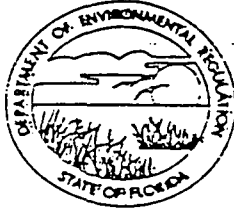


STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

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



A029-252140  
0040  
11

BOB GRAHAM  
GOVERNOR

VICTORIA J. TSCHINKEL  
SECRETARY

JE  
3/22/94

APPLICATION FOR RENEWAL OF  
PERMIT TO OPERATE AIR POLLUTION SOURCE(S)

If major alterations have occurred, the applicant should complete the Standard Air Permit Application Form.

Source Type: Air Operations Renewal of DER Permit No. A029-160259

Company Name: Tampa Electric Company County: Hillsborough

Identify the specific emission point source(s) addressed in this application (i.e., Lime Kiln No. 4 with Venturi Scrubber; Peaking Unit No. 2, Gas Fired):

F.J. Gannon Station Units 1-4 FlyAsh Silo (Silo 2)

Source Location: Street: Port Sutton Road City: Tampa

UTM: East 360,071 North 3,087,449

Latitude: 2 7° 5 4' 2 2" N. Longitude: 8 2° 2 5' 1 9" W.

1. Attach a check made payable to the Department of Environmental Regulation in accordance with operation permit fee schedule set forth in Florida Administrative Code Rule 17-4.05.
2. Have there been any alterations to the plant since last permitted?  Yes  No  
If minor alterations have occurred, describe on a separate sheet and attach.
3. Attach the last compliance test report required per permit conditions if not submitted previously. Submitted 2/8/94
4. Have previous permit conditions been adhered to?  Yes  No If no, explain on a separate sheet and attach.
5. Has there been any malfunction of the pollution control equipment during tenure of current permit?  Yes  No If yes, and not previously reported, give brief details and what action was taken on a separate sheet and attach.
6. Has the pollution control equipment been maintained to preserve the collection efficiency last permitted by the Department?  Yes  No
7. Has the annual operating report for the last calendar year been submitted?  Yes  No If no, please attach.  
Submitted 2/28/94

1. Please provide the following information if applicable:

A. Raw Materials and Chemical Used in Your Process: Not Applicable

Description	Contaminant		Utilization	
	Type	%wt	Rate	lbs/hr

B. Product Weight (lbs/hr): Materials Handling Rate = 14.4 tons/hr (calculated)

C. Fuels Not Applicable

Type (Be Soecific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	Avg/hr*	Max/hr**	

D. Normal Equipment Operating Time: hrs/day 24 ; days/wk 7 ; wks/yr 52 ;  
hrs/yr (power plants only) 8760; if seasonal, describe \_\_\_\_\_

The undersigned owner or authorized representative\*\*\* of Tampa Electric Company is fully aware that the statements made in this application for a renewal of a permit to operate an air pollution source are true, correct and complete to the best of his knowledge and belief. Further, the undersigned agrees to maintain and operate the pollution source and pollution control facilities in such a manner as to comply with the provisions of Chapter 403, Florida Statutes, and all the rules and regulations of the Department. He also understands that a permit, if granted by the Department, will be non-transferable and he will promptly notify the Department upon sale or legal transfer of the permitted facility.

\*During actual time of operation.

\*\*Units: Natural Gas-MMCF/hr;  
Fuel Oils-barrels/hr; Coal-lbs/hr.

\*\*\*Attach letter of authorization if not previously submitted

*Patrick A. Ho*

Signature, Owner or Authorized Representative  
(Notarization is mandatory)  
Patrick A. Ho - Manager, Environmental Planning  
Typed Name and Title

P.O. Box 111 Address  
Tampa City FL State 33601 Zip  
9/29/99 Date (813) 228-4844 Telephone No.

ER Form 17-1.202(4)  
Effective November 30, 1982

Page 2 of 2

STATE OF FLORIDA  
COUNTY OF HILLSBOROUGH

Sworn to and subscribed before me this 29  
day of APRIL, 1999.

Personally known to me

Notary Public  
Commission Expires:

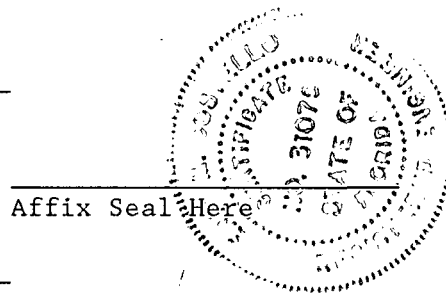
Professional Engineer in Florida (as required by Subsection 17-4.05(3), F.A.C.)

There is reasonable assurance, in my professional judgement, that the pollution control facilities\*, when properly maintained and operated, will discharge an effluent that complies with all applicable statutes of the State of Florida and the rules and the regulations of the department.

Signed: Eric M. Costello

Date: 4/27/94 Telephone No.: 813/228-4111

Eric M. Costello  
Name (Please type)



Affix Seal Here

Tampa Electric Company  
Company Name (Please type)

P.O. Box 111, Tampa, Florida 33601  
Mailing Address (Please type)

Florida Registration No.: 31079

\* Air Operations Source - F.J. Gannon Units 1 - 4 Flyash Silo Permit Renewal.

F. J. GANNON STATION  
UNITS 1 - 4 FLYASH SILO

Operation and Maintenance Plan

INTRODUCTION

The steel flyash silo for Units 1 - 4 is an integral part of the particulate control/collection system. Flyash that is collected from Units 1 - 4 ESP hoppers is transferred dry to the 25 feet diameter, 50 feet high silo. The silo acts as a temporary storage for the flyash prior to being fed into tanker-type trucks, thence transported to an offsite consumer.

Gannon's flyash is used as an ingredient in the manufacturing of cement.

PARTICULATE CONTROL EQUIPMENT DATA

Units 1 - 4 flyash silo is equipped with a bag-type dust collector for the control of particulate matter. The dust collector is automatically actuated during conveying, aerating or unloading operations.

Important design information and data applicable to the particulate control system are listed below:

Baghouse Data

Manufacturer	Allen-Shermann-Hoff Corp.
Model name and number	Flexkleen 84 WRW C112IIG
Design flow rate (ACFM)	4696 (total)
Efficiency (% of weight)	99.8
Pressure drop (inch H <sub>2</sub> O)	2 (clean), 5 (dirty)
Gas temperature (°F)	300 (inlet), 350 (outlet) (averages)
Air to cloth ratio	2:1
Bag material	Nomex
Filter cleaning method	Pulse Jet

BAG FILTER CLEANING

Dust which accumulates on the bags is removed by a timed pulse of compressed air supplied at 18.4 scfm and 100 psig.

The filters are cleaned in sequence on a continuous basis whenever the baghouse is being operated, that is, whatever aeration is provided or dust is entering the silo.

Filters are changed whenever the pressure drop between inlet and outlet of the bag filter is approximately 5 inches of water.

### SILO SYSTEM PERFORMANCE PARAMETERS

The following is a list of operating conditions that can be monitored from the flyash silo control panel:

1. Conveying blower high differential temperature.
2. Conveying blower filter clogged.
3. Flyash system high pressure.
4. Silo filter bag failure.
5. Silo level.
6. Airlock sequency failure.

The pressure drop between the inlet and outlet of the baghouse is measured with a manometer that is connected to the baghouse.

### MAINTENANCE AND INSPECTION SCHEDULES

Routine on-line preventive maintenance, daily checks for leakage, daily checks on baghouse pressure drops and monitoring of the control panel for abnormal operating conditions, ensure proper operations of the silo system. Should these procedures indicate repairs are necessary, maintenance job requests are initiated. All repair information is stored for a minimum of two years.

The pressure differential between the inlet and outlet of the bag filter is read 3 times daily. These readings are recorded in an operator's log book kept in the control room, and are retained for at least two years.



TO WHOM IT MAY CONCERN:

Please be advised that Patrick A. Ho, Manager, Environmental Planning, is the authorized representative of Tampa Electric Company concerning matters with which this permit application deals.

Very Truly Yours,

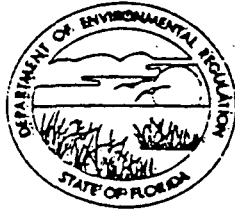
William N. Cantrell  
Vice President  
Energy Resources Planning

sn/GG399

A029-160259

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

TWIN TOWERS OFFICE BUILDING  
2800 BLAIR STONE ROAD  
TALLAHASSEE, FLORIDA 32301



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FEB 2 1989

E.P.C. of H.C.

BOB GRAHAM  
GOVERNOR

VICTORIA J. TSCHINKEL  
SECRETARY

APPLICATION FOR RENEWAL OF  
PERMIT TO OPERATE AIR POLLUTION SOURCE(S)

If major alterations have occurred, the applicant should complete the Standard Air Permit Application Form.

Source Type: Air Pollution Renewal of DER Permit No. A029-80048

Company Name: Tampa Electric Company County: Hillsborough

Identify the specific emission point source(s) addressed in this application (i.e., Lime Kiln No. 4 with Venturi Scrubber; Peaking Unit No. 2, Gas Fired):

F.J. Gannon Station Units 1-4 Fly Ash Silo

Source Location: Street: Port-Sutton Road City: Tampa

UTM: East 360,071 North 3,087,449

Latitude: 2 7° 5 4' 2 2"N. Longitude: 8 2° 2 5' 1 9"W.

1. Attach a check made payable to the Department of Environmental Regulation in accordance with operation permit fee schedule set forth in Florida Administrative Code Rule 17-4.05.
2. Have there been any alterations to the plant since last permitted? [ ] Yes [X] No  
If minor alterations have occurred, describe on a separate sheet and attach.
3. Attach the last compliance test report required per permit conditions if not submitted previously. Submitted 11/14/88
4. Have previous permit conditions been adhered to? [X] Yes [ ] No If no, explain on a separate sheet and attach.
5. Has there been any malfunction of the pollution control equipment during tenure of current permit? [X] Yes [ ] No If yes, and not previously reported, give brief details and what action was taken on a separate sheet and attach. Bag maintenance and replacement.
6. Has the pollution control equipment been maintained to preserve the collection efficiency last permitted by the Department? [X] Yes [ ] No
7. Has the annual operating report for the last calendar year been submitted? [ ] Yes [X] No If no, please attach. Will be submitted prior to deadline.

D. E. R.

FEB 03 1989

SOUTHWEST DISTRICT  
TAMPA

1. Please provide the following information if applicable:

A. Raw Materials and Chemical Used in Your Process: Not Applicable

Description	Contaminant		Utilization	
	Type	SWt	Rate	lbs/hr

B. Product-Weight-(lbs/hr): Material Handling Rate = 14.4 tons/hr (Calculated)

C. Fuels Not Applicable

Type (Be Specific)	Consumption*		Maximum Heat Input (MMBTU/hr)
	Avg/hr*	Max/hr**	

D. Normal Equipment Operating Time: hrs/day 24 ; days/wk 7 ; wks/yr 52 ;  
 hrs/yr (power plants only) 8760 ; if seasonal, describe \_\_\_\_\_

The undersigned owner or authorized representative\*\*\* of Tampa Electric Company is fully aware that the statements made in this application for a renewal of a permit to operate an air pollution source are true, correct and complete to the best of his knowledge and belief. Further, the undersigned agrees to maintain and operate the pollution source and pollution control facilities in such a manner as to comply with the provisions of Chapter 403, Florida Statutes, and all the rules and regulations of the Department. He also understands that a permit, if granted by the Department, will be non-transferable and he will promptly notify the Department upon sale or legal transfer of the permitted facility.

\*During actual time of operation.

\*\*Units: Natural Gas-MMCF/hr;  
 Fuel Oils-barrels/hr; Coal-lbs/hr.

\*\*\*Attach letter of authorization if not previously submitted

Jerry L. Williams  
 Signature, Owner or Authorized Representative  
 (Notarization is mandatory)  
Jerry L. Williams, Director - Environmental  
 Typed Name and Title  
P.O. Box 111  
 Address  
Tampa City FL State 33601 Zip  
2/01/89 Date (813) 228-4111 Telephone No.

ER Form 17-1.202(4)  
 Effective November 30, 1982

Page 2 of 2

STATE OF FLORIDA  
 COUNTY OF HILLSBOROUGH

Sworn to and subscribed before me this 1st  
 day of February, 19 89.

NOTARY PUBLIC  
Diana C. Hoyer  
 Notary Public  
 Commission Expires: \_\_\_\_\_  
 NOTARY PUBLIC STATE OF FLORIDA  
 MY COMMISSION EXP. NOV 14, 1989  
 BONDED THRU GENERAL INS. UND.



F.J. GANNON STATION - UNITS 1-4 FLY ASH SILO

Operation and Maintenance Plan

INTRODUCTION

The steel flyash silo for Units 1 thru 4 is an integral part of the particulate control/collection system. Flyash that is collected from Units 1 thru 4 ESP hoppers, is transferred dry to the 30 feet diameter, 45.5 feet high silo. The silo acts as a temporary storage for the flyash prior to being fed into tanker-type trucks, thence transported to an offsite consumer.

Gannon's flyash is used as an ingredient in the manufacturing of cement.

PARTICULATE CONTROL EQUIPMENT DATA

Units 1 thru 4 flyash silo is equipped with a bag-type dust collector for the control of particulate matter. The dust collector is automatically actuated during conveying, aerating or unloading operations.

Important design information and data applicable to the particulate control system are listed below:

BAGHOUSE DATA

Manufacturer	Allen-Shermann-Hoff Corp.
Model name and number	Flexkleen 84 WRW C112IIG
Design flow rate (ACFM)	4696 (Total)
Efficiency (% by weight)	99.8
Pressure drop (inch H <sub>2</sub> O)	2 (Clean), 5 (Dirty)
Gas Temperature (°F)	300 (inlet), 350 (outlet) (averages)
Air to cloth ratio	2:1
Bag material	Nomex
Filter cleaning method	Pulse Jet

BAG FILTER CLEANING

Dust which accumulates on the bags is removed by a timed pulse of compressed air supplied at 18.4 scfm and 100 psig.

The filters are cleaned in sequence on a continuous basis whenever the baghouse is being operated, that is, whenever aeration is provided or dust is entering the silo.

Filters are changed whenever the pressure drop between inlet and outlet of the bag filter is approximately 5 inches of water.

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E.P.C. of H.C.

D. E. R.  
FEB 03 1989  
SOUTHWEST DISTRICT  
TAMPA

## SILLO SYSTEM PERFORMANCE PARAMETERS

The following is a list of operating conditions that can be monitored from the flyash silo control panel:

1. Conveying blower "A" high differential temperature
2. Conveying blower "A" filter clogged
3. Fly ash system "A" high pressure
4. Silo filter bag "A" failure
5. Conveying blower "B" high differential temperature
6. Conveying blower "B" filter clogged
7. Fly ash system "B" high pressure
8. Silo filter bag "B" failure
9. Silo high level
10. Spare conveying blower high differential temperature
11. Spare conveying blower filter clogged
12. Airlock sequence failure
13. PC failure

Operating conditions that can be monitored from the fly ash silo control panel are as follows:

1. High differential temperature/low inlet pressure aeration blowers "A" and "B"
2. Aeration heater "A" overheat
3. Aeration heater "B" overheat
4. Vent filter "west" bag failure
5. Vent filter "east" bag failure
6. Silo full
7. Silo 4/5 full
8. Silo Aeration Temperature low

The pressure drop between the inlet and outlet of the baghouse is measured with a manometer that is connected to the baghouse.

## MAINTENANCE AND INSPECTION SCHEDULES

Routine on-line preventive maintenance, daily checks for leakage, daily checks on baghouse pressure drops and monitoring of the control panel for abnormal operating conditions, ensure proper operations of the silo system. Should these procedures indicate repairs are necessary, maintenance job requests are initiated. All repair information is stored for a minimum of two years.

D. E. R.

FEB 03 1989

LL026.DOC

SOUTHWEST DISTRICT  
TAMPA

2-194616

CHECK NO.

194616



POST OFFICE BOX 111  
TAMPA, FLORIDA 33601

63-27  
631

PAY:

SEVEN HUNDRED FIFTY AND NO/100 DOLLARS

DATE

01 30 89

\$ \*\*\*\*\*750.00

TO  
THE  
ORDER  
OF

FLORIDA DEPT OF ENVIRONMENTAL  
REGULATION

ONLY ONE SIGNATURE REQUIRED ON CHECKS OF \$2500.00 OR LESS

NCNB NATIONAL BANK OF FLORIDA • TAMPA, FLORIDA

⑈ 194616 ⑆ ⑆ 063100277 ⑆ 3600401262 ⑆

THE ACCOMPANYING CHECK IS IN FULL PAYMENT OF ITEMS BELOW - DETACH BEFORE CASHING

INVOICE NO.	DATE	VOUCHER	GROSS AMOUNT	DISCOUNT	NET AMOUNT
GAN 1-4	012489	513957	750.00		750.00
F. J. Gannon Station Units 1-4			Fly Ash Silo		
DO NOT U.S. MAIL HOLD FOR SEND TO <u>CALL</u> 34845					
CHECK NO.	DATE	VENDOR NO.	VENDOR NAME	TOTAL AMOUNT	
194616	013089	FL0004	FLORIDA DEPT OF ENVIR	750.00	

TAMPA ELECTRIC COMPANY • P.O. BOX 111 TAMPA, FL. 33601 • (813) 228-4111

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E.P.C. of H.C.

D.E.R.

FEB 03 1989

SOUTHWEST DISTRICT  
TAMPA

6/14  
1/15

2- 194610

CHECK NO.

194610



POST OFFICE BOX 111  
TAMPA, FLORIDA 33601

63-27  
631

PAY:

THREE HUNDRED FIFTY FIVE AND NO/100 \*\* 01 30 89 \$ \*\*\*\*\*355.00  
DOLLARS \*\*\*\*\*

DATE

01 30 89

TO ENVIRONMENTAL PROTECTION  
THE COMMISSION OF HILLSBOROUGH COU  
ORDER OF

ONLY ONE SIGNATURE REQUIRED ON CHECKS OF \$2500.00 OR LESS

NCNB NATIONAL BANK OF FLORIDA • TAMPA, FLORIDA

⑈ 194610⑈ ⑆063100277⑆ 3600401262⑈

THE ACCOMPANYING CHECK IS IN FULL PAYMENT OF ITEMS BELOW - DETACH BEFORE CASHING

INVOICE NO.	DATE	VOUCHER	GROSS AMOUNT	DISCOUNT	NET AMOUNT
GAIN 1-4	012489	514379	355.00		355.00
F. J. Gannon Station Units 1-4 Fly Ash Silo					
				DO NOT U.S. MAIL HOLD FOR SEND TO <u>CALL</u>	
				34845	
CHECK NO.	DATE	VENDOR NO.	VENDOR NAME	TOTAL AMOUNT	
194610	013089	ENV 951	ENVIRONMENTAL PROTECT	355.00	

TAMPA ELECTRIC COMPANY • P.O. BOX 111 TAMPA, FL. 33601 • (813) 228-4111

D.E.R.

FEB 03 1989

SOUTHWEST DISTRICT  
TAMPA

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FEB 2 1989

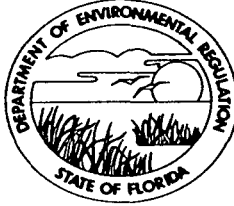
E.P.C. of H.C.

STATE OF FLORIDA  
DEPARTMENT OF ENVIRONMENTAL REGULATION

SOUTHWEST DISTRICT

4520 OAK FAIR BLVD.  
TAMPA, FLORIDA 33610-7347

813-623-5561  
Suncom—552-7612



BOB MARTINEZ  
GOVERNOR

DALE TWACHTMANN  
SECRETARY

DR. RICHARD D. GARRITY  
DISTRICT MANAGER

August 20, 1987

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

Dear Mr. Autry:

The Department is in receipt of your request to amend DER permit no. AO29-80048. The following changes are hereby made in the permit:

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 (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: 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 the 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 testing.

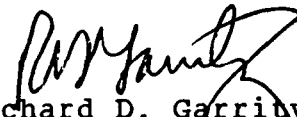
Specific Condition No. 7 -

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.

When the Order (Permit) is final, any party to the Order has the right to seek judicial review of the Order pursuant to Section 120.68, Florida Statutes, by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Office of General Counsel, 2600 Blair Stone Road, Tallahassee, Florida 32399; and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date the Final Order is filed with the Clerk of the Department.

This letter must be attached to your permit and becomes a part of that permit. If you have any questions, please call Tom John of my staff at (813) 623-5561.

Sincerely,

  
Richard D. Garrity, Ph.D.  
District Manager  
Southwest District

cc: EPCHC

CERTIFICATE OF SERVICE

This is to certify that this NOTICE OF PERMIT AMENDMENT and all copies were mailed before the close of business on 8-21-87 to the listed persons.

FILING AND ACKNOWLEDGEMENT  
FILED, on this date, pursuant  
to §120.52(10), Florida  
Statutes, with the designated  
Department Clerk, receipt of  
which is hereby acknowledged.

Jean Sebesta      8-21-87  
Clerk                      Date

- (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.

TO: Submit for this facility, each calendar year, on or before March 1, an emissions report for the preceding 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 emission (note calculation basis).
- (C) Any changes in the information contained in the permit application.

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

Persons whose substantial interests are affected by this permit amendment have a right, pursuant to Section 120.57, Florida Statutes, to petition for an administrative determination (hearing) on it. The petition must conform to the requirements of Chapters 17-103 and 28-5.201, FAC, and must be filed (received) in the Department's Office of General Counsel, 2600 Blair Stone Road, Tallahassee Florida 32399, within fourteen (14) days of receipt of this notice. Failure to file a petition within the fourteen (14) days constitutes a waiver of any right such person has to an administrative determination (hearing) pursuant to Section 120.57, Florida Statutes. This permit is final and effective on the date filed with the Clerk of the Department unless a petition is filed in accordance with this paragraph or unless a request for extension of time in which to file a petition is filed within the time specified for filing a petition and conforms to Rule 17-103.070, FAC. Upon timely filing of a petition or a request for an extension of time, this permit will not be effective until further Order of the Department.