department of
Environmental Regulation
7601 Highway 301 North
Tampa, FL 33610-9544

Mr. Roger P. Stewart
Hillsborough County Environ-
mental Protection Commission
1900 - 9th Avenue
Tampa, FL 33605

Gentlemen:

Please find attached the protocol for determining if the sulfur dioxide variability at the F.J. Gannon Station has significantly increased over the value previously determined. The protocol will be used to statistically evaluate coal samples taken over seven consecutive days.

The procedure is being submitted as required by permit A029-80043 specific condition 5a and in reference to the Francis J. Gannon Station Sulfur Dioxide Regulatory Compliance Plan.

If you should have any questions on this matter, please feel free to call.

Sincerely,

A. Spencer Autry
Manager
Environmental Planning

ASA/tb

cc: Jerry Campbell (w/attachment)

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

PROTOCOL FOR DETECTING CHANGES IN SULFUR DIOXIDE EMISSION VARIABILITY

Background

This protocol shall be used to evaluate the variability of sulfur dioxide emissions (Lb SO_2/MMBtu) in seven consecutive daily coal samples from the Tampa Electric Company Francis J. Gannon Generating Station. The evaluation consists of (1) estimating the variability of the twenty-four hour average station sulfur dioxide emission rate (LbSO_2/MMBtu) and (2) determining if the estimated value is significantly greater than the value used in developing the compliance plan set forth during the Gannon Station Units 1-4 conversion rulemaking. The following sections present the data collection and analysis procedures used in this evaluation.

Data Collection

The data used in the evaluation of sulfur dioxide emission variability shall consist of seven station composite coal sulfur and Btu analyses. Each day, for a period of seven contiguous days, a station composite coal sample shall be obtained. This station composite shall be representative of the total coal consumed in each of the six steam generating units during the twenty-four hour period. The sulfur and Btu content (dry basis) for each station composite sample shall be determined according to ASTM methods D 3177 and D 2015 respectively. The results of these analyses will be used to compute the sulfur dioxide emission drate according to the following equation:

$$SO_2 = \left(\frac{\% \text{ Sulfur}}{\text{Btu/Lb}}\right) \times 20{,}000 \times 0.95 \quad \text{Eq.1}$$

The daily % sulfur, Btu and SO_2 emission rates will be recorded on Table 1.

Table 1
TAMPA ELECTRIC COMPANY
FRANCIS J. GANNON STATION
COMPOSITE COAL ANALYSES

Day	% Sulfur	Btu/Lb	SO_2 Emission Rate $LbSO_2/MMBtu$
1			
2			
3			
4			
5			
6			
7			

Evaluation of Sulfur Dioxide Emission Rate Variability

The evaluation of the station composite SO_2 emission variability compares the variability estimated from the data contained in Table 1 with the emission variability used in the August 1980 report by Entropy Environmentalists, Inc. entitled "Statistical Analysis of Long and Short-Term Sulfur Dioxide Emission Variability at the Tampa Electric Company Gannon Unit 6 Steam Generating Station."

If the ratio of the estimated variability (S^2) to the assumed value ($\sigma^2 = 0.10^2$) is greater than a certain critical value, then there is evidence at the 5% significance level that the sulfur dioxide emission variability has increased. The following computational procedures illustrate the application of the Protocol:

A) Estimation of Gannon Station composition daily SO_2 emission variability ($LbSO_2/MMBtu$).

The SO_2 emission variability is computed using the following general relationship:

$$S^2 = \frac{(n)\sum_{1}^{n}(Xi^2) - \left(\sum_{1}^{n} Xi\right)^2}{(n)(n-1)} \qquad \text{Eq. 2}$$

Where: n is the number of 24 hour average SO_2 emission rates
Xi is the 24 hour average SO_2 rate for the i^{th} day

For the case where seven daily station composite values are used to estimate the SO_2 emission variability, equation 2 can be written as:

$$S^2 = \frac{(7)\sum_{1}^{7}(Xi^2) - \left(\sum_{1}^{7} Xi\right)^2}{(7)(6)} \qquad \text{Eq. 3}$$

B) Comparison of estimated variability to critical value.

Using the station composite SO_2 emission variability (S^2) that was computed using the data in Table 1 and Equation 3, determine the ratio of the estimated value to the value used in the August Entropy report. This ratio is computed using the following equation:

$$R = \left(\frac{S^2}{0.10^2}\right) \qquad \text{Eq. 4}$$

If this ratio is less than or equal to 1.60, there is no evidence at the 5% level of significance that the station composite SO^2 emission variability has increased over the level previously assumed to apply.[1/]

1/ The chi-square distribution can be used to detect changes in process variability (variance). One of the assumptions implicit in the use of the chi-square distribution is independence of the data. An analysis of SO_2 emission data for Gannon has indicated the presence of time dependence, or autocorrelation. The critical value used in this protocol reflects a chi-square value corrected for a 24-hour average autocorrelation of $\rho = 0.60$.

TO: File

THRU: Bill Thomas

FROM: Jim Estler 2-11-86

DATE: February 10, 1986

SUBJECT: Hillsborough County - AP
Tampa Electric Company
A029-112412

Attached is the permit which covers the operation of Gannon Station Unit 2. This source is subject to the particulate RACT requirements of Chapter 17-2, F.A.C. HCEPC comments were received on February 6, 1986 and incorporated into the permit. TECO has received a draft permit and now find the conditions acceptable.

Recommend this permit be issued as conditioned.

JWE/je

COMPANY NAME Tampa Electric Co

Processor FWE

File Number AO29-112412

PERMIT APPLICATION STATUS SHEET

Type of permit applied for OPERATION

County Hillsborough

Date Received 11-19-85

P.E. seal & signature
Check
No Check
Letter of Corp. standing

Clock Days		Date Task Completed	Initials
3	Logging by Sec'y	11-21-85	CCW
5	Review by Sec. head and transfer to permitting Engineer		
28	Completeness Review		
	request additional info *		
	information received *		
	Public Notice Published * (for Air Construction Only)		
55	Letter of Intent sent to * Supervisor		
60	Letter of Intent submitted to District Manager		
75	Intent to issue/deny mailed*		
80	Permitting Eng'r submit finished permit package & recommendations to supervisor		
83	Permit Package to Dist. Engr.	2-11-86	
85	Permit Package to Dist. Manager	2/13/86	
90	Final Issuance/denial		

*If needed, If not indicate by N/A

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL REGULATION

Nº 96698

RECEIPT FOR APPLICATION FEES AND MISCELLANEOUS REVENUE

Received from TAMPA ELECTRIC Date 11-19-85

Address P.O. Box 111, TAMPA, FL 33601 Dollars $ 500.00

Applicant Name & Address SAME

Source of Revenue GANNON STATION Unit #2

Revenue Code 001032 Application Number A029-112412

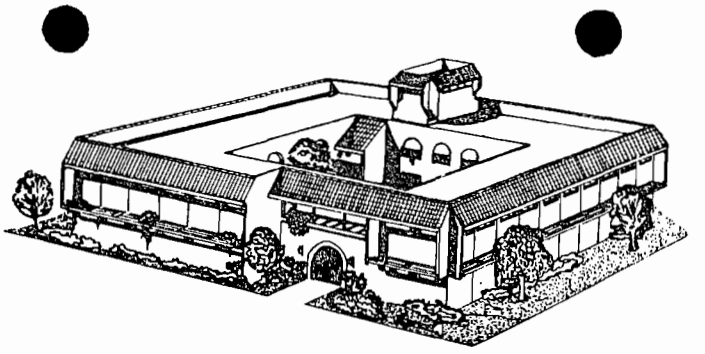
03170

By Dorothy Pelham

HILLSBOROUGH COUNTY
ENVIRONMENTAL PROTECTION
COMMISSION

RODNEY COLSON
RON GLICKMAN
PAM IORIO
RUBIN E. PADGETT
JAN KAMINIS PLATT
JAMES D. SELVEY
PICKENS C. TALLEY II

D. E. R.



A029-112412

ROGER P. STEWART
DIRECTOR

1900 - 9th AVE
TAMPA, FLORIDA 33605

TELEPHONE (813) 272-5960

FEB 0 6 1986

SOUTH WEST DISTRICT
TAMPA

MEMORANDUM

Date February 6 , 1986

To Jim Estler thru Bill Thomas

From Victor San Agustin VSA thru Jerry Campbell JC

Subject: Permit Renewal for TECO Gannon Station's Unit #2

EPA Method 6, 9, and 17 tests performed on August 28-29, 1985 on this unit show the following actual emissions below. Coal was being fired during the compliance test:

	TSP (lb/MMBTU)		VE (% Opacity)		SO2
	Sootblowing	Non-Sootblowing	Sootblowing	Non-Sootblowing	(lbs/MMBTU)
Actual	0.01	0.01	0%	0%	1.97
Allowable	0.3	0.1	60%	20%	2.4

Based on the results above, I recommend approval to issue a new operating permit with the following conditions:

1. The maximum allowable particulate emission rate from this source shall be 0.1 pounds per MMBTU heat input over a two hour average [Section 17-2.650 (2)(c)2.b.(ii), F.A.C.], except for any 3 hours during a 24 hour period in which the boiler is being cleaned by soot blowing or experiencing a load change. Under these operating conditions the maximum allowable particulate emission rate shall be 0.3 pounds per MMBTU heat input providing best operational practices to minimize emissions are adhered to and the duration of excess emissions are minimized [Section 17-2.250(3), F.A.C.].

2. The maximum opacity from this source shall be 20 percent [Section 17-2.650 (2)(c)2.b.(i), F.A.C.] except for: any 2 minutes during a 60 minute period in which the opacity shall not exceed 40 percent [Section 17-2.600(5), F.A.C.]; any 3 hours during a 24 hour period of excess emissions in which the boiler is being cleaned by soot blowing or experiencing a load change the opacity shall not exceed 60%, and allowing four six minute periods during the 3 hour period of unlimited opacity providing best operational practices to minimize emissions are adhered to and the duration of excess emissions are minimized [Section 17-2.250(3), F.A.C.].

3. The maximum allowable SO2 emission rate from this unit shall be 2.4 pounds of SO2 per MMBTU heat input on a weekly average. In addition, Units 1 through 6 at the Gannon Station shall not emit more than a combined total of 10.6 tons of SO2 per hour on a weekly average [Section 17-2.600(5)(b) 3.b.(i), F.A.C.].

4. This unit shall be stack tested for particulate matter (under both soot blowing and non-soot blowing operating conditions), sulfur dioxide and visible emissions at intervals of 12 months from the date of August 28, 1985 or within a ninety (90) day period prior to this date. The Method 9 test period on this source shall be sixty (60) minutes. Testing procedures shall be consistent with the requirements of Section 17-2.700, F.A.C.

5. Compliance with the SO2 emission standards set for the Gannon Station shall be achieved by adhering to the Francis J. Gannon Sulfur Dioxide Regulatory Compliance Plan submitted with the application. A quarterly report summarizing the information necessary to determine compliance with the SO2 standards for this unit and the facility shall be submitted within 45 days following a calendar quarter. The sulfur variability study will be performed on the facility during the last quarter of each calendar year. The results shall be submitted with the quarterly report for that period. The Hillsborough County Environmental Protection Commission and the Department of Environmental Regulation shall each receive a copy of this report.

6. A report shall be submitted to both the Department of Environmental Regulation and the Hillsborough County Environmental Protection Commission within 30 days following each calendar quarter detailing any excess opacity readings recorded during the three month period. For the purpose of this report, excess emissions shall be defined as all six minute averages of opacity greater than 20 percent, except as specified in Specific Condition No. 2. The information supplied in this report shall be consistent with the reporting requirements of 40 CFR 51 Appendix P [Section 17-2.710(1), F.A.C.]. This report shall be submitted in duplicate to the Hillsborough County Environmental Protection Commission.

7. Operation and Maintenance Plan for Particulate Control [Section 17-2.650 (2), F.A.C.].

   A. Process Parameters:

      1. Source Designator: Gannon Unit #2
      2. Electrostatic Precipitator Manufacturer: Combustion Engineering, Inc.
      3. Type: Rigid Frame
      4. Design Flow Rate: 440,000 ACFM
      5. Design Efficiency: 99.09%
      6. Pressure Drop: 1.6 inches of H20
      7. Primary Voltage: 460 Volts
      8. Primary Current: 258 AMPS
      9. Secondary Voltage: 56.6 Kilovolts
      10. Secondary Current: 1000 Milliamps
      11. Automatic Spark Rate Contoller: 0 to 20 sparks/min. range
      12. Rapper Frequency: 1/1.5 to 1/4.0 minutes
      13. Rapper Duration: Impact
      14. Gas Temperature: 250 F to $\pm$ 55
      15. Design Fuel Consumption at 100% Rating: 51 tons coal/hr.
      16. Operating Pressure: 1575 psi
      17. Operating Temperature: 1000 F
      18. Maximum Design Steam Production Capacity: 910,000 lbs/hr
      19. Generator Nameplate capacity: 125 MW
      20. Operating Schedule: 24 hrs/day; 7 days/wk.; 52 wks/yr.

B. The following observations, checks and operations apply to this source and shall be conducted on the schedule specified:

Continuously Monitored and Recorded:

Pressure
Temperature
Steam Flow

Daily

Fuel input
Primary voltage
Primary current
Secondary voltage
Secondary current
Spark rate
Inspect system controls, make minor adjustments as needed
Check operation of inlet distribution plate rappers

Weekly

Inspect penthouse pressurizing fan filters - Replac as needed
Observe oepration of all rappers and vibrators - Check rotation and sequence of operations.

C. Records:

Records of inspections, maintenance, and performance parameters shall be retained for a minimum of two years and shall be made available to the Department or Hillsborough County Environmental Protection Commission upon request [Subsection 17-2.650(2)(g)5., F.A.C.].

8. Pursuant to Section 17-4.09, F.A.C., an application for renewal of permit to operate this source shall be submitted to the Hillsborough County Environmental Protection Commission at least 60 days prior to its expiration date. (DER #105)

9. Submit for this facility, each calendar year, on or before March 1, an emission report for the preceding calendar year containing the following information as per Section 17.4.14, F.A.C.

(A) Annual amount of materials and/or fuels utilized.
(B) Annual emissions (note calculation basis).
(C) Any changes in the information contained in the permit application.

Duplicate copies of all reports shall be submitted to the Hillsborough County Environmental Protection Commission. (DER #102)

10. A continuous monitoring system to determine in-stack opacity from this source shall be calibrated, operated, and maintained in accordance with Section 17-2.710(1), F.A.C.

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

SOUTHWEST DISTRICT

7601 HIGHWAY 301 NORTH
TAMPA, FLORIDA 33610

PERMITTEE

Mr. A. Spencer Autry, Manager
Environmental Planning
Tampa Electric Company
Post Office Box 111
Tampa, FL 33601

PERMIT/CERTIFICATION

Permit No.:
County: Hillsborough
Expiration Date:
Project: Gannon Station
Unit #2

This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Rules 17-2 & 17-4. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents, attached hereto or on file with the department and made a part hereof and specifically described as follows:

For the operation of coal fired steam generator designated as Unit #2. This "wet" bottom boiler was manufactured by Babcock and Wilcox Corporation and is of the cyclonic firing type. The generator has a nameplate capacity of 125MW. Particulate emissions are controlled by a Combustion Engineering, Inc. Electrostatic Precipitator.

Location: Port Sutton Road, Tampa

UTM: 17-360.1E 3087.5N NEDS NO: 0040 Point ID: 02

Replaces Permit No.: AO29-47730 & AC29-41942

TAMPA ELECTRIC
A TECO ENERGY COMPANY

D. E. R.

NOV 19 1985

SOUTH WEST DISTRICT
TAMPA

November 18, 1985

Mr. Richard D. Garrity, Ph.D.
Florida Department of
Environmental Regulation
7601 Highway 301 North
Tampa, Florida 33610-9544

Mr. Roger P. Stewart
Hillsborough County Environmental
Protection Commission
1900 - 9th Avenue
Tampa, Florida 33605

Re: Air Operations Permit Application
Gannon Station - Unit #2
Tampa Electric Company

Gentlemen:

Enclosed please find an original and four (4) copies of an Application to Operate an Air Pollution Source, including an operation and maintenance plan for the particulate control system.

Also, enclosed please find two copies of the electrostatic precipitator performance test and an authorization letter for the applicant. The application, together with a check for $345.00 to the Hillsborough County Board of County Commissioners and a check for $500.00 to the Florida Department of Environmental Regulation, are included with Mr. Garrity's copy.

If you should have any questions, please feel free to call.

Sincerely,

A. Spencer Autry
Manager
Environmental Planning

ASA/jst/050/8

Enclosures

PLANT 0040 TECO GANNON PLANT PRIVATE FILE STATUS NEW ADD
PORT SUTTON ROAD POWER PLANT
TAMPA FL. 33601
W JOHNSON AQCR=052 SIC=4911
P O BOX 111 LAT=28:02:32N LON=82:25:31W
TAMPA . 33601 UTM ZONE 17 .0KM E. .0KM N.

POINT 02 CONST PATS# OPER PATS# A029-15953
ISS= / / EXP= / / TSS=02/27/79 EXP=01/15/84
GANNON #2 #6 OIL FIRED
SOURCE= IPP=91 COMM.PNTS. -
STACK HT= 306FT DIAM=10.0FT TEMP= 309F FLOW= 372000CFM PLUME= 0FT
BOILER CAP= 125/MBTU/HR FUEL FOR SPACE HEAT= .0%
OPERATING PROCESS RATES YOR=79 RAW MATERIAL= 0 OTHER
PRODUCT 0 OTHER FUEL 0 OTHER
NORMAL COND. DEC-FEB=25% MAR-MAY=25% JUN-AUG=25% SEP-NOV=25%
PERMIT SCHEDULE 24HRS/DAY 7DAYS/WK 52WKS/YR
ANN FOR 12/31/78 24HRS/DAY 7DAYS/WK 27WKS/YR

COMPLIANCE NEDS=1 ORC=2 UPDATE / SCHED. / UPDATED / /
PERMIT=1 YOR=78 INSPECTED 11/22/78 NEXT DUE 09/30/79

/

SCC'S H

1-01-004-01 YOR= SOURCE=R RATE= 73409 MAX= 8.380
FUEL CONT SO2= .70% ASH= 0.0% 150MBTU FYOR= CONFID=2

1-01-004-04 YOR=79 SOURCE=R RATE= 25758 MAX= 8.044 OTHER
FUEL CONT SO2=1.03% ASH= 0.0% 157MBTU FYOR=77 CONFID=2
STEAM TURBINE BOILER CONVERTED FROM COAL TO #6 FUEL OIL

POLLUTANTS MONITORED

TSP 11101 NORM= 131.00 EST/METH= 52/1 MAX.ALW= 237 TNS/YR.
CTLS.PRI= 10 SEC= 0 EFF=90.0% NEXT DUE 03/24/83 TEST/FREQ=1
TESTED 03/24/82 AGENCY=3 REG=600(5)(B) COMPLIANCE=1
EMITTED= 33.90 ALLOWED= 109.30LBS/HR OP-RATE= 1093 MBTU/P
VE 11204 NORM= . EST/METH= / MAX.ALW= TNS/YR.
CTLS.PRI= 0 SEC= 0 EFF= 0.0% NEXT DUE 03/24/83 TEST/FREQ=
TESTED 03/24/82 AGENCY=3 REG=600(5)(B) COMPLIANCE=1
EMITTED= 600.00 ALLOWED= 600.20LBS/HR OP-RATE= 1093 MBTU/P
CO 42101 NORM= 0.00 EST/METH= 91/3 MAX.ALW= 91 TNS/YR.
CTLS.PRI= 10 SEC= 0 EFF= 0.0% NEXT DUE 12/31/79 TEST/FREQ=0
SO2 42401 NORM= 1438.00 EST/METH= 1425/2 MAX.ALW= 2880 TNS/YR.
CTLS.PRI= 10 SEC= 0 EFF= 0.0% NEXT DUE 03/24/83 TEST/FREQ=1
TESTED 03/24/82 AGENCY=3 REG=600(5)(B) COMPLIANCE=1
EMITTED= 1092.80 ALLOWED= 1202.10LBS/HR OP-RATE= 1093 MBTU/P
N

```
NOX 42603 NORM=     0.00 EST/METH=     905/3 MAX.ALW=     905 TNS/YR.
        CTLS.PRI= 10 SEC=  0 EFF= 0.0% NEXT DUE 12/31/79 TEST/FREQ=0
    TESTED 00/00/78 AGENCY=  REG=              COMPLIANCE=
        EMITTED=     5.68 ALLOWED=     0.00LBS/HR OP-RATE=         0 OTHER
THC 43101 NORM=     0.00 EST/METH=      18/3 MAX.ALW=      18 TNS/YR.
        CTLS.PRI= 10 SEC=  0 EFF= 0.0% NEXT DUE 12/31/79 TEST/FREQ=0
```

HILLSBOROUGH COUNTY ENVIRONMENTAL PROTECTION COMMISSION
ANNUAL OPERATING REPORT

Representing Calendar Year 1984
Date Submitted: March 8, 1985

SECTION I - GENERAL INFORMATION

Plant, Institution or Establishment Name: Tampa Electric Company (F.J. Gannon Station)
Plant Address: P.O. Box 111 (Street) Tampa (City) Florida (State) 33601 (Zip)
Telephone: (813) 228-4838

Person to Contact Regarding This Report A. Spencer Autry Title Manager, Environmental Planning
Mailing Address: P.O. Box 111 (Street) Tampa (City) Florida (State) 33601 (Zip)

Actual Operating Hours: 24 hrs/day 7 days/wk 52 wks/yr

SECTION II - FUEL COMBUSTION FOR GENERATION OF HEAT OR STEAM

Source Code	Type of Fuel a	Quantity c X 1,000	Annual Consumption b — Percent Distribution by Season: Spring March/May	Summer June/Aug	Fall Sept/Nov	Winter Dec/Feb	Hourly Consumption: Maximum	Average	Heat Content BTU/Quan	Percent Sulfur d	Percent Ash d
Gan 1	No. 6 Oil	10,602	18.98	35.57	24.60	20.85	8,044	4,354	149,319	0.95	NA
Gan 2	No. 6 Oil	12,392	22.64	26.49	30.95	19.92	8,044	4,626	149,319	0.95	NA
Gan 3	No.6 Oil Bitum Coal	7,627/ 154	6.85	28.26	42.12	22.77	10,846 65	6,997/ 43.5	149,319 12,596	0.95 1.18	NA 7.85
Gan 4	Bitum. Coal	371	26.87	20.50	29.26	23.37	80	52.1	12,361	2.09	8.04

a. Coke, bituminous, anthracite, or lignite coal No. 1, 2, 3, 4, 5, or 6 Fuel Oil, Nat. Gas, LPG; Refinery or Coke Oven Gas Etc. Indicate if two or more fuels are burned in the same boiler and provide all data pertinent to each fuel type.

b. Fuel Data Reported on 'as burned' Basis

c. Solid Fuel: Tons, Liquid Fuel: Gals.: Gaseous Fuel: 1000 ft^3

d. If unknown, please give name and address of fuel supplier.

SECTION III - AIR CLEANING EQUIPMENT

Source Code	Type of Air Cleaning Equipment a,b	Pollutant Removed c	Inlet Gas Temp °F	Inlet Gas Flow Rate ACFM	Maximum Pressure Drop PSI d	Efficiency e	
						Design Percent	Operating Percent
Gan 1	Not Applicable						
Gan 2	Not Applicable						
Gan 3	Electrostatic Precipitator	Particulate	250+55	574,000	1.60	99.07	99.25
Gan 4	Electrostatic Precipitator	Particulate	330	700,000	1.58	99.05	99.81

Wet scrubber, electrostatic precipitator, fabric filter, etc.

Please list future equipment separately

c. Pollutants to be covered in this survey are specified in the accompanying instructions.

d. Give maximum normal operating pressure drop across air cleaning system.

e. Give efficiency in terms of pollutant removed.

SECTION IV - STACK AND POLLUTANT EMISSIONS DATA

Stack Data					Estimate of Pollutant Emissions				
Source Code	Height Above Grade Ft.	Inside Diameter at top ft	Exit Gas Velocity ft/sec	Exit Gas Temp °F	Pollutant	Technique	Quantity tons/yr	Average lb/hr	Maximum lb/hr
Gan 1	306	10.0	47.53	309	Particulate Sulf.Dioxide	Stack Test Fuel Anal.	23.7 823.2	19.5 676.1	37.7 1,307.3
Gan 2	306	10.0	50.49	309	Particulate Sulf.Dioxide	Stack Test Fuel Anal.	37.0 962.2	27.6 718.3	50.3 1,307.3
Gan 3	306	10.6	59.18	266	Particulate Sulf.Dioxide	Stack Test Fuel Anal.	73.0 4,063.2	30.6 1,774.2	95.9 2,862.2
Gan 4	2 Stacks 306(ea)	9.6(ea)	43.48(ea)	286	Particulate Sulf.Dioxide	Stack Test Fuel Anal.	45.9 8,401.9	12.9 2,357.0	18.8 3,433.1

HILLSBOROUGH COUNTY ENVIRONMENTAL PROTECTION COMMISSION
AIR POLLUTANT EMISSION REPORT

Representing Calender Year 1984
Date submitted: March 1, 1985

SECTION I - GENERAL INFORMATION

Plant, institution, or establishment name: Tampa Electric Company (Hookers Point Station)
Plant, institution, or establishment address: P.O. Box 111 (Street or Box Number) Tampa (City) FL (State) 33601 (Zip)
Person to contact regarding this report: A. Spencer Autry Title: Environmental Planning Manager Telephone: 228-4838
Mailing address: P.O. Box 111 (Street or Box Number) Tampa (City) FL (State) 33601 (Zip)

NOT APPLICABLE

SECTION II - PROCESS/OPERATIONS EMISSIONS

Normal operating schedule: _____ Hours per day _____ Days per week _____ Weeks per year _____ Hours per year.
Seasonal and/or peak operation period: _____
Dates of annually occurring shutdowns of operations: _____ Additional operating info. enclosed

Source Code[a,b]	Processes or Operations Releasing Pollutants to the Atmosphere[c,d]	Raw Materials Used for Processes or Operations[e]				Products of Processes or Operations[g]				Intermittent Operation Only
		Type	Quantity Hourly Process Rate, lbs.			Type	Quantity Hourly Process Rate, lbs.			
			Annual Average[f]	Design	Maximum		Annual Average[f]	Design	Maximum	Average Hours/Week[h]

a. List a separate code number to represent each source(e.g.,IV-a,IV-b,IV-c,etc.) then enter required data on this page and for the same code number sources in Section III. IV, and V.
b. Multiple sources may be grouped if similar in size and type.
c. Sulfuric acid-contact:aluminum smelting-crucible furnace;cement manufacturing-dry process; etc (See instruction for examples and use approximate identification numbers): other non-listed processes and operations (specify).
d The pollutants to be covered in this report are listed in the accompanying instructions.
e. Sulfur burned:pig, foundry returns, or scrap aluminum melted;limestone, cement rock, clay,iron ore used; etc.
f. Pounds, tons, gallons, barrels, etc.
g. Sulfuric acid produced; aluminum ingots produced; etc.
h. For intermittent processes, indicate average number of hours per week of operation so that estimates of yearly emissions may be obtained.

SECTION III - FUEL COMBUSTION FOR GENERATION OF HEAT, STEAM, AND/OR POWER

Source Code[a]	Type of Fuel[b]	Annual Consumption[c]					Hourly Consumption[c]		Heat Content BTU/Quan.[d]	Percent Sulfur	Percent Ash (Solid) Fuel Only
		Quantity[d] X 1,000	Percent Distribution by Season Spring March/ May	Summer June/ Aug.	Fall Sept./ Nov.	Winter Dec./ Febr	Maximum	Average Quantity			
Hookers Point 1	No. 6 Oil	929	17.96	28.78	26.35	26.91	1,810	928	151,387	0.99	NA
Hookers Point 2	No. 6 Oil	1,340	12.83	33.69	25.60	27.88	1,810	875	151,387	0.99	NA
Hookers Point 3	No. 6 Oil	2,983	23.37	14.90	25.27	36.46	2,495	1,190	151,387	0.99	NA
Hookers Point 4	No. 6 Oil	5,867	17.25	37.09	28.02	17.64	2,495	1,093	151,387	0.99	NA

a. List code numbers corresponding to each emissions source reported in Section II.
b. Coke, bituminous coal, anthracite coal, lignite; No. 1, 2, 4, 5, and 6 fuel oil; natural gas; LPG; refinery or coke oven gas; etc. (Note: Indicate if two or more fuels are burned in the same boiler and provide all data pertinent to each fuel type).
c. Fuel data are to be reported on an "as burned" basis.
d. Solid fuel, tons; liquid fuel, gallons; gaseous fuel, 1000 cubic feet.
e. If unknown, please give name and address of fuel supplier.

SECTION IV - AIR CLEANING EQUIPMENT

Source Code	Type of Air Cleaning Equipment[a,b]	Pollutant Removed[c]	Inlet Gas Temperature ^{o}F	Inlet Gas Flow Rate ACFM	Maximum Pressure Drop, PSI[e]	Efficiency[d] Design Percent	Efficiency[d] Operating Percent
	Not Applicable						

a. Wet scrubber, electrostatic precipitator, fabric filter, etc.
b. Please list future equipment separately.
c. The pollutants to be covered in this survey are specified in the accompanying instructions.
d. Give efficiency in terms of pollutant removed.
e. Give maximum normal operating pressure drop across air cleaning system.

SECTION III - FUEL COMBUSTION FOR GENERATION OF HEAT, STEAM, AND/OR POWER

Source Code[a]	Type of Fuel[b]	Annual Consumption[c]					Hourly Consumption[c]		Heat Content BTU/Quan.[d]	Percent Sulfur[b]	Percent Ash (Solid) Fuel Only[b]
		Quantity[d] X 1,000	Percent Distribution by Season Spring March/ May	Summer June/ Aug.	Fall Sept./ Nov.	Winter Dec./ Febr	Maximum	Average Quantity			
GT 1	#2 Oil	107.1	12.48	21.95	12.78	52.78	1,885	1,231	19,449	0.35	NA
GT 2	#2 Oil	1,545.6	17.70	31.14	17.09	34.07	6,600	4,329	19,449	0.35	NA
GT 3	#2 Oil	917.0	29.75	18.77	1.48	50,00	6,600	4,246	19,449	0.35	NA

a. List code numbers corresponding to each emissions source reported in Section II.
b. Coke, bituminous coal, anthracite coal, lignite; No. 1, 2, 4, 5, and 6 fuel oil; natural gas; LPG; refinery or coke oven gas; etc. (Note: Indicate if two or more fuels are burned in the same boiler and provide all data pertinent to each fuel type).
c. Fuel data are to be reported on an "as burned" basis.
d. Solid fuel, tons; liquid fuel, gallons; gaseous fuel, 1000 cubic feet.
e. If unknown, please give name and address of fuel supplier.

SECTION IV - AIR CLEANING EQUIPMENT

Source Code	Type of Air Cleaning Equipment[a,b]	Pollutant Removed[c]	Inlet Gas Temperature °F	Inlet Gas Flow Rate ACFM	Maximum Pressure Drop, PSI.[e]	Efficiency[d] Design Percent	Efficiency[d] Operating Percent
GT 1	Not Applicable						
GT 2	Not Applicable						
GT 3	Not Applicable						

a. Wet scrubber, electrostatic precipitator, fabric filter, etc.
b. Please list future equipment separately.
c. The pollutants to be covered in this survey are specified in the accompanying instructions.
d. Give efficiency in terms of pollutant removed.
e. Give maximum normal operating pressure drop across air cleaning system.

SECTION V - STACK AND POLLUTANT EMISSIONS DATA

STACK DATA					ESTIMATE OF POLLUTANT EMISSIONS				
Source Code[a]	Height Above Grade ft.	Inside Diameter at Top ft.	Exit Gas Velocity ft./sec.[b]	Exit Gas Temperature °F.[c]	Pollutant[d]	Technique[f]	Quantity tons/yr.	Average lb/hr.	Maximum[e] lb/hr.
GT 1	35	95.7(1)	18.2	1,010	Particulate	Fuel Anal.	0.74	17.0	26.1
					Sulf. Dioxide	Fuel Anal.	2.5	30.6	94.2
GT 2	75	215.6(1)	26.8	928	Particulate	Fuel Anal.	10.7	59.8	91.3
					Sulf. Dioxide	Fuel Anal.	36.5	107.7	329.8
GT 3	75	215.6(1)	26.3	928	Particulate	Fuel Anal.	6.3	58.7	91.3
					Sulf. Dioxide	Fuel Anal.	21.7	105.6	329.8

a. List code numbers corresponding to each emissions source reported in Section II, III, and IV.
b. Values should be representative of average flow conditions for hours of operation.
c. At actual flow conditions.
d. The pollutants to be covered in this survey are specified in the accompanying instructions.
e. Give stack test data if available (indicate stack sampling method used), otherwise, specify basis used. If unknown, please do not complete these columns.
f. Note technique used to arrive at estimation; AP-42, stack test, etc.

(1) Exit Area (ft^2)

18:11

D.E.R.
NOV 30 1978
SOUTHWEST DISTRICT
TAMPA

TECO
TAMPA ELECTRIC COMPANY

POST OFFICE BOX 111 TAMPA, FLORIDA 33601 TELEPHONE (813) 879-4111

November 20, 1978

Mr. Jim Tucker
Hillsborough County Environmental
Protection Commission
1900 9th Avenue
Tampa, Florida 33605

RECEIVED
NOV 22 1978
H.C.E.P.C.

RE: Emissions Test - Gannon No. 2
Tampa Electric Company

Dear Mr. Tucker:

Enclosed please find two copies of a stack emissions test for Gannon No. 2 performed on October 4, 1978. A permit application based on this test will be submitted shortly.

As stated in the Summary of Results, the average particulate emission rate for three test runs was 0.04 lbs. per million BTU which is in compliance with Florida Administrative Code, Chapter 17-2.04 (6)(e)2.a. of 0.1 lbs. per million BTU.

Included is a fuel analysis report for the oil burned during the test. It shows a sulfur dioxide emission rate of 1.09 lbs. per million BTU which is in compliance with Florida Administrative Code, Chapter 17-2.04(6)(e)2.c.(ii) of 1.1 lbs. per million BTU.

Also included is the nitrogen dioxide emission rate of 0.46 lbs. per million BTU.

A process statement and a visible emissions report are also in the report.

If you have any questions, please call me.

Yours truly,

William N. Cantrell

William N. Cantrell
Engineer
Environmental Planning

Enclosures

HILLSBOROUGH COUNTY ENVIRONMENTAL PROTECTION COMMISSION
ANNUAL OPERATING REPORT

(Corrected Copy)

Representing Calendar Year 1984
Date Submitted: March 8, 1985

SECTION I - GENERAL INFORMATION

Plant, Institution or Establishment Name: Tampa Electric Company (F.J. Gannon Station)
Plant Address: P.O. Box 111 (Street) Tampa (City) Florida (State) 33601 (Zip)
Telephone: (813) 228-4838

Person to Contact Regarding This Report A. Spencer Autry Title Manager, Environmental Plannir
Mailing Address: P.O. Box 111 (Street) Tampa (City) Florida (State) 33601 (Zip)

Actual Operating Hours: 24 hrs/day 7 days/wk 52 wks/yr

SECTION II - FUEL COMBUSTION FOR GENERATION OF HEAT OR STEAM

Source Code	Type of Fuel a	Quantity c X 1,000	Annual Consumption b Percent Distribution by Season: Spring March/May	Summer June/Aug	Fall Sept/Nov	Winter Dec/Feb	Hourly Consumption: Maximum	Average	Heat Content BTU/Quan	Percent Sulfur d	Percent Ash d
Gan 1	No. 6 Oil	10,602	18.98	35.57	24.60	20.85	8,044	4,354	149,319	0.95	NA
Gan 2	No. 6 Oil	12,392	22.64	26.49	30.95	19.92	8,044	4,626	149,319	0.95	NA
Gan 3	No. 6 Oil / Bitum Coal	7,627/ 154	6.85	28.26	42.12	22.77	10,846 65	6,997/ 43.5	149,319 12,596	0.95 1.18	NA 7.85
Gan 4	Bitum. Coal	371	26.87	20.50	29.26	23.37	80	52.1	12,361	1.19	8.04

a. Coke, bituminous, anthracite, or lignite coal No. 1, 2, 3, 4, 5, or 6 Fuel Oil, Nat. Gas, LPG; Refinery or Coke Oven Gas Etc. Indicate if two or more fuels are burned in the same boiler and provide all data pertinent to each fuel type.

b. Fuel Data Reported on 'as burned' Basis

c. Solid Fuel: Tons, Liquid Fuel: Gals.: Gaseous Fuel: 1000 ft^3

d. If unknown, please give name and address of fuel supplier.

RRG Sub

COMPANY NAME Tampa Electric Company

Processor

Gannon - Boiler # 2

File Number A029-47730

PERMIT APPLICATION STATUS SHEET

Type of permit applied for Air Operation

County Hillsborough

Date Recieved 9/15/81

P.E. seal & signature ☐
Check ☐
No check ☐
Letter of corp. standing ☐

CLOCK DAYS		DATE TASK COMPLETED	INITIALS
3	Logging by Sec'y	9/21/81	RK
5	Review by Sec. head and transfer to permitting Engineer		
28	Completeness Review	11-3-81	DH
	request additional info *	~~11-3-81~~	
	information received *		
	Public Notice Published * (for Air Construction only)		
55	Letter of Intent sent to * Supervisor		
60	Letter of Intent submitted * to District Manager		
75	Intent to issue/deny mailed *		
80	Permitting Eng'r submit finished permit package & recommendations to supervisor		
83	Permit Package to Dist. Engr.		
85	Permit Package to Dist. Manager		
90	Final ~~Issuance/denial~~	1-27-82	RK

*If needed, If not indicate by N/A

TECO

File Number A029-15953

PERMIT APPLICATION STATUS SHEET

Type of permit applied for Air Operation

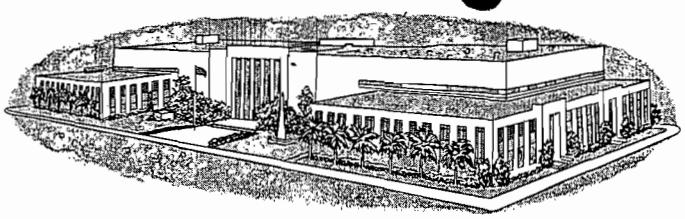
County Hillsborough

Date Recieved 12/20/78

P.E. seal & signature ☑
Check ☑
No check ☐
Letter of corp. standing ☑

CLOCK DAYS		DATE TASK COMPLETED	INITIALS
3	Logging by Sec'y	12/20/78	RKT
5	Review by Sec. head and transfer to permitting Engineer	12-20-78	DW
28	Completeness Review		
	request additiona info *		
	information received *		
	Public Notice Published * (for Air Construction only)		
55	Letter of Intent sent to * Supervisor		
60	Letter of Intent submitted * to District Manager		
75	Intent to issue/deny mailed *		
80	Permitting Eng'r submit finished permit package & recommendations to supervisor	1-10-79	
83	Permit Package to Dist. Engr.	2-23-79	DW
85	Permit Package to Dist. Manager	2-23-79	JK
90	Final Issuance/denial	2/27/79	RKT

*If needed, If not indicate by N/A



COUNTY of HILLSBOROUGH

MEMORANDUM

Date 12/13/78

To Dan Williams, DER

From Vilma Brueggemeyer, Air Engineering, EPC

Subject: TRANSMITTAL OF PERMIT APPLICATION

Transmitted to DER the following this date:

1 Operation Permit Application for Gannon Station #2 Boiler-Tampa Electric Company, accompanied by $20 check (#1-25059)

VB/rr

TECO
TAMPA ELECTRIC COMPANY

POST OFFICE BOX 111 TAMPA, FLORIDA 33601 TELEPHONE (813) 879-4111

December 7, 1978

Mr. Roger P. Stewart
Hillsborough County Environmental
Protection Commission
1900 9th Avenue
Tampa, Florida 33605

Mr. P. David Puchaty
Florida Department of
Environmental Regulation
7601 Highway 301 North
Tampa, Florida 33610

RE: Operating Permit Application
Gannon Station Unit No. 2
Tampa Electric Company

Gentlemen:

Enclosed is a Florida Department of Environmental Regulation Operation Permit Application for the subject boiler.

The original and four (4) copies of the application together with a check for $50.00 to the Hillsborough County Board of County Commissioners and a check for $20.00 to the Florida Department of Environmental Regulation are included with Mr. Stewart's copy.

If you have any questions, please do not hesitate to contact me.

Very truly yours,

William J. Johnson

W. J. Johnson, Ph.D.
Acting Manager
Environmental Planning

Enclosure

cc: Mr. Jose Rodriguez
Mr. Dan Williams

PERMIT WORKSHOP

SOURCE TECO DATE 12-21-78

COUNTY Hillsborough TYPE PERMIT A029-15953

ACTION	INITIAL ~~WHEN COMPLETED~~	DATE
Preliminary Review	LOAS	12-21-78
Assigned for Review to		
Review Comments		

I have reviewed the plans and applications submitted and find that the above mentioned source will not reasonably be expected to cause pollution in violation of the Department standards, rules and regulations. I recommend approval of this permit.

Number Assigned		
Permit Issued & Signed		
Permit Logged		
Permit Mailed		
Data Forms Completed		
Permit Denied		

PERMIT WORKSHOP

SOURCE _____ DATE _____

COUNTY _____ TYPE PERMIT _____

ACTION	INITIAL WHEN COMPLETED	DATE
Preliminary Review		
Assigned for Review to		
Review Comments		

I have reviewed the plans and applications submitted and find that the above mentioned source will not reasonably be expected to cause pollution in violation of the Department standards, rules and regulations. I recommend approval of this permit.

Number Assigned		
Permit Issued & Signed		
Permit Logged		
Permit Mailed		
Data Forms Completed		
Permit Denied		

PERMIT WORK SHEET

NEDS PLANT ID. _____

NEDS POINT ID. _____

PERMIT NO. _____

REVIEWED BY: WAB DATE: 12-21-78

IS INFORMATION CONFIDENTIAL? YES _____ NO _____

TYPE PERMIT ACTION		DESCRIPTION OF PRIMARY SOURCE	
New Source (No related permits)	____	Boiler	✓
Renewed or modified permit	✓	Solid Waste (Incinerator)	____
Point source deleted	____	Other Combustion	____
Point source added	____	Process	____
New Source replacing old source	____	Product (Name)	____

BRIEF DESCRIPTION OF PROCESS

Coal fired converted to #6

OPERATING TIME: _____ HR/Da _____ Da/Wk _____ Wk/Yr

STACK DATA

Height (FT) 306

Diam. (FT.) 10

Temp. (°F) 309

Flow Rate (CFM) 257 000 / 372 000

Plume Height (FT) _____

Common Stack (Explain) _____

OPERATING DATA 8044 5338 #6 oil

Process Rate _____ #/Hr.

Process Rate _____ TONS/Yr.

Max Design Rate _____ #/Hr.

Combustion (Units) Gal ____ TONS ____ FT³ ____

Rate _____ Unit/Hr _____ Unit/Yr

Heat Content 18621 BTU/Gal.

Boiler Capacity 1257 MM BTU/Hr.

Max Design Rate _____ Unit/Hr.

Fuel (Nmme) #6 oil %s 1.03 %A N/A

COMMENTS:

1347.2

SO₂ $8.13 \times 8044 \times .0206 = \frac{1347.2}{1257} = 1.07$

TSP $\frac{0.04\ lb}{MMBTU} \times 1307 \frac{MMBTU}{hr} = 52.28\ T/h$

CONTROL EQUIPMENT

Pollutant	Control Method	% EFF.
Particulates	E.S.P.	?
SO_2		
NO_x		
HC		
CO		
F^-		

EMISSION ESTIMATE

POLLUTANT	LB/HR.	TONS/HR.	LB/TON (PROD.)	LB/10^6 BTU	TEST DATA
Particulates	52.28			0.04	
SO_2	1425			1.07	
NO_x					
HC					
CO					
F^-					

BASIS FOR ESTIMATE:

_____ Not applicable (if emissions are negligible)

_____ Stack test results or emission measurements

_____ Material balance of process using engineering knowledge

_____ Emissions calculated using EPA emission factors

_____ Guess

_____ Emission factor difference from official EPA factor

ALLOWABLE EMISSIONS

POLLUTANT	LBS/HR.	LBS/TON (PROD.)	LBS/10^6 BTU	APPLICABLE REGULATIONS
PARTICULATES	131		.1	
SO_2	1438		2.75	
NO_x				
HC				
CO				
F^-				

PERMIT WORK SHEET

SOURCE TAMPA ELECT. GANNON #2 DATE 3-7-77

COUNTY HILLSBOROUGH TYPE PERMIT OPER.

ACTION	INITIAL WHEN COMPLETED	DATE
Preliminary Review	CS	3-7-77
Assigned for Review to	CS	3-7-77
Review Comments	CS.	
Number Assigned		
Permit Issued & Signed		
Permit Logged		
Permit Mailed		
Data Forms Completed		
Permit Denied		

REVIEWED BY: CS DATE: 3-7-77

PERMIT NO. A029-248

1800-052-0040-0

INFORMATION CONFIDENTIAL? YES ____ NO X

TYPE PERMIT ACTION		DESCRIPTION OF PRIMARY SOURCE	
New Source (No related permits)	____	Boiler	X
Renewed or modified permit	X	Solid Waste (Incinerator)	
Point source deleted	____	Other Combustion	____
Point source added	____	Process	____
New Source replacing old source	____	Product (Name)	____

BRIEF DESCRIPTION OF PROCESS

GANNON #2, OIL FIRED #6 OIL - 1257 MM BTU/HR MAX.

OPERATING TIME: 24 HR/Da 7 Da/Wk 52 Wk/Yr

STACK DATA		OPERATING DATA	
Height (FT)	306	Process Rate	1257 MM BTU/HR
Diam. (FT.)	10.0	Process Rate	____ TONS/
Temp. (°F)	260	Max Design Rate	____ #/Hr.
Flow Rate (CFM)	413 000	Combustion (Units) Gal X TONS ____ FT³	
Plume Height (FT)	—	Rate 8380 Unit/Hr 73409 M Unit/Yr	
Common Stack (Explain)	—	Heat Content	150 M BTU/Gal.
____		Boiler Capacity	1257 MM BTU/Hr.
____		Max Design Rate	____ Unit/Hr.
____		Fuel (Name)	1.07 %S 0 %A

COMMENTS:

Pollutant	Control Method	% Eff.
Particulates	PRECIPITATOR	90%
Particulates		
Particulates		
SO_2	LO S. OIL	
NO_x		
HC		
F⁻		

EMISSIONS

POLLUTANT	lb/hr		lb/ton Product		lb/10^6 BTU		Regulation
	Emission	Allowable	Emission	Allowable	Emission	Allowable	
Particulate	49.02	125.7			0.039	0.10	
SO_2	1282.1	1382.7			1.02	1.10	
NO_x	879.9	—					

OPACITY Test 0% Allowable 20%

BASIS FOR ESTIMATE:

X Stack Test Results: Date 11-22-76, Report Received 3-1-77

___ V. E. Test: Date ___, Report Received ___

___ Other tests or emission measurement

___ Material balance of process using engineering knowledge

___ Emissions calculated using EPA emission factors

___ Other Method (Describe): ___

Part - .039 #/MM x 1257 = 49.02 #/hr x 24 x 365/2000 = 214.7 TPY

SO_2 = 1.02 #/MM x 1257 = 1282.1 #/hr x 24 x 365/2000 = 5615.7 TPY

NO_x = 105 #/Mgal x 8.38 = 879.9 #/hr x 24 x 365/2000 = 3854 TPY

HC = 2.0 # x " = 16.8 x " " " = 74 TPY

CO = 3.0 # x " = 25.0 x " " " = 110 TPY

Gal Burned = $\frac{1,257,000,000}{150,000 \times 1000}$ = 8.38 $\frac{Mgal}{hr}$ x 24 x 365 = 73409 Mgal/yr.

allow

Part 0.1 x 1257 = 125.7 #/hr x 24 x 365/2000 = 550 TPY allow

SO_2 1.1 x 1257 = 1382.7 x " " = 6056 TPY allow

FILE 70117

10–73

NATIONAL EMISSIONS DATA SYSTEM (NEDS)

ENVIRONMENTAL PROTECTION AGENCY

OFFICE OF AIR PROGRAMS

POINT SOURCE INPUT FORM

DATE 3-7-77

NAME OF PERSON COMPLETING FORM C. Steelman

1

STATE	COUNTY	AQCR	PLANT ID NUMBER
10	18	000	52	0040

CITY	UTM ZONE	YEAR OF RECORD	ESTABLISHMENT NAME AND ADDRESS	CONTACT-PERSONAL	OWN	ACTION	cd
4360	17	76	TAMPA ELECTRIC CO PORT SUTTON RD	ALEX KAISER	U	A	P 1

POINT ID	YEAR OF RECORD	SIC	IPP PROCESS	UTM COORDINATES: HORIZ. KM	UTM COORDINATES: VERT. KM	STACK DATA: HEIGHT (FT)	STACK DATA: DIAM (FT)	STACK DATA: TEMP (°F)	STACK DATA: FLOW RATE (FT³/MIN)	PLUME HEIGHT IF NO STACK-FT	POINTS WITH COMMON STACK	ACTION	cd
02	76	4911	91	360.0	3087.5	306	10.0	260	413000	0	0000	A	

YEAR OF RECORD	BOILER DESIGN CAPACITY 10^6 BTU HR	CONTROL EQUIPMENT: PRIMARY PART.	SECOND PART.	PRIMARY SO_2	SECOND SO_2	PRIMARY NO_x	SECOND NO_x	PRIMARY HC	SECOND HC	PRIMARY CO	SECOND CO	ESTIMATED CONTROL EFFICIENCY (%): PART	SO_2	NO_x	HC	CO	ACTION	cd
76	1257	01	000	000	000	000	000	000	000	000	000	90.0	00.0	00.0	00.0	000	A	P 3

YEAR OF RECORD	% ANNUAL THRUPUT: DEC-FEB	MAR-MAY	JUN-AUG	SEP-NOV	NORMAL OPERATING: HR DAY	D WK	WK YR	EMISSION ESTIMATES (TONS/YEAR): PARTICULATE	SO_2	NO_x	HC	CO	ESTIMATION METHOD: PART	SO_2	NO_x	HC	CO	% SPACE HEAT	ACTION	cd
76	25	25	25	25	24	7	52	215	5615	3854	74	110	1	1	3	3	3	0	A	P 4

YEAR OF RECORD	ALLOWABLE EMISSIONS (TONS/YEAR): PARTICULATE	SO_2	NO_x	HC	CO	COMP. STAT	COMPLIANCE SCHEDULE: YEAR	MONTH	COMPLIANCE STATUS UPDATE: YEAR	MONTH	DAY	ECAP	CONTROL REGULATIONS: REG 1	REG 2	REG 3	ACTION	cd
76	55φ	6φ5	6999999999	9999999999	9999999999	1						φ				A	P 5

YEAR OF RECORD	SCC: I	II	III	IV	FUEL PROCESS SOLID WASTE OPERATING RATE	MAX DESIGN RATE	% SULFUR CONTENT	% ASH CONTENT	HEAT CONTENT 10^6 BTU/SCC	COMMENTS	SOURCE	CONFID	ACTION	cd
76	1φ1φφ4φ1		734φ9		838φ	1φ7	φ		150	GANNON #2 FUEL OIL 6	B2		A	P 6
														P 6
														P 6
														P 6
														P 6

PERM 12-7

FILE 70117

10-75 MOD. 2

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

AIR PERMIT AND INVENTORY SYSTEM

POINT SOURCE CODING FORM

DATE 3-7-77

NAME OF PERSON COMPLETING FORM C. Steelman

ACTIONS

DELETE	1	
ADD	2	X
CHANGE	3	

STATE	COUNTY	AQCR	PLANT #	POINT ID
1 2	3 4 5 6	7 8 9	10 11 12 13	14 15
10	18ΦΦ	Φ52	ΦΦ4Φ	Φ2

YEAR OF RECORD	COMPANY NAME	COMPANY MAILING ADDRESS	COMPANY CITY	ZIP CODE	ACTION
16 17	18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41	42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57	58 59 60 61 62 63 64 65 66 67 68 69 70 71 72	73 74 75 76 77	78 79 80
76	TAMPA ELECTRIC CO.	PO BOX 111	TAMPA	33601	207

YEAR OF RECORD	CONSTRUCTION PERMIT	ISSUE DATE (M M D D Y Y)	EXPIRATION DATE (M M D D Y Y)	OPERATING PERMIT	ISSUE DATE (M M D D Y Y)	EXPIRATION DATE (M M D D Y Y)	LATITUDE	LONGITUDE	PERMIT TYPE	SOURCE TYPE	ACTION
16 17	18 19 20 21 22 23 24 25 26 27	28 29 30 31 32 33	34 35 36 37 38 39	40 41 42 43 44 45 46 47 48 49	50 51 52 53 54 55	56 57 58 59 60 61	62 63 64 65 66 67 68	69 70 71 72 73 74 75	76	77	78 79 80
76	C —			A029 — 2489	Φ31Φ771	Φ31781			2	3	208

YEAR OF RECORD	FINAL CONTROL PLAN DATE (M M Y Y)	SUB. OF CONTRACTS TO BE LET (M M D D Y Y)	START CONSTRUCTION (M M D D Y Y)	END CONSTRUCTION (M M D D Y Y)	FINAL COMPLIANCE (M M D D Y Y)	TESTING DATE (M M D D Y Y)	INSPECTION SCHEDULE (J F M A M J J A S O N D)	POLLUTANT (IF APP)	ACTION
16 17	18 19 20 21 22 23 24 25	26 27 28 29 30 31	32 33 34 35 36 37	38 39 40 41 42 43	44 45 46 47 48 49	50 51 52 53 54 55	56 57 58 59 60 61 62 63 64 65 66 67	68 69 70 71 72 73 74 75	78 79 80
76					111276	112277	1 1		209

YEAR OF RECORD	DESCRIPTION OF POINT SOURCE	ACTION
16 17	18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77	78 79 80
76	GANNON #2 #6 OIL FIRED	210

YEAR OF RECORD	MOST RECENT DATE OF EMISSIONS TESTING FOR PARTICULATES (M M D D Y Y)	MOST RECENT DATE OF EMISSIONS TESTING FOR SO_2 (M M D D Y Y)	DUE DATE FOR PARTICULATE EMISSIONS TEST RESULTS (M M D D Y Y)	DUE DATE FOR SO_2 EMISSIONS TEST RESULTS (M M D D Y Y)	STATUS CODE	DATE OF RECORDING OF STATUS CODE (M M D D Y Y)	TSP FREQ. (CODE)	SO_2 FREQ. (CODE)	MOST RECENT DATE OF INSPECTION BY DEPARTMENT (M M D D Y Y)	VE FREQ. (CODE)	MOST RECENT DATE OF VISIBLE EMISSIONS TEST (M M D D Y Y)	VE - PERM	SOURCE CATEGORY	VE - DER	ACTION
16 17	18 19 20 21 22 23 24	25 26 27 28 29 30 31	32 33 34 35 36 37 38	39 40 41 42 43 44 45	46 47	48 49 50 51 52 53 54	55 56 57 58	59 60 61 62 63 64 65	66 67	68 69 70 71 72 73 74	75	76 77		78 79 80
76	Φ72876	112276	112277	112277	A	Φ3Φ777	1	1	112276	X	112276	Φ		2	211

FILE 70117

10-74 MOD. 1

STATE OF FLORIDA

DEPARTMENT OF ENVIRONMENTAL REGULATION

AIR PERMIT AND INVENTORY SYSTEM

POINT SOURCE CODING FORM

DATE 3-7-77

NAME OF PERSON COMPLETING FORM C. Steelman

3

STATE	COUNTY	AQCR	PLANT #	POINT ID
1 2	3 4 5 6	7 8 9	10 11 12 13	14 15
10	18ΦΦ	Φ52	Φ4Φ	Φ2

ACTIONS

DELETE	1	
ADD	2	X
CHANGE	3	

FLUORIDES OR OTHER POLLUTANTS

YEAR OF RECORD	POLLUTANT ID	PROC. WT. FOR CALCULATING ALLOWABLE EMISS.	ESTIMATED EMISSIONS LB/HR	TESTED EMISSIONS LB/HR	ALLOWABLE EMISSIONS LB/HR	EFFIC. %	REGULATION	PROC. WT.	ACTION		
16 17	18 19 20 21 22	23 24 25 26 27 28 29 30 31	32 33 34 35	36 37 38 39 40 41 42 43	44 45 46 47 48 49	50 51 52	53 54 55 56 57 58 59 60 61 62 63 64	65 66 67 68 69 70 71 72 73 74 75 76 77	78	79	80
										1	2

PARTICULATES

YEAR OF RECORD	ESTIMATE LB/HR	TEST LB/HR	ALLOWED LB/HR	PROCESS WEIGHT PER REG.	PROC. WT.	ESTIMATE LB/HR.	TEST LB/HR.	ALLOWED LB/HR.	PROCESS WEIGHT PER REG.	PROC. WT.	ACTION		
16 17	18 19 20 21 22 23	24 25 26 27 28 29	30 31 32 33 34 35	36 37 38 39 40 41 42 43 44	45	46 47 48 49 50 51	52 53 54 55 56 57	58 59 60 61 62 63	64 65 66 67 68 69 70 71 72 73 74 75	76 77	78	79	80
76	49.Φ2	49.Φ2	.1257	1257	6	1282	1282	1383	1257	6	2	1	3

SO_2

NO_X

YEAR OF RECORD	ESTIMATE LB/HR.	TEST LB/HR.	ALLOWED LB/HR.	PROCESS WEIGHT PER REG.	PROC. WT.	ACTION		
16 17	18 19 20 21 22 23	24 25 26 27 28 29	30 31 32 33 34 35	36 37 38 39 40 41 42 43 44	45 46 47	48	49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77	78	79	80
76	ΦΦ8			1257	6	2			1	4

YEAR OF RECORD	POLLUTANT ID	REGULATION	ACTION		
16 17	18 19 20 21 22	23 24 25 26 27 28 29 30 31 32 33 34 35	36 37 38 39 40 41 42 43 44 45 46 47	48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77	78	79	80
76	11101		17-2.Φ4(6)(E)2A		2	1	5
76	42401		17-2.Φ4(6)(E)2(c)(ii)		2	1	5
	42603					1	5
	43101					1	5
	42101					1	5