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- Print your name and address on the reverse of this form so that we can return this card to you.
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for an extra fee):

1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:
Mr. Gregory M. Nelson, P.E.
Tampa Electric Co.
6944 US Hwy 41 North
Apollo Beach, Fl
33572-9200

4a. Article Number
P 265 659 402

4b. Service Type
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PS Form **3811**, December 1994 102595-97-B-0179 Domestic Return Receipt

P 265 659 402

US Postal Service
Receipt for Certified Mail
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Street & Number TECO	
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Postage	$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	$
Postmark or Date 8-5-98	

PS Form **3800**, April 1995

Department of Environmental Protection

Lawton Chiles
Governor

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

Virginia B. Wetherell
Secretary

August 5, 1998

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Gregory M. Nelson, P.E.
Manager - Environmental Planning
Tampa Electric Company
6944 US Highway 41 North
Apollo Beach, Florida 33572-9200

Re: Request for Additional Information Regarding Air Construction Permit Application
DEP File Nos. 0570039-003-AC, 0570039-004-AC
Big Bend Station Units 1 and 2, FGD System

Dear Mr. Nelson:

The Department has received your application for construction of the flue gas desulfurization system and the usage of a coal/petcoke mixture at Units 1 and 2. The application was received on July 6, 1998, and the revised application was received on July 21, 1998. In order to continue processing your application, the Department will need the additional information below. Should your response to any of the below items require new calculations, please submit the new calculations, assumptions, reference material and appropriate revised pages of the application form.

1. Please identify the changes, if any, proposed to the existing limits for sulfur dioxide emissions from Units 1 and 2 as a result of operation of the FGD system on a two hour basis, as well as the three hour and 24 hour limitations on total emissions from Units 1, 2 and 3. Please address in further detail your verbal request to apply the proposed emission limit of 0.82 lb/mmBtu on a 30 day rolling average basis. If TECO's intent is to match the basis for the limits of Unit 4, please note that Unit 4 is subject to the NSPS Subpart Da which proscribes this averaging period.
2. Please provide more detail about how CEMS will be used to demonstrate compliance with all sulfur dioxide emission limits applicable to Units 1 and 2.
3. Please provide information on the changes in emissions resulting from the usage of a coal/petcoke mixture for the following pollutants on a pounds per hour and tons per year basis:
    - Particulate Matter and PM_{10}
    - Nitrogen Oxides
    - Carbon Monoxide
    - Sulfuric Acid Mist
4. Please evaluate whether the usage of a coal/petcoke mixture will make Units 1 and 2 subject to the requirements of NSPS regulations 40 CFR 60 Subparts Da or Db and explain your conclusion.

5. We understand that the FGD system will always be operated when firing a coal/petcoke mixture. Please explain what situations may result in operation of Units 1 and 2 without simultaneous operation of the FGD system while firing coal. Please provide information regarding the maximum and typical amounts of coal/petcoke mixture that could be bunkered at any given time for use in Units 1 and 2 that may be fired in those units in the event of a malfunction of the FGD system. Please identify what steps will be taken to reduce sulfur dioxide emissions in the event of a malfunction of the FGD while firing a coal/petcoke mixture.

6. Please provide a process diagram of the proposed FGD system showing the pertinent gas and liquid streams.

7. Please provide further design information on the FGD system including the pressure drop, gas velocity, materials of construction of the spray tower and major internal components.

8. Please provide an estimate of the auxiliary power requirements of the FGD system and associated equipment.

9. Please provide justification for the low number for the exit grain loading for the limestone emission estimates on worksheets LSH-001 through LSH-008 in the appendix.

10. Please provide supporting information for the control efficiency of 90% for the gypsum conveyors' emission estimates on worksheets GH-007 through GH-009 in the appendix.

11. Please provide an estimate of particulate matter (PM/PM_{10}) emissions increases resulting from increased handling of petcoke.

12. More information is needed to allow the Department to determine the extent of the ambient air exemption on TECO's property. 40 CFR Part 50.1(e) defines ambient air as "...that portion of the atmosphere, external to buildings, to which the general public has access." The exemption from ambient air is available only for the atmosphere over land owned or controlled by the source and to which public access is precluded by a fence or other physical barriers. Please provide a detailed USGS map or the equivalent showing the location of the fenceline and/or any other physical barriers equivalent to a fence. Also on the same map show the location of the property line and all of the property line/fenceline receptors used in the air quality impact analysis.

13. The preamble for the rule amendments for 40 CFR Parts 51, 52 and 60 of July 21, 1992 (Federal Register Vol. 57, No. 140) provides that the test to determine if a pollution control project is environmentally beneficial should include an evaluation of the impact of the project on ambient air quality. EPA clarifies that the test of *environmentally beneficial* is an evaluation of a project's net emissions and overall environmental impact. "In making such assessments, ... consider the overall emissions before and after the project, as well as any other relevant environmental factors. As a result, no other single factor can be identified in advance for purposes of making this determination." [57 FR 32320.] In analyzing comments on the pollution control project exclusion, EPA further clarified the test of environmentally beneficial to mean a case by case assessment of a project's net emissions. EPA writes, "Although a pollution control project could theoretically cause a small collateral increase in some emissions, it will substantially reduce emissions of other pollutants. In recognition of this, the rule provides for a case-by-case assessment of the pollution control project's net emissions and overall impact on the environment." [57 FR 32321.] Confirmation of this approach is found in guidance from EPA titled Pollution Control Projects and New Source Review (NSR) Applicability, dated July 1, 1994, authored by John S. Seitz. On page 3 of the attachment to that memo, Mr. Seitz discusses the test of environmentally beneficial and reiterates that such a test includes an evaluation of ambient air impact. Further, the Department cannot knowingly permit a

project that causes or significantly contributes to a violation of an ambient air quality standard. Therefore, the Department believes it is appropriate to include an evaluation of the impact of this project on ambient air quality as part of its review.

The modeling results presented in Table 13 show that maximum predicted 24-hour SO_2 impacts for Scenarios 1, 2 and 4 are 256.8, 256.4 and 253.2 ug/m^3, respectively. These modeled values are very close to the 24-hour SO_2 AAQS of 260 ug/m^3, and are much higher than the maximum predicted impact of 183 ug/m^3 for the base case in the recently completed SO_2 modeling for the Title V permit. The Department is concerned that inclusion of the impacts of other SO_2-emitting sources in the area along with a background concentration value for the unmodeled sources in the area would result in predicted violations of the 24-hour SO_2 AAQS. Please address the Department's concern.

14. Hillsborough County EPC commented to the Department that the application lists all dry materials handling as fugitive sources of emission. Hillsborough County EPC desires that TECO clarify that the emissions resulting from materials handling will be controlled and, where processes are enclosed, emissions pass through a stack or vent and are not considered fugitive.

Rule 62-4.050(3), F.A.C. requires that all applications for a Department permit must be certified by a professional engineer registered in the State of Florida. This requirement also applies to responses to Department requests for additional information of an engineering nature. As a result your response should be certified by a professional engineer registered in the State of Florida. A copy of your response should be sent to Mr. Bill Thomas, P.E., DEP Southwest District and Mr. Iwan Choronenko, Hillsborough County EPC.

If you should have any questions, please call me (engineer) or Cleve Holladay (meteorologist) at 850/921-9519 or 850/921-9530, respectively.

Sincerely,

Joseph Kahn, P.E.
New Source Review Section

jk

cc: Mr. Brian Beals, EPA
Mr. Thomas Davis, P.E.
Mr. Bill Thomas, P.E., SWD
Mr. Iwan Choronenko, HCEPC