

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
NOTICE OF PERMIT

In the Matter of an
Application for Permit by:

Ms. Karen A. Sheffield, P.E.
General Manager
Tampa Electric Company
P. O. Box 111
Tampa, Florida 33601-0111

Permit No.: 0570040-016-AC
F. J. Gannon Station Unit Nos. 1 - 6
Beneficiation and Combustion of Byproduct
Materials

Enclosed is the Final Permit 0570040-016-AC, which allows TECO to beneficiate byproduct materials generated at the Gannon Station and burn them in Gannon Boiler Unit Nos. 1-6. The F. J. Gannon Station is located at Port Sutton Road, Tampa, Hillsborough County. This permit is issued pursuant to Chapter 403, Florida Statutes.

Any party to this order (permit) has the right to seek judicial review of the permit pursuant to Section 120.68, F.S., 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 Legal Office; 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 (thirty) days from the date this Notice is filed with the Clerk of the Department.

Executed in Tallahassee, Florida.


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

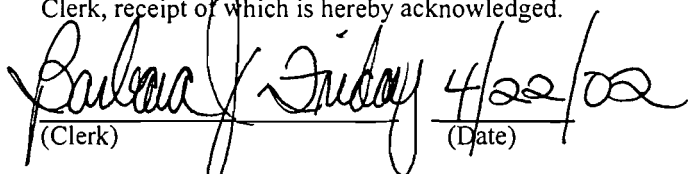
CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF FINAL PERMIT (including the FINAL permit) was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on 4/22/02 to the person(s) listed:

Karen Sheffield, P.E., TECO *
Laura Crouch, TECO
Raiza Calderon, TECO
Daniel N. Hlaing, P.E., ECT
Thomas W. Davis, P.E., ECT
Jim Cleary, SWD
Jerry Campbell, P.E., EPCHC

Clerk Stamp

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


(Clerk) 4/22/02 (Date)

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 P.O. Box 111
 City, State, ZIP+4
 Tampa, Florida 33601-0111
 PS Form 3800, July 1999 See Reverse for Instructions

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 Ms. Karen A. Sheffield, P.E.
 General Manager
 Tampa Electric Company
 P. O. Box 111
 Tampa, Florida 33601-0111

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DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF AIR RESOURCES MANAGEMENT
BUREAU OF AIR REGULATION - TITLE V
2600 BLAIR STONE ROAD
TALLAHASSEE, FLORIDA 32399-2400

MS 5565

BUREAU OF AIR REGULATION

MAY 06 2002

RECEIVED



FINAL DETERMINATION

Tampa Electric Company (TECO)
 F. J. Gannon Station
Facility ID No.: 0570040
 Hillsborough County

Air Construction Permit
Permit No.: 0570040-016-AC

The Department distributed a public notice package on June 14, 2001, which allows TECO to beneficiate byproduct materials generated at the Gannon Station and burn them in Gannon Boiler Unit Nos. 1-6. The Public Notice of Intent to Issue was published in the Tampa Tribune on March 19, 2002. Proof of publication was received on March 25, 2002.

I. Comments were received from EPCHC on March 28, 2002. The comments were not considered significant enough to reissue the draft permit and require another Public Notice. Listed below is a response to each comment in the order that the comment was received. (Please see the EPCHC comments dated March 27, 2002.)

A) The comment is acknowledged; no change to the permit is necessary.

B) The comments are related to the charging rate of the material.

1. The maximum throughput rate of conditioned fly ash and slag was intended to be limited on a facility-wide basis. The condition is changed to clarify this intent. The short term "TPD" restriction is changed to reflect actual operations.

From:

3. The maximum annual throughput rate of conditioned fly ash and slag shall not exceed 100 TPD and 36,500 TPY.

[Applicant requested dated September 27, 2001]

To:

3. The maximum annual facility-wide throughput rate of conditioned fly ash and slag shall not exceed 36,500 TPY. In addition, the maximum daily fly ash throughput rate for each unit, as specified in Table 1. - Column (D), shall not be exceeded.

Table 1.

F. J. Gannon Station	(A) Permitted Coal Rate (tons/hr)	(B) Fly ash Spill from Coal Burned (%)	(C) Fly ash Maximum Rate Spill (tons/hr)	(D) Daily Fly ash Throughput Rate (tons/day)
Unit # 1	50	30	15	360.00
Unit # 2	51	30	15.3	367.20
Unit # 3	65	30	19.5	468.00

Unit # 4	80	30	24	576.00
Unit # 5	93.4	70	65.38	523 ¹
Unit # 6	151.4	70	105.98	847.84 ¹

* Permitted coal rates are referenced in the Gannon Title V Permit No. 0570040-002-AV, Conditions A.4.A.2., B.5.A.2., and C.4.A.2.

¹ These rates are 1/3 of the value calculated using column (B), i.e., $1,569.12/3 = 523$; $2,543.52/3 = 847.84$.

[Applicant request dated September 27, 2001 and April 12, 2002]

2. See the response to comment 1. above.
3. Pursuant to the April 11, 2002 teleconference between TECO, DEP and EPCHC, TECO will track the material by the number and capacity of the front-end loader buckets. TECO plans to establish a record keeping system for plant personnel. A description of this procedure is added to the placard page of the permit (inserted text is underlined).

A rubber-tired front-end loader will place the screened byproduct materials on a portable conveyor, which will then be transported to the bunkers, mixed with raw fuel, and returned in Units 1 through 6. TECO will track the material by the number and capacity of the front-end loader buckets. TECO plans to establish a record keeping system for plant personnel.

Permit condition number 11. is changed to reflect actual operation. Strikethrough indicates deleted text and underline represents added text.

11. In order to document compliance with Specific Condition No. 3, the permittee shall maintain daily records for each unit of the quantity (tons) of byproduct material fired and with a statement as to the type(s) of byproduct material (i.e. conditioned fly ash and coal slag). The permittee shall also keep records, on a monthly basis of the ~~estimated~~ total of byproduct material fired. ~~by type (i.e. flyash and coal slag).~~ These records shall be recorded in a permanent form suitable for inspection by the Department upon request, and shall be retained for at least a five (5) year period.

4. Pursuant to the April 11, 2002 teleconference and TECO's subsequent e-mail dated April 12, the maximum re-injection rate of fly ash for each unit historically has been 100%.

C) The comment is acknowledged. The permit does not authorize the combustion of hazardous waste materials. The following new condition is added to address the comment:

14. Special Compliance Tests. When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant

emissions from the emissions unit and to provide a report on the results of said tests to the Department.

[Rule 62-297.310(7), F.A.C.]

D) This comment is also related to the charging rate of the material. The following condition is added to condition 9.:

9.2. Operating Rate During Testing. Testing of emissions shall be conducted with the emissions unit operating at permitted capacity, which is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted, provided however, operations do not exceed 100 percent of the maximum operation rate allowed by the permit. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity.

[Rule 62-297.310(2), F.A.C.]

E) A visible emissions test should be performed that is representative of the emissions from the by-product material handling system. For batch processes, the provisions of Rule 62-297.310(4)(a)2.a., F.A.C., apply. The provisions of this rule are added to condition 10. Condition 10. is changed to read (addition underlined):

10. A thirty (30) minute visible emissions test shall be performed on the byproduct material (fuel) handling system. ...

For batch, cyclical processes, or other operations which are normally completed within less than the minimum observation period and do not recur within that time, the period of observation shall be equal to the duration of the batch cycle or operation completion time.

[Rules 62-297.310(4)(a)2., 62-297.310(7)(a)4., and 62-297.400, F.A.C.]

II. Other Changes. The following administrative changes are made.

1. The permit number citation in condition number 7. is corrected to Permit No. 0570040-002-AV.

2. Condition number 12. is clarified to read: “The test notification shall include a proposed test protocol which, upon agreement by the Department and EPC, will establish the testing ...”

CONCLUSION

The final action of the Department is to issue the permit with the changes noted.

Permittee:

Tampa Electric Company
P.O. Box 111
Tampa, Florida 33601-0111

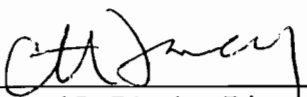
Expiration Date: July 5, 2003**Permit No.:** 0570040-016-AC**Facility ID No.:** 0570040**SIC No.:** 49, 4911**Project:** Gannon Station - Unit Nos. 1-6
Beneficiation and Combustion of
Byproduct Materials

STATEMENT OF BASIS: This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 62-204, 62-210, 62-212, 62-213, 62-296, 62-297, and Chapter 62-4. 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 Florida Department of Environmental Protection.

This permit allows TECO to beneficiate byproduct materials generated at the Gannon Station and burn them in Gannon Boiler Unit Nos. 1-6. The byproduct materials TECO is authorized to beneficiate and burn are flyash and coal slag generated at the Gannon Station. TECO is allowed to burn a maximum of 36,500 tons per year of the materials. The proposed process will not cause any emission increase from the currently permitted operation at the Gannon Station.

The unmarketable conditioned fly ash and slag from the silos, precipitator hoppers, ash storage area, and slag bins will be transported via truck to the coalfield, where the byproduct materials will be screened. Spray water will be added at the screen and to the miscellaneous pile at the coalfield as needed to keep the materials wet, thus minimizing fugitive PM emissions. Water application as needed during material movement, screening, and loading operations shall insure that these activities are handled as a wet process. A rubber-tired front-end loader will place the screened byproduct materials on a portable conveyor, which will then be transported to the bunkers, mixed with raw fuel, and reburned in Units 1 through 6. TECO will track the material by the number and capacity of the front-end loader buckets. TECO plans to establish a record keeping system for plant personnel.

Effective Date: (clerk date)


Howard L. Rhodes, Director
Division of Air Resource
Management

HLR/sms

Subsection A. Summary of Emissions Unit ID Nos. and Brief Descriptions.

E.U.

<u>ID No.</u>	<u>Brief Description</u>
-001	Unit No. 1-Fossil Fuel-Fired Steam Generator
-002	Unit No. 2-Fossil Fuel-Fired Steam Generator
-003	Unit No. 3-Fossil Fuel-Fired Steam Generator
-004	Unit No. 4-Fossil Fuel-Fired Steam Generator
-005	Unit No. 5-Fossil Fuel-Fired Steam Generator
-006	Unit No. 6-Fossil Fuel-Fired Steam Generator

Please reference the Permit No., Facility ID No., and appropriate Emissions Unit(s) ID No(s). on all correspondence, test submittals, applications, etc.

Subsection B. Relevant Documents.

The documents listed below are not a part of this permit; however, they are specifically related to this permitting action.

These documents are on file with permitting authority:

TECO Permit Application received September 28, 2001.

EPCHC comments dated October 25, 2001.

DEP Request for Additional Information dated October 26, 2001.

MSDS sheets dated November 11, 2001.

Additional Information Response received December 21, 2001.

EPCHC comments dated March 27, 2002.

TECO comments dated April 12, 2002.

Tampa Electric Company
F. J. Gannon Station

Permit No.: 0570040-016-AC

1. A part of this permit is the attached 15 General Conditions. [Rule 62-4.160, F.A.C.]
2. Issuance of this permit does not relieve the permittee from complying with applicable emission limiting standards or other requirements of Chapters 62-204, 62-210, 62-212, 62-213, 62-296 and 62-297, or any other requirements under federal, state or local law.
[Rule 62-210.300, F.A.C.]

Operation Limitations

3. The maximum annual facility-wide throughput rate of conditioned fly ash and slag shall not exceed 36,500 TPY. In addition, the maximum daily fly ash throughput rate for each unit, as specified below in Table 1. - Column (D), shall not be exceeded.

Table 1.

F. J. Gannon Station	(A) Permitted Coal Rate (tons/hr)	(B) Fly ash Split from Coal Burned (%)	(C) Fly ash Throughput Rate Split (tons/hr)	(D) Daily Fly ash Throughput Rate (tons/day)
Unit # 1	50	30	15	360.00
Unit # 2	51	30	15.3	367.20
Unit # 3	65	30	19.5	468.00
Unit # 4	80	30	24	576.00
Unit # 5	93.4	70	65.38	523 ¹
Unit # 6	151.4	70	105.98	847.84 ¹

* Permitted coal rates are referenced in the Gannon Title V Permit No. 0570040-002-AV, Conditions A.4.A.2., B.5.A.2., and C.4.A.2.

¹ These rates are 1/3 of the value calculated using column (B), i.e., 1,569.12/3 = 523; 2,543.52/3 = 847.84.

[Applicant request dated September 27, 2001 and April 12, 2002]

4. When the byproduct beneficiation process is in use, the plant shall not use the existing closed loop flyash reinjection system.

[TECO Permit Application received September 28, 2001]

5. Fly ash transported by dump truck to the coalfield shall be adequately wetted and processed through the pugmill. Spray water shall be added to the screen and to the miscellaneous pile at the coalfield as needed to keep the materials wet, thus minimizing fugitive PM emissions. In addition, the dump trucks used to transport fly ash shall utilize tarps at all times except when loading/unloading.

[Rule 62-4.070(3), F.A.C.]

6. Beneficiation and combustion of unmarketable byproduct materials in Units 1-6 shall cease upon the repowering of the Gannon Station to natural gas in 2004.

[Applicant request dated December 20, 2001 and Consent Decree (U.S. vs. TECO) dated February 29, 2000]

Emission Limitations and Standards

7. The emission limiting standards as specified in Permit No. 0570040-002-AV shall be complied with while conditioned fly ash and slag are handled and combusted at the Gannon Station.
[TECO Permit Application received September 28, 2001]

8. Visible Emissions. Visible emissions generated by fugitive or unconfined particulate matter from the byproduct material (fuel) handling systems and storage shall not exceed 5% opacity.
{Permitting note: The averaging time for the emissions standard in this condition shall be equal to the cumulative run time required by the specified test method.}
[Rule 62-296.711(2)(a), F.A.C.]

Testing Requirements

9.1. The permittee shall test the emissions from one of the boiler units in non-soot blowing mode for visible emissions, particulate matter and sulfur dioxide. The rate at which the unmarketable byproducts (fly ash and slag) were combusted shall be reported with the test results.
[Rules 62-4.070(3), 62-297.310(7)(a)9, and 62-297.310(8), F.A.C.]

9.2. Operating Rate During Testing. Testing of emissions shall be conducted with the emissions unit operating at permitted capacity, which is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impracticable to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted, provided however, operations do not exceed 100 percent of the maximum operation rate allowed by the permit. Once the emissions unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity.
[Rule 62-297.310(2), F.A.C.]

10. A thirty (30) minute visible emissions test shall be performed on the byproduct material (fuel) handling system. The test method for visible emissions shall be determined using EPA Method 9, adopted and incorporated by reference in Rule 62-204.800, F.A.C., and referenced in Chapter 62-297, F.A.C. For batch, cyclical processes, or other operations which are normally completed within less than the minimum observation period and do not recur within that time, the period of observation shall be equal to the duration of the batch cycle or operation completion time.
[Rules 62-297.310(4)(a)2., 62-297.310(7)(a)4., and 62-297.400, F.A.C.]

Recordkeeping Requirements

11. In order to document compliance with Specific Condition No. 3, the permittee shall maintain daily records for each unit of the quantity (tons) of byproduct material fired and with a statement as to the type(s) of byproduct material (i.e. conditioned fly ash and coal slag). The permittee shall also keep records, on a monthly basis of the total of byproduct material fired. These records shall be recorded in a permanent form suitable for inspection by the Department upon request, and shall be retained for at least a five (5) year period.

[Rule 62-4.070(3), F.A.C.]

Compliance Testing Requirements

12. The permittee shall notify the Air Compliance Section of the Southwest District Office of the Department and the Air Management Division of the Environmental Protection Commission of Hillsborough County (EPC), at least 15 days prior to the date on which each formal compliance test is to begin of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted. The test notification shall include a proposed test protocol which, upon agreement by the Department and EPC, will establish the testing to be done and the conditions under which the test will be conducted and evaluated. A copy of the test report shall be submitted to the Air Management Division of the EPC and the Air Compliance Section of the Southwest District Office of the Department within 45 days after the test is completed.

[Rules 62-4.070(3), and 62-297.310(20) and (8), F.A.C.]

13. The test reports shall include a statement and documentation of the quantity (tons) of byproduct material fired and with a statement as to the type(s) of byproduct material (i.e. flyash and coal slag).

[Rules 62-4.070(3), and 62-297.310(20) and (8), F.A.C.]

14. Special Compliance Tests. When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the emissions unit to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department.

[Rule 62-297.310(7), F.A.C.]

Title V Permit Revision

15. Within 180 days of completion of testing of each unit, the permittee shall submit a Title V operation permit revision application to include the terms of this construction permit in the Title V permit for the F. J. Gannon Station.

[Rule 62-213.420, F.A.C.]

Florida Department of
Environmental Protection

Memorandum

for file

TO: Howard L. Rhodes
FROM: Clair H. Fancy
DATE: April 16, 2002
SUBJECT: FINAL Permit Number 0570040-016-AC
Tampa Electric Company (TECO)
F. J. Gannon Station
Day 90 = May 5

*Discussed with
Howard about
Clair*

*actual may would be
13 of individual for
each of units 6 & 7 - changed permit*

This facility consists of six steam boilers (Units 1 through 6). The nominal output is 1317 megawatts (MW). The facility utilizes coal as its primary fuel for Units 1-6.

This permit allows TECO to beneficiate byproduct materials generated at the Gannon Station and burn them in Gannon Boiler Unit Nos. 1-6.

The byproduct beneficiation process is a wet process, which will minimize fugitive particulate matter (PM) emissions. Potential fugitive PM and PM₁₀ emissions are calculated to be 22.8 and 10.72 TPY respectively. These values are less than the PSD thresholds of 25 and 15 TPY. Tampa Electric does not anticipate a measurable impact on air emissions due to the combustion of the byproduct material. A Best Available Control Technology (BACT) determination was not required

We received comments from EPCHC. A teleconference was held on April 12 and resolution was achieved. The final determination addresses their comments. I recommend issuance.

Attachment

CHF/sms

April 12, 2002

Mr. Scott M. Sheplak, P.E.
Florida Department of Environmental Protection
Division of Air Resource Management
111 South Magnolia Drive, Suite 4
Tallahassee, Florida 32301

**RE: Tampa Electric Company (TEC)
F.J. Gannon Station
Byproduct Beneficiation and Re-use
DEP File No. 0570040-016-AC**

Dear Mr. Sheplak:

Per the conversation that took place on April 11, 2002 between the Florida Department of Environmental Protection (FDEP), Environmental Protection Commission of Hillsborough County (EPCHC), and TEC, this letter is intended to provide responses to the following EPCHC comments.

EPC Comment B) 1.

The draft permit and technical evaluation does not specifically identify what the maximum re-injection rate of fly ash for each unit is, or has been historically. The draft permit states the by-product material usage rate shall be less than 100 tpd (Specific Condition No. 3). Please clarify if this is 16.7 tons per day per unit or a facility-wide usage rate.

TEC Comment B) 1.

The maximum re-injection rate of fly ash for each unit historically has been 100%. This can be seen on the performance testing reports and the table attached to the December 20, 2001 additional information response letter. Depending on which unit, the maximum fly ash re-injection rate can range from 360 tons of fly ash/day to 2,544 tons of fly ash/day for Units 1-6. The following table shows the daily maximum amount of fly ash re-injection rate for each unit.

F.J. Gannon Station	Permitted Coal Rate *	Fly ash Split from Coal Burned	Fly ash Throughput Rate Split	Fly ash Throughput for a Day
	(tons/hr)	(%)	(tons/hr)	(tons/day)
Unit # 1	50	30	15	360.00
Unit # 2	51	30	15.3	367.20
Unit # 3	65	30	19.5	468.00
Unit # 4	80	30	24	576.00
Unit # 5	93.4	70	65.38	1,569.12
Unit # 6	151.4	70	105.98	2,543.52

* Permitted Coal rate are referenced in the Gannon Title V Permit No. 0570040-002-AV, Condition A.4.A.2., B.5.A.2., and C.4.A.2.

In comparison to the current fly ash re-injection rates, TEC requests the flexibility to burn more than 100 tpd facility-wide of beneficiated byproduct. This will allow more operational flexibility for the byproducts handling system and will not increase the nature or character of emissions from this operation.

Mr. Scott Sheplak
March 28, 2002
Page 2 of 4

TEC proposes the following language be substituted in Condition 3 of the Final air construction permit No. 0570040-016-AC:

“The maximum annual throughput rate of conditioned fly ash and slag shall not exceed 100 TPD and 36,500 TPY. The maximum daily throughput rate of conditioned fly ash and slag shall not exceed the sum of 1/3 of the units' operational fly ash re-injection rate nor shall each unit exceed the operational fly ash re-injection rate.”

Amending the permit to include the proposed language will allow Gannon the operational flexibility to burn more than 100 tpd facility-wide of beneficiated byproduct, but never more than the amount of fly ash that is currently re-injected through each individual unit.

EPC Comment E)

EPC staff believe Specific Condition No. 10 should specify a 30 minute EPA Method 9 test be performed on each transfer point of the by-product material handling system.

TEC Comment E)

Per the Gannon Title V Permit No. 0570040-002-AV, annual visible emission tests are performed in the coal yard (E.U. ID 008) using EPA Method 9. TEC requests to use the annual visible emission tests conducted in the coal yard to comply with Condition 10, since any additional visible emission testing should not be necessary. Should the Department have reason to believe the particulate matter emissions standard is not being met, the Department can require that compliance with the particulate matter emission standard be demonstrated by testing in accordance with Chapter 62-297, F.A.C.

Draft Permit No. 0570040-016-AC, Condition 11 Revision

11. In order to document compliance with Specific Condition No. 3, the permittee shall maintain daily records for each unit of the quantity (tons) of byproduct material fired and with a statement as to the type(s) of byproduct material (i.e. fly ash and coal slag). ~~The permittee shall also keep records, on a monthly basis of the estimated total of byproduct material fired by type (i.e. flyash and coal slag).~~ These records shall be recorded in a permanent form suitable for inspection by the Department upon request, and shall be retained for at least a five (5) year period.

TEC Comment

As discussed per our telephone conversation, TEC requests to delete from the construction permit the requirement to quantify by type (i.e. flyash and coal slag) the amount of material fired.

TEC appreciates the cooperation and consideration of the Department in this matter. If you have any questions or comments pertaining to this request, please direct them to me at (813) 641-5261.

Sincerely,

Raiza Calderon
Engineer - Air Programs
Environmental Affairs

Sheplak, Scott

From: Raiza Calderon [rcalderon@tecoenergy.com]
Sent: Friday, April 12, 2002 4:36 PM
To: Sheplak, Scott; kalch@epchc.org
Cc: Drupatie Latchman; Laura Crouch
Subject: Gannon Byproduct Beneficiated Permit Response to EPC CommentLetter



GN Byproduct

Beneficiation Re-... Per our conversation on April 11, 2002, I have attached a word document with Tampa Electric Company's response to the EPC Comment Letter. If you have any questions or comments, please give me a call at (813) 641-5261.

Thanks,

Raiza Calderon
Engineer
Environmental Affairs
Tampa Electric Company
(813) 641-5261
rcalderon@tecoenergy.com

COMMISSION

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

AIR MANAGEMENT DIVISION
TELEPHONE (813) 272-5530

WASTE MANAGEMENT DIVISION
TELEPHONE (813) 272-5788

WETLANDS MANAGEMENT DIVISION
TELEPHONE (813) 272-7104

**ENVIRONMENTAL PROTECTION COMMISSION
of Hillsborough County**

FAX Transmittal Sheet

DATE: March 28, 2002

TO: Scott Shepleh, P.E.

FAX Phone: _____ **Voice Phone:** _____

TOTAL NUMBER OF PAGES INCLUDING THIS COVER PAGE: 3

EPC FAX Transmission Line: (813) 272-5605
For retransmission or any FAX problems, call:
(813) 272-5530 ext. 1288

FROM: Rob Welch

(Circle applicable section below)

Air Division

-Compliance

-Enforcement/Analysis

-Monitoring/Toxics

-Permitting

SPECIAL INSTRUCTIONS: Project No. 0570240-016-AC

Hard copy being mailed.

COMMISSION

PAT FRANK
CHRIS HART
JIM NORMAN
JAN PLATT
THOMAS SCOTT
RONDA STORMS
STACEY EASTERLING

EXECUTIVE DIRECTOR

RICHARD D. GARRITY, Ph.D.



ADMINISTRATIVE OFFICES
LEGAL & WATER MANAGEMENT DIVISION
THE ROGER P. STEWART ENVIRONMENTAL CENTER
1900 - 9TH AVENUE • TAMPA, FLORIDA 33605
PHONE (813) 272-5960 • FAX (813) 272-5157

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FAX (813) 272-5605

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FAX (813) 276-2256

WETLANDS MANAGEMENT DIVISION
FAX (813) 272-7144

1410 N. 21ST STREET • TAMPA, FLORIDA 33605

March 27, 2002

Scott M. Sheplak, P.E.
Mail Station No. 5505
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Re: Hillsborough County - AP
Draft Permit No.: 0570040-016-AC

Dear Mr. Sheplak:

EPC staff received a copy of the draft construction permit for the TEC Gannon Station (Permit No.: 0570040-016-AC) for the combustion of "by-product materials" consisting of flyash and coal slag on March 18, 2002. After reviewing the draft permit, EPC staff has the following comments:

- A) Page 3 of the technical evaluation states, "The facility is located in an Hillsborough County designated "attainment" for all the criteria pollutants (Rule 62-204.360, F.A.C.)", but Hillsborough County is classified "unclassifiable" for PM₁₀ (Rule 62-204.340(3), F.A.C.) and "maintenance" for ozone, lead, and PM [Rule 62-204.340(4), F.A.C.].
- B) The following comments address the charging rate of by-product materials into Units 1 through 6. Please note, the draft construction permit does not state the by-product material usage rate will be less than the current flyash injection rate, but the technical evaluation and the construction application states it will be less, and the premise there is not an increase in emissions is based on the assumption the by-product material usage will be less than the current flyash re-injection rate. In light of this, EPC staff has the following comments:
 1. The draft permit and technical evaluation does not specifically identify what the maximum re-injection rate of flyash for each unit is, or has been historically. The draft permit states the by-product material usage rate shall be less than 100 tpd (Specific Condition No. 3). Please clarify if this is 16.7 tons per day per unit or a facility-wide usage rate.

www.epchc.org

E-Mail: epcinfo@epchc.org



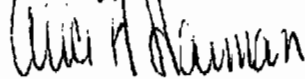
BEST AVAILABLE COPY

Scott M. Sheplak, P.E.
March 25, 2002
Page 2

2. If the 100 tpd is a facility-wide rate, please specify the maximum amount which can be charged in a single unit per day and per year.
 3. The draft permit provided no information which specifies how the by-product material usage rate is to be tracked, or how TEC will establish and regulate the maximum by-product material usage rate. Please provide details on this procedure(s) in the permit.
 4. During the performance testing was TEC operating at 100% of maximum re-injection rate for each unit? If not, what percentage of the maximum re-injection rate for each unit has TEC been operating at?
- C) In our comments emailed January 3, 2002, EPC staff questioned how TEC was determining the by-product material(s) is not a hazardous waste. The draft permit and technical evaluation does not specify what testing protocol is used for this determination (i.e. sample size, number of samples, test method, frequency, etc.)? The permit should contain some language addressing how this will be handled if it becomes necessary at some time in the future.
- D) EPC staff request the following language be included into Specific Condition No. 9: Please note the italicized portion is not suggested language, but is a note to permitting staff.
Testing of emissions shall be conducted with the source operating at capacity. Capacity is defined as 90-100% of 16.7 tpd (*or some other value tied to a shorter averaging time which corresponds to the test duration*). If it is impracticable to test at capacity, then the source may be tested at less than capacity; in this case subsequent source operation is limited to 110% of the test load until a new test is conducted. Once the unit is so limited, then operation at higher capacities is allowed for no more than fifteen days for purposes of additional compliance testing to regain the rated capacity in the permit, with prior notification to the EPC. Failure to submit the input rates and actual operating conditions may invalidate the test. [Rules 62-4.070(3) and 62-297.310(2)(b), F.A.C.]
- E) EPC staff believe Specific Condition No. 10 should specify a 30 minute EPA Method 9 test be performed on each transfer point of the by-product material handling system.

Thank you for your consideration of the above items. If you have any questions, please feel free to contact Rob Kalch at (813) 272-5530.

Sincerely,



Alice H. Harman, P.E.
Chief, Air Permitting Section

cc: Ms. Karen A. Sheffield, P.E., Tampa Electric Company



**FJ Gannon Station
Byproduct Beneficiation & Re-use Non-PSD Permit
Meeting Agenda
December 11, 2001**

1. Background

2. Review Project Description

3. Discuss Responses to Letter Requesting Additional Information

4. Other Issues



TAMPA ELECTRIC

March 22, 2002

RECEIVED

MAR 25 2002

BUREAU OF AIR REGULATION

Mr. Clair Fancy
Florida Department of Environmental Protection
111 South Magnolia Drive, Suite 4
Tallahassee, Florida 32301

Via Fed Ex
Airbill No. 7918 0081 5239

**Re: Tampa Electric Company (TEC) – F.J. Gannon Station
Beneficiation and Combustion of Byproduct Materials in F.J. Gannon Unit Nos. 1-6
DEP File No. 0570040-016-AC**

Dear Mr. Fancy:

Please find enclosed the original Affidavit of Publication from the Tampa Tribune, as required by 62-110.106(5), F.A.C. This public notice was published in the legal section of the Tampa Tribune on Tuesday March 19, 2002. If you have any questions, please feel free to telephone Raiza Calderon or me at (813) 641-5261.

Sincerely,

Laura R. Crouch
Manager - Air Programs
Environmental Affairs

EA/bmr/RC1112

Enclosure

- c: Mr. Tom Davis - ECT
- Mr. Buck Oven, FDEP
- Mr. Scott Sheplak, FDEP
- Mr. Jerry Kissel - FDEP SW

State of Florida }
County of Hillsborough } ss.

Before the undersigned authority personally appeared J. Rosenthal, who on oath says that she is Advertising Billing Manager of The Tampa Tribune, a daily newspaper published at Tampa in Hillsborough County, Florida; that the attached copy of advertisement being a

LEGAL NOTICE

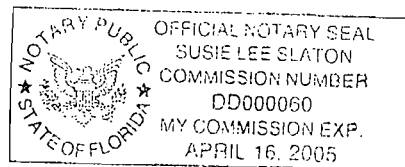
in the matter of PUBLIC NOTICE OF INTENT

was published in said newspaper in the issues of MARCH 19, 2002

Affiant further says that the said The Tampa Tribune is a newspaper published at Tampa in said Hillsborough County, Florida, and that the said newspaper has heretofore been continuously published in said Hillsborough County, Florida, each day and has been entered as second class mail matter at the post office in Tampa, in said Hillsborough County, Florida for a period of one year next preceding the first publication of the attached copy of advertisement; and affiant further says that she has neither paid nor promised any person, this advertisement for publication in the said newspaper.

Sworn to and subscribed by me, this 20 day
of MARCH, A.D. 20 02

Personally Known or Produced Identification _____
Type of Identification Produced _____



PUBLIC NOTICE OF INTENT
TO ISSUE AIR
CONSTRUCTION PERMIT
STATE OF FLORIDA
DEPARTMENT OF
ENVIRONMENTAL
PROTECTION
Permit No.: 0570040-016-
AC

F. J. Gannon Station
Hillsborough County
The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit to Tampa Electric Company, which allows TECO to benefitiate byproduct materials generated at the Gannon Station and burn them in Gannon Boiler Unit Nos. 1-6. The F. J. Gannon Station is located at Port Sutton Road, Tampa, Hillsborough County.
The byproduct beneficia-tion process is a wet process, which will minimize fugitive particulate matter (PM) emissions. Potential fugitive: PM and PM10 emissions are calculated to be 22.8 and 10.72 TPY respectively. These values are less than the PSD thresholds of 25 and 15 TPY. Tampa Electric does not anticipate a measurable impact on air emissions due to the combustion of the byproduct material.

A Best Available Control Technology (BACT) determination was not required pursuant to Rule 62-212.400, F.A.C. and 40 CFR 52.21, Prevention of Significant Deterioration (PSD). The applicant's mailing address is: Tampa Electric Company, P. O. Box 111, Tampa, Florida 33601-0111. The Department will issue the final permit with the attached conditions unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments concerning the proposed permit issuance action for a period of 14 (fourteen) days from the date of publication of this Public Notice of Intent to Issue Air Construction Permit. Written comments should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit and require, if applicable, another Public Notice. The Department will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to sections 120.569 and 120.57 F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below. Mediation is not available in this proceeding.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under sections 120.569 and 120.57 of the Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida, 32399-3000. Petitions filed by the permit applicant or any of the parties

listed below must be filed within fourteen days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under section 120.60(3) of the Florida Statutes must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. Under section 120.60(3), however, any person who asked the Department for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under sections 120.569 and 120.57 F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205 of the Florida Administrative Code.

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner, the name, address, and telephone number

of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by rule 28-106.301. Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be af-

ected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

A complete project file is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:
Dept. of Environmental Protection
Bureau of Air Regulation
Suite 4, 111 S. Magnolia Drive
Tallahassee, Florida, 32301
Telephone: 850/488-0114
Fax: 850/922-6979
Dept. of Environmental Protection
Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619-8218
Telephone: 813/744-6100
Fax: 813/744-6084

The complete project file includes the application, technical evaluations, Draft permit, and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Administrator, Title V Section, at 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301, or call 850/921-9532, for additional information.
1167 3/19/02

TO: Clair Fancy

FROM: Scott M. Sheplak *sm8*

DATE: March 14, 2002

Re: Intent package for Permit No.: 0570040-016-AC
Beneficiation and Combustion of Byproduct Materials
Tampa Electric Company (TECO)
F. J. Gannon Station

Day 90: March 21, 2002

The requested modification is to allow TECO to beneficiate byproduct materials generated at the Gannon Station and burn them in Gannon Boiler Unit Nos. 1-6.

The byproduct beneficiation process is a wet process, which will minimize fugitive particulate matter (PM) emissions. Potential fugitive PM and PM₁₀ emissions are calculated to be 22.8 and 10.72 TPY respectively. These values are less than the PSD thresholds of 25 and 15 TPY. Tampa Electric does not anticipate a measurable impact on air emissions due to the combustion of the byproduct material.

I recommend that this Intent to Issue be sent out as attached.



Jeb Bush
Governor

Department of Environmental Protection

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

David B. Struhs
Secretary

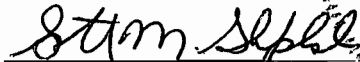
P.E. Certification Statement

Permittee:
Tampa Electric Company
F.J. Gannon Station

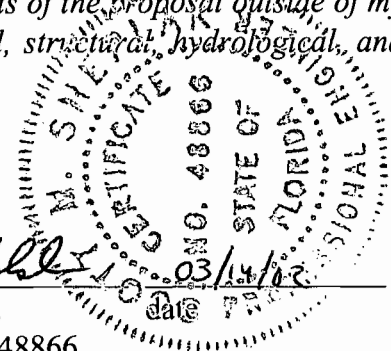
Permit No.: 0570040-016-AC
Facility ID No.: 0570040

Project type: Beneficiation and Combustion of Byproduct Materials in F. J. Gannon Station Unit Nos. 1 - 6

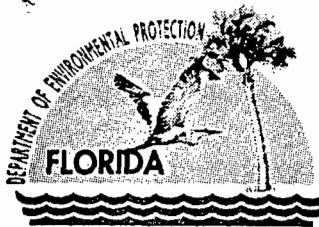
I HEREBY CERTIFY that the engineering features described in the above referenced application and subject to the proposed permit conditions provide reasonable assurance of compliance with applicable provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 62-4 and 62-204 through 62-297. However, I have not evaluated and I do not certify aspects of the proposal outside of my area of expertise (including but not limited to the electrical, mechanical, structural, hydrological, and geological features).



Scott M. Sheplak, P.E.
Registration Number: 48866



Permitting Authority:
Department of Environmental Protection
Bureau of Air Regulation
111 South Magnolia Drive, Suite 4
Tallahassee, Florida 32301
Telephone: 850/921-9532
Fax: 850/922-6979



Jeb Bush
Governor

Department of Environmental Protection

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

David B. Struhs
Secretary

March 14, 2002

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Ms. Karen A. Sheffield, P.E.
General Manager
Tampa Electric Company
P. O. Box 111
Tampa, Florida 33601-0111

Re: Permit No. 0570040-016-AC
F. J. Gannon Station Unit Nos. 1-6
Beneficiation and Combustion of Byproduct Materials

Dear Ms. Sheffield:

Enclosed is one copy of the draft air construction permit that allows TECO to beneficiate byproduct materials generated at the Gannon Station and burn them in Gannon Boiler Unit Nos. 1-6. The F. J. Gannon Station is located at Port Sutton Road, Tampa, Hillsborough County. The Department's Intent to Issue Air Construction Permit with Public Notice of Intent to Issue Air Construction Permit, and Technical Evaluation and Preliminary Determination, are also included.

The Public Notice of Intent to Issue Air Construction Permit must be published one time only, as soon as possible, in the legal advertisement section of a newspaper of general circulation in the area affected, pursuant to the requirements Chapter 50, Florida Statutes. Proof of publication, i.e., newspaper affidavit, must be provided to the Department's Bureau of Air Regulation office within seven days of publication. Failure to publish the notice and provide proof of publication may result in the denial of the permit.

Please submit any written comments you wish to have considered concerning the Department's proposed action to Scott M. Sheplak, P.E., Administrator, at the above letterhead address. If you have any questions, please contact him at 850/921-9532.

Sincerely,

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

CHF/sms

Enclosures

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Ms. Karen A. Sheffield, P.E.

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Return Receipt Fee (Endorsement Required)		
Restricted Delivery Fee (Endorsement Required)		
Total Postage & Fees	\$	

Recipient's Name (Please Print Clearly) (To be completed by mailer)
Ms. Karen A. Sheffield, P.E.

Street, Apt. No.; or PO Box No.
P. O. Box 111

City, State, ZIP+4
Tampa, Florida 33601-0111

PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
Permit No.: 0570040-016-AC
F. J. Gannon Station
Hillsborough County

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit to Tampa Electric Company, which allows TECO to beneficiate byproduct materials generated at the Gannon Station and burn them in Gannon Boiler Unit Nos. 1-6. The F. J. Gannon Station is located at Port Sutton Road, Tampa, Hillsborough County.

The byproduct beneficiation process is a wet process, which will minimize fugitive particulate matter (PM) emissions. Potential fugitive PM and PM₁₀ emissions are calculated to be 22.8 and 10.72 TPY respectively. These values are less than the PSD thresholds of 25 and 15 TPY. Tampa Electric does not anticipate a measurable impact on air emissions due to the combustion of the byproduct material.

A Best Available Control Technology (BACT) determination was not required pursuant to Rule 62-212.400, F.A.C. and 40 CFR 52.21, Prevention of Significant Deterioration (PSD). The applicant's mailing address is: Tampa Electric Company, P. O. Box 111, Tampa, Florida 33601-0111.

The Department will issue the Final permit with the attached conditions unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments concerning the proposed permit issuance action for a period of 14 (fourteen) days from the date of publication of this Public Notice of Intent to Issue Air Construction Permit. Written comments should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit and require, if applicable, another Public Notice.

The Department will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to sections 120.569 and 120.57 F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below. Mediation is not available in this proceeding.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under sections 120.569 and 120.57 of the Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida, 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under section 120.60(3) of the Florida Statutes must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. Under section 120.60(3), however, any person who asked the Department for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under sections 120.569 and 120.57 F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205 of the Florida Administrative Code.

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency

NOTICE TO BE PUBLISHED IN THE NEWSPAPER

determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by rule 28-106.301

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

A complete project file is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

Dept. of Environmental Protection
Bureau of Air Regulation
Suite 4, 111 S. Magnolia Drive
Tallahassee, Florida, 32301
Telephone: 850/488-0114
Fax: 850/922-6979

Dept. of Environmental Protection
Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619-8218
Telephone: 813/744-6100
Fax: 813/744-6084

The complete project file includes the application, technical evaluations, Draft permit, and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Administrator, Title V Section, at 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301, or call 850/921-9532, for additional information.

In the Matter of an
Application for Permit by:
Tampa Electric Company
P. O. Box 111
Tampa, Florida 33601-0111

Permit No.: 0570040-016-AC
F. J. Gannon Station
Hillsborough County

INTENT TO ISSUE AIR CONSTRUCTION PERMIT

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit (copy of draft permit attached) for the proposed project, detailed in the application specified above and the enclosed Technical Evaluation and Preliminary Determination, for the reasons stated below.

The applicant, Tampa Electric Company, applied on September 28, 2001, to the permitting authority to beneficiate byproduct materials generated at the Gannon Station and burn them in Gannon Boiler Unit Nos. 1-6. The F. J. Gannon Station is located at Port Sutton Road, Tampa, Hillsborough County

The Department has permitting jurisdiction under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-210, and 62-212. The above actions are not exempt from permitting procedures. The Department has determined that an air construction permit is required for the modification.

The Department intends to issue this air construction permit based on the belief that reasonable assurances have been provided to indicate that operation of these emissions units will not adversely impact air quality, and the emissions units will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297, F.A.C.

Pursuant to Section 403.815, F.S., and Rule 62-110.106(7)(a)1., F.A.C., you (the applicant) are required to publish at your own expense the enclosed Public Notice of Intent to Issue Air Construction Permit. The notice shall be published one time only in the legal advertisement section of a newspaper of general circulation in the area affected. Rule 62-110.106(7)(b), F.A.C., requires that the applicant cause the notice to be published as soon as possible after notification by the Department of its intended action. For the purpose of these rules, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. If you are uncertain that a newspaper meets these requirements, please contact the Department at the address or telephone number listed below. The applicant shall provide proof of publication to the Department's Bureau of Air Regulation, at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400 (Telephone: 850/488-0114; Fax 850/ 922-6979). You must provide proof of publication within seven days of publication, pursuant to Rule 62-110.106(5), F.A.C. No permitting action for which published notice is required shall be granted until proof of publication of notice is made by furnishing a uniform affidavit in substantially the form prescribed in section 50.051, F.S. to the office of the Department issuing the permit. Failure to publish the notice and provide proof of publication may result in the denial of the permit pursuant to Rules 62-110.106(9) & (11), F.A.C.

The Department will issue the final permit with the attached conditions unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments concerning the proposed permit issuance action for a period of 14 (fourteen) days from the date of publication of Public Notice of Intent to Issue Air Permit. Written comments should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit and require, if applicable, another Public Notice.

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A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under sections 120.569 and 120.57 of the Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida, 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under section 120.60(3) of the Florida Statutes must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. Under section 120.60(3), however, any person who asked the Department for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under sections 120.569 and 120.57 F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205 of the Florida Administrative Code.

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Mediation is not available in this proceeding.

In addition to the above, a person subject to regulation has a right to apply for a variance from or waiver of the requirements of particular rules, on certain conditions, under Section 120.542 F.S. The relief provided by this state statute applies only to state rules, not statutes, and not to any federal regulatory requirements. Applying for a variance or waiver does not substitute or extend the time for filing a petition for an administrative hearing or exercising any other right that a person may have in relation to the action proposed in this notice of intent.

The application for a variance or waiver is made by filing a petition with the Office of General Counsel of the Department, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. The petition must specify the following information: (a) The name, address, and telephone number of the petitioner; (b) The

name, address, and telephone number of the attorney or qualified representative of the petitioner, if any; (c) Each rule or portion of a rule from which a variance or waiver is requested; (d) The citation to the statute underlying (implemented by) the rule identified in (c) above; (e) The type of action requested; (f) The specific facts that would justify a variance or waiver for the petitioner; (g) The reason why the variance or waiver would serve the purposes of the underlying statute (implemented by the rule); and (h) A statement whether the variance or waiver is permanent or temporary and, if temporary, a statement of the dates showing the duration of the variance or waiver requested.

The Department will grant a variance or waiver when the petition demonstrates both that the application of the rule would create a substantial hardship or violate principles of fairness, as each of those terms is defined in Section 120.542(2) F.S., and that the purpose of the underlying statute will be or has been achieved by other means by the petitioner.

Persons subject to regulation pursuant to any federally delegated or approved air program should be aware that Florida is specifically not authorized to issue variances or waivers from any requirements of any such federally delegated or approved program. The requirements of the program remain fully enforceable by the Administrator of the EPA and by any person under the Clean Air Act unless and until the Administrator separately approves any variance or waiver in accordance with the procedures of the federal program.

Executed in Tallahassee, Florida.



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

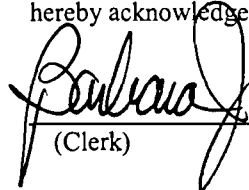
CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Intent to Issue Air Construction Permit (including the Public Notice of Intent to Issue Air Construction Permit, Technical Evaluation and Preliminary Determination, and the draft permit) was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on 3/15/02 to the person(s) listed:

- Karen Sheffield, P.E., TECO*
- Laura Crouch, TECO
- Raiza Calderon, TECO
- Daniel N. Hlaing, P.E., ECT
- Bill Thomas, P.E., SWD
- Jerry Campbell, P.E., EPCHC

Clerk Stamp

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


(Clerk)

3/15/02
(Date)

TECHNICAL EVALUATION
AND
PRELIMINARY DETERMINATION

Tampa Electric Company (TECO)
F. J. Gannon Station
Facility ID No.: 0570040
Hillsborough County

Air Construction Permit
Permit No.: 0570040-016-AC

Department of Environmental Protection
Division of Air Resource Management
Bureau of Air Regulation

March 14, 2002

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

1. GENERAL INFORMATION

1.1 APPLICANT NAME AND ADDRESS

Authorized Representative: Ms. Karen A. Sheffield, P.E.
General Manager

F. J. Gannon Station
Tampa Electric Company
P. O. Box 111
Tampa, Florida 33601-0111

1.2 REVIEW AND PROCESS SCHEDULE

September 28, 2001 Received permit application.
October 26, 2001 Additional information requested.
December 21, 2001 TECO response received; application deemed complete.

2. FACILITY INFORMATION

This facility is located at Port Sutton Road, Tampa, Hillsborough; UTM Coordinates: Zone 17, 360.1 km East and 3087.5 km North; Latitude: 28° 02' 31" North and Longitude: 82° 25' 31" West.

The SIC code is:

Industry Group No.	49	Electric, Gas and Sanitary Services
--------------------	----	-------------------------------------

The F. J. Gannon station consists of six steam boilers (Units 1 through 6); six steam turbines; one simple-cycle combustion turbine; a once-through cooling water system; solid fuels, fluxing material, fly ash, slag, and storage/handling facilities; fuel storage tanks; and ancillary support equipment. The nominal output is 1317 megawatts (MW). The facility utilizes coal as its primary fuel for Units 1-6. The combustion turbine is allowed to burn new No. 2 fuel oil, with a maximum sulfur content of 0.5%, by weight.

This facility is classified as a Major or Title V Source of air pollution because emissions of at least one regulated air pollutant, such as particulate matter (PM/PM₁₀), sulfur dioxide (SO₂), nitrogen oxides (NO_x), carbon monoxide (CO), or volatile organic compounds (VOC) exceeds 100 tons per year (TPY).

This facility is within an industry included in the list of the 28 Major Facility Categories per Table 62-212.400-1, F.A.C. Because emissions are greater than 100 TPY for at least one criteria pollutant, the facility is also a Major Facility with respect to Rule 62-212.400, Prevention of Significant Deterioration (PSD). This facility is a major source of hazardous air pollutants (HAPs).

3. PERMIT DESCRIPTION

The applicant requests approval to beneficiate byproduct materials generated at the Gannon Station and burn them in Gannon Boiler Unit Nos. 1-6. The byproduct materials TECO is authorized to burn are flyash and coal slag generated at the Gannon Station. TECO is allowed to burn a maximum of 36,500 tons per year of the materials.

This Permit addresses emissions units -001, 002, 003, 004, 005 and 006 (Unit Nos. 1 - 6).

4. PERMIT EMISSIONS & RULE APPLICABILITY

Tampa Electric Company
F. J. Gannon Station

Permit No.: 0570040-016-AC

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

The proposed process will not cause any emission increase from the currently permitted operation at the Gannon Station, TECO is not requesting any revisions to current allowable emission rates for Units 1 through 6.

There will not be any physical changes made to the boilers to accommodate this process.

Tampa Electric does not anticipate a measurable impact on air emissions due to the combustion of the byproduct material. Gannon Units 1-6 are currently permitted to re-inject fly ash into each boiler. As stated in the non-PSD permit application, when the beneficiated byproduct material is reintroduced back into the system, the plant will not use the existing closed loop fly ash re-injection system. The proposed rate in which the beneficiated byproduct materials will be reintroduced back into the boilers is less than the current inject rate of 100% re-injection. Therefore the combustion of the beneficiated byproduct materials will not cause any air emission increases from the currently permitted operations at Gannon Station. A comparison of the current maximum re-injection rate of 100% re-injection as well as a comparison of stack test reports on Unit 6 with and without fly ash reinjection has been included in Attachment 2, of TECO's additional information dated December 20, 2001.

The byproduct beneficiation process is a wet process, which will minimize fugitive particulate matter (PM) emissions. Potential fugitive PM and PM₁₀ emissions are calculated to be 22.8 and 10.72 TPY respectively. (See Attachment 5, Tables 1. and 2. of TECO's additional information dated December 20, 2001.) These values are less than the PSD thresholds of 25 and 15 TPY.

The requested full-elemental speciation analysis of the fly ash and slag constituents is enclosed in Attachment 3 of TECO's additional information dated December 20, 2001. Tampa Electric indicated that they do not expect any increases in heavy metals from the combustion of the beneficiated byproduct material.

Because this Permit requires a modification, an AC permit is required and the public notice requirements for AC permits are applicable.

The proposed Permit is otherwise subject to preconstruction review requirements under the provisions of Chapter 403, Florida Statutes, and Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.). Allowable excess emissions will not change as a result of this Permit.

The facility is located in an Hillsborough County designated "attainment" for all the criteria pollutants (Rule 62-204.360, F.A.C.).

The emission units affected by this permit shall comply with all applicable provisions of the Florida Administrative Code.

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

5. AIR POLLUTION CONTROL TECHNIQUES

No emission limits or compliance requirements will change as a result of this Permit.

6. CONCLUSION

Based on the foregoing technical evaluation of the application and additional information submitted by the applicant and other available information, the Department has made a preliminary determination that the proposed Permit will comply with all applicable state and federal air pollution regulations. The Department will issue a draft AC permit to the applicant that provides for the above changes.

Scott M. Sheplak, P.E.
Mail Station #5505
2600 Blair Stone Road
Tallahassee, Florida 32399-2400
850/921-9532

Permittee:

Tampa Electric Company
P.O. Box 111
Tampa, Florida 33601-0111

Expiration Date: July 5, 2003

Permit No.: 0570040-016-AC

Facility ID No.: 0570040

SIC No.: 49, 4911

Project: Gannon Station - Unit Nos. 1-6
Beneficiation and Combustion of
Byproduct Materials

STATEMENT OF BASIS: This permit is issued under the provisions of Chapter 403, Florida Statutes, and Florida Administrative Code Chapters 62-204, 62-210, 62-212, 62-213, 62-296, 62-297, and Chapter 62-4. 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 Florida Department of Environmental Protection.

This permit allows TECO to beneficiate byproduct materials generated at the Gannon Station and burn them in Gannon Boiler Unit Nos. 1-6. The byproduct materials TECO is authorized to beneficiate and burn are flyash and coal slag generated at the Gannon Station. TECO is allowed to burn a maximum of 36,500 tons per year of the materials. The proposed process will not cause any emission increase from the currently permitted operation at the Gannon Station.

The unmarketable conditioned fly ash and slag from the silos, precipitator hoppers, ash storage area, and slag bins will be transported via truck to the coalfield, where the byproduct materials will be screened. Spray water will be added at the screen and to the miscellaneous pile at the coalfield as needed to keep the materials wet, thus minimizing fugitive PM emissions. Water application as needed during material movement, screening, and loading operations shall insure that these activities are handled as a wet process. A rubber-tired front-end loader will place the screened byproduct materials on a portable conveyor, which will then be transported to the bunkers, mixed with raw fuel, and returned in Units 1 through 6.

Effective Date: (clerk date)

Howard L. Rhodes, Director
Division of Air Resources
Management

HLR/sms

Subsection A. Summary of Emissions Unit ID Nos. and Brief Descriptions.

E.U.

<u>ID No.</u>	<u>Brief Description</u>
-001	Unit No. 1-Fossil Fuel-Fired Steam Generator
-002	Unit No. 2-Fossil Fuel-Fired Steam Generator
-003	Unit No. 3-Fossil Fuel-Fired Steam Generator
-004	Unit No. 4-Fossil Fuel-Fired Steam Generator
-005	Unit No. 5-Fossil Fuel-Fired Steam Generator
-006	Unit No. 6-Fossil Fuel-Fired Steam Generator

Please reference the Permit No., Facility ID No., and appropriate Emissions Unit(s) ID No(s). on all correspondence, test submittals, applications, etc.

Subsection B. Relevant Documents.

The documents listed below are not a part of this permit; however, they are specifically related to this permitting action.

These documents are on file with permitting authority:

TECO Permit Application received September 28, 2001.

EPCHC comments dated October 25, 2001.

DEP Request for Additional Information dated October 26, 2001.

MSDS sheets dated November 11, 2001.

Additional Information Response received December 21, 2001.

1. A part of this permit is the attached 15 General Conditions. [Rule 62-4.160, F.A.C.]
2. Issuance of this permit does not relieve the permittee from complying with applicable emission limiting standards or other requirements of Chapters 62-204, 62-210, 62-212, 62-213, 62-296 and 62-297, or any other requirements under federal, state or local law.
[Rule 62-210.300, F.A.C.]

Operation Limitations

3. The maximum annual throughput rate of conditioned fly ash and slag shall not exceed 100 TPD and 36,500 TPY.
[Applicant requested dated September 27, 2001]
4. When the byproduct beneficiation process is in use, the plant shall not use the existing closed loop flyash reinjection system.
[TECO Permit Application received September 28, 2001]
5. Fly ash transported by dump truck to the coalfield shall be adequately wetted and processed through the pugmill. Spray water shall be added to the screen and to the miscellaneous pile at the coalfield as needed to keep the materials wet, thus minimizing fugitive PM emissions. In addition, the dump trucks used to transport fly ash shall utilize tarps at all times except when loading/unloading.
[Rule 62-4.070(3), F.A.C.]
6. Beneficiation and combustion of unmarketable byproduct materials in Units 1-6 shall cease upon the repowering of the Gannon Station to natural gas in 2004.
[Applicant request dated December 20, 2001 and Consent Decree (U.S. vs. TECO) dated February 29, 2000]

Emission Limitations and Standards

7. The emission limiting standards as specified in Permit No. 0570040-014-AV shall be complied with while conditioned fly ash and slag are handled and combusted at the Gannon Station.
[TECO Permit Application received September 28, 2001]
8. Visible Emissions. Visible emissions generated by fugitive or unconfined particulate matter from the byproduct material (fuel) handling systems and storage shall not exceed 5% opacity.
{Permitting note: The averaging time for the emissions standard in this condition shall be equal to the cumulative run time required by the specified test method.}
[Rule 62-296.711(2)(a), F.A.C.]

Testing Requirements

9. The permittee shall test the emissions from one of the boiler units in non-soot blowing mode for visible emissions, particulate matter and sulfur dioxide. The rate at which the unmarketable byproducts (fly ash and slag) were combusted shall be reported with the test results.

[Rules 62-4.070(3), 62-297.310(7)(a)9, and 62-297.310(8), F.A.C.]

10. A thirty (30) minute visible emissions test shall be performed on the byproduct material (fuel) handling system. The test method for visible emissions shall be determined using EPA Method 9, adopted and incorporated by reference in Rule 62-204.800, F.A.C., and referenced in Chapter 62-297, F.A.C.

[Rules 62-297.310(4)(a)2., 62-297.310(7)(a)4., and 62-297.400, F.A.C.]

Recordkeeping Requirements

11. In order to document compliance with Specific Condition No. 3, the permittee shall maintain daily records for each unit of the quantity (tons) of byproduct material fired and with a statement as to the type(s) of byproduct material (i.e. flyash and coal slag). The permittee shall also keep records, on a monthly basis of the estimated total of byproduct material fired by type (i.e. flyash and coal slag). These records shall be recorded in a permanent form suitable for inspection by the Department upon request, and shall be retained for at least a five (5) year period.

[Rule 62-4.070(3), F.A.C.]

Compliance Testing Requirements

12. The permittee shall notify the Air Compliance Section of the Southwest District Office of the Department and the Air Management Division of the Environmental Protection Commission of Hillsborough County (EPC), at least 15 days prior to the date on which each formal compliance test is to begin of the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted. The test notification shall include a proposed test protocol which, upon agreement by the Department, will establish the testing to be done and the conditions under which the test will be conducted and evaluated. A copy of the test report shall be submitted to the Air Management Division of the EPC and the Air Compliance Section of the Southwest District Office of the Department within 45 days after the test is completed.

[Rules 62-4.070(3), and 62-297.310(20) and (8), F.A.C.]

13. The test reports shall include a statement and documentation of the quantity (tons) of byproduct material fired and with a statement as to the type(s) of byproduct material (i.e. flyash and coal slag).

[Rules 62-4.070(3), and 62-297.310(20) and (8), F.A.C.]

Title V Permit Revision

14. Within 180 days of completion of testing of each unit, the permittee shall submit a Title V operation permit revision application to include the terms of this construction permit in the Title V permit for the F. J. Gannon Station.

[Rule 62-213.420, F.A.C.]

THE TAMPA TRIBUNE
Published Daily
Tampa, Hillsborough County, Florida

0570040-016-AC

6/21/07

State of Florida }
County of Hillsborough } ss.

Before the undersigned authority personally appeared J. Rosenthal, who on oath says that she is Advertising Billing Manager of The Tampa Tribune, a daily newspaper published at Tampa in Hillsborough County, Florida; that the attached copy of advertisement being a

LEGAL NOTICE

0570040-016-AC

in the matter of PUBLIC NOTICE OF INTENT

6/21/07
✓+

was published in said newspaper in the issues of MARCH 19, 2002

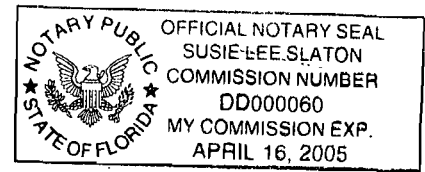
Affiant further says that the said The Tampa Tribune is a newspaper published at Tampa in said Hillsborough County, Florida, and that the said newspaper has heretofore been continuously published in said Hillsborough County, Florida, each day and has been entered as second class mail matter at the post office in Tampa, in said Hillsborough County, Florida for a period of one year next preceding the first publication of the attached copy of advertisement; and affiant further says that she has neither paid nor promised any person, this advertisement for publication in the said newspaper.

J. Rosenthal

Sworn to and subscribed by me, this 20 day
of MARCH, A.D. 20 02

Personally Known or Produced Identification _____
Type of Identification Produced _____

Susie Lee Slaton



THE TAMPA TRIBUNE
Published Daily
Tampa, Hillsborough County, Florida

State of Florida }
 County of Hillsborough } ss.

Before the undersigned authority personally appeared J. Rosenthal, who on oath says that she is Advertising Billing Manager of The Tampa Tribune, a daily newspaper published at Tampa in Hillsborough County, Florida; that the attached copy of advertisement being a

LEGAL NOTICE

in the matter of _____ **PUBLIC NOTICE OF INTENT** _____

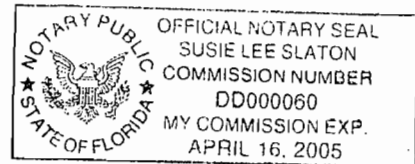
was published in said newspaper in the issues of _____ **MARCH 19, 2002** _____

Affiant further says that the said The Tampa Tribune is a newspaper published at Tampa in said Hillsborough County, Florida, and that the said newspaper has heretofore been continuously published in said Hillsborough County, Florida, each day and has been entered as second class mail matter at the post office in Tampa, in said Hillsborough County, Florida for a period of one year next preceding the first publication of the attached copy of advertisement; and affiant further says that she has neither paid nor promised any person, this advertisement for publication in the said newspaper.

J. Rosenthal

Sworn to and subscribed by me, this _____ 20 _____ day
 of _____ MARCH _____, A.D. 20 02

Personally Known or Produced Identification _____
 Type of Identification Produced _____



Susie Lee Slaton

PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
 Permit No.: 0570040-016-AC
 F. J. Gannon Station Hillsborough County
 The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit to Tampa Electric Company, which allows TECO to benefit byproduct materials generated at the Gannon Station and burn them in Gannon Boiler Unit Nos. 1-6. The F. J. Gannon Station is located at Port Sutton Road, Tampa, Hillsborough County.
 The byproduct beneficiation process is a wet process, which will minimize fugitive particulate matter (PM) emissions. Potential fugitive PM and PM10 emissions are calculated to be 22.8 and 10.72 TPY respectively. These values are less than the PSD thresholds of 25 and 15 TPY. Tampa Electric does not anticipate a measurable impact on air emissions due to the combustion of the byproduct material.
 A Best Available Control Technology (BACT) determination was not required pursuant to Rule 62-212.400, F.A.C. and 40 CFR 52.21. Prevention of Significant Deterioration (PSD). The applicant's mailing address is: Tampa Electric Company, P. O. Box 111, Tampa, Florida 33601-0111. The Department will issue the Final permit with the attached conditions unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments concerning the proposed permit issuance action for a period of 14 (fourteen) days from the date of publication of this Public Notice of Intent to Issue Air Construction Permit. Written comments should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit and require, if applicable, another Public Notice. The Department will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to sections 120.569 and 120.57 F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below. Mediation is not available in this proceeding.
 A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under sections 120.569 and 120.57 of the Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida, 32399-3000. Petitions filed by the permit applicant or any of the parties

listed below must be filed within fourteen days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under section 120.60(3) of the Florida Statutes must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. Under section 120.60(3), however, any person who asked the Department for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under sections 120.569 and 120.57 F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205 of the Florida Administrative Code.
 A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner, the name, address, and telephone num-

ber of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.
 A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by rule 28-106.301. Because the administrative hearing process is designed to formulate the final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be af-

ected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.
 A complete project file is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:
 Dept. of Environmental Protection
 Bureau of Air Regulation
 Suite 4, 111 S. Magnolia Drive
 Tallahassee, Florida, 32301
 Telephone: 850/488-0114
 Fax: 850/922-6979
 Dept. of Environmental Protection
 Southwest District
 3804 Coconut Palm Drive
 Tampa, Florida 33619-8218
 Telephone: 813/744-6100
 Fax: 813/744-6084
 The complete project file includes the application, technical evaluations, Draft permit, and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Administrator, Title V Section, at 111-South Magnolia Drive, Suite 4, Tallahassee, Florida 32301, or call 850/921-9532, for additional information.
 1167 3/19/02

F.J. GANNON GENERATING STATION

AIR CONSTRUCTION PERMIT APPLICATION
BY-PRODUCT BENEFICIATION PROJECT

Prepared for:



TAMPA ELECTRIC
Tampa, Florida

0570040-016-Ae

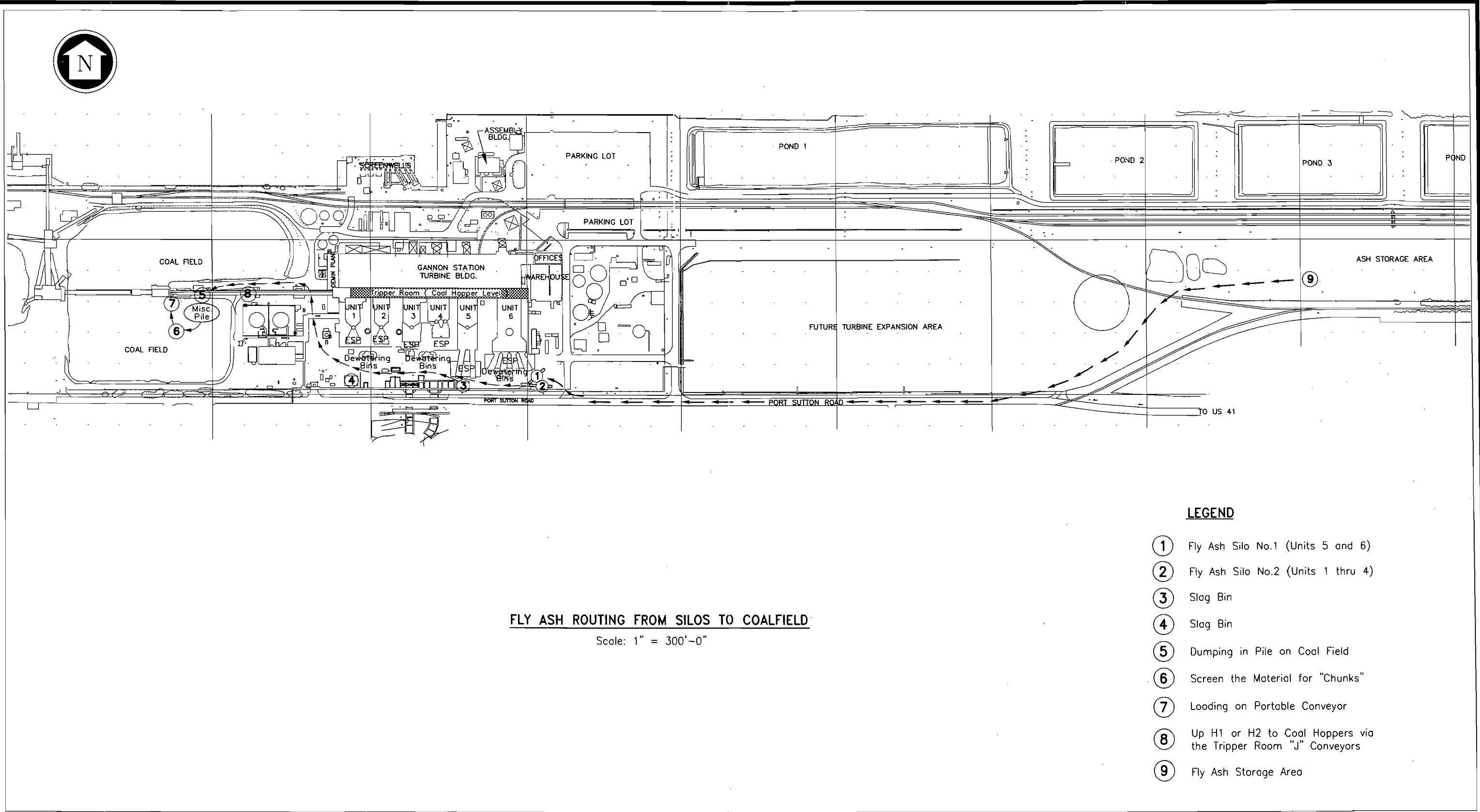
Prepared by:



Environmental Consulting & Technology, Inc.
3701 Northwest 98th Street
Gainesville, Florida 32606

ECT No. 010666-0100

September 2001



FLY ASH ROUTING FROM SILOS TO COALFIELD

Scale: 1" = 300'-0"

LEGEND

- ① Fly Ash Silo No.1 (Units 5 and 6)
- ② Fly Ash Silo No.2 (Units 1 thru 4)
- ③ Slag Bin
- ④ Slag Bin
- ⑤ Dumping in Pile on Coal Field
- ⑥ Screen the Material for "Chunks"
- ⑦ Loading on Portable Conveyor
- ⑧ Up H1 or H2 to Coal Hoppers via the Tripper Room "J" Conveyors
- ⑨ Fly Ash Storage Area

FIGURE 2.
PROCESS LAYOUT

Source: TECO, 2001.



F.J. GANNON GENERATING STATION
AIR CONSTRUCTION PERMIT APPLICATION
BY-PRODUCT BENEFICIATION PROJECT

Prepared for:



TAMPA ELECTRIC
Tampa, Florida

0570040-016-Ae

Prepared by:



Environmental Consulting & Technology, Inc.
3701 Northwest 98th Street
Gainesville, Florida 32606

ECT No. 010666-0100

September 2001

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 - II. Facility Information
 - III. Emission Unit Information

3. SUPPLEMENTARY INFORMATION
 - Supplement 1. Fugitive Dust Control Operation and Maintenance Plan
 - Supplement 2. Supporting Details for Emissions Calculations

BACKGROUND AND PROJECT DESCRIPTION

BACKGROUND INFORMATION

The F.J. Gannon Station (Gannon Station) is a Tampa Electric Company (TEC) owned and operated coal-fired generating facility located on Port Sutton in Tampa, Florida. Fly-ash and slag are both byproducts of the Gannon Station combustion process. The majority of byproduct generated during combustion of coal at Gannon Station is sold for re-use. There are contracts in place for the sale of the byproduct materials that meet the terms and conditions specified. However, portions of the byproducts do not meet the vendor specifications and cannot be sold under current contracts. These byproduct materials are often high in carbon content and easily beneficiated, therefore making them recyclable in terms of energy and byproduct recovery. Currently, the unmarketable byproduct materials are sent to onsite storage areas where they are allowed to dewater and then are transported off-site by tanker trucks to be disposed at a solid waste facility.

CURRENTLY PERMITTED OPERATIONS

For Units 1 through 4 Flyash Silo No. 2 with baghouse, flyash collected in the hoppers of the electrostatic precipitators (ESPs) is pneumatically conveyed to a 30-foot (ft) diameter, 45.5-ft-high silo. The flyash in the silo is gravity fed by tubing into enclosed tanker trucks for transport to an off-site consumer. In addition, flyash from Silo No. 2 may be routed to the pugmill at Gannon Station Silo No. 1 where it is *conditioned* by wetting with water and gravity fed into open bed trucks. The flyash is then transported to an off-site consumer.

For Units 5 and 6 Flyash Silo No. 1 with baghouse and pugmill, flyash collected in the hoppers of the ESPs is pneumatically conveyed to a 25-ft diameter, 50-ft-high silo. The flyash in the silo is gravity fed by chute into enclosed tanker trucks or to a pugmill where it is *conditioned* by wetting with water and gravity fed by chute into open bed trucks. In addition, flyash from Units 1 through 4 Flyash Silo No. 2 may be routed via gravity flow to the pugmill where it is *conditioned* by wetting with water and gravity fed into open bed trucks. The flyash is then transported to an off-site consumer.

PROJECT DESCRIPTION

TEC is proposing to change the mode of operation at the Gannon Station from disposing of the unmarketable byproduct materials off-site to beneficiating the flyash and slag and reintroducing them back into the system to capture its remaining fuel value. This will give the plant more operational flexibility and minimize the use of the remaining on-site storage areas, as well as off-site solid waste disposal facilities. At the same time, it will increase beneficial re-use of Gannon Station byproduct materials. The byproduct beneficiation process is a wet process and therefore will also minimize fugitive particulate matter (PM) emissions.

TEC expects to reuse a maximum amount of 36,500 tons per year (tpy) of the byproduct materials. The unmarketable conditioned flyash and slag from the silos, ash storage area, and slag bins will be transported via trucks to a miscellaneous pile at the coalfield. At the coalfield, the byproduct materials will be screened. A rubber-tired front-end loader will place the screened byproduct materials on the portable conveyor, which will then be transported to the bunkers, mixed with raw fuel, and reburned in Units 1 through 6. Spray water will be added at the screen and to the miscellaneous pile at the coalfield as needed to keep the materials wet, thus minimizing fugitive PM emissions.

When the proposed byproduct beneficiation process is in use, the plant will not use the existing closed loop flyash reinjection system. Since the proposed process will not cause any emission increase from the currently permitted operations at the Gannon Station, TEC is not requesting any revisions to current allowable emission rates for Units 1 through 6.

Additional potential fugitive PM emission points (i.e., not covered under the existing Title V permit) include:

- Unload byproduct to miscellaneous pile at the coalfield.
- Transferring of the byproduct materials from miscellaneous pile to screen.
- Screening of the byproduct materials.
- Transferring of the screened byproduct materials to portable conveyor and to “J” conveyors.

Fugitive PM and particulate matter less than or equal to 10 micrometers (PM₁₀) emissions due to additional truck traffic will be minimal since all Gannon Station roadways are paved with posted speed limits and the trucks will be hauling moist materials. Emissions from slag loading/unloading operations were considered to be negligible.

Potential fugitive PM and PM₁₀ emissions due to the proposed mode of handling of the by-product materials are projected to be approximately 23 and 11 tpy, respectively, based on U.S. Environmental Protection Agency (EPA) AP-42 algorithms. As such, the proposed process will not trigger Prevention of Significant Deterioration (PSD) review. Details of the potential fugitive PM/PM₁₀ emission estimates are provided as a supplement to this in the non-PSD construction permit application package. It should be noted that the emission factor of 110 pounds per ton (lb/ton) (AP-42, Table 11.8-2) used to calculate PM emissions due to screening is a conservative assumption, since the factor is intended not only for screening, but also for crushing and sintering operations. These operations will not take place at the Gannon Station. For operational flexibility, TEC requests any throughput restriction to be placed on the process be on an annual basis rather than a daily basis.

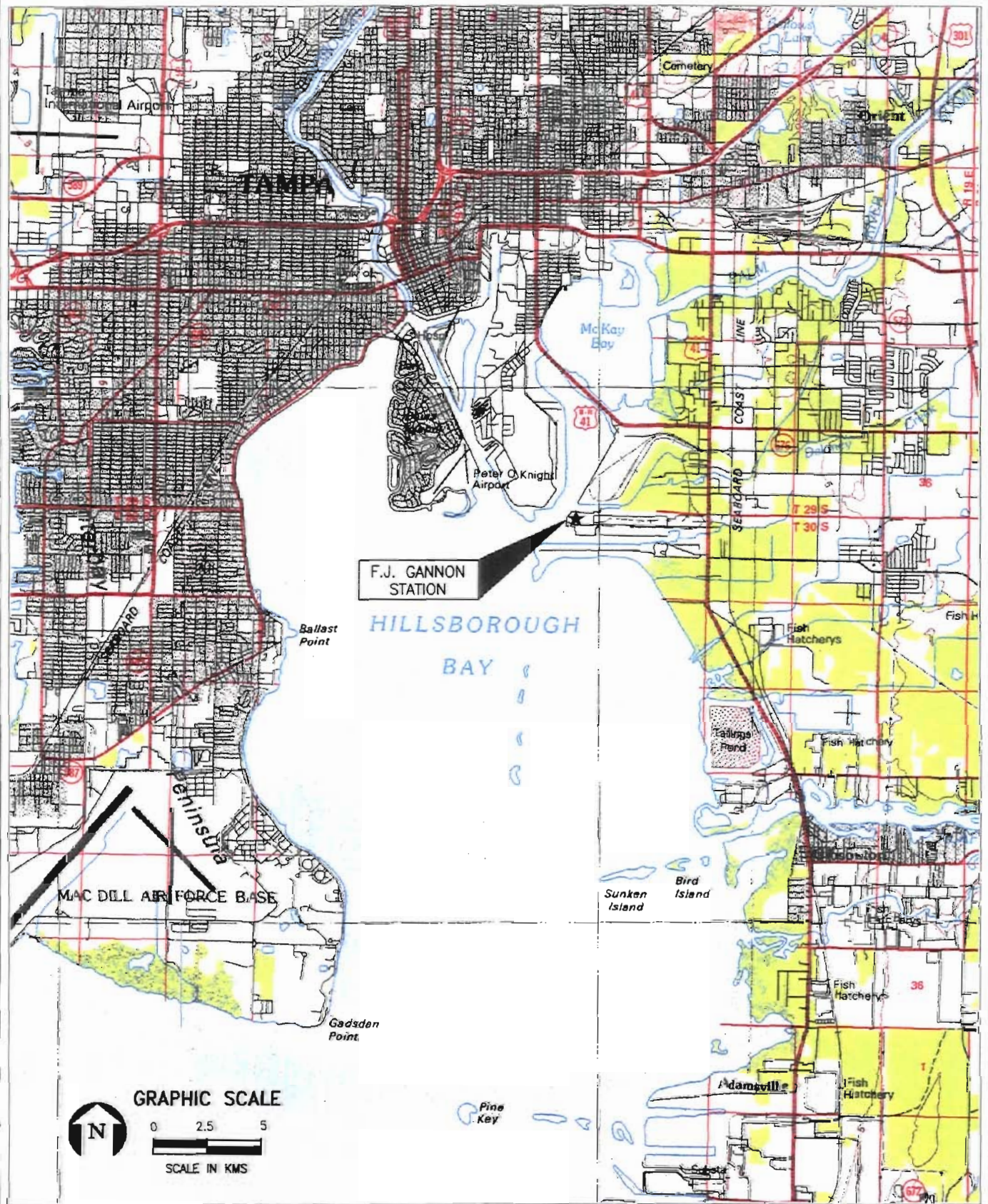


FIGURE 1.
F.J. GANNON STATION AREA MAP

Source: USGS 30x60 Quad: St. Petersburg, FL, 1981.



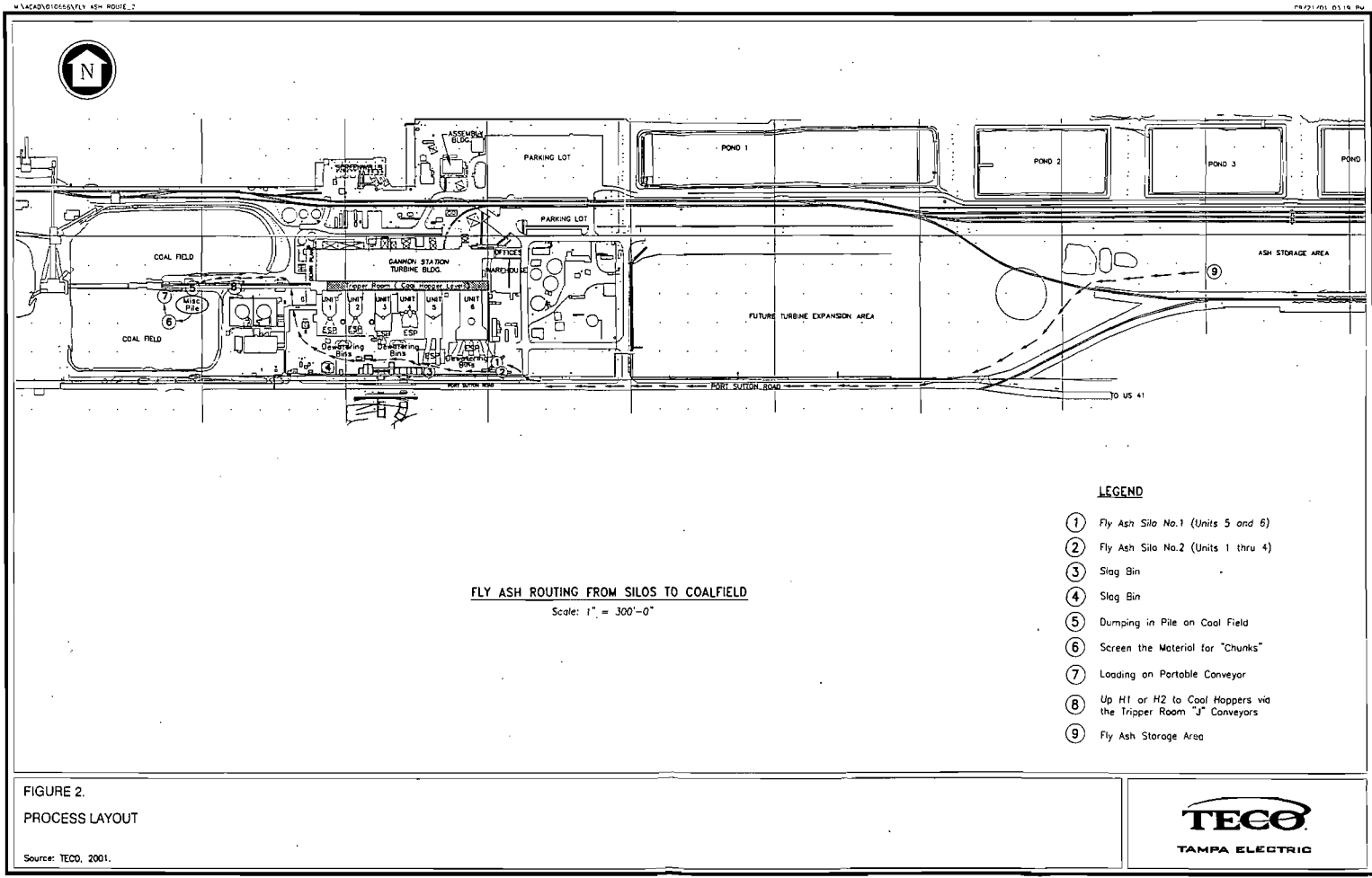
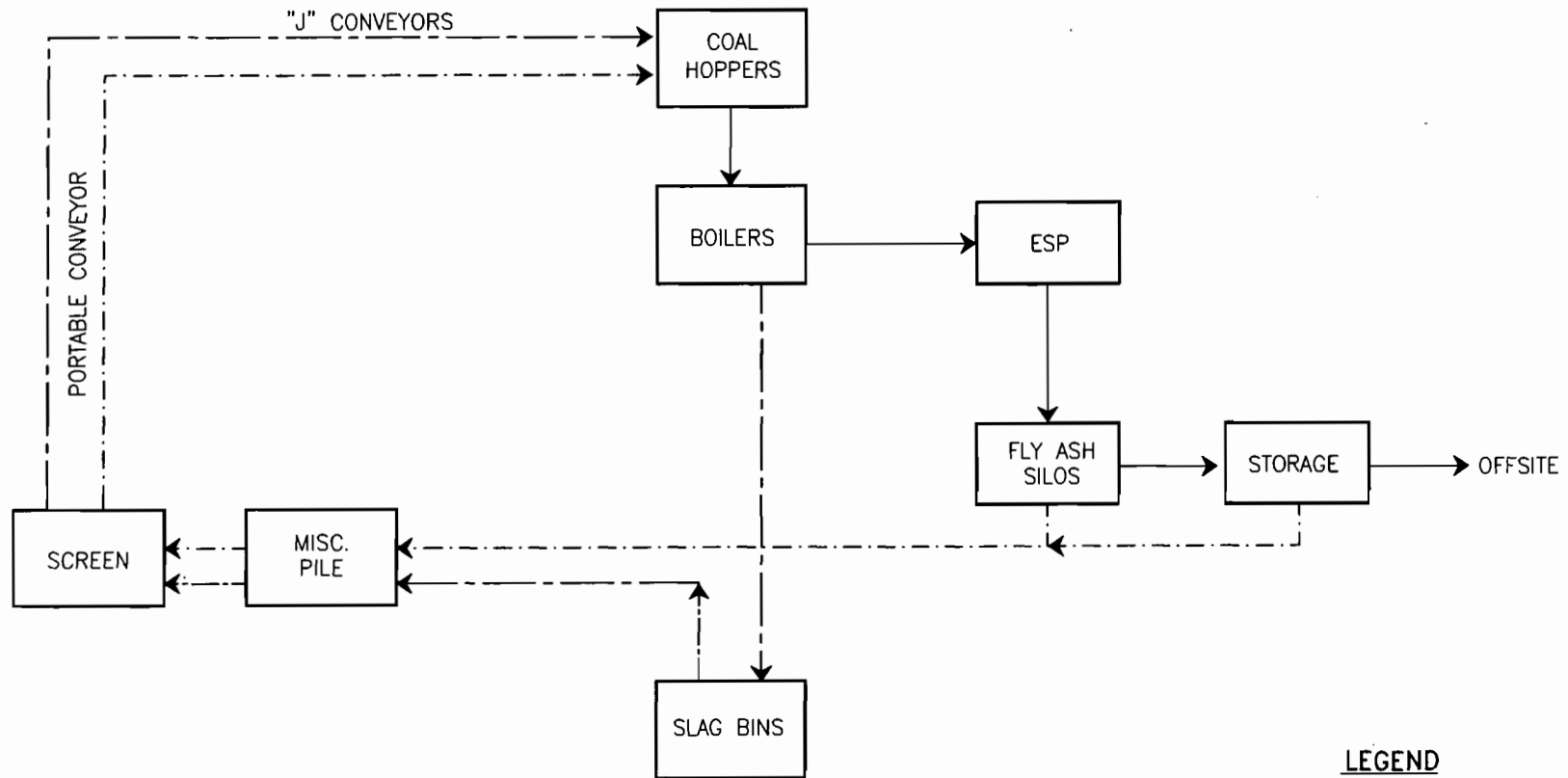


FIGURE 2.
PROCESS LAYOUT

Source: TECO, 2001.





LEGEND

- - - - - "CONDITIONED" FLY ASH
- SLAG

1-6

FIGURE 3.
SIMPLIFIED PROCESS FLOW DIAGRAM

Source: TECO, 2001; ECT, 2001.



Table 1. Estimated PM₁₀ Emissions (Proposed New Sources)

EU ID	Process Description	Reference to Flow Diag.	Emission Factors		Emission Factor Source	Operating Parameters				Potential PM ₁₀ Emissions	
			Factor	Units		tpy	max. tph	max. hr/yr	VMT/yr	(tpy)	(lb/hr)
019-1	Truck Traffic on Paved Roads	Arrows	0.4136	lb/VMT	AP-42 13.2.1 (10/97)	n/a	n/a	n/a	691	0.1072	0.0766
019-2	Unloading Byproducts to Misc. Pile	5	0.0006	lb/ton	AP-42, 13.2.4 (1/95)	36500	50	2912	n/a	0.0115	0.0314
019-3	Working with Misc. Pile	5	6.0762	lb/VMT	AP-42, 13.2.2 (9/98)	36500	50	2912	183	0.5545	0.3808
019-4	Wind Erosion from Misc. Pile	5	n/a	n/a	AP-42, 13.2.5 (1/95)	n/a	n/a	n/a	n/a	0.0002	0.0001
019-5	Transfer from Misc. Pile to Screen	5 to 6	0.0006	lb/ton	AP-42, 13.2.4 (1/95)	36500	50	2912	n/a	0.0001	0.0003
019-6	Screening	6	55.0	lb/ton	AP-42, 11.8 (1/95)	36500	50	2912	n/a	10.04	27.50
019-7	Transfer from Screen to Portable Conveyor	6 to 7	0.0006	lb/ton	AP-42, 13.2.4 (1/95)	36500	50	2912	n/a	0.0001	0.0003
019-8	Transfer from Portable Conveyor to "J" Conveyors	7 to 8	0.0006	lb/ton	AP-42, 13.2.4 (1/95)	36500	50	2912	n/a	0.0001	0.0003
TOTALS										10.71	27.99

Note: n/a = not applicable

Assumed PM₁₀/PM = 0.5 for the screening emission factor

Applied a control efficiency of 99% for keeping the materials sufficiently wet (EPRI, 1984)

Applied a control efficiency of 25% to the uncontrolled truck traffic emissions for using precautions such as speed limits (AP-40)

tpy = tons per year, tph = tons per hour, lb = pounds, yr = year

hr = hours, VMT = vehicle miles traveled

PM = Particulate Matter, PM₁₀ = Particulate Matter Less than 10 micron in aerodynamic diameter

Sources: TECO, 2001; U.S. EPA, 1995-1998; ECT, 2001.

Table 2. Estimated PM Emissions (Proposed New Sources)

EU ID	Process Description	Reference to Flow Diag.	Emission Factors		Emission Factor Source	Operating Parameters				Potential PM Emissions	
			Factor	Units		tpy	max. tph	max. hr/yr	VMT/yr	(tpy)	(lb/hr)
019-1	Truck Traffic on Paved Roads	Arrows	2.1195	lb/VMT	AP-42 13.2.1 (10/97)	n/a	n/a	n/a	691	0.5494	0.3925
019-2	Unloading Byproducts to Misc. Pile	5	0.0013	lb/ton	AP-42, 13.2.4 (1/95)	36500	50	2912	n/a	0.0243	0.0664
019-3	Working with Misc. Pile	5	23.37	lb/VMT	AP-42, 13.2.2 (9/98)	36500	50	2912	183	2.1325	1.4646
019-4	Wind Erosion from Misc. Pile	5	n/a	n/a	AP-42, 13.2.5 (1/95)	n/a	n/a	n/a	n/a	0.0004	0.0001
019-5	Transfer from Misc. Pile to Screen	5 to 6	0.0013	lb/ton	AP-42, 13.2.4 (1/95)	36500	50	2912	n/a	0.0002	0.0007
019-6	Screening	6	110.0	lb/ton	AP-42, 11.8 (1/95)	36500	50	2912	n/a	20.0750	55.00
019-7	Transfer from Screen to Portable Conveyor	6 to 7	0.0013	lb/ton	AP-42, 13.2.4 (1/95)	36500	50	2912	n/a	0.0002	0.0007
019-8	Transfer from Portable Conveyor to "J" Conveyors	7 to 8	0.0013	lb/ton	AP-42, 13.2.4 (1/95)	36500	50	2912	n/a	0.0002	0.0007
TOTALS										22.78	56.93

Note: n/a = not applicable

Applied a control efficiency of 99% for keeping the materials sufficiently wet (EPRI, 1984)

Applied a control efficiency of 25% to the uncontrolled truck traffic emissions for using precautions such as speed limits (AP-40)

tpy = tons per year, tph = tons per hour, lb = pounds, yr = year

hr = hours, VMT = vehicle miles traveled

PM = Particulate Matter, PM10 = Particulate Matter Less than 10 micron in aerodynamic diameter

Sources: TECO, 2001; U.S. EPA, 1995-1998; ECT, 2001.

**Department of
Environmental Protection**

**DIVISION OF AIR RESOURCES MANAGEMENT
APPLICATION FOR AIR PERMIT - LONG FORM**

I. APPLICATION INFORMATION

Identification of Facility Addressed in This Application

1. Facility Owner/Company Name : TAMPA ELECTRIC COMPANY	
2. Site Name : F.J. GANNON STATION	
3. Facility Identification Number :	0570040 [] Unknown
4. Facility Location : PORT SUTTON ROAD Street Address or Other Locator : P.O. BOX 111 City : TAMPA County : HILLSBOROUGH Zip Code : 33601-0111	
5. Relocatable Facility? [] Yes [X] No	6. Existing Permitted Facility? [X] Yes [] No

I. Part 1 - 1

Owner/Authorized Representative or Responsible Official

1. Name and Title of Owner/Authorized Representative or Responsible Official :

Name : KAREN A. SHEFFIELD

Title : GENERAL MANAGER, FJ GANNON STATION

2. Owner or Authorized Representative or Responsible Official Mailing Address :

Organization/Firm : TAMPA ELECTRIC COMPANY

Street Address : P.O. BOX 111

City : TAMPA

State : FL

Zip Code : 33601-0111

3. Owner/Authorized Representative or Responsible Official Telephone Numbers :

Telephone : (813)641-5261

Fax : (813)641-5081

4. Owner/Authorized Representative or Responsible Official Statement :

I, the undersigned, am the owner or authorized representative of the non-Title V source addressed in this Application for Air Permit or the responsible official, as defined in Rule 62-210.200, F.A.C., of the Title V source addressed in this application, whichever is applicable. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof. I understand that a permit, if granted by the Department, cannot be transferred without authorization from the Department, and I will promptly notify the Department upon sale or legal transfer of any permitted emissions units.*

Karen Sheffield
Signature

9/26/01
Date

* Attach letter of authorization if not currently on file.

I. Part 2 - 1

DEP Form No. 62-210.900(1) - Form

Effective : 3-21-96

Scope of Application

Emissions Unit ID	Description of Emissions Unit	Permit Type
019	ALTERNATIVE METHOD OF HANDLING CONDITIONED FLYASH AND SLAG	AC1E

Purpose of Application and Category

Category I : All Air Operation Permit Applications Subject to Processing Under Chapter 62-213, F.A.C.

This Application for Air Permit is submitted to obtain :

- Initial air operation permit under Chapter 62-213, F.A.C., for an existing facility which is classified as a Title V source.

- Initial air operation permit under Chapter 62-213, F.A.C., for a facility which, upon start up of one or more newly constructed or modified emissions units addressed in this application, would become classified as a Title V source.

Current construction permit number :

- Air operation permit renewal under Chapter 62-213, F.A.C., for a Title V source.

Operation permit to be renewed :

- Air operation permit revision for a Title V source to address one or more newly constructed or modified emissions units addressed in this application.

Current construction permit number :

Operation permit to be revised :

- Air operation permit revision or administrative correction for a Title V source to address one or more proposed new or modified emissions units and to be processed concurrently with the air construction permit application.

Operation permit to be revised/corrected :

I. Part 4 - 1

Air operation permit revision for a Title V source for reasons other than construction or modification of an emissions unit.

Operation permit to be revised :

Reason for revision :

Category II : All Air Operation Permit Applications Subject to Processing Under Rule 62-210.300(2)(b), F.A.C.

This Application for Air Permit is submitted to obtain :

Initial air operation permit under Rule 62-210.300(2)(b), F.A.C., for an existing facility seeking classification as a synthetic non-Title V source.

Current operation/construction permit number(s) :

Renewal air operation permit under Rule 62-210.300(2)(b), F.A.C., for a synthetic non-Title V source.

Operation permit to be renewed :

Air operation permit revision for a synthetic non-Title V source.

Operation permit to be revised :

Reason for revision :

Category III : All Air Construction Permit Applications for All Facilities and Emissions Units

This Application for Air Permit is submitted to obtain :

I. Part 4 - 2

DEP Form No. 62-210.900(1) - Form
Effective : 3-21-96

- Air construction permit to construct or modify one or more emissions units within a facility (including any facility classified as a Title V source).

Current operation permit number(s), if any :
0570040-002-AV

- Air construction permit to make federally enforceable an assumed restriction on the potential emissions of one or more existing, permitted emissions units.

Current operation permit number(s) :

- Air construction permit for one or more existing, but unpermitted, emissions units.

I. Part 4 - 3

Application Processing Fee

Check one :

[] Attached - Amount : \$0.00 [X] Not Applicable.

Construction/Modification Information

1. Description of Proposed Project or Alterations :	
THE PROJECT ENTAILS THE TRANSFER OF CONDITIONED FLYASH AND SLAG, FROM THE SILOS, ASH STORAGE AREAS AND SLAG BINS, VIA TRUCKS TO A TEMPORARY STORAGE PILE (MISC. PILE) IN THE COAL FIELD. THE BYPRODUCT MATERIALS WILL THEN BE SCREENED AND TRANSPORTED TO CONVEYORS TO BE REBURNED IN UNITS 1 THROUGH THIS BENEFICIATING PROCESS WILL GIVE THE PLANT MORE OPERATIONAL FLEXIBILIT AND MINIMIZE THE USE OF THE REMAINING ASH STORAGE AREAS, AS WELL AS OFF-SIT SOLID WASTE DISPOSAL FACILITIES.	
2. Projected or Actual Date of Commencement of Construction :	01-Dec-2001
3. Projected Date of Completion of Construction :	04-Dec-2001

Professional Engineer Certification

1. Professional Engineer Name : DANIEL N. HLAING Registration Number : 00045058	
2. Professional Engineer Mailing Address : Organization/Firm : ECT, INC. Street Address : 3701 NW 98th STREET City : GAINESVILLE State : FL Zip Code : 32606	
3. Professional Engineer Telephone Numbers : Telephone : (352)332-0444 Fax : (352)332-6722	

4. Professional Engineer Statement :

I, the undersigned, hereby certify, except as particularly noted herein, that :*

(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollutant control equipment described in this Application for Air Permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and

(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.

If the purpose of this application is to obtain a Title V source air operation permit (check here [] if so), I further certify that each emissions unit described in this Application for Air Permit, when properly operated and maintained, will comply with the applicable requirements identified in this application to which the unit is subject, except those emissions units for which a compliance schedule is submitted with this application.

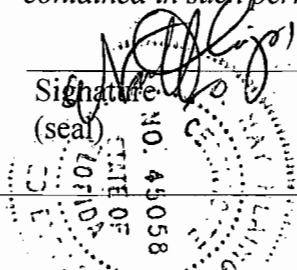
If the purpose of this application is to obtain an air construction permit for one or more proposed new or modified emissions units (check here [] if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.

If the purpose of this application is to obtain an initial air operation permit or operation permit revision for one or more newly constructed or modified emissions units (check here [] if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.

Signature
(seal)

Date

9/21/01



I. Part 6 - 1

* Attach any exception to certification statement.

I. Part 6 - 2

DEP Form No. 62-210.900(1) - Form
Effective : 3-21-96

Application Contact

1. Name and Title of Application Contact :
Name : RAIZA CALDERON Title : ASSOCIATE ENGINEER, ENV. AFFAIRS
2. Application Contact Mailing Address :
Organization/Firm : TAMPA ELECTRIC COMPANY Street Address : P.O. BOX 111 City : TAMPA State : FL Zip Code : 33601-0111
3. Application Contact Telephone Numbers :
Telephone : (813)641-5036 Fax : (813)641-5081

Application Comment

THE PROJECTED START AND COMPLETION DATES FOR CONSTRUCTION ARE ESTIMATES ONLY. CONSTRUCTION WILL COMMENCE IMMEDIATELY UPON RECEIPT OF THE PERMIT. IT TAKES LESS THAN ONE WEEK TO SET UP THE SCREEN.

Facility Regulatory Classifications

1. Small Business Stationary Source?	N
2. Title V Source?	Y
3. Synthetic Non-Title V Source?	N
4. Major Source of Pollutants Other than Hazardous Air Pollutants (HAPs)?	Y
5. Synthetic Minor Source of Pollutants Other than HAPs?	N
6. Major Source of Hazardous Air Pollutants (HAPs)?	Y
7. Synthetic Minor Source of HAPs?	N
8. One or More Emissions Units Subject to NSPS?	Y
9. One or More Emission Units Subject to NESHAP?	N
10. Title V Source by EPA Designation?	N
11. Facility Regulatory Classifications Comment :	

B. FACILITY REGULATIONS

Rule Applicability Analysis

SEE PREVIOUSLY SUBMITTED TITLE V PERMIT APPLICATION.

B. FACILITY REGULATIONS

List of Applicable Regulations

APPENDIX A OF TITLE V PERMIT APPLICATION

II. Part 3b - 1

DEP Form No. 62-210.900(1) - Form
Effective : 3-21-96

C. FACILITY POLLUTANTS

Facility Pollutant Information

1. Pollutant Emitted	2. Pollutant Classification
PM10	B
PM	B

D. FACILITY POLLUTANT DETAIL INFORMATION

Facility Pollutant Information

Pollutant 1

1. Pollutant Emitted :	PM10
2. Requested Emissions Cap :	(lbs/hour) 15.0000 (tons/year)
3. Basis for Emissions Cap Code :	ESCPSD
4. Facility Pollutant Comment :	

II. Part 4b - 1

D. FACILITY POLLUTANT DETAIL INFORMATION

Facility Pollutant Information

Pollutant 2

1. Pollutant Emitted :	PM
2. Requested Emissions Cap :	(lbs/hour) 25.0000 (tons/year)
3. Basis for Emissions Cap Code :	ESCPSD
4. Facility Pollutant Comment :	

II. Part 4b - 2

D. FACILITY SUPPLEMENTAL INFORMATION

Supplemental Requirements for All Applications

1. Area Map Showing Facility Location :	FIGURE 1
2. Facility Plot Plan :	FIGURE 2
3. Process Flow Diagram(s) :	FIGURE 3
4. Precautions to Prevent Emissions of Unconfined Particulate Matter :	SUPPLEMENT 1
5. Fugitive Emissions Identification :	TABLES 1&2
6. Supplemental Information for Construction Permit Applica	SUPPLEMENT 2

Additional Supplemental Requirements for Category I Applications Only

7. List of Proposed Exempt
8. List of Equipment/Activities Regulated under
9. Alternative Methods of Operation :
10. Alternative Modes of Operation (Emissions
11. Identification of Additional Applicable
12. Compliance Assurance Monitoring
13. Risk Management Plan Verification :
14. Compliance Report and Plan :
15. Compliance Certification (Hard-copy Requir

III. EMISSIONS UNIT INFORMATION

A. TYPE OF EMISSIONS UNIT (Regulated and Unregulated Emissions Units)

Emissions Unit Information Section 1

ALTERNATIVE METHOD OF HANDLING CONDITIONED FLYASH AND SLAG

Type of Emissions Unit Addressed in This Section

1. Regulated or Unregulated Emissions Unit? Check one :

- The emissions unit addressed in this Emissions Unit Information Section is a regulated emissions unit.
- The emissions unit addressed in this Emissions Unit Information Section is an unregulated emissions unit.

2. Single Process, Group of Processes, or Fugitive Only? Check one :

- This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).
- This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.
- This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

**B. GENERAL EMISSIONS UNIT INFORMATION
(Regulated and Unregulated Emissions Units)**

Emissions Unit Description and Status

1. Description of Emissions Unit Addressed in This Section : ALTERNATIVE METHOD OF HANDLING CONDITIONED FLYASH AND SLAG		
2. Emissions Unit Identification Number : 019 [] No Corresponding ID [] Unknown		
3. Emissions Unit Status Code : C	4. Acid Rain Unit? [] Yes [X] No	5. Emissions Unit Major Group SIC Code : 49
6. Emissions Unit Comment :		

Emissions Unit Information Section 1

ALTERNATIVE METHOD OF HANDLING CONDITIONED FLYASH AND SLAG

Emissions Unit Control Equipment 1

1. Description : WATER SPRAYS, REASONABLE PRECAUTIONS
2. Control Device or Method Code : 61

**C. EMISSIONS UNIT DETAIL INFORMATION
(Regulated Emissions Units Only)**

Emissions Unit Information Section 1
ALTERNATIVE METHOD OF HANDLING CONDITIONED FLYASH AND SLAG

Emissions Unit Details

1. Initial Startup Date :		
2. Long-term Reserve Shutdown Date :		
3. Package Unit :		
Manufacturer :		Model Number :
4. Generator Nameplate Rating :		MW
5. Incinerator Information :		
	Dwell Temperature :	Degrees Fahrenheit
	Dwell Time :	Seconds
	Incinerator Afterburner Temperature :	Degrees Fahrenheit

Emissions Unit Operating Capacity

1. Maximum Heat Input Rate :	mmBtu/hr	
2. Maximum Incinerator Rate :	lb/hr	tons/day
3. Maximum Process or Throughput Rate :	36500	TPY
4. Maximum Production Rate :		
5. Operating Capacity Comment :		

Emissions Unit Operating Schedule

Requested Maximum Operating Schedule :		
	8 hours/day	7 days/week
	52 weeks/year	2,912 hours/year

**D. EMISSIONS UNIT REGULATIONS
(Regulated Emissions Units Only)**

Emissions Unit Information Section 1

ALTERNATIVE METHOD OF HANDLING CONDITIONED FLYASH AND SLAG

Rule Applicability Analysis

THE FACILITY IS LOCATED IN AN AIR QUALITY MAINTENANCE AREA FOR PM, AND IS SUBJECT TO RULE 62-296.711, F.A.C. (PM-RACT). IT IS ALSO SUBJECT TO THE GENERAL PROVISIONS TO CONTROL UNCONFINED PM, PER RULE 62-296.320(1)(c), F.A.C.

Emissions Unit Information Section 1
ALTERNATIVE METHOD OF HANDLING CONDITIONED FLYASH AND SLAG

List of Applicable Regulations

FDEP 62-296.320, F.A.C.,
FDEP 62-296.711, F.A.C.,
HILLSBOROUGH COUNTY 1-3.61

III. Part 6b - 1

DEP Form No. 62-210.900(1) - Form
Effective : 3-21-96

E. EMISSION POINT (STACK/VENT) INFORMATION

Emissions Unit Information Section 1

ALTERNATIVE METHOD OF HANDLING CONDITIONED FLYASH AND SLAG

Emission Point Description and Type :

1. Identification of Point on Plot Plan or Flow Diagram :	SEE FIGURE 2		
2. Emission Point Type Code :	4		
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking : (limit to 100 characters per point)			
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common :			
N/A			
5. Discharge Type Code :			
6. Stack Height :	0	feet	
7. Exit Diameter :	0.0	feet	
8. Exit Temperature :	0	°F	
9. Actual Volumetric Flow Rate :	0	acfm	
10. Percent Water Vapor :	0.00	%	
11. Maximum Dry Standard Flow Rate :	0	dscfm	
12. Nonstack Emission Point Height :	0	feet	
13. Emission Point UTM Coordinates :			
Zone :	0	East (km) :	0.000
		North (km) :	0.000
14. Emission Point Comment :			
TRUCK LOADING POINTS ARE ~6-8 FT., STORAGE PILE IS AT GROUND LEVEL, SCREEN IS AT ~7 FT, AND PORTABLE CONVEYOR IS AT ~4 FT.			

III. Part 7a - 1

F. SEGMENT (PROCESS/FUEL) INFORMATION

Emissions Unit Information Section 1

ALTERNATIVE METHOD OF HANDLING CONDITIONED FLYASH AND SLAG

Segment Description and Rate : Segment 1

1. Segment Description (Process/Fuel Type and Associated Operating Method/Mode) : FLY ASH AND SLAG TRANSFER AND HANDLING (WET PROCESS)	
2. Source Classification Code (SCC) : 30500712	
3. SCC Units : Tons Transferred Or Handled	
4. Maximum Hourly Rate : 0.00	5. Maximum Annual Rate : 36,500.00
6. Estimated Annual Activity Factor :	
7. Maximum Percent Sulfur :	8. Maximum Percent Ash :
9. Million Btu per SCC Unit :	
10. Segment Comment : MAXIMUM HOURLY RATE VARIES FROM DIFFERENT EQUIPMENT. SEE TABLES 1 AND 2.	

III. Part 8 - 1

G. EMISSIONS UNIT POLLUTANTS
(Regulated and Unregulated Emissions Units)

Emissions Unit Information Section 1

ALTERNATIVE METHOD OF HANDLING CONDITIONED FLYASH AND SLAG

1. Pollutant Emitted	2. Primary Control Device Code	3. Secondary Control Device Code	4. Pollutant Regulatory Code
1 - PM10	061		WP
2 - PM	061		WP

III. Part 9a - 1

DEP Form No. 62-210.900(1) - Form

Effective : 3-21-96

**H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)**

Emissions Unit Information Section 1
ALTERNATIVE METHOD OF HANDLING CONDITIONED FLYASH AND SLAG

Pollutant Potential/Estimated Emissions : Pollutant 1

1. Pollutant Emitted : PM10	
2. Total Percent Efficiency of Control :	%
3. Potential Emissions :	28.000000 lb/hour 10.700000 tons/year
4. Synthetically Limited? [X] Yes [] No	
5. Range of Estimated Fugitive/Other Emissions:	2 5.00 to 25.00 tons/year
6. Emissions Factor Reference :	Units
7. Emissions Method Code : 3	
8. Calculations of Emissions : SEE TABLE 1 AND SUPPLEMENT 2	
9. Pollutant Potential/Estimated Emissions Comment :	

III. Part 9b - 1

H. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION
(Regulated Emissions Units Only - Emissions Limited Pollutants Only)

Emissions Unit Information Section 1
ALTERNATIVE METHOD OF HANDLING CONDITIONED FLYASH AND SLAG

Pollutant Potential/Estimated Emissions : Pollutant 2

1. Pollutant Emitted : PM			
2. Total Percent Efficiency of Control :		%	
3. Potential Emissions :			
57.0000000 lb/hour		22.8000000 tons/year	
4. Synthetically Limited? [X] Yes [] No			
5. Range of Estimated Fugitive/Other Emissions:		2	
		5.00	to 25.00 tons/year
6. Emissions Factor Reference :		Units	
7. Emissions Method Code : 3			
8. Calculations of Emissions : SEE TABLE 2 AND SUPPLEMENT 2			
9. Pollutant Potential/Estimated Emissions Comment :			

**I. VISIBLE EMISSIONS INFORMATION
(Regulated Emissions Units Only)**

Emissions Unit Information Section 1
ALTERNATIVE METHOD OF HANDLING CONDITIONED FLYASH AND SLAG

Visible Emissions Limitation : Visible Emissions Limitation 1

1. Visible Emissions Subtype :	05
2. Basis for Allowable Opacity :	RULE
3. Requested Allowable Opacity :	
	Normal Conditions : 5 %
	Exceptional Conditions : 10 %
	Maximum Period of Excess Opacity Allowed : min/hour
4. Method of Compliance :	
	METHOD 9/22
5. Visible Emissions Comment :	

J. CONTINUOUS MONITOR INFORMATION
(Regulated Emissions Units Only)

Emissions Unit Information Section 1
ALTERNATIVE METHOD OF HANDLING CONDITIONED
FLYASH AND SLAG

Continuous Monitoring System Continuous Monitor 1

1. Parameter Code :	2. Pollutant(s):
3. CMS Requirement	
4. Monitor Information Manufacturer : Model Number : Serial Number :	
5. Installation Date :	
6. Performance Specification Test Date :	
7. Continuous Monitor Comment : N/A	

**K. PREVENTION OF SIGNIFICANT DETERIORATION (PSD) INCREMENT
TRACKING INFORMATION**

Emissions Unit Information Section 1

ALTERNATIVE METHOD OF HANDLING CONDITIONED FLYASH AND SLAG

PSD Increment Consumption Determination

1. Increment Consuming for Particulate Matter or Sulfur Dioxide?

- The emissions unit is undergoing PSD review as part of this application, or has undergone PSD review previously, for particulate matter or sulfur dioxide. If so, emissions unit consumes increment.
- The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after January 6, 1975. If so, baseline emissions are zero, and emissions unit consumes increment.
- The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after January 6, 1975, but before December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.
- For any facility, the emissions unit began (or will begin) initial operation after December 27, 1977. If so, baseline emissions are zero, and emissions unit consumes increment.
- None of the above apply. If so, the baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

2. Increment Consuming for Nitrogen Dioxide?

-] The emissions unit addressed in this section is undergoing PSD review as part of this application, or has undergone PSD review previously, for nitrogen dioxide. If so, emissions unit consumes increment.
-] The facility addressed in this application is classified as an EPA major source pursuant to paragraph (c) of the definition of "major source of air pollution" in Chapter 62-213, F.A.C., and the emissions unit addressed in this section commenced (or will commence) construction after February 8, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.
-] The facility addressed in this application is classified as an EPA major source, and the emissions unit began initial operation after February 8, 1988, but before March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.
-] For any facility, the emissions unit began (or will begin) initial operation after March 28, 1988. If so, baseline emissions are zero, and emissions unit consumes increment.
-] None of the above apply. If so, baseline emissions of the emissions unit are nonzero. In such case, additional analysis, beyond the scope of this application, is needed to determine whether changes in emissions have occurred (or will occur) after the baseline date that may consume or expand increment.

3. Increment Consuming/Expanding Code :		
PM :	SO2 :	NO2 :
4. Baseline Emissions :		
PM :	lb/hour	tons/year
SO2 :	lb/hour	tons/year
NO2 :		tons/year
5. PSD Comment :		

L. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

Emissions Unit Information Section 1

ALTERNATIVE METHOD OF HANDLING CONDITIONED FLYASH AND SLAG

Supplemental Requirements for All Applications

1. Process Flow Diagram :	FIGURE 3
2. Fuel Analysis or Specification :	
3. Detailed Description of Control Equipment :	
4. Description of Stack Sampling Facilities :	
5. Compliance Test Report :	
6. Procedures for Startup and Shutdown :	
7. Operation and Maintenance Plan :	SUPPLEMENT 1
8. Supplemental Information for Construction Permit Application :	
9. Other Information Required by Rule or Statue :	

Additional Supplemental Requirements for Category I Applications Only

10. Alternative Methods of Operations :
11. Alternative Modes of Operation (Emissions Trading) :

III. Part 13 - 1

12. Identification of Additional Applicable Requirements :

13. Compliance Assurance Monitoring
Plan :

14. Acid Rain Application (Hard-copy Required) :

Acid Rain Part - Phase II (Form No. 62-210.900(1)(a))

Repowering Extension Plan (Form No. 62-210.900(1)(a)1.)

New Unit Exemption (Form No. 62-210.900(1)(a)2.)

Retired Unit Exemption (Form No. 62-210.900(1)(a)3.)

III. Part 13 - 2

**OPERATION AND MAINTENANCE PLAN
FOR FUGITIVE DUST CONTROL
TAMPA ELECTRIC COMPANY
F.J. GANNON STATION
BY-PRODUCT BENEFICIATION PROJECT**

Trucks will be covered, as needed, during transport of conditioned fly ash and slag to the miscellaneous storage pile. Most of the truck traffic will be on paved roads. The speed limit signs are posted through the plant.

At the miscellaneous storage pile, additional watering may be conducted as necessary. Reasonable precautions will be taken (e.g., avoiding material transfer during windy periods). Watering of plant grounds (e.g., unpaved roads) will also be performed as necessary. Screening will not be conducted unless the material is sufficiently wet to minimize fugitive dust emissions. The conveyors and transfer points will be visually inspected daily.

Records of inspections and maintenance will be retained for a minimum of 2 years and will be made available to the regulatory authority upon request. Should corrective actions are necessary, such requests will be immediately initiated. These records will also be maintained for a minimum of 2 years.

Supporting Details for PM Emission Calculations

TEC-Gannon, Byproduct Beneficiation Process

Drop Operations:

$$EF (PM) = k * 0.0032 * \frac{(U/5)^{1.3}}{(M/2)^{1.4}} \text{ lb/ton}$$

Source:
AP-42 13.2.4-3 (1/95), Drop Operations

where k (adjustment for particle size) = 0.74 for PM₁₀ (0.35 for PM-10, 0.74 for PM)
 U (mean windspeed) = 8.6 mph (E), Gale, 3rd Ed., Tampa Airport, 1951-1980
 M (material moisture content) = 5 %

$$EF (PM_{10}) = 0.00132878 \text{ lb/ton}$$

Misc. Pile Operations:

$$EF (PM) = (365-p)/365 * k * (s/12)^{0.8} * \frac{(W/3)^{0.4}}{(M/0.2)^{0.3}} \text{ lb/VMT}$$

Source:
AP-42 13.2.2 (9/98), Unpaved Roads

where k (adjustment for particle size) = 10 for PM₁₀ (2.6 for PM-10, 10 for PM)
 s (silt content) = 80 % (typical)
 M (moisture content) = 5 %
 W (mean vehicle weight) = 15 ton
 p (# non-dry days) = 107 days (Gale, 3rd Ed., Tampa, Precip >= 0.01")

$$EF (PM_{10}) = 23.3701 \text{ lb/VMT} \quad \begin{array}{l} \text{VMT/yr} = 183 \text{ miles (based on } 0.5 \text{ VMT/hr)} \\ \text{\# of front-end loaders} = 1 \end{array}$$

Truck Traffic on Paved Roads:

Source:
 AP-42 13.2.1 (10/97) Paved Roads
 AP-40, 2nd Ed.

$$E \text{ (PM)} = k * (sL/2)^{0.65} * (W/3)^{1.5} \text{ lb/VMT}$$

where k (adjustment for particle size) = 0.082 (0.016 for PM-10, 0.082 for PM-30)
 sL (silt loading) = 3 g/m² (Default based on AP-40, 2nd Edition, Chapter 4)
 W (avg. weight of vehicles) = 22 ton (average of loaded and unloaded trucks)

$$E \text{ (PM-10)} = 2.1195 \text{ lb/VMT}$$

$$\text{VMT (vehicle miles travelled)} = D * T * 2 / 5280 \quad \text{Throughput} = 100 \text{ tpd}$$

where D (one way distance) = 1000 ft 20 ton (material only) /truck load
 T (# of truck loads) = 1095 per year 5.0 per day

$$\text{VMT / year} = 415 \text{ mi.} \quad \text{VMT/hr} = 0.24 \text{ mi.}$$

Screening:

$$EF \text{ (lb/ton)} = 110 \text{ (PM-Uncontrolled)}$$

Source:
 AP-42 11.18 (1/95) Fly Ash Sintering

Wind Erosion:

Wind Erosion from Storage Piles

ThrFricVel: 1.12 m/s CE 0 %
 Pile L (m): 15 Pile W (m): 10 Pile Ht (m): 3 S.Area(m2) 150

Source:
 AP-42 13.2.5 (1/95), Wind Erosion

1951-80 Gale Climate Data, Tampa International Airport

Month	Friction Velocity (m/s)	Emission Potential (g/m2)	Aff Area (%)	Affected Area (m2)	(lb/hr)	PM Emission Rates (ton)
1	1.81	44.55	4	6.0	0.001	0.0003
1	1.48	16.52	14	21.0	0.001	0.0004
2	2.58	160.13	4	6.0	0.003	0.0011
2	2.11	81.60	14	21.0	0.005	0.0019
2	1.41	12.13	54	81.0	0.003	0.0011
3	2.22	97.68	4	6.0	0.002	0.0006
3	1.82	45.92	14	21.0	0.003	0.0011
3	1.21	2.72	54	81.0	0.001	0.0002
4	1.91	55.95	4	6.0	0.001	0.0004
4	1.56	22.23	14	21.0	0.001	0.0005
5	2.38	123.58	4	6.0	0.002	0.0008
5	1.94	59.50	14	21.0	0.004	0.0014
5	1.30	6.38	54	81.0	0.002	0.0006
6	3.46	376.08	4	6.0	0.007	0.0025
6	2.83	212.35	14	21.0	0.014	0.0049
6	1.89	53.64	54	81.0	0.013	0.0048
7	3.00	252.00	4	6.0	0.005	0.0017
7	2.45	135.85	14	21.0	0.009	0.0031
7	1.63	27.84	54	81.0	0.007	0.0025
8	1.96	61.92	4	6.0	0.001	0.0004
8	1.61	26.18	14	21.0	0.002	0.0006
9	2.89	225.96	4	6.0	0.004	0.0015
9	2.37	121.88	14	21.0	0.008	0.0028
9	1.58	23.77	54	81.0	0.006	0.0021
10	1.96	61.92	4	6.0	0.001	0.0004
10	1.61	26.18	14	21.0	0.002	0.0006
11	2.07	76.10	4	6.0	0.001	0.0005
11	1.69	33.09	14	21.0	0.002	0.0008
11	1.13	0.26	54	81.0	0.000	0.0000
12	2.32	113.52	4	6.0	0.002	0.0008
12	1.90	54.79	14	21.0	0.004	0.0013
12	1.27	5.06	54	81.0	0.001	0.0005
Maximum					0.01	N/A
Total					N/A	0.0420

Month	Fastest mph	Friction Velocity (m/s)			
		28% 0.2	54% 0.6	14% 0.9	4% 1.1
1	35	0.3285	0.9856	1.4785	1.8070
2	50	0.4694	1.4081	2.1121	2.5814
3	43	0.4036	1.2109	1.8164	2.2200
4	37	0.3473	1.0420	1.5629	1.9103
5	46	0.4318	1.2954	1.9431	2.3749
6	67	0.6289	1.8868	2.8302	3.4591
7	58	0.5444	1.6333	2.4500	2.9945
8	38	0.3567	1.0701	1.6052	1.9619
9	56	0.5257	1.5770	2.3655	2.8912
10	38	0.3567	1.0701	1.6052	1.9619
11	40	0.3755	1.1264	1.6897	2.0651
12	45	0.4224	1.2672	1.9009	2.3233

Supporting Details for PM-10 Emission Calculations TEC-Gannon, Byproduct Beneficiation Process

Drop Operations:

$$EF (PM) = k * 0.0032 * \frac{(U/5)^{1.3}}{(M/2)^{1.4}} \text{ lb/ton}$$

Source:
AP-42 13.2.4-3 (1/95), Drop Operations

where k (adjustment for particle size) = 0.35 for PM₁₀ (0.35 for PM-10, 0.74 for PM)
 U (mean windspeed) = 8.6 mph (E), Gale, 3rd Ed., Tampa Airport, 1951-1980
 M (material moisture content) = 5 %

$$EF (PM_{10}) = 0.00062848 \text{ lb/ton}$$

Misc. Pile Operations:

$$EF (PM) = (365-p)/365 * k * (s/12)^{0.8} * \frac{(W/3)^{0.4}}{(M/0.2)^{0.3}} \text{ lb/VMT}$$

Source:
AP-42 13.2.2 (9/98), Unpaved Roads

where k (adjustment for particle size) = 2.6 for PM₁₀ (2.6 for PM-10, 10 for PM)
 s (silt content) = 80 % (typical)
 M (moisture content) = 5 %
 W (mean vehicle weight) = 15 ton (bulldozer or front-end loader)
 p (# non-dry days) = 107 days (Gale, 3rd Ed., Tampa, Precip >= 0.01")

$$EF (PM_{10}) = 6.0762 \text{ lb/VMT} \quad \begin{array}{l} \text{VMT/yr} = 183 \text{ miles (based on } 0.5 \text{ VMT/hr)} \\ \text{\# of front-end loaders} = 1 \end{array}$$

Truck Traffic on Paved Roads:

Source: AP-42 13.2.1 (10/97) Paved Roads AP-40, 2nd Ed.

$$E (PM) = k * (sL/2)^{0.65} * (W/3)^{1.5} \text{ lb/VMT}$$

where

k (adjustment for particle size)	=	0.016 (0.016 for PM-10, 0.082 for PM-30)
sL (silt loading)	=	3 g/m ² (Default based on AP-40, 2nd Edition, Chapter 4)
W (avg. weight of vehicles)	=	22 ton (average of loaded and unloaded trucks)

$$E (PM-10) = 0.4136 \text{ lb/VMT}$$

$$VMT \text{ (vehicle miles travelled)} = D * T * 2 / 5280 \qquad \text{Throughput} = 100 \text{ tpd}$$

where	D (one way distance)	=	1000 ft	20 ton (material only) /truck load
	T (# of truck loads)	=	1825 per year	5.0 per day

$$VMT / \text{year} = 691 \text{ mi.}$$

Screening:

$$EF (\text{lb/ton}) = 110 \text{ (PM-Uncontrolled)}$$

Source: AP-42 11.18 (1/95) Fly Ash Sintering

Wind Erosion:

Source:
AP-42 13.2.5 (1/95), Wind Erosion

Wind Erosion from Storage Piles

ThrFricVel: 1.12 m/s CE 0 %
Pile L (m): 15 Pile W (m): 10 Pile Ht (m): 3 S.Area(m2) 150

1951-80 Gale Climate Data, Tampa International Airport

Month	Friction Velocity (m/s)	Emission Potential (g/m2)	Aff Area (%)	Affected Area (m2)	(lb/hr)	PM-10 Emission Rates (ton)
1	1.81	22.27	4	6.0	0.000	0.0001
1	1.48	8.26	14	21.0	0.001	0.0002
2	2.58	80.07	4	6.0	0.001	0.0005
2	2.11	40.80	14	21.0	0.003	0.0009
2	1.41	6.06	54	81.0	0.002	0.0005
3	2.22	48.84	4	6.0	0.001	0.0003
3	1.82	22.96	14	21.0	0.001	0.0005
3	1.21	1.36	54	81.0	0.000	0.0001
4	1.91	27.97	4	6.0	0.001	0.0002
4	1.56	11.11	14	21.0	0.001	0.0003
5	2.38	61.79	4	6.0	0.001	0.0004
5	1.94	29.75	14	21.0	0.002	0.0007
5	1.30	3.19	54	81.0	0.001	0.0003
6	3.46	188.04	4	6.0	0.003	0.0012
6	2.83	106.17	14	21.0	0.007	0.0025
6	1.89	26.82	54	81.0	0.007	0.0024
7	3.00	126.00	4	6.0	0.002	0.0008
7	2.45	67.92	14	21.0	0.004	0.0016
7	1.63	13.92	54	81.0	0.003	0.0012
8	1.96	30.96	4	6.0	0.001	0.0002
8	1.61	13.09	14	21.0	0.001	0.0003
9	2.89	112.98	4	6.0	0.002	0.0007
9	2.37	60.94	14	21.0	0.004	0.0014
9	1.58	11.89	54	81.0	0.003	0.0011
10	1.96	30.96	4	6.0	0.001	0.0002
10	1.61	13.09	14	21.0	0.001	0.0003
11	2.07	38.05	4	6.0	0.001	0.0003
11	1.69	16.55	14	21.0	0.001	0.0004
11	1.13	0.13	54	81.0	0.000	0.0000
12	2.32	56.76	4	6.0	0.001	0.0004
12	1.90	27.39	14	21.0	0.002	0.0006
12	1.27	2.53	54	81.0	0.001	0.0002

Maximum 0.01 N/A
Total N/A 0.0210

Month	Fastest mph	Friction Velocity (m/s)			
		28% 0.2	54% 0.6	14% 0.9	4% 1.1
1	35	0.3285	0.9856	1.4785	1.8070
2	50	0.4694	1.4081	2.1121	2.5814
3	43	0.4036	1.2109	1.8164	2.2200
4	37	0.3473	1.0420	1.5629	1.9103
5	46	0.4318	1.2954	1.9431	2.3749
6	67	0.6289	1.8868	2.8362	3.4591
7	58	0.5444	1.6333	2.4500	2.9945
8	38	0.3567	1.0701	1.6052	1.9619
9	56	0.5257	1.5770	2.3655	2.8912
10	38	0.3567	1.0701	1.6052	1.9619
11	40	0.3755	1.1264	1.6897	2.0651
12	45	0.4224	1.2672	1.9009	2.3233

WORKBOOK ON ESTIMATION OF EMISSIONS AND DISPERSION
MODELING FOR FUGITIVE PARTICULATE SOURCES

Document P-A857

September 1981

Prepared for
UTILITY AIR REGULATORY GROUP
1919 Pennsylvania Avenue N.W.
Washington, D.C. 20036

By

Indur M. Goklany
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TABLE 3.2.28-1
 FLY ASH HANDLING: EFFICIENCIES OF CONTROL
 TECHNIQUES AND METHODS

<u>Technique</u>	<u>Control Efficiency</u>	<u>Comments</u>	<u>Reference</u>
Enclosed conveying system to silo and fabric filter on silo	99(+)%	CER should be calculated using method described in Appendix A.	EPA 1977a
Wetting and minimizing free fall	up to 100%		EPA 1977a
Cover truck with tarpaulin, etc.	up to 100%	Depends on the type of covering and care taken.	EPA 1977a
Spray bar at dump area	50%		

Topics:
Particulates
Coal handling
Waste disposal
Air pollution control
Water pollution control

EPRI CS-3455
Project 1402-19
Final Report
June 1984

Fugitive Emissions From Coal-Fired Power Plants

Prepared by
Bechtel Group, Inc.
San Francisco, California

Table 3-23

FLY ASH HANDLING

Ref. No.	Uncontrolled Fugitive Emissions			Control	
	Emission Factor (kg/t)	Particle Size (microns)	Validity	Method	Efficiency (%)
14	10-50	100	E	Keep wet	100
				Cover haul trucks	-
				Use enclosed trucks	-
				Minimize free fall	-
				Spray bar at dump area	-
36	0.1-50	-	E	Use dust collectors on vents	-
				Use dustless unloader and closed truck	-
				Wet ash at silo discharge	-

The available control methods include wetting, spraying, covering, enclosure with collection, and use of dustless unloaders and closed trucks. If the ash can be kept sufficiently wet, up to 100 percent control may be achieved for most handling operations.

ASH DISPOSAL

Fugitive dust emissions can occur at disposal ponds where ash is pumped and allowed to dry and at landfills where ash is dumped and left exposed. Airborne fugitive emissions from dry ash ponds are mainly due to wind erosion. Fugitive emissions at landfill disposal sites may be caused by wind erosion as well as by truck traffic, truck dumping, and excavation activities. The amount of uncontrolled fugitive emission depends to a large degree on the local rainfall and mean wind speed.

Very little data appear in the literature pertaining to fugitive emissions from ash disposal sites. Data that were available are shown in Table 3-24. PEDCO (4) gives an emission rate of 1.8 kg/hr. This was derived from data obtained at a fly ash dump located at a western coal mine; however, it was not related to the size of the disposal site and, therefore, is of limited use elsewhere. It was given a D validity rating.