

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
NOTICE OF PERMIT


In the Matter of an
Application for Air Construction Permit by:
Ms. Karen Sheffield, General Manger
Tampa Electric Company (TEC)
P.O. Box 111
Tampa, FL 33601-0111

Air Permit No.: 0570039-025-AC
Big Bend Station
Additional Transloading Project
Hillsborough County, Florida

Enclosed is the Final Permit Number 0570039-025-AC for an air construction permit to allow expansion of coal and petcoke transloading for off-site shipping and to authorize slag transloading at the TEC Big Bend Power Station Solid Fuel Yard which is located at Big Bend Road in Hillsborough County, Florida. 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.



Trina L. Vielhauer, Chief
Bureau of Air Regulation

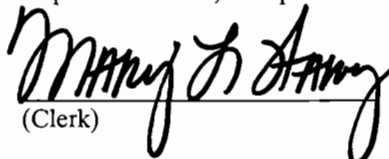
CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF FINAL PERMIT (including the FINAL permit) and all copies were sent electronically (with Received Receipt) before the close of business on 10/31/06 to the person(s) listed below.

Karen Sheffield, TEC (kasheffield@tecoenergy.com)
Byron Burrows, TEC (btburrows@tecoenergy.com)
Thomas Davis, P.E., ECT (tdavis@ectinc.com)
Mara Nasca, DEP SWD (mara.nasca@dep.state.fl.us)
Diana Lee, EPCHC (leed@epchc.org)
Jeff Sims, EPCHC (simsj@epchc.org)
Jim Little, EPA Region 4 (Little.James@epamail.epa.gov)

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) 10/31/06 (Date)



Department of Environmental Protection

Jeb Bush
Governor

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

Colleen M. Castille
Secretary

PERMITTEE:

Tampa Electric Company (TEC)
Big Bend Power Station
Big Bend Road
Tampa, Florida 33572

| | |
|-----------|--------------------------------------|
| File No.: | 0570039-025-AC |
| Project | Additional Transloading Project |
| SIC No.: | 4911 |
| ARMS No.: | Emissions Unit 010 – Solid Fuel Yard |
| Expires: | July 31, 2007 |

Authorized Representative:
Karen Sheffield, General Manager

PROJECT AND LOCATION:

This is an Air Construction Permit to allow additional coal and petcoke transloading for off-site shipping and to authorize slag transloading at the TEC Big Bend Power Station Solid Fuel Yard. New emissions points associated with this operation are: (a) the transfer of slag from a barge to the fuel storage yard (b) the transfer of coal, petcoke or slag from a storage pile by mobile equipment to trucks, and (c) coal, petcoke, or slag truck travel on the facility paved and unpaved roads. This operation is conducted at the facility's Solid Fuel Yard. This Emission Unit is located at the Big Bend Power Plant, Big Bend Road, Tampa, Hillsborough County. UTM coordinates are: Zone 17; 361.9 km E; 3075 km N.

STATEMENT OF BASIS:

This construction permit is issued under the provisions of Chapter 403 of the Florida Statutes (F.S.), and Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.). The above named permittee is authorized to modify the facility in accordance with the conditions of this permit and as described in the application, approved drawings, plans, and other documents on file with the Department of Environmental Protection (Department).

Attached appendices made a part of this permit:

| | |
|-------------|--|
| Appendix GC | Construction Permit General Conditions |
| Appendix C | Common Permit Conditions |

Joseph Kahn, Director
Division of Air Resource
Management

JK/tlv/aal/sms/th

Memorandum

Florida Department of Environmental Protection

TO: Joseph Kahn
THROUGH: Trina Vielhauer
FROM: A. A. Linero, ~~Robert Shepley~~ and Teresa Heron
DATE: October 27, 2006
SUBJECT: Tampa Electric Company (TEC) – Big Bend Station.
Transloading of Coal, Petcoke and Slag
DEP File No. 0570039-025-AC

Attached is the final air construction permit that recognizes additional transloading operations at the TEC Big Bend Solid Fuel Yard. Here transloading generally relates to the offloading of fuels and reloading for off-site shipment by truck.

Historically, the Big Bend Units use about 6,000,000 tons per year (TPY) of solid fuels. On the order of 1,000,000 TPY are used at the Polk Power Station. All solid fuels for both facilities are delivered to the Big Bend Station by barge. Barges are unloaded and these fuels are conveyed to successive transfer stations primarily for subsequent on-site uses. There are about 73 emission points at the solid fuel yard. None is delivered by rail.

The enforceable limitations at the Big Bend Solid Fuel Yard relate to transloading of fuel. These are 4,000 tons per hour on a 24-hr rolling average and 1,428,030 tons per year and were set by a Modification in 1995 to the Big Bend Certification. Such fuel is generally transported by trucks to (but not necessarily limited to) the TEC Polk Power Station IGCC Unit. The Polk Power Station receives all of its fuel by trucks.

The new permit is to recognize or allow some additional emissions points that were added for transloading of coal and petcoke to other power plants (or possibly cement plants) and to transload slag to companies such as Reed Minerals for use in sandblasting projects. Such additional transloading operations are estimated at 144 tons per hour and will be accomplished within the presently allowed transloading rates mentioned above. Therefore, the Polk Power Station will continue to be the primary recipient of transloaded fuels.

The additional transloading operations involve three more emission points (and a few “subpoints”) beyond the 73 mentioned above. These are:

- Transfer of coal, petcoke, or slag from storage piles by mobile equipment to trucks;
- Additional paved road traffic; associated with additional transloading operations; and
- Additional unpaved road traffic; associated with additional transloading operations.

The additional emissions points related to additional transloading activities were detected by Hillsborough County EPC. TEC submitted a permit exemption request. They were subsequently advised that a construction permit is required for the additional activities and the associated emissions points.

In preparing the final air construction permit, we made some changes to make it more understandable and to avoid confusion with the previously allowed activities related to coal use by Big Bend Station and the Polk Power Station. We allowed them to use the 144 TPH value as a reference for visible emissions testing at the three emissions points rather than a hard limit. This is logical given the overwhelmingly greater existing fuel internal conveyance and transloading operations at Big Bend Station.

We recommend your approval of this final action.

TLV/aal/sms/th

FINAL DETERMINATION

Tampa Electric Company (TEC)
Big Bend Power Station, Hillsborough County
Off-site Transloading of Coal, Petcoke or Slag
DEP File No.: 0570039-025-AC

An Intent to Issue an Air Construction Permit to TEC was distributed on July 11, 2006. The purpose is to authorize additional transloading operations and emissions points at the TEC Big Bend Solid Fuel Yard related to the shipment of coal, petcoke or slag.

This facility is located at Big Bend Road, Hillsborough County, Florida. The Public Notice of Intent to Issue Air Construction Permit was published in The Tampa Tribune on August 4, 2006. The proof of the Public Notice was received by the Department on August 9, 2006.

No comments were received from the public or agencies (other than Hillsborough County EPC) as a result of the public notice period. No requests for public meetings, administrative hearings or enlargement of time were received.

Comments were received from TEC on the Technical Evaluation and Preliminary Determination (TEPD) and on the Draft Permit. Their comments are related to:

- Minor changes in the description of the project;
- Proper designation of the emissions points;
- Specification of visible emissions testing requirements; and
- Reference of the maximum hourly rate for the additional transloading as a testing requirement rather than an absolute maximum value.

Comments were also received from the Environmental Protection Commission of Hillsborough County (EPCHC). Their comments were related to:

- The comments received from TEC;
- Unconfined emissions of particulate matter;
- The expiration date of the permit; and
- Reports and recordkeeping requirements.

The key changes requested by TEC and Hillsborough County are paraphrased below in *italics* and are followed by the Department's responses and permit changes in regular script shown in double underline (additions) and ~~striketrough~~ (deletions) format:

A. *Placard Page: TEC requested that the emissions point related to slag transfer from barges to the fuel storage yard be described within the Placard Page Project Description. TEC also requested some other minor descriptive changes in the same section. The EPCHC recommended extension of the draft expiration date to allow for testing and submittal of an application for a Title V Operation Permit Revision.*

The Department agrees with TEC's requests. The Department also made some minor changes on the Placard Page for clarity. The expiration date of the permit will be extended to allow for testing and submittal of the subsequent Title V Operation Permit Revision.

PLACARD PAGE

Project and Location

This is an Air Construction Permit to allow ~~the transloading of coal (except residual coal), petcoke and/or slag to off-site facilities~~ additional coal and petcoke transloading for off-site shipping and to authorize slag transloading at the TEC Big Bend Power Station Solid Fuel Yard. New eEmissions points associated with this operation are: (a) the transfer of slag from a barge to the fuel storage yard (a b) the transfer of coal, petcoke or slag from a storage pile by front-end loaders mobile equipment to trucks, and (b c) coal, petcoke, or slag truck travel on the facility paved and unpaved roads. This operation is conducted at the facility's Solid Fuel Yard. This Emission Unit is located at the Big Bend Power Plant, Big Bend Road, Tampa, Hillsborough County. UTM coordinates are: Zone 17; 361.9 km E; 3075 km N.

Expiration: ~~December 31, 2006~~ July 31, 2007

(There are no other changes to the Placard Page)

- B. *Section I, Facility Description: TEC requested changes in the Facility Description related to the correct rated electrical capacity of the facility, the description of transloading operations, the emissions points, and the correct descriptions of the coal mills.*

The Department agrees with TEC's requests. The facility electrical capacity rating was of a descriptive nature. It will be removed since it is unrelated to this permitting action and properly described in the next Title V Operation Permit Renewal. In addition the Department added a short description within the "Proposed Project" portion that describes present operations at the fuel yard and what will be authorized by this permitting action. Following are the changes to the Facility Description:

1.0 FACILITY DESCRIPTION

The TEC Big Bend is a nominal 1998 MW electric generation facility. This facility consists of four steam boilers (Units Nos. 1 through 4) fired with solid fuels and controlled by individual ESP and a flue gas desulfurization system; four steam turbines; three simple-cycle combustion turbines (CT Nos. 1, 2, and 3) fired with No.2 fuel oil; storage and handling facilities for solid fuels, fly ash, limestone, gypsum, slag, and bottom ash; fuel oil storage tanks and ancillary equipment. There are ongoing nitrogen oxides (NO_x) control projects for Units 3 and 4 pursuant to a Consent Final Judgement (CFJ) between TEC and the Department and a Consent Decree (CD) between TEC and the United States Environmental Protection Agency (EPA).

This permit addresses only ~~two~~ three additional emissions points at the Solid Fuel Yard Facility.

SOLID FUEL YARD DESCRIPTION: Currently, Ssolid fuel (coal, and petcoke, slag, and coal residual from the Polk Power Station) is unloaded from ship/barge into the solid fuel yard, the blending bins or directly to the tripper room via belt conveyors. Solid fuel from the piles is loaded onto belt conveyors using a rail mounted or mobile reclaimer. The solid fuel is then belt conveyed to the blending bins, which consists of six storage bins, where the solid fuel may be blended for use at the plant, or transloaded into trucks for shipment off site. Particulate matter (PM) emissions from the conveyors in the

blending bins are controlled by 4 rotocones, one at the conveyor drop, and one for every 2 bins. Blending bins can either feed the transloader, or solid fuel can be conveyed, via 2 parallel belts (T1, T2) to 2 crushers (each belt has a crusher), or diverted directly to the tripper room. PM emissions from the 2 crushers and transfer tower are controlled by 2 rotocones. Coal residual from Polk Power Station is received by truck and placed in a building, where it is conveyed to the unit tripper room.

From the tripper room, 2 trippers bunker the solid fuels into 4 solid fuel bunkers. Each unit has its own respective bunker. From the bunkers, the solid fuel is gravity fed into 14 mills, and then fed into the boilers. There are 3 ball mills, each for Unit Nos. 1-3, and 5 ball ~~ball~~ bowl mills for Unit No. 4. From the mills, the solid fuel is pneumatically fed into classifiers, two for each mill on Unit Nos. 1-3 and one for each mill on Unit No. 4 for a total of 23 classifiers, and then into the respective boilers.

Proposed Project

TEC is already authorized to receive, blend and transload coal and petcoke and to export it from the Big Bend Station to other facilities such as the TEC Polk Power Station. The facility is expanding the scope of its coal and petcoke transloading operations, particularly to non-TEC facilities, and also to transload slag to other offsite facilities. TEC will accommodate the additional transloading activities at Big Bend without increasing the recognized total transloading rates approved in Site Certification PA79-12 (1995) and specified in the facility Title V Operation Permit No. 0570039-017-AV.

Coal, petcoke, or slag related to the additional transloading will be brought in by barge at infrequent intervals and transferred to Transfer Station T2 using existing conveyors. From Station T2, the transloaded materials will be transferred to storage piles located in the fuel yard using a combination of existing conveyors. The coal, petcoke, and slag will then be loaded into trucks using front-end loaders for off-site shipment.

The only new additional emissions points associated with theis additional transloading operations are: (a) the transfer of slag from a barge to the fuel storage yard, (b) the transfer of coal, petcoke or slag from a storage pile by ~~front-end loaders~~ mobile equipment to trucks and (b c) coal, petcoke, or slag truck travel on Big Bend paved and unpaved roads. All other coal, petcoke or slag handling activities will use existing equipment (e.g., conveyor belts, storage pile stackout, and dozer operations on storage piles). The coal or petcoke will be treated with a chemical surfactant prior to arriving at the Big Bend Station. The slag has minimal dust potential due to its glassine properties and therefore does not need to be treated with a chemical surfactant.

(There are no other changes to Section I, 1.0)

- C. *TEC requested slightly different emissions point designations than given in the draft permit and the addition of new points to differentiate between empty and full trucks as well as paved and unpaved roads.*

The Department agrees with the new designations for the main three emissions points (FH-074, 75, and 76) related to reclaim from piles, truck traffic along paved roads, and truck traffic along unpaved roads. Each emissions point is further described, as applicable, with respect to operational mode, such as material handled, whether the road traveled is paved or

unpaved, or whether the truck is full or empty. The Department made some minor changes as well for clarity such as putting the Emissions Unit and Emissions Points in tabular format.

The following changes were made to the Emissions Unit and Emissions Point descriptions (descriptions shown in their entirety) within Section III of the permit:

This section addresses the following Emissions Unit:

| <u>ARMS Emissions Unit No.</u> | <u>Brief Description of Emissions Unit</u> |
|--------------------------------|--|
| <u>010</u> | <u>Solid Fuel Yard, Fugitive Emissions</u> |

The following Emissions Points are added to this Emissions Unit:

| Emissions Point | Description of Emissions Point |
|--------------------------------|--|
| FH-074a PET 01 | Front end Reclaim from Petcoke Storage Pile to Trucks |
| FH-074b COAL 01 | Front end Reclaim from Coal Storage Pile to Trucks |
| FH 074c SLAG 01 | Front end Reclaim from Slag Storage Pile to Trucks |
| FH-075a PET/COAL/SLAG 02a, 02b | Truck Traffic (paved roads, <u>empty trucks</u>) |
| <u>FH 075b PET/COAL/SLAG</u> | <u>Truck Traffic (paved roads, full trucks)</u> |
| FH-076a PET/COAL/SLAG 03a, 03b | Truck Traffic (unpaved roads, <u>empty trucks</u>) |
| <u>FH-076b PET/COAL/SLAG</u> | <u>Truck Traffic (unpaved roads, full trucks)</u> |

D. Specific Condition No.1: TEC proposed to delete the following phrase: “The maximum hourly transloading rate to trucks shall not exceed 142 tons per hour (TPH).” Also the application gave a rate of 144 TPH and not 142 TPH for the additional transloading.

TEC already has a limitation for *all* fuel transloading of 4,000 TPH on a 24-hour rolling basis and 1,428,030 TPY. These existing limitations will accommodate the additional transloading activities estimated at 144 TPH and 450,000 TPY. For reference, the existing solid fuel consumption at the Big Bend Station for Units 1-4 is on the order of 6,000,000 TPY and is in addition to the existing transloading activities. The described additional transloading activities are relatively small in relation to the authorized transloading activities primarily related to shipment of fuel to the Polk Power Station and the fuel handling related to the Big Bend Units.

The Department will remove the 1-hour rate and refer it to the Specific Condition 4 (visible emissions testing) as described in Comment 4 below. The Department will keep and clarify the present transloading limitations, including their origin in earlier conditions of certifications.

The Department will remove the permitting note because the added language in the condition now sufficiently clarifies the kinds and amounts of materials that can be transloaded at the three additional emissions points. The changes to Specific Condition 1 (shown in its entirety) are as follows:

1. Materials Allowed and Permitted Capacity. The allowable materials to be transloaded via the emission points listed above as FH-074, FH-075, and FH-076 are coal (except residual coal), petcoke or slag. ~~The maximum hourly transloading rate to trucks shall not exceed 142 tons per hour; only one material will be transloaded at a time.~~ Maximum annual transloading rates at these three additional emissions points shall not exceed 150,000 tons per year for each material and 450,000 tons per year for all three materials combined; only one material will be transloaded at a time.

The maximum solid fuel/slag transloading throughput rates of the Solid Fuel Yard shall not exceed 4,000 tons per hour on a 24-hr rolling average and shall not exceed (1,428,030 tons per year).

{Permitting Note: It should be noted that only 150,000 tons per year of one material type (coal or petcoke or slag) shall be transported. The 450,000 tons per year transloading shall not be interpreted as transloading this quantity for one single material; it is an annual rate for all three materials combined.}

[Rules 62-4.070 (3) ~~160(2)~~, and 62-210.200 (PTE), F.A.C.; and Site Certification Modifications PA79-12C and D AC29-114676]

- E. *Specific Conditions No. 3, Visible Emissions.* The same changes are requested as C above with respect to emissions point designations.

The Department is removing the 20% visible emissions limit requirement for truck traffic and relying on a reasonable precaution to use tarps as described in item H below. The visible emissions requirement still applies directly to the reclaiming operations from piles to trucks. The changes to Specific Condition 3 require some clarifications in Specific Condition 5. The Department will revise Specific Condition 3 and Condition 5 as shown below (in their entirety):

3. Visible Emissions. Visible emissions generated by fugitive or unconfined particulate matter from this transloading operation (emissions points FH-074a, FH-074b, and FH-074c, PET-01, COAL-01, SLAG-01, and PET/COAL/SLAG-02a, 02b and 03a, 03b) shall not exceed 20% opacity. [Rule 62-296.320(4)(b)1, F.A.C.]
5. Controls: All controls associated with the transfer points (i.e., the enclosures and dust suppression) shall be maintained to the extent that the capture efficiencies credited will be achieved. Trucks used to transport coal, petcoke or slag shall utilize tarps at all times except when loading/unloading. Reasonable precautions to prevent unconfined emissions of particulate matter shall be in accordance with Rule 62-296.320(4), F.A.C. and are enumerated in Appendix C, Common Condition 11. of this permit.
[Rule 62-4.070(3), and Rule 62-296.320(4) (c) F.A.C.]

- F. *Specific Condition No. 4: TEC proposed to conduct initial and annual visible emissions tests only on movements of petcoke from the piles to the trucks and not coal or slag movements to the trucks. Presumably petcoke is the material with greatest dust generation potential. The same changes are requested as C above with respect to emissions point designations.*

TEC will be required to conduct initial visible tests on all three materials at the Reclaim Operations (Emissions Point FH-074). Thereafter, only annual tests for coal and petcoke will be required. Generally the slag is a glassy material with low dust generation potential. The initial test is expected to confirm this presumption. Following are the changes to Specific Condition 4 (shown in its entirety) related to test methods and procedures:

4. Test Methods and Frequency: 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. Initial and annual testing is required. An initial VE test shall be performed on the following new truck-loading emissions points: FH-074a PET-01; FH-074b COAL-01 and FH-074c SLAG-01. Thereafter, annual testing shall be performed on emissions points FH-074a PET and FH-074b COAL. For the purpose of the VE test, the hourly transloading rate to trucks at the subject emissions points shall be as close to 144 tons per hour as practicable.

[Rules 62-204.800, 62-297.310(7)(a)4., and 62-297.400, F.A.C.]

{Permitting Note: No annual testing is required for emission point FH-074c SLAG assuming the initial visible emissions test performed validates that slag handling has minimal emissions.}

- G. *Specific Condition 6. EPCHC requested some additional recordkeeping related to the quantities and types of materials covered by this permit and inclusion in the facility Annual Operating Report.*

The Department agrees with EPCHC and modifies Specific Condition 6 (shown in its entirety) as follows:

6. Recordkeeping and Report Duration: The quantity and type of fuel loaded and transported off-site by each fuel transloading operation emissions point covered in this permit shall be recorded and maintained. The annual quantity of each transloaded material shall be submitted in the Annual Operation Report. All reports and records required by this permit shall be kept for at least (5) years from the date the information was recorded.

[Rule 62-4.160(14)(b), F.A.C.]

- H. *Appendix C, Common Condition 11. EPCHC requested addition of the requirement that trucks utilize tarps when transporting the transloaded fuels and slag.*

The Department agrees that utilization of the tarps constitutes a reasonable precaution especially given the potentially large nature of the additional transloading. A new paragraph will be added to Common Condition 11(3) of Appendix C as shown below:

- i. Trucks used to transport coal, petcoke or slag shall utilize tarps at all times except when loading/unloading.

[There are no changes to paragraphs a. through h. of Common Condition 11(3). There are no changes to Common Conditions 11(1), 11(2), or 11(4).]

I. TEC had a number of recommendations regarding the Technical Evaluation and Preliminary Determination.

The comments regarding the Technical Evaluation and Preliminary Determination are essentially the same issues discussed above. The Department will not re-issue the Technical Evaluation and Preliminary Determination that accompanied the draft permit. Instead, the Department issues a Final Determination that accompanies the final permit.

CONCLUSION

The final action of the Department will be to issue the permit with the changes as noted above.

SECTION I. FACILITY INFORMATION

1.0 FACILITY DESCRIPTION

The TEC Big Bend facility consists of four steam boilers (Units Nos. 1 through 4) fired with solid fuels and controlled by individual ESP and a flue gas desulfurization system; four steam turbines; three simple-cycle combustion turbines (CT Nos. 1, 2, and 3) fired with No.2 fuel oil; storage and handling facilities for solid fuels, fly ash, limestone, gypsum, slag, and bottom ash; fuel oil storage tanks and ancillary equipment. There are ongoing nitrogen oxides (NOx) control projects for Units 3 and 4 pursuant to a Consent Final Judgement (CFJ) between TEC and the Department and a Consent Decree (CD) between TEC and the United States Environmental Protection Agency (EPA).

This permit addresses only three additional emissions points at the Solid Fuel Yard.

SOLID FUEL YARD DESCRIPTION:

Currently, solid fuel (coal and petcoke) is unloaded from ship/barge into the solid fuel yard, the blending bins or directly to the tripper room via belt conveyors. Solid fuel from the piles is loaded onto belt conveyors using a rail mounted or mobile reclaimer. The solid fuel is then belt conveyed to the blending bins, which consists of six storage bins, where the solid fuel may be blended for use at the plant, or transloaded into trucks for shipment off site.

Particulate matter (PM) emissions from the conveyors in the blending bins are controlled by 4 rotoclones, one at the conveyor drop, and one for every 2 bins. Blending bins can either feed the transloader, or solid fuel can be conveyed, via 2 parallel belts (T1, T2) to 2 crushers (each belt has a crusher), or diverted directly to the tripper room. PM emissions from the 2 crushers and transfer tower are controlled by 2 rotoclones. Coal residual from Polk Power Station is received by truck and placed in a building, where it is conveyed to the unit tripper room.

From the tripper room, 2 trippers bunker the solid fuels into 4 solid fuel bunkers. Each unit has its own respective bunker. From the bunkers, the solid fuel is gravity fed into 14 mills, and then fed into the boilers. There are 3 ball mills, each for Unit Nos. 1 – 3, and 5 bowl mills for Unit No. 4. From the mills, the solid fuel is pneumatically fed into classifiers, two for each mill on Unit Nos. 1-3 and one for each mill on Unit No. 4 for a total of 23 classifiers, and then into the respective boilers.

Proposed Project

TEC is already authorized to receive, blend and transload coal and petcoke and to export it from the Big Bend Station to other facilities such as the TEC Polk Power Station. The facility is expanding the scope of its coal and petcoke transloading operations, particularly to non-TEC facilities, and also to transload slag to other offsite facilities. TEC will accommodate the additional transloading activities at Big Bend without increasing the recognized total transloading rates approved in Site Certification PA79-12 (1995) and specified in the facility Title V Operation Permit No. 0570039-017-AV.

Coal, petcoke, or slag related to the additional transloading will be brought in by barge at infrequent intervals and transferred to Transfer Station T2 using existing conveyors. From Station T2, the transloaded materials will be transferred to storage piles located in the fuel yard using a combination of existing conveyors. The coal, petcoke, and slag will then be loaded into trucks using front-end loaders for off-site shipment.

The only new additional emissions points associated with the additional transloading operations are: (a) the transfer of slag from a barge to the fuel storage yard, (b) the transfer of coal, petcoke or slag from a storage pile by mobile equipment to trucks and (c) coal, petcoke, or slag truck travel on Big Bend paved and unpaved roads. All other coal, petcoke or slag handling activities will use existing equipment (e.g., conveyor belts, storage pile stackout, and dozer operations on storage piles). The coal or petcoke will be treated with a chemical surfactant prior to arriving at the Big Bend Station. The slag has minimal dust potential due to its glassine properties and therefore does not need to be treated with a chemical surfactant.

SECTION I. FACILITY INFORMATION

2.0 REGULATORY CLASSIFICATION

The facility, TEC Big Bend, 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 Rule 62-210.200, 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 located in an area (Hillsborough County) designated "unclassifiable" for SO₂, "maintenance" for Ozone (O₃) and lead (Pb) in the "area of influence" of Hillsborough County particulate matter (PM) maintenance area, and "attainment" for all the other criteria pollutants (Rule 62-204.360, F.A.C.).

This facility is also subject to the provisions of Title IV, Acid Rain, Clean Air Act as amended in 1990.

Based on the initial Title V permit application received June 14, 1996, this facility is a major source of hazardous air pollutants (HAPs).

3.0 PERMIT SCHEDULE

02/13/06: Received Revised Application
02/22/06: DEP Incompleteness Letter
05/10/06: Received TEC Response to Incompleteness Letter
07/07/06: Received TEC Response to additional DEP comments
07/07/06: Application deemed complete
07/11/06: Distributed Intent to Issue Permit

4.0 RELEVANT DOCUMENTS:

This facility presently operates under Title V Operation Permit, 0570039-017-AV, effective January 1, 2005. The documents listed below are the basis of the present air construction permitting action. They are specifically related to this permitting action, but not all are incorporated into this permit. These documents are on file with the Department.

02/13/06: Application received via FedEx
02/22/06: DEP's Request for Additional Information (RAI)
05/10/06: TEC's response to RAI
06/29/06: Comments received from the Environmental Protection Commission of Hillsborough County
07/07/06: TEC's e-mail clarifying issues regarding the slag, control efficiency and transloaded fuels
07/11/06: Draft Permit and Technical Evaluation and Preliminary Determination Distributed
08/04/06: Public Notice published in the legal section of Tampa Tribune
08/09/06: TEC's letter with attached Proof of Publication
08/21/06: TEC's comments on the Technical Evaluation and Draft Permit
09/05/06: Further Comments received by e-mail from the EPCHC on 09/05/06; 09/17/06 and 09/18/06

SECTION II. ADMINISTRATIVE REQUIREMENTS

GENERAL AND ADMINISTRATIVE REQUIREMENTS

1. Permitting Authority: The Permitting Authority for this project is the Florida Department of Environmental Protection's Bureau of Air Regulation located at 2600 Blair Stone Road, MS #5505, Tallahassee, Florida 32399-2400 and phone number 850/488-0114.
2. Compliance Authority: All documents related to reports, tests, and notifications should be submitted to the DEP Southwest District office (DEPSW), 13051 N. Telecom Parkway, Temple Terrace, Florida 33637-0926 and phone number 813/632-7600 and the Environmental Protection Commission of Hillsborough County (EPCHC), 3629 Queen Palm Dr, Tampa, Florida 33619-1309, and phone number 813/627-2600.
3. General Conditions: The owner and operator are subject to, and shall operate under the attached General Conditions listed in *Appendix GC* of this permit. General Conditions are binding and enforceable pursuant to Chapter 403, F.S. [Rule 62-4.160, F.A.C.]
4. Applicable Regulations, Forms and Application Procedures: Unless otherwise indicated in this permit, the construction and operation of this project shall be in accordance with the capacities and specifications stated in the application. This facility is subject to all applicable provisions of: Chapter 1-3.62 Rules of the Environmental Protection Commission of Hillsborough County (EPCHC); Chapter 403, F.S.; Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296, and 62-297, F.A.C.; 40 CFR 60; and 40 CFR 63. The permittee shall use the applicable forms listed in Rule 62-210.900, F.A.C. and follow the application procedures in Chapter 62-4, F.A.C. Issuance of this permit does not relieve the facility owner or operator from compliance with any applicable federal, state, or local permitting or regulations. [Rules 62-204.800, 62-210.300 and 62-210.900, F.A.C.]
5. Permit Expiration: For good cause, the permittee may request that this air construction permit be extended. Such a request shall be submitted to the Department's Bureau of Air Regulation at least sixty (60) days prior to the expiration of this permit. [Rules 62-4.070(4), 62-4.080, and 62-210.300(1), F.A.C.]
6. Completion of Construction: Construction on the Solid Fuel Yard is complete. On-going construction activities include the necessary activities for the transloading operations described in this permit. *The permit expiration date is July 31, 2007.*
7. New or Additional Conditions: For good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time. [Rule 62-4.080, F.A.C.]
8. Modifications: No emissions unit or facility subject to this permit shall be constructed or modified without obtaining an air construction permit from the Department. Such permit shall be obtained prior to beginning construction or modification. [Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C.]
9. Title V Permit: An application for a revision of the Title V operation permit pursuant to Chapter 62-213, F.A.C., must be submitted to the Department's Bureau of Air Quality Regulation to incorporate the specific conditions of this Air Construction Permit. [Chapter 62-213, F.A.C.]

EXISTING PERMITS APPLICABLE REQUIREMENTS

10. Applicable Construction and Operating Permit Requirements: This permit (transloading coal, petcoke, or slag to off-site facilities) does not supersede or change any applicable requirement of previous construction/operation permits for the Solid Fuel Yard or for any other emission unit at the Facility. A list of all authorized emissions points at the fuel yard facility shall be included in the Title V permit revision and/or renewal.

{Permitting Note: Specific Conditions No. A.2 and B.2 of Title V Permit 0570629-017-AV contain the fuels authorized to be burned in Units 1 through 4. This permit does not authorize any additional fuels.}

SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

This section addresses the following Emissions Unit:

| ARMS Emissions Unit No. | Brief Description of Emissions Unit |
|-------------------------|-------------------------------------|
| 010 | Solid Fuel Yard, Fugitive Emissions |

The following Emissions Points are added to this Emissions Unit:

| Emissions Point | Description of Emissions Point |
|-----------------------|---|
| FH-074a PET | Reclaim from Petcoke Storage Pile to Trucks |
| FH-074b COAL | Reclaim from Coal Storage Pile to Trucks |
| FH 074c SLAG | Reclaim from Slag Storage Pile to Trucks |
| FH-075a PET/COAL/SLAG | Truck Traffic (paved roads, empty trucks) |
| FH 075b PET/COAL/SLAG | Truck Traffic (paved roads, full trucks) |
| FH-076a PET/COAL/SLAG | Truck Traffic (unpaved roads, empty trucks) |
| FH-076b PET/COAL/SLAG | Truck Traffic (unpaved roads, full trucks) |

ESSENTIAL POTENTIAL TO EMIT (PTE) PARAMETERS

- Materials Allowed and Permitted Capacity.** The allowable materials to be transloaded via the emission points listed above as FH-074, FH-075, and FH-076 are coal (except residual coal), petcoke or slag. Maximum annual transloading rates at these three additional emissions points shall not exceed 150,000 tons per year for each material and 450,000 tons per year for all three materials combined; only one material will be transloaded at a time.

The maximum solid fuel/slag transloading shall not exceed 4,000 tons per hour on a 24-hr rolling average and shall not exceed 1,428,030 tons per year.

[Rules 62-4.070 (3), and 62-210.200 (PTE), F.A.C.; and Site Certification No. PA79-12 C and D]

OPERATING REQUIREMENTS

- Hours of Operation.** The solid fuel yard is allowed to operate continuously, i.e., 8,760 hours/year. [Rules 62-4.160(2) and 62-210.200, F.A.C., P.T.E.]

EMISSION LIMITATIONS AND STANDARDS

- Visible Emissions.** Visible emissions generated by fugitive or unconfined particulate matter from this transloading operation (emissions points FH-074a, FH-074b, and FH-074c) shall not exceed 20% opacity. [Rule 62-296.320(4)(b)1, F.A.C.]

TEST METHODS AND PROCEDURES

- Test Methods and Frequency:** 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. Initial and annual testing is required. An initial VE test shall be performed on the following truck-loading emissions points: FH-074a PET; FH-074b COAL and FH-074c SLAG. Thereafter, annual testing shall be performed on emissions points FH-074a PET and FH-074b COAL. For the purpose of the VE test, the hourly transloading rate to trucks at the subject emissions points shall be as close to 144 tons per hour as practicable. [Rules 62-204.800, 62-297.310(7)(a)4., and 62-297.400, F.A.C.]

{Permitting Note: No annual testing is required for emission point FH-074c SLAG assuming the initial visible emissions test performed validates that slag handling has minimal emissions.}

SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

REASONABLE ASSURANCES

5. Controls: All controls associated with the transfer points (i.e., the enclosures and dust suppression) shall be maintained to the extent that the capture efficiencies credited will be achieved. Trucks used to transport coal, petcoke or slag shall utilize tarps at all times except when loading/unloading. Reasonable precautions to prevent unconfined emissions of particulate matter shall be in accordance with Rule 62-296.320(4), F.A.C. and are enumerated in Appendix C, Common Condition 11. of this permit.
[Rule 62-4.070(3), and Rule 62-296.320(4) (c) F.A.C.]

REPORTS AND RECORDS

6. Recordkeeping and Report Duration: The quantity and type of fuel loaded and transported off-site by each fuel transloading operation emissions point covered in this permit shall be recorded and maintained. The annual quantity of each transloaded material shall be submitted in the Annual Operation Report. All reports and records required by this permit shall be kept for at least (5) years from the date the information was recorded.
[Rule 62-4.160(14)(b), F.A.C.]

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GENERAL CONDITIONS

The permittee shall comply with the following general conditions from Rule 62-4.160, F.A.C.

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:
 - a. Have access to and copy and records that must be kept under the conditions of the permit;
 - b. Inspect the facility, equipment, practices, or operations regulated or required under this permit, and,
 - c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:
 - a. A description of and cause of non-compliance; and
 - b. The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida Statutes.

APPENDIX GC
GENERAL CONDITIONS

Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.
11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.
12. This permit or a copy thereof shall be kept at the work site of the permitted activity.
13. This permit also constitutes:
 - a. Determination of Best Available Control Technology ();
 - b. Determination of Prevention of Significant Deterioration ();
 - c. Compliance with New Source Performance Standards () and
 - d. Compliance with National Emissions Standards for Hazardous Air Pollutants ().
14. The permittee shall comply with the following:
 - a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
 - b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application or this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
 - c. Records of monitoring information shall include:
 - 1) The date, exact place, and time of sampling or measurements;
 - 2) The person responsible for performing the sampling or measurements;
 - 3) The dates analyses were performed;
 - 4) The person responsible for performing the analyses;
 - 5) The analytical techniques or methods used; and
 - 6) The results of such analyses.
15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

APPENDIX C
COMMON CONDITIONS

{Permitting Note: Unless otherwise specified in the permit, the following conditions apply to all emissions units and activities at the facility.}

EMISSIONS AND CONTROLS

1. Plant Operation - Problems: If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by fire, wind or other cause, the permittee shall notify each Compliance Authority as soon as possible, but at least within one working day, excluding weekends and holidays. The notification shall include: pertinent information as to the cause of the problem; steps being taken to correct the problem and prevent future recurrence; and, where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with the conditions of this permit or the regulations. [Rule 62-4.130, F.A.C.]
2. General Pollutant Emission Limiting Standards. Objectionable Odor Prohibited. No person shall cause, suffer, allow, or permit the discharge of air pollutants, which cause or contribute to an objectionable odor.
[Rule 62-296.320(2), F.A.C.]
3. General Particulate Emission Limiting Standards. General Visible Emissions Standard.
Except for emissions units that are subject to a particulate matter or opacity limit set forth or established by rule and reflected by conditions in this permit, no person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density of which is equal to or greater than that designated as Number 1 on the Ringelmann Chart (20 percent opacity). EPA Method 9 is the method of compliance pursuant to Chapter 62-297, F.A.C.
[Rules 62-296.320(4)(b)1. & 4., F.A.C.]
4. General Pollutant Emission Limiting Standards. Volatile Organic Compounds (VOC) Emissions or Organic Solvents (OS) Emissions. The permittee shall allow no person to store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds (VOC) or organic solvents (OS) without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department.
[Rule 62-296.320(1)(a), F.A.C.]
5. Circumvention: The permittee shall not circumvent the air pollution control equipment or allow the emission of air pollutants without this equipment operating properly. [Rule 62-210.650, F.A.C.]
6. Excess Emissions Allowed: Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]
7. Excess Emissions Prohibited: Excess emissions caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure that may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]

{Permitting Note: The Excess Emissions Rule at Rule 62-210.700, F.A.C., cannot vary any requirement of a NSPS or NESHAP provision.}

8. Volatile Organic Compounds (VOC) or Organic Solvents (OS) Emissions: No person shall store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department. [Rule 62-296.320(1), F.A.C.]
9. Objectionable Odor Prohibited: No person shall cause, suffer, allow or permit the discharge of air pollutants, which cause or contribute to an objectionable odor. An "objectionable odor" means any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance. [Rules 62-296.320(2) and 62-210.200(203), F.A.C.]

APPENDIX C
COMMON CONDITIONS

10. General Visible Emissions: No person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity equal to or greater than 20 percent opacity. This regulation does not impose a specific testing requirement. [Rule 62-296.320(4)(b)1, F.A.C.]
11. Unconfined Emissions of Particulate Matter:
- (1) No person shall cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any activity, including vehicular movement; transportation of materials; construction, alteration, demolition or wrecking; or industrially related activities such as loading, unloading, storing or handling; without taking reasonable precautions to prevent such emissions.
 - (2) Any permit issued to a facility with emissions of unconfined particulate matter shall specify the reasonable precautions to be taken by that facility to control the emissions of unconfined particulate matter.
 - (3) Reasonable precautions include the following:
 - a. Paving and maintenance of roads, parking areas and yards.
 - b. Application of water or chemicals to control emissions from such activities as demolition of buildings, grading roads, construction, and land clearing.
 - c. Application of asphalt, water, chemicals or other dust suppressants to unpaved roads, yards, open stock piles and similar activities.
 - d. Removal of particulate matter from roads and other paved areas under the control of the owner or operator of the facility to prevent reentrainment, and from buildings or work areas to prevent particulate from becoming airborne.
 - e. Landscaping or planting of vegetation.
 - f. Use of hoods, fans, filters, and similar equipment to contain, capture and/or vent particulate matter.
 - g. Confining abrasive blasting where possible.
 - h. Enclosure or covering of conveyor systems.
 - i. Trucks used to transport coal, petcoke or slag shall utilize tarps at all times except when loading/unloading.

Additional reasonable precautions applicable to this facility are included in the Title V Permit.

- (4) In determining what constitutes reasonable precautions for a particular source, the Department shall consider the cost of the control technique or work practice, the environmental impacts of the technique or practice, and the degree of reduction of emissions expected from a particular technique or practice.

[Rule 62-296.320(4)(c), F.A.C.]

TESTING REQUIREMENTS

12. Required Number of Test Runs: For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured; provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five-day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five-day period allowed for the test, the Secretary or his or her designee may accept the results of two complete runs as proof of compliance, provided that the arithmetic mean of the two complete runs is at least 20% below the allowable emission limiting standard. [Rule 62-297.310(1), F.A.C.]
13. Operating Rate During Testing: Testing of emissions shall be conducted with the emissions unit operating at permitted capacity. Permitted capacity is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impractical to test at permitted capacity, an emissions unit may be tested at less than the maximum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test rate until a new test is conducted. Once the 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.

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14. Calculation of Emission Rate: For each emissions performance test, the indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the three separate test runs unless otherwise specified in a particular test method or applicable rule. [Rule 62-297.310(3), F.A.C.]
15. Test Performance Requirements: Tests shall be conducted in accordance with all applicable requirements of 40CFR60, Subpart A - General Provisions and 40CFR63, Subpart A - General Provisions. In the event that the facility fails any initial or annual performance test, a retest shall be conducted within 30 days of the test date of the failed test.

16. Applicable Test Procedures.

(a) *Required Sampling Time.*

1. Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes.
2. Opacity Compliance Tests. When EPA Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur.

Exceptions to these requirements are as follows:

- a. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.
- b. 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.
- c. The observation period for special opacity tests that are conducted to provide data to establish a surrogate standard pursuant to Rule 62-297.310(5)(k), F.A.C., Waiver of Compliance Test Requirements, shall be established as necessary to properly establish the relationship between a proposed surrogate standard and an existing mass emission limiting standard.

(b) *Minimum Sample Volume.* Unless otherwise specified in the applicable rule, the minimum sample volume per run shall be 25 dry standard cubic feet.

(c) *Required Flow Rate Range.* For EPA Method 5 particulate sampling, acid mist/sulfur dioxide, and fluoride sampling which uses Greenburg Smith type impingers, the sampling nozzle and sampling time shall be selected such that the average sampling rate will be between 0.5 and 1.0 actual cubic feet per minute, and the required minimum sampling volume will be obtained.

(d) *Calibration of Sampling Equipment.* Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1 (attached).

(e) *Allowed Modification to EPA Method 5.* When EPA Method 5 is required, the following modification is allowed: the heated filter may be separated from the impingers by a flexible tube.

[Rule 62-297.310(4), F.A.C.]

17. Determination of Process Variables

- a. *Required Equipment.* The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.
- b. *Accuracy of Equipment.* Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.

[Rule 62-297.310(5), F.A.C.]

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COMMON CONDITIONS

18. Sampling Facilities: The permittee shall install permanent stack sampling ports and provide sampling facilities that meet the requirements of Rule 62-297.310(6), F.A.C. Refer to Appendix SS-1 Stack Sampling Facilities, attached to this permit.
19. Test Notification: The owner or operator shall notify in writing to the Compliance Authority, at least *30 days* (initial) and *15 days* (annual) 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 for the owner or operator. [Rule 62-297.310(7)(a)9, F.A.C.]
20. Exceptions and Approval of Alternate Procedures and Requirements: An Alternate Sampling Procedure (ASP) may be requested from the Bureau of Monitoring and Mobile Sources of the Florida Department of Environmental Protection in accordance with the procedures specified in Rule 62-297.620, F.A.C.
21. Frequency of Compliance Tests. The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.
- (a) *General Compliance Testing*.
1. The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to Rule 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:
- a. Did not operate; or
- b. In the case of a fuel burning emissions unit, burned liquid fuel for a total of no more than 400 hours.
2. During each federal fiscal year (October 1 - September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:
- a. Visible emissions, if there is an applicable standard;
- b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; or 100 tons per year or more of any other regulated air pollutant; and,
- c. Each NESHAP pollutant, if there is an applicable emission standard.
3. The owner or operator shall notify the Department, 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 for the owner or operator.
- (b) *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.
- (c) *Waiver of Compliance Test Requirements*. If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a bag house or specifying a fuel analysis for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of Rule 62-297.310(7)(b), F.A.C., shall apply.
- [Rule 62-297.310(7), F.A.C.; 40 CFR 63.1349(c)]
22. Test Reports: The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department on the results of each such test. The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed. The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information:

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1. The type, location, and designation of the emissions unit tested.
2. The facility at which the emissions unit is located.
3. The owner or operator of the emissions unit.
4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
5. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.
6. The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
7. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
8. The date, starting time and duration of each sampling run.
9. The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.
10. The number of points sampled and configuration and location of the sampling plane.
11. For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
12. The type, manufacturer and configuration of the sampling equipment used.
13. Data related to the required calibration of the test equipment.
14. Data on the identification, processing and weights of all filters used.
15. Data on the types and amounts of any chemical solutions used.
16. Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.
17. The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.
18. All measured and calculated data required to be determined by each applicable test procedure for each run.
19. The detailed calculations for one run that relate the collected data to the calculated emission rate.
20. The applicable emission standard and the resulting maximum allowable emission rate for the emissions unit plus the test result in the same form and unit of measure.
21. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.

[Rule 62-297.310(8), F.A.C.]

RECORDS AND REPORTS

23. Records Retention: Upon request, the permittee shall furnish all records and plans required under EPCHC and FDEP rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the EPCHC. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least five years from the date of the sample, measurement, report, or application unless otherwise specified by EPCHC or FDEP rule.
[Rules 62-4.160(14)(a)&(b) and 62-213.440(1)(b)2.b., F.A.C.]
24. Excess Emissions Report: If excess emissions occur, the owner or operator shall notify the Air Facilities Section of the EPCHC, within (1) working day (excluding weekends and legal holidays) of: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. In addition, the

APPENDIX C
COMMON CONDITIONS

EPCHC may request a written summary report of the incident.

[Rules 62-4.130 and 62-210.700(6), F.A.C.]

25. Excess Emissions Malfunction Notification Report - Malfunctions: In case of excess emissions resulting from malfunctions, each owner or operator shall notify the EPCHC in accordance with Rule 62-4.130, F.A.C. In addition, a full written report on the malfunctions shall be submitted in a quarterly report.

[Rule 62-210.700(6), F.A.C.]

26. Annual Operating Report: The permittee shall submit an annual report that summarizes the actual operating rates and emissions from this facility. Annual operating reports shall be submitted to EPCHC, the Compliance Authority, by March 1st of each year. [Rule 62-210.370(2), F.A.C.]

27. Central File Requirements: This facility shall maintain a central file containing all measurements, records, and other data that are required to be collected pursuant to the various specific conditions of this permit.

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

Adams, Patty

From: Harvey, Mary
Sent: Tuesday, October 31, 2006 4:31 PM
To: 'kashffield@tecoenergy.com'; 'BTBURROWS@TECOENERGY.COM'; 'TDAVIS@ECTINC.COM'; Nasca, Mara; 'leed@epchc.org'; 'simsj@epchc.org'; 'Little.James@epamail.epa.gov'
Cc: Heron, Teresa; Adams, Patty; Gibson, Victoria
Subject: Permit #0570039-AC-F
Attachments: RTEC025ACPermitL-#0570039-025-AC-F.pdf; 2FINLDET1L-#0570039-025-AC-F.pdf; 2RAppendicesGC-C(2)-#057039-025-AC-F.pdf; FINLNOT1#0570039-025-F.pdf; LTR-CERTIFICATE OF SERVICE#0570039-025-f.pdf

Dear Sir/Madam:

Please send a "reply" message verifying receipt of the attached document(s); this may be done by selecting "Reply" on the menu bar of your e-mail software and then selecting "Send". We must receive verification of receipt and your reply will preclude subsequent e-mail transmissions to verify receipt of the document(s).

The document(s) may require immediate action within a specified time frame. Please open and review the document(s) as soon as possible.

The document is in Adobe Portable Document Format (pdf). Adobe Acrobat Reader can be downloaded for free at the following internet site: <http://www.adobe.com/products/acrobat/readstep.html>.

The Bureau of Air Regulation is issuing electronic documents for permits, notices and other correspondence in lieu of hard copies through the United States Postal System, to provide greater service to the applicant and the engineering community. Please advise this office of any changes to your e-mail address or that of the Engineer-of-Record.

Thank you,

DEP, Bureau of Air Regulation

Adams, Patty

From: Harvey, Mary
Sent: Wednesday, November 22, 2006 1:41 PM
To: Cascio, Tom; Adams, Patty
Subject: FW: Tampa Electric Company #0570039-026

From: Nasca, Mara
Sent: Wednesday, November 22, 2006 1:41 PM
To: Harvey, Mary
Cc: Zhang-Torres
Subject: RE: Tampa Electric Company #0570039-026

Thanks Mary....Have a good Thanksgiving

From: Harvey, Mary
Sent: Wednesday, November 22, 2006 12:46 PM
To: 'kashfield@tecoenergy.com'; 'BTBURROWS@TECOENERGY.COM'; 'TDAVIS@ECTINC.COM'; Nasca, Mara; 'Lee@epchc.orh'; 'danois.gracy@epa.gov'
Cc: Cascio, Tom; Adams, Patty; Gibson, Victoria
Subject: Tampa Electric Company #0570039-026

Dear Sir/Madam:

Please send a "reply" message verifying receipt of the attached document(s); this may be done by selecting "Reply" on the menu bar of your e-mail software and then selecting "Send". We must receive verification of receipt and your reply will preclude subsequent e-mail transmissions to verify receipt of the document(s).

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Thank you,

DEP, Bureau of Air Regulation

11/28/2006

From: Byron Burrows [mailto:btburrows@tecoenergy.com]
Sent: Wednesday, November 01, 2006 4:09 PM
To: Harvey, Mary
Cc: Sharon Good
Subject: Re: Permit #0570039-AC-F

This is to verify receipt of the referenced documents.

Thanks,

Byron

Byron T. Burrows, P.E. BCEE
Manager, Air Programs
Tampa Electric Company
Ph - 813.228.1282
Mob - 813.230.3445
Fax - 813.228.1308
btburrows@tecoenergy.com

>>> "Harvey, Mary" <Mary.Harvey@dep.state.fl.us> 10/31/06 4:30:57 PM >>>

Dear Sir/Madam:

Please send a "reply" message verifying receipt of the attached document(s); this may be done by selecting "Reply" on the menu bar of your e-mail software and then selecting "Send". We must receive verification of receipt and your reply will preclude subsequent e-mail transmissions to verify receipt of the document(s).

The document(s) may require immediate action within a specified time frame. Please open and review the document(s) as soon as possible.

The document is in Adobe Portable Document Format (pdf). Adobe Acrobat Reader can be downloaded for free at the following internet site: <http://www.adobe.com/products/acrobat/readstep.html>.

The Bureau of Air Regulation is issuing electronic documents for permits, notices and other correspondence in lieu of hard copies through the United States Postal System, to provide greater service to the applicant and the engineering community. Please advise this office of any changes to your e-mail address or that of the Engineer-of-Record.

Thank you,

DEP, Bureau of Air Regulation

11/2/2006

Adams, Patty

From: Harvey, Mary
Sent: Wednesday, November 01, 2006 8:58 AM
To: Adams, Patty
Subject: FW: Permit #0570039-AC-F

From: Karen Sheffield [mailto:kasheffield@tecoenergy.com]
Sent: Wednesday, November 01, 2006 8:23 AM
To: Harvey, Mary
Cc: Byron Burrows
Subject: Re: Permit #0570039-AC-F

This is to verify receipt of the subject permit e-mail and attached documents.

>>> "Harvey, Mary" <Mary.Harvey@dep.state.fl.us> 10/31/2006 4:30 PM >>>

Dear Sir/Madam:

Please send a "reply" message verifying receipt of the attached document(s); this may be done by selecting "Reply" on the menu bar of your e-mail software and then selecting "Send". We must receive verification of receipt and your reply will preclude subsequent e-mail transmissions to verify receipt of the document(s).

The document(s) may require immediate action within a specified time frame. Please open and review the document(s) as soon as possible.

The document is in Adobe Portable Document Format (pdf). Adobe Acrobat Reader can be downloaded for free at the following internet site: <http://www.adobe.com/products/acrobat/readstep.html>.

The Bureau of Air Regulation is issuing electronic documents for permits, notices and other correspondence in lieu of hard copies through the United States Postal System, to provide greater service to the applicant and the engineering community. Please advise this office of any changes to your e-mail address or that of the Engineer-of-Record.

Thank you,

DEP, Bureau of Air Regulation

Adams, Patty

From: Harvey, Mary
Sent: Wednesday, November 01, 2006 8:47 AM
To: Adams, Patty
Subject: FW: Permit #0570039-AC-F

From: Sims, Jeff [<mailto:SimsJ@epchc.org>]
Sent: Wednesday, November 01, 2006 8:32 AM
To: Harvey, Mary
Subject: Read: Permit #0570039-AC-F

Your message

To: SimsJ@epchc.org
Subject:

was read on 11/1/2006 8:32 AM.



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AUG 21 2006

BUREAU OF AIR REGULATION

August 18, 2006

Ms. Trina L. Vielhauer
Florida Department of Environmental Protection
111 South Magnolia Drive, Suite 4
Tallahassee, Florida 32301

Via FedEx
Airbill No. 790531780121

Re: Tampa Electric Company (TEC)
Big Bend Station Off-Site Transloading
Comments on Draft Air Construction Permit
FDEP File No. 0570039-025-AC

Dear Ms. Vielhauer:

Attached are TEC's comments on the Big Bend Off-Site Transloading Draft permit and Technical Evaluation and Preliminary Determination.

Thank you for your attention to this matter. If you have any concerns or questions feel free to contact me or Sharon Good at (813) 228-4654.

Sincerely,

Byron T. Burrows
Manager - Air Programs
Environmental, Health & Safety

EHS\vk\SCG175

cc: Ms. Mara Nasca-FDEP SW District
Mr. Jason Waters-EPC

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TECHNICAL EVALUATION
AND
PRELIMINARY DETERMINATION

Tampa Electric Company

Big Bend Station

Off-site Transloading of Coal, Petcoke and Slag Project
Solid Fuel Yard Emissions Unit No. 010

Tampa, Hillsborough County

DEP File No. 0570039-025-AC

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

July 10, 2006

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

1. APPLICATION INFORMATION

1.1 Applicant Name and Address

Tampa Electric Company (TEC)
Big Bend Station - Electric Generating Facility
Apollo Beach Road
Tampa, Hillsborough County, Florida 33572

Authorized Representative: Karen Sheffield, General Manager

1.2 Reviewing and Process Schedule

12-06-04: Date of Receipt of Application (waiver of the air construction permit processing time)
01-20-05: DEP Incompleteness Letter for both Title V and Air Construction Permit requests
04-19-05: Received TEC request to extend the response deadline to May 31, 2005
05-31-05: Received TEC Response to Incompleteness Letter
06-28-05: DEP e-mail confirming telephone conversation of 6/27/05
07-01-05: DEP Application Status Letter
07-11-05: TEC e-mail requesting to separate the Title V project (removal of the CO limit)
09-02-05: TEC e-mail and letter requesting to withdraw Title V Application revision
02-13-06: TEC revised application submitted
02-22-06: DEP incompleteness letter
05-10-06: Air Construction application complete. TEC's response to DEP's letter
xx-xx-xx: Intent Issued

2. FACILITY INFORMATION

2.1 Facility Location

The Big Bend Station Power Plant is located at Big Bend Road, North Ruskin, Hillsborough County. This site is approximately 75 kilometers from the Chassahowitzka National Wilderness Area, a Class I PSD Area. The UTM coordinates of this facility are Zone 17; 361.9 km E; 3075.0 km N.

2.2 Standard Industrial Classification Codes (SIC)

| | | |
|--------------------|------|--------------------------------------|
| Industry Group No. | 49 | Electric, Gas, and Sanitary Services |
| Industry No. | 4911 | Electric Services |

2.3 Facility Category

The TEC facility is a nominal 2028 MW (megawatts) electric generation facility. This facility consists of four steam boilers (Units Nos. 1 through 4); four steam turbines; three simple-cycle combustion turbines (CT Nos. 1, 2, and 3); solids fuels, fly ash, limestone, gypsum, slag, bottom ash storage and handling facilities; and fuel oil storage tanks.

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 Rule 62-212.400, 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, F.A.C., Prevention of Significant

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

Deterioration (PSD). Per Rule 62-210.200, F.A.C., the proposed modification (off-site transloading of coal, petcoke and slag) at this facility does not result in emissions increases above the PSD level of 25/15 TPY of PM/PM₁₀.

This facility (4 steam boilers) is also subject to the provisions of Title IV, Acid Rain, Clean Air Act as amended in 1990.

3. TRANSLOADING PROJECT DESCRIPTION

Coal, petcoke, or slag for delivery to offsite facilities other than Polk Power Station, will be brought in by barge at ~~infrequent intervals~~ and transferred to Transfer Station T2 using existing conveyors. From Station T2, the transloaded materials will be transferred to storage piles located in the ~~west~~ fuel yard using existing conveyors ~~CB-Y and CB-Z~~. The coal, petcoke, and slag will then be loaded into trucks using ~~front end loaders~~ mobile equipment for off-site shipment.

The only new emissions points associated with this operation are: (a) the transfer of slag from a barge to the fuel storage yard (a) the transfer of coal, petcoke or slag from a storage pile by ~~front end loaders~~ mobile equipment to trucks and (b) coal, petcoke, or slag truck travel on Big Bend paved and unpaved roads. All other coal, petcoke or slag handling activities will use existing equipment (e.g., conveyor belts, storage pile stackout, and dozer operations in storage piles). The coal or petcoke will be treated with a chemical surfactant prior to arriving at the Big Bend Station. The slag has minimal dust potential based on its glassine properties and therefore does not need to be treated with a chemical surfactant.

This project modification comprises the emissions points FH-074a, FH-074b, FH-074c, and FH-075a, FH-075b, FH-076a, and FH-076b ~~FH-PET-01; FH-COAL-01; and FH-SLAG-01~~. Refer to Attachment B Process Flow Diagram. The estimated total particulate matter emissions as a result of this modification do not exceed 18/5 PM/PM₁₀ TPY. Attachment A (Application submitted on December 6, 2004, January 23, and February 13, 2006), shows the facility plot plan showing the worst case onsite travel path, a total of 2.6 paved miles and 300 unpaved feet for one round trip of the transloading trucks.

~~The maximum annual transloading rate is estimated at 450,000 tons for all materials combined.~~

The maximum annual transloading rate for coal, petcoke and slag material for delivery to facilities other than Polk Power Station is estimated at 450,000 tons for all materials combined, however TEC has not requested an increase in loading rates or an increase in total solid fuel yard loading rates and will maintain compliance with the current permitted rates: The maximum annual fuel throughput rate for the Solid Fuel Yard transloading activities is limited to 1,428,030 tons and an hourly maximum of 4000 tph (24-hr average).

3.1. Emissions Unit

This permit addresses the new emissions points described below at the Solid Fuel Yard Facility:

| EMISSIONS UNIT NO. | SYSTEM | DESCRIPTION* |
|---|----------------------------------|---|
| ARMS E. U. No. 010; 029; 030; 031 and 037 Solid Fuel Yard Facility | Fuel Handling and Storage System | Emissions Points FH-001 through FH-073, Fugitives Emissions |

This transloading project only affects EU-10

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

EU-029, 30, 37 does not apply to this transloading

EU-031 is not listed in the current Title V.

Not all FH source ID's apply to this transloading

New emissions points as a result of this project (part of the Solid Fuel Yard Facility's fugitives emissions points) are: Transloading of petcoke [~~FH-PET-01074a~~]; coal [~~FH-COAL-01074b~~]; slag [~~FH-SLAG-01074c~~]; and truck traffic [~~FH-075a, FH-075b, FH-076a, and FH-076b~~ ~~FH-PET-012a/2b/COAL-012a/2b/SLAG-012a/2b~~]:

| <u>Source Designator</u> | <u>PM/PM₁₀ Control Method</u> | <u>Control Efficiency</u> | <u>Transfer Rates</u> | <u>Emission Point</u> |
|--|--|---------------------------|------------------------|--|
| Front-End-Reclaim from Petcoke Storage Pile to Trucks | Moist Material & Chemical Surfactants | 90% | 150,000 TPY | FH-PET-01074a |
| Front-End-Reclaim from Coal Storage Pile to Trucks | Moist Material & Chemical Surfactants | 90% | 150,000 TPY | FH-COAL-01074b |
| Front-End-Reclaim from Slag Storage Pile to Trucks | Moist Material | 90% | 150,000 TPY | FH-SLAG-01074c |
| <u>Source Designator</u> | <u>PM/PM₁₀ Control Method</u> | <u>Control Efficiency</u> | <u>Vehicle Miles</u> | <u>Emission Point</u> |
| Truck Traffic (Paved Roads) | Watering as necessary | 90% | 45,000 VMT/yr | FH-Pet/Coal/Slag-02a-2b/075a/075b |
| Truck Traffic (unpaved Roads) | Watering as necessary | 90% | 984 VMT/yr | FH-Pet/Coal/Slag-03a-3b/076a/076b |

Existing emissions points associated with the proposed off-site transloading of petcoke/coal/slag:

| <u>Source Designator</u> | <u>PM Control Method</u> | <u>Control Efficiency</u> | <u>Design Capacity</u> | <u>Emission Point</u> |
|---|--------------------------|---------------------------|------------------------|-----------------------|
| | | <u>Slag/Petcoke/Coal</u> | <u>Transfer Rates</u> | |
| Barge Clamshell to Conveyor D 1 | Moist Material | 25% | 150,000 TPH | FH-001 |
| Barge Bucket Elevator to Conveyor A1 | Moist Material | 25% | 150,000 TPH | FH-002 |
| Conveyor A1 to Conveyor B 1 | Moist Material | 85% | 150,000 TPH | FH-003 |
| Conveyor B1 to Conveyor D 1 | Moist Material | 85% | 150,000 TPH | FH-004 |
| Self Unloading Barge to Conveyor D 1 | Moist Material | 25% | 150,000 TPH | FH-005 |
| Conveyor D1 to Conveyor E 1 | Moist Material | 85% | 150,000 TPH | FH-006 |
| | | <u>Control Efficiency</u> | | |
| | | <u>Slag*</u> | | |
| Conveyor E 1 to Conveyor Y | Moist Material | 85% | 150,000 TPH | FH-007 |
| Conveyor Y to Conveyor Z | Moist Material | 0% | 150,000 TPH | FH-008a |
| Conveyor Z to Slag Storage Pile | Moist Material | 0% | 150,000 TPH | FH-008b |
| <u>TEC may also use the existing north or south stacker to unload</u> | | | | |
| | | <u>Control Efficiency</u> | | |
| | | <u>Petcoke or Coal*</u> | | |
| Conveyor E 1 to Conveyor Y | Moist Material | 90% | 150,000 TPH | FH-007 |
| Conveyor Y to Conveyor Z | Moist Material | 90% | 150,000 TPH | FH-008a |
| Conveyor Z to Petcoke or Coal Storage Pile | Moist Material | 90% | 150,000 TPH | FH-008b |

TEC may also use the existing north or south stacker to unload

Note: Vehicle Miles Traveled (VMT) and Tons per hour (TPH).

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

*Control Efficiency for these conveyors for the transloading of slag is reported as 0% since a dust suppressant will not be applied due to slag glassine properties and low potential for dusting. The control efficiency for these conveyors for the transloading of coal and petcoke is reported as 90%.

[Source: TEC, Transloading Project Modification response dated May 31, 2005 and Application dated February 13, 2006].

4. SOLID FUEL YARD FACILITY DESCRIPTION

Solid fuel is unloaded from ship/barge into the Solid fuel yard, the blending bins or goes directly to the tripper room via belt conveyors. Solid fuel from the piles is loaded onto belt conveyors using a rail mounted or mobile reclaimer. The solid fuel is then belt conveyed to the blending bins, which consists of six storage bins, where the solid fuel may be blended for use at the plant, or transloaded into trucks for shipment off site. Particulate matter (PM) emissions from the conveyors in the blending bins are controlled by 4 rotoclones, one at the conveyor drop, and one for every 2 bins. Blending bins can either feed the transloader, or solid fuel can be conveyed, via 2 parallel belts (T1, T2) to 2 crushers (each belt has a crusher), or diverted directly to the tripper room. PM emissions from the 2 crushers and transfer tower are controlled by 2 rotoclones. Coal residual from Polk Power Station is received by truck and placed in a building, where it is conveyed to the unit tripper room.

In the tripper room, 2 trippers bunker the solid fuels into 4 solid fuel bunkers. Each unit has its own respective bunker. From the bunkers, the solid fuel is gravity fed into 14 ball mills, and then fed into the boilers. There are 3 ball mills, each for Unit Nos. 1 – 3, and 5 ball bowl mills for Unit No. 4. From the mills, the solid fuel is pneumatically transported into classifiers, two for each mill on Unit Nos. 1-3 and one for each mill on Unit No. 4 for a total of 23 classifiers. The fuel is then transported into the respective boilers.

Fugitive emissions sources located at the Big Bend Station consist of activities associated with the storage and handling of the solid fuels.

Emissions information submitted with the Title V renewal application shows a range of 25 to 100 tpy for the existing Solid Fuel Yard operation based on a composite AP-42 emission factor of 0.01 lb/ton of fuel handled.

The current Big Bend Station Title V permit includes the following rates: From each fuel transloading source/emission point (i.e., off-loading and loading of fuel {for export from Big Bend Station}) the maximum annual fuel throughput rate for the Solid Fuel Yard is limited to 1,428,030 tons and an hourly maximum of 4000 tph (24-hr average).

For this project, the proposed maximum annual transloading rate of coal, petcoke and slag is estimated at 150,000 tons for each material and 450,000 tons for all three materials combined. The estimated hourly truck count is 11 truck/hr and 11,538 trucks/yr for each of the three materials (coal, petcoke and slag) shipped by truck.

The existing Big Bend Solid Fuel Yard Facility operation consists of the following emissions points:

| <u>Description</u> | <u>Source ID</u> |
|--------------------------------------|------------------|
| Barge Clamshell to Conveyor D1 | FH-001 |
| Barge Bucket Elevator to Conveyor A1 | FH-002 |
| Conveyor A1 to Conveyor B1 | FH-003 |
| Conveyor B1 to Conveyor D1 | FH-004 |
| Self-Unloading Barge to Conveyor D1 | FH-005 |

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

| | |
|---|-------------------------|
| Conveyor D1 to Conveyor E1 | FH-006 |
| Conveyor E1 to Conveyor Y or Conveyor F1 | FH-007 |
| Conveyor Y to Conveyor Z | FH-008a |
| Conveyor Z to West Emergency Pile | FH-008b |
| Dozer Operations on West Emergency Storage Pile | FH-009 |
| West Emergency Storage Pile | FH-010 |
| Dozer Reclaim from West Emergency Pile to Portable Conveyor | FH-011a |
| Conveyor Z to Conveyor P | FH-012 |
| Conveyor P to Intermediate Conveyor | FH-013 |
| Intermediate Conveyor to North Stacker Conveyor (G2) | FH-014 |
| North Stacker Conveyor (G2) to North/Center Storage Pile | FH-015 |
| Mobile Reclaimer to North Stacker Conveyor (G2) | FH-016 |
| North Stacker Conveyor (G2) to Conveyor P | FH-017 |
| Dozer Operations on North Storage Pile | FH-018 |
| North Storage Pile | FH-019 |
| Dozer Operations on Middle (Common) Storage Pile | FH-020 |
| Fuel Storage - Middle (Common) Storage Pile | FH-021 |
| Conveyor F1 to South Stacker Conveyor (G1) | FH-022 |
| South Stacker Conveyor (G1) to South/Center Storage Pile | FH-023 |
| South Reclaimer to South Reclaimer Conveyor (G1) | FH-024 |
| <u>Description</u> | <u>Source ID</u> |
| South Reclaimer Conveyor (G1) to Conveyor F1 | FH-025 |
| Dozer Operations on South Storage Pile | FH-026 |
| South Storage Pile | FH-027 |
| Conveyor P to Conveyor J2 | FH-028 |
| Conveyor J2 to Conveyor Q2 | FH-029 |
| Conveyor F1 to Conveyor J1 | FH-030 |
| Conveyor J1 to Conveyor Q1 | FH-031 |
| Conveyors Q1 and Q2 to Blending Bins | FH-032 thru FH-035 |
| Blending Bins to Conveyors T1, T2 | FH-036 thru FH-047 |
| Conveyor T1 to Crusher #1 | FH-048 |
| Conveyor T2 to Crusher #2 | FH-049 |
| Crusher to Conveyor W1 | FH-050 |
| Crusher to Conveyor W2 | FH-051 |
| Conveyor U to East Emergency Storage Pile | FH-052 |
| Dozer Operations on East Emergency Storage Pile | FH-053 |
| East Emergency Storage Pile | FH-054 |
| Conveyor W1 to Conveyor L1 | FH-055 |
| Conveyor W2 to Conveyor L2 | FH-056 |
| Dozer Reclaim from East Emergency Pile to "K" Feeders | FH-057 |
| "K" Feeders to Conveyors L1 or L2 | FH-058 |

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

| | |
|---|--------------------|
| Conveyors L1 and L2 to Conveyors M1 and M2, and Conveyors M1 and M2 to Coal Bunkers | FH-059 thru FH-062 |
| Dozer Operations on Storage Pile | FH-063 |
| Dozer Reclaim from Storage Pile to Loadout Conveyor | FH-064 |
| Loadout Conveyor to Rail Transfer Conveyor | FH-065 |
| Railcar Loading | FH-066 |
| Non-TEC Fuel-Stockpile to Loadout Conveyor | FH-067 |
| Non-TEC Fuel-Truck Loading | FH-068 |
| Polk Fuel Truck Loading | FH-069 |
| Long Term Storage Pile | FH-070 |
| Dozer Operations on Long Term Storage Pile | FH-071 |
| Trucks, Full | FH-072 |
| Trucks, Empty | FH-073 |

[Source: Additional Information: e-mail and letter dated September 2, 2005 and January 17, 2006]

The fly ash and the limestone handling and storage and their fugitive emission points are not identified as part of the Solid Fuel Yard Emissions Point Units.

5. RULE APPLICABILITY

This project will be reviewed under Rule 62-212.300 F.A.C., General Preconstruction Review Requirements. This proposed off site solid fuel transloading modification project, is not subject to review under Rule 62-212.400 F.A.C., Prevention of Significant Deterioration (PSD), because the potential emission increases for PM/PM₁₀ (~18/5 TPY), do not exceed the significant emission rates given in Rule 62-210.200, F.A.C.

The existing particulate matter facility-wide emissions cap of 2,767 TPY will not be exceeded as a result of this project [0570039-012-AC and 05790039-017-AV].

The Solid Fuel Yard Facility is subject to all applicable requirements of the 40CFR60, New Source Performance Standard (NSPS) Subpart Y for Coal Preparation Plants.

This facility is located in an area (Hillsborough County) designated "unclassifiable" for SO₂, "maintenance" for Ozone (O₃), and lead (Pb), in the "area of influence" of the PM maintenance area and "attainment" for all the other criteria pollutants. [Rule 62-204.360, F.A.C. and Applicant's e-mail dated August 11, 2005].

This facility shall comply with all applicable provisions of the Florida Administrative Code (including applicable portions of the Code of Federal Regulations incorporated therein). These requirements are already incorporated in the current Title V Operation Permit for this facility.

6. SOURCE IMPACT ANALYSIS

6.1 Emission Limitations

The proposed off-site transloading operation will emit not more than 18/5 TPY of particulate matter (PM/PM₁₀) as a result of the new emission points ~~FH-PET-01074a; FH-COAL-01074b; FH-SLAG-01074c, and FH-075a/075b~~ PET/COAL/SLAG-02a, 02b Truck Traffic (paved roads); and ~~FH-076a/076b~~ PET/COAL/SLAG-03a, 03b Truck Traffic (unpaved roads). There will be no increase in maximum hourly or annual Big Bend Station fuel yard solid fuel handling rates. (Application submitted December 6, 2004, January 23, and February 13, 2006, Attachment D).

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

6.2 **Control Technology**

As reported by the applicant, unconfined particulate matter emissions that may result from operations at this facility include vehicular traffic on paved and unpaved road, wind-blown dust from yard areas and periodic abrasive blasting.

This facility shall comply with applicable provisions of Rule 62-210.320 F.A.C- Reasonable Precautions for Unconfined Emissions of Particulate Matter, and all the specific and facility wide conditions already included in the Title V permit.

7. **CONCLUSION**

Based on the foregoing technical evaluation of the application and additional information submitted by the applicant, the Department has made a preliminary determination that the proposed project will comply with all applicable state and federal air pollution regulations.

Scott M. Sheplak, P.E.

Teresa Heron, Review Engineer

PERMITTEE:

Tampa Electric Company (TEC)
Big Bend Power Station
Big Bend Road
Tampa, Florida 33572

| | |
|----------|---|
| File No. | 0570039-025-AC |
| Project | Transloading Project Modification |
| SIC No. | 4911 |
| ARMS No. | Solid Fuel Yard Emissions Unit 03710 |
| Expires: | December 31, 2006 |

Authorized Representative:
Karen Sheffield, General Manager

PROJECT AND LOCATION:

This is an Air Construction Permit to allow the transloading of coal (except residual coal), petcoke and/or slag to off site facilities. Big Bend is permitted to blend and transload coal and petcoke to Polk Power Station. The facility is extending this ability to transload coal and petcoke, as well as slag to other offsite facilities. TEC will accommodate transloading activities to other facilities without increasing overall solid fuel yard throughput currently authorized. New emissions points associated with this operation are: (a) the transfer of slag from a barge to the fuel storage yard (ab) the transfer of coal, petcoke or slag from a storage pile by front-end loaders-mobile equipment to trucks, and (bc) coal, petcoke, or slag truck travel on the facility paved and unpaved roads. This operation is conducted at the facility's Solid Fuel Yard. This Emission Unit is located at the Big Bend Power Plant, Big Bend Road, Tampa, Hillsborough County. UTM coordinates are: Zone 17; 361.9 km E; 3075 km N.

STATEMENT OF BASIS:

This construction permit is issued under the provisions of Chapter 403 of the Florida Statutes (F.S.), and Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.). The above named permittee is authorized to modify the facility in accordance with the conditions of this permit and as described in the application, approved drawings, plans, and other documents on file with the Department of Environmental Protection (Department).

Attached appendices made a part of this permit:

| | |
|-------------|--|
| Appendix GC | Construction Permit General Conditions |
| Appendix C | Common Permit Conditions |

Joseph Kahn, P.E., Acting Director
Division of Air Resource Management

SECTION I. FACILITY INFORMATION

JK/AAL/SMS/th

SECTION I. FACILITY INFORMATION

1.0 FACILITY DESCRIPTION

TEC Big Bend is a nominal ~~1998~~2028 MW electric generation facility. This facility consists of four steam boilers (Units Nos. 1 through 4) fired with solid fuels and controlled by individual ESP and a flue gas desulfurization system; four steam turbines; three simple-cycle combustion turbines (CT Nos. 1, 2, and 3) fired with No.2 fuel oil; storage and handling facilities for solid fuels, fly ash, limestone, gypsum, slag, and bottom ash; fuel oil storage tanks and ancillary equipment. There are ongoing nitrogen oxides (NOx) control projects for Units 3 and 4 pursuant to a Consent Final Judgement (CFJ) between TEC and the Department and a Consent Decree (CD) between TEC and the United States Environmental Protection Agency (EPA).

This permit addresses only two additional emissions points at the Solid Fuel Yard Facility.

SOLID FUEL YARD DESCRIPTION: Solid fuel (coal, petcoke, slag, and coal residual from the Polk Power Station) is unloaded from ship/barge/truck into the solid fuel yard, the blending bins or directly to the tripper room via belt conveyors. Solid fuel from the piles is loaded onto belt conveyors using a rail mounted or mobile reclaimer. The solid fuel is then belt conveyed to the blending bins, which consists of six storage bins, where the solid fuel may be blended for use at the plant, or transloaded into trucks for shipment off site. Particulate matter (PM) emissions from the conveyors in the blending bins are controlled by 4 rotoclones, one at the conveyor drop, and one for every 2 bins. Blending bins can either feed the transloader, or solid fuel can be conveyed, via 2 parallel belts (T1, T2) to 2 crushers (each belt has a crusher), or diverted directly to the tripper room. PM emissions from the 2 crushers and transfer tower are controlled by 2 rotoclones. Coal residual from Polk Power Station is received by truck and placed in a building, where it is conveyed to the unit tripper room.

From the tripper room, 2 trippers bunker the solid fuels into 4 solid fuel bunkers. Each unit has its own respective bunker. From the bunkers, the solid fuel is gravity fed into 14 mills, and then fed into the boilers. There are 3 ball mills, each for Unit Nos. 1 – 3, and 5 ball-bowl mills for Unit No. 4. From the mills, the solid fuel is pneumatically fed into classifiers, two for each mill on Unit Nos. 1-3 and one for each mill on Unit No. 4 for a total of 23 classifiers, and then into the respective boilers.

Proposed Project

Coal, petcoke, or slag will be brought in by barge at infrequent intervals and transferred to Transfer Station T2 using existing conveyors. From Station T2, the transloaded materials will be transferred to storage piles located in the fuel yard using a combination of existing conveyors. The coal, petcoke, and slag will then be loaded into trucks using ~~front-end loaders~~ mobile equipment for off-site shipment.

The only new additional emissions points associated with this operation are: ~~(a) the transfer of slag from a barge to the fuel storage yard,~~ ~~(ab) the transfer of coal, petcoke or slag from a storage pile by front-end loaders~~ mobile equipment to trucks and ~~(bc) coal, petcoke, or slag truck travel on Big Bend paved and unpaved roads.~~ All other coal, petcoke or slag handling activities will use existing equipment (e.g., conveyor belts, storage pile stackout, and dozer operations on storage piles). The coal or petcoke will be treated with a chemical surfactant prior to arriving at the Big Bend Station. The slag has minimal dust potential due to its glassine properties and therefore does not need to be treated with a chemical surfactant.

2.0 REGULATORY CLASSIFICATION

The facility, TEC Big Bend, 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 Rule 62-210.200, 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).

SECTION I. FACILITY INFORMATION

This facility is located in an area (Hillsborough County) designated “unclassifiable” for SO₂, “maintenance” for Ozone (O₃), and lead (Pb), in the “area of influence” of Hillsborough County particulate matter (PM) maintenance area, and “attainment” for all the other criteria pollutants (Rule 62-204.360, F.A.C.).

This facility is also subject to the provisions of Title IV, Acid Rain, Clean Air Act as amended in 1990.

Based on the initial Title V permit application received June 14, 1996, this facility is a major source of hazardous air pollutants (HAPs).

3.0 PERMIT SCHEDULE

- XX/X/06 Public Notice published in the legal section of Tampa Tribune on XXXX
- XX/X/06 Distributed Intent to Issue Permit
- 05/10/06 Application deemed complete
- 05/10/06 Received TEC Response to Incompleteness Letter
- 02/22/06 DEP Incompleteness Letter
- 02/13/06 Received Revised Application

4.0 RELEVANT DOCUMENTS:

The documents listed below are the basis of the permit. They are specifically related to this permitting action, but not all are incorporated into this permit. These documents are on file with the Department.

- 12/06/04: Date of Receipt of Application (waiver of the air construction permit processing time)
- 01/20/05: DEP Incompleteness Letter for both Title V and Air Construction Permit requests
- 04/19/05: Received TEC request to extend the response deadline to May 31, 2005
- 05/31/05: Received TEC Response to Incompleteness Letter
- 06/28/05: DEP e-mail confirming telephone conversation of 6/27/05
- 07/01/05: DEP Application Status Letter
- 07/11/05: TEC e-mail requesting removal of the CO limit.
- 09/02/05: TEC e-mail and letter requesting to withdraw the Title V application.
- 09/02/05: Air Construction application complete
- 12/01/05: Notice of Intent to Publish Draft Permit 0570039-018 Distributed
- 12/14/05: Request for Extension of Time to File Petition for Hearing received (until January 23)
- 01/03/06: Receipt of Proof of Publication
- 01/09/06: Comments received by e-mail from the EPCHC on 1/9/06; 1/12/06 and 1/17/06
- 01/11/06: Comments received by e-mail from TECO on 1/11/06
- 01/23/06: Revised Application received via e-mail
- 01/25/06: Request for Extension of Time to File Petition for Hearing received (until March 10)
- 02/13/06: Revised Application received via FedEx
- 02/22/06: DEP Incompleteness Letter
- 03/03/06: TEC's letter withdrawing the original application
- 05/10/06: Received TEC Response to Incompleteness Letter

- Title V Permit, 0570039-017-AV, effective January 1, 2005.

SECTION II. ADMINISTRATIVE REQUIREMENTS

GENERAL AND ADMINISTRATIVE REQUIREMENTS

1. Permitting Authority: The Permitting Authority for this project is the Florida Department of Environmental Protection's Bureau of Air Regulation located at 2600 Blair Stone Road, MS #5505, Tallahassee, Florida 32399-2400 and phone number 850/488-0114.
2. Compliance Authority: All documents related to reports, tests, and notifications should be submitted to the DEP Southwest District office (DEPSW), 3804 Coconut Palm Drive, Tampa, Florida 33619 and phone number 813/744-6100 and the Environmental Protection Commission of Hillsborough County (EPCHC), 3629 Queen Palm Dr, Tampa, Florida 33619-1309, and phone number 813/627-2600.
3. General Conditions: The owner and operator are subject to, and shall operate under the attached General Conditions listed in *Appendix GC* of this permit. General Conditions are binding and enforceable pursuant to Chapter 403, F.S. [Rule 62-4.160, F.A.C.]
4. Applicable Regulations, Forms and Application Procedures: Unless otherwise indicated in this permit, the construction and operation of this project shall be in accordance with the capacities and specifications stated in the application. This facility is subject to all applicable provisions of: Chapter 1-3.62 Rules of the Environmental Protection Commission of Hillsborough County (EPCHC); Chapter 403, F.S.; Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296, and 62-297, F.A.C.; 40 CFR 60; and 40 CFR 63. The permittee shall use the applicable forms listed in Rule 62-210.900, F.A.C. and follow the application procedures in Chapter 62-4, F.A.C. Issuance of this permit does not relieve the facility owner or operator from compliance with any applicable federal, state, or local permitting or regulations. [Rules 62-204.800, 62-210.300 and 62-210.900, F.A.C.]
5. Permit Expiration: For good cause, the permittee may request that this air construction permit be extended. Such a request shall be submitted to the Department's Bureau of Air Regulation at least sixty (60) days prior to the expiration of this permit. [Rules 62-4.070(4), 62-4.080, and 62-210.300(1), F.A.C.]
6. Completion of Construction: Construction on the Solid Fuel Yard is complete. On-going construction activities include the necessary activities for the transloading operations described in this permit. *The permit expiration date is November 30, 2006. The expiration on the the first page states December 31, 2006.*
7. New or Additional Conditions: For good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time. [Rule 62-4.080, F.A.C.]
8. Modifications: No emissions unit or facility subject to this permit shall be constructed or modified without obtaining an air construction permit from the Department. Such permit shall be obtained prior to beginning construction or modification. [Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C.]
9. Title V Permit: An application for a revision of the Title V operation permit pursuant to Chapter 62-213, F.A.C., must be submitted to the Department's Bureau of Air Quality Regulation to incorporate the specific conditions of this Air Construction Permit. [Chapter 62-213, F.A.C.]

EXISTING PERMITS APPLICABLE REQUIREMENTS

10. Applicable Construction and Operating Permit Requirements: This permit (transloading coal, petcoke, or slag to off-site facilities) does not supersede or change any applicable requirement of previous construction/operation permits for the Solid Fuel Yard or for any other emission unit at the Facility. A list of all authorized emissions points at the fuel yard facility shall be included in the Title V permit revision and/or renewal.

Permitting Note: Specific Conditions No. A.2 and B.2 of Title V Permit 0570629-017-AV contain the fuels authorized to be burned in Units 1 through 4. This permit does not authorize any additional fuels.

SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

This section addresses the following emissions points in the Solid Fuel Yard:

| <u>E.U. ID No.</u> | <u>Brief Description of Emission Points:</u> |
|--|--|
| -03710 | FH-074a PET-01: Front-End-Reclaim from Petcoke-Storage Pile to Trucks |
| Off-Site Transloading | FH-074b COAL-01: Front-End-Reclaim from Coal Storage Pile to Trucks |
| Operations at the Solid Fuel Yard | FH-074c SLAG-01: Front-End-Reclaim from Slag Storage Pile to Trucks |
| (fugitive emissions) | FH-075a, 075b PET/COAL/SLAG- 02a, 02b : Truck Traffic (Paved Roads) 075a: empty truck, 075b: full truck |
| | FH-076a, 076b PET/COAL/SLAG- 03a, 03b : Truck Traffic (unpaved Roads): 076a:empty truck, 076b: full truck |

EU-037 IS LISTED AS COAL RESIDUAL STORAGE BUILDING IN THE CURRENT TITLE V. THE SOLID FUEL YARD, FUGITIVE EMISSIONS IS EU-010

ESSENTIAL POTENTIAL TO EMIT (PTE) PARAMETERS

- Materials Allowed and Permitted Capacity. The allowable materials to be transloaded are coal (except residual coal), petcoke or slag. ~~The maximum hourly annual transloading rate to trucks shall not exceed 142 tons per hour year for each material; only one material will be transloaded at a time.~~ Maximum annual transloading rate shall not exceed 150,000 tons/yr for each material and 450,000 tons/yr for all three materials combined. The maximum throughput rate of the Solid Fuel Yard ~~transloaded material~~ shall not exceed 4,000 tons per hour on a 24-hr average (1,428,030 tons per year).
[Rules 62-4.160(2), and 62-210.200 (PTE), F.A.C. and AC29-114676]

{Permitting Note: It should be noted that only 150,000 TPY of one material type (coal or petcoke or slag) shall be transported. The 450,000 TPY transloading rate shall not be interpreted as transloading this quantity for one single material, it is an annual rate for all three materials *combined*}.

OPERATING REQUIREMENTS

- Hours of Operation. The solid fuel yard is allowed to operate continuously, i.e., 8,760 hours/year.
[Rules 62-4.160(2) and 62-210.200, F.A.C., P.T.E.]

EMISSION LIMITATIONS AND STANDARDS

- Visible Emissions. Visible emissions generated by fugitive or unconfined particulate matter from this transloading operation (emissions points ~~FH-074a~~PET-01, ~~FH-COAL-01~~074b, ~~FH-SLAG-01~~074c, and ~~FH-PET/COAL/SLAG~~075a, ~~FH-075b, -02a, -02b and -03a, -03b~~ ~~FH-076a, and FH-076b~~) shall not exceed 20% opacity. [Rule 62-296.320(4)(b)1, F.A.C.]

TEST METHODS AND PROCEDURES

- Test Methods and Frequency: 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. Initial and annual testing is required. A VE test shall be performed on the following ~~new~~ truck-loading emissions points: ~~PET-01; COAL-01 and SLAG-01~~ ~~FH-PET-01~~074a. (greatest potential fugitive emissions)
[Rules 62-204.800, 62-297.310(7)(a)4., and 62-297.400, F.A.C.]

REASONABLE ASSURANCES

- Controls: All controls associated with the transfer points (i.e., the enclosures and dust suppression) shall be maintained to the extent that the capture efficiencies credited will be achieved. Reasonable precautions to prevent unconfined emissions of particulate matter shall be in accordance with Rule 62-296.320(4), F.A.C.
[Rule 62-4.070(3), and Rule 62-296.320(4) (c) F.A.C.]

SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

REPORTS AND RECORDS

6. Duration: All reports and records required by this permit shall be kept for at least (5) years from the date the information was recorded. [62-4.160(14)(b), F.A.C.]



TAMPA ELECTRIC

August 8, 2006

Ms. Trina L. Vielhauer
Florida Department of Environmental Protection
111 South Magnolia Drive, Suite 4
Tallahassee, Florida 32301

**Re: Tampa Electric Company
Big Bend Station Off-Site Transloading
Proof of Publication of the Intent to Issue
FDEP File No. 0570039-025-AC**

Dear Ms. Vielhauer:

Pursuant to Rule 62-110.106(5), F.A.C., enclosed is the proof of publication of the Notice of Intent to Issue the Tampa Electric Company Big Bend Station Off-Site Transloading Air Construction Permit. This notice was published in the legal section of the Tampa Tribune on August 4, 2006.

Thank you for your attention to this matter. If you have any concerns or questions feel free to contact me or Sharon Good at (813) 228-4654.

Sincerely,

Byron T. Burrows, P.E.
Manager - Air Programs
Environmental, Health & Safety

EHS\rik\SCG174

Enclosure

c/enc: Ms. Mara Nasca-FDEP SW District
Mr. Jason Waters-EPC

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

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HTTP://WWW.TAMPAELECTRIC.COM

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BUREAU OF AIR REGULATION

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OUTSIDE HILLSBOROUGH COUNTY 1 (888) 223-0800

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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 the 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 Ads IN THE Tampa Tribune

in the matter of

Legal Notices

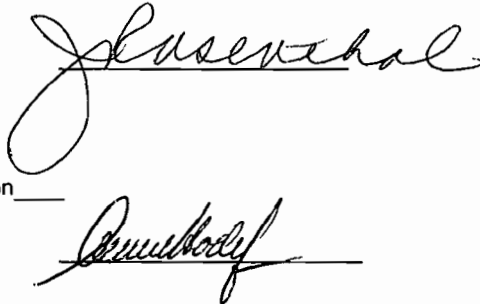
was published in said newspaper in the issues of

8/4/2006

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 04 day
of August, A.D. 2006

Personally Known or Produced Identification _____
Type of Identification Produced _____



Ana Maria Hodel
Commission #DD551367
Expires: MAY 11, 2010
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AUG 09 2006

BUREAU OF AIR REGULATION

**PUBLIC NOTICE OF INTENT TO ISSUE AIR
CONSTRUCTION PERMIT 0570039-025-AC**

Florida Department of Environmental Protection
DRAFT Air Construction Permit No. 0570039-025-AC
Transloading of Coal, Petcoke and Slag to off-site
Facilities
Tampa Electric Company - Big Bend Station
Hillsborough County

Applicant: The applicant for this project is Tampa Electric Company, Big Bend Station, P.O. Box 111, Tampa, FL 33601-0111. The applicant's authorized representative is Ms. Karen Sheffield, General Manager.

Facility Location: The applicant operates a nominal 1998 MW Electric Utility which is located at Big Bend Road in Hillsborough County, Florida.

Project: On February 13, 2006, the applicant applied to the Permitting Authority for an application for an air construction permit revision to allow the off-site transloading of 450,000 tons per year of coal, petcoke and slag. Details of the project are provided in the application and the "Technical Evaluation and Preliminary Determination" available at the offices listed below.

Permitting Authority: The application for an air construction permit is subject to review in accordance with the provisions of Chapter 403, Florida Statutes (F.S.) and Chapters 62-4, 62-210 and 62-213 and 62-214, Florida Administrative Code (F.A.C.). The proposed project is not exempt from air permitting requirements and air permits are required to operate the facility and to renew and make revisions to the current permit. The FDEP Bureau of Air Regulation is the Permitting Authority responsible for making a permit determination regarding this project. The Permitting Authority's physical address is: FDEP Bureau of Air Regulation at 111 S. Magnolia, Suite 4, Tallahassee, FL 32301. The Permitting Authority's mailing address is: FDEP Bureau of Air Regulation, MS 5505, 2600 Blair Stone Road, Tallahassee, FL 32399-2400. The Permitting Authority's telephone number is 850/488-0114 and facsimile 850/921-9533.

Project File: A complete project file is available for public inspection during normal business hours of 8:00 a.m. to 5:00 p.m., Monday through Friday (except legal holidays), at address indicated above for the Permitting Authority. The complete project file includes the Technical Evaluation and Preliminary Determination DRAFT Permit, the application, and the information submitted by the applicant, exclusive of confidential records under Section 403.111, F.S. Interested persons may view the DRAFT Permits and file electronic comments by visiting the following website:
<http://www.dep.state.fl.us/air/e/products/ards/>. A copy of the complete project file is also available at the following offices:

Florida Department of Environmental Protection
Southwest District Office
13051 N. Telecom Parkway
Temple Terrace, Florida 33637-0926
Telephone: (813) 632-7600

Environmental Protection Commission of
Hillsborough County
3629 Queen Palm Dr.
Tampa, FL 33619-1309

Notice of Intent to Issue A Permit: The Permitting Authority gives notice of its intent to issue an air construction permit to the applicant for the project described above. The applicant has provided reasonable assurance that operation of the facility will not adversely impact air quality and that the project will comply with all appropriate provisions of Chapter 62-4, 62-204, 62-210, 62-212, 62-213, 62-214, 62-256, 62-257, 62-281, 62-296 and 62-297, F.A.C. The Permitting Authority will issue a FINAL Air Construction Permit in accordance with the conditions of the DRAFT Permit unless a response received in accordance with the following procedures results in a different decision or a significant change of terms or conditions.

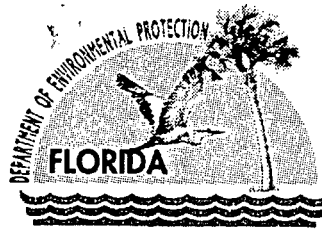
Comments: The permitting authority will accept written comments concerning the proposed Draft Air Construction Permit issuance action for a period of 14 (fourteen) days from the date of publication of this Notice. Written comments should be provided to the Permitting Authority at the above address. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in this Draft Air Construction Permit, the permitting authority shall revise the Draft Permit and require, if applicable, another Public Notice. All comments filed will be made available for public inspection.

Petitions: A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed with (received by) the Department's Agency Clerk in the Office of General Counsel of the Department of Environmental Protection at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S., must be filed within fourteen (14) of publication of this Public Notice or receipt of a written notice, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the Permitting Authority for notice of agency action may file a petition within fourteen (14) 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, F.A.C.

A petition that disputes the material facts on which the Permitting Authority'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 Permitting Authority'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, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Permitting Authority'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 Permitting Authority on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Mediation: Mediation is not available for this proceeding.



Department of Environmental Protection

Jeb Bush
Governor

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

Colleen M. Castille
Secretary

July 10, 2006

Ms. Karen Sheffield
General Manager, Big Bend Station
Tampa Electric Company
P.O. Box 111
Tampa, FL 33601-0111

Re: DRAFT Air Construction Permit No. 0570039-025-AC
Tampa Electric Company – Big Bend Station
Off-site Transloading Operations of Coal, Petcoke and Slag

Dear Ms. Sheffield:

On February 13, 2006 (complete May 10, 2006) you submitted a revised application for the construction/modification of the solid fuel yard to accommodate the off-site transloading of coal, petcoke and slag, reflecting the change in the transloading rate of these materials from 150,000 to 450,000 tons per year. Enclosed are the following documents: "Technical Evaluation and Preliminary Determination", "DRAFT Air Construction Permit", "Written Notice of Intent to Issue Air Construction Permit", and "Public Notice of Intent to Issue Air Construction Permit". This facility is located at Big Bend Road, North Ruskin.

The "Technical Evaluation and Preliminary Determination" summarizes the Permitting Authority's technical review of the application and provides the rationale for making the preliminary determination to issue the DRAFT air construction permit. The "DRAFT Air Construction Permit" includes specific conditions that regulate the emissions units at this facility. The "Written Notice of Intent to Issue Air Construction Permit" provides important information regarding: the Permitting Authority's intent to issue the DRAFT Permit; the requirements for publishing a Public Notice of the Permitting Authority's intent to issue the DRAFT Permit; the procedures for submitting comments on the DRAFT Permit; the requirements for filing a petition for an administrative hearing; and the availability of mediation. The "Public Notice of Intent to Issue Air Construction Permit" is the actual notice that you must have published in the legal advertisement section of a newspaper of general circulation in the area affected by this project.

Please submit any written comments you wish to have considered concerning the permitting authority's proposed action to the Program Administrator, Permitting South Section, at the above letterhead address. If you have any other questions, please contact Teresa Heron, at 850/921-9529.

Sincerely,

Trina L. Vielhauer, Chief
Bureau of Air Regulation

Enclosures

"More Protection, Less Process"

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WRITTEN NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT 0570039-025-AC

*In the Matter of an
Application for Air Construction Permit by:*

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

DRAFT Air Permit No.:
0570039-025-AC Big Bend Station
Off-site Transloading Project
Hillsborough County, Florida

Facility Location: The applicant operates a nominal 1998 MW Electric Utility which is located at Big Bend Road in Hillsborough County, Florida.

Project: On February 13, 2006 (complete May 10, 2006), the applicant applied to the Permitting Authority for a revision of an application for an air construction permit to allow the off-site transloading of coal, petcoke and slag. Details of the project are provided in the application and the "Technical Evaluation and Preliminary Determination" available at the offices listed below.

Permitting Authority: The application for an air construction permit is subject to review in accordance with the provisions of Chapter 403, Florida Statutes (F.S.) and Chapters 62-4, 62-210, and 62-213 and 62-214, Florida Administrative Code (F.A.C.). The proposed project is not exempt from air permitting requirements and air permits are required to operate the facility and to renew and make revisions to the current permit. The FDEP Bureau of Air Regulation is the Permitting Authority responsible for making a permit determination regarding this project. The Permitting Authority's physical address is: FDEP Bureau of Air Regulation at 111 S. Magnolia, Suite 4, Tallahassee, FL 32301. The Permitting Authority's mailing address is: FDEP Bureau of Air Regulation, MS 5505, 2600 Blair Stone Road, Tallahassee, FL 32399-2400. The Permitting Authority's telephone number is 850/488-0114 and facsimile 850/921-9533.

Project File: A complete project file is available for public inspection during the normal business hours of 8:00 a.m. to 5:00 p.m., Monday through Friday (except legal holidays), at the address indicated above for the Permitting Authority. The complete project file includes the Technical Evaluation and Preliminary Determination, the DRAFT Permit, the application, and the information submitted by the applicant, exclusive of confidential records under Section 403.111, F.S. Interested persons may view the DRAFT Permits and file electronic comments by visiting the following website: <http://www.dep.state.fl.us/air/eproducts/ards/>. A copy of the complete project file is also available at the following offices:

Florida Department of Environmental Protection Southwest District Office
13051 N. Telecom Parkway
Temple Terrace, Florida 33637-0926
Telephone: (813) 632-7600

Environmental Protection Commission of Hillsborough County
3629 Queen Palm Dr
Tampa, FL 33619-1309
Telephone: (813) 627-2600

Notice of Intent to Issue Air Permit: The Permitting Authority gives notice of its intent to issue permit to the applicant for the project described above. The applicant has provided reasonable assurance that operation of the facility will not adversely impact air quality and that the project will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-214, 62-256, 62-257, 62-281, 62-296, and 62-297, F.A.C. The Permitting Authority will issue a FINAL Air Construction Permit, in accordance with the conditions of the DRAFT Permits unless a response received in accordance with the following procedures results in a different decision or a significant change of terms or conditions.

Public Notice: Pursuant to Section 403.815, F.S. and Rules 62-110.106 and 62-210.350, 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" (Public Notice). The Public Notice shall be published one time only as soon as possible in the legal advertisement section of a newspaper of general circulation in the area affected by this project. The newspaper used must meet 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 Permitting Authority at above address or phone number. Pursuant to Rule 62-110.106(5), F.A.C., the applicant shall provide proof of publication to the

WRITTEN NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT 0570039-025-AC

Permitting Authority at the above address within seven (7) days of publication. Failure to publish the notice and provide proof of publication may result in the denial of the permits pursuant to Rule 62-110.106(11), F.A.C.

Comments: The permitting authority will accept written comments concerning the proposed Air Construction Permit issuance action for a period of 14 (fourteen) days from the date of publication of the "PUBLIC NOTICE OF INTENT TO ISSUE AN AIR CONSTRUCTION PERMIT".

Written comments should be provided to the permitting authority office. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in this Draft Air Construction Permit, the permitting authority shall revise the Draft Permit and require, if applicable, another Public Notice. All comments filed will be made available for public inspection.

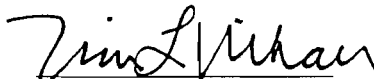
Petitions: A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed with (received by) the Department's Agency Clerk in the Office of General Counsel of the Department of Environmental Protection, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. Petitions filed by the applicant or any of the parties listed below must be filed within fourteen (14) days of receipt of this Written Notice of Intent to Issue Title V Air Operation Permit. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S., must be filed within fourteen (14) days of publication of the attached Public Notice or within fourteen (14) days of receipt of this Written Notice of Intent to Issue Air Construction Permit and Title V Air Operation Permit, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the Permitting Authority for notice of agency action may file a petition within fourteen (14) 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, F.A.C.

A petition that disputes the material facts on which the Permitting Authority'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 each 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 state; (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 the 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 Permitting Authority'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, F.A.C.

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

Mediation: Mediation is not available in this proceeding.

Executed in Tallahassee, Florida.



Trina L. Vielhauer, Chief
Bureau of Air Regulation

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this "Written Notice of Intent to Issue Air Construction Permit" package (including the Public Notice, the Technical Evaluation and Preliminary Determination and the Draft Permit) was sent by certified mail (*) and copies were mailed by U.S. Mail or electronic mail before the close of business on 7/11/06 to the persons listed below.

Ms. Karen Sheffield, TEC*
Mr. Byron Burrows, P.E., TEC
Mr. Thomas Davis, P.E., ECT
Ms. Mara Nasca, FDEP-SWD
Mr. Jason Waters, EPCHC
EPA Region 4

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to Section 120.52(7), Florida Statutes, with the designated agency clerk, receipt of which is hereby acknowledged.

Barbara J. Sunday 7/11/06
(Clerk) (Date)

Florida Department of Environmental Protection
DRAFT Air Construction Permit No. 0570039-025-AC
Transloading of Coal, Petcoke and Slag to off-site Facilities
Tampa Electric Company – Big Bend Station
Hillsborough County

Applicant: The applicant for this project is Tampa Electric Company, Big Bend Station, P.O. Box 111, Tampa, FL 33601-0111. The applicant's authorized representative is Ms. Karen Sheffield, General Manager.

Facility Location: The applicant operates a nominal 1998 MW Electric Utility which is located at Big Bend Road in Hillsborough County, Florida.

Project: On February 13, 2006, the applicant applied to the Permitting Authority for an application for an air construction permit revision to allow the off-site transloading of 450,000 tons per year of coal, petcoke and slag. Details of the project are provided in the application and the "Technical Evaluation and Preliminary Determination" available at the offices listed below.

Permitting Authority: The application for an air construction permit is subject to review in accordance with the provisions of Chapter 403, Florida Statutes (F.S.) and Chapters 62-4, 62-210, and 62-213 and 62-214, Florida Administrative Code (F.A.C.). The proposed project is not exempt from air permitting requirements and air permits are required to operate the facility and to renew and make revisions to the current permit. The FDEP Bureau of Air Regulation is the Permitting Authority responsible for making a permit determination regarding this project. The Permitting Authority's physical address is: FDEP Bureau of Air Regulation at 111 S. Magnolia, Suite 4, Tallahassee, FL 32301. The Permitting Authority's mailing address is: FDEP Bureau of Air Regulation, MS 5505, 2600 Blair Stone Road, Tallahassee, FL 32399-2400. The Permitting Authority's telephone number is 850/488-0114 and facsimile 850/921-9533.

Project File: A complete project file is available for public inspection during the normal business hours of 8:00 a.m. to 5:00 p.m., Monday through Friday (except legal holidays), at address indicated above for the Permitting Authority. The complete project file includes the the Technical Evaluation and Preliminary Determination DRAFT Permit, the application, and the information submitted by the applicant, exclusive of confidential records under Section 403.111, F.S. Interested persons may view the DRAFT Permits and file electronic comments by visiting the following website: <http://www.dep.state.fl.us/air/eproducts/ards/>. A copy of the complete project file is also available at the following offices:

Florida Department of Environmental Protection Southwest District Office
13051 N. Telecom Parkway
Temple Terrace, Florida 33637-0926
Telephone: (813) 632-7600

Environmental Protection Commission of Hillsborough County
3629 Queen Palm Dr
Tampa, FL 33619-1309
Telephone: (813) 627-2600

Notice of Intent to Issue A Permit: The Permitting Authority gives notice of its intent to issue an air construction permit to the applicant for the project described above. The applicant has provided reasonable assurance that operation of the facility will not adversely impact air quality and that the project will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-214, 62-256, 62-257, 62-281, 62-296, and 62-297, F.A.C. The Permitting Authority will issue a FINAL Air Construction Permit in accordance with the conditions of the DRAFT Permit unless a response received in accordance with the following procedures results in a different decision or a significant change of terms or conditions.

(Public Notice to be Published in the Newspaper)

Comments: The permitting authority will accept written comments concerning the proposed Draft Air Construction Permit issuance action for a period of 14 (fourteen) days from the date of publication of this Notice. Written comments should be provided to the Permitting Authority at the above address. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in this Draft Air Construction Permit, the permitting authority shall revise the Draft Permit and require, if applicable, another Public Notice. All comments filed will be made available for public inspection.

Petitions: A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed with (received by) the Department's Agency Clerk in the Office of General Counsel of the Department of Environmental Protection at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. Petitions filed by any persons other than those entitled to written notice under Section 120.60(3), F.S., must be filed within fourteen (14) days of publication of this Public Notice or receipt of a written notice, whichever occurs first. Under Section 120.60(3), F.S., however, any person who asked the Permitting Authority for notice of agency action may file a petition within fourteen (14) 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, F.A.C.

A petition that disputes the material facts on which the Permitting Authority'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 rights will be affected by the agency determination; (c) A statement of how and when the 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 state; (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 the 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 Permitting Authority'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, F.A.C.

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

Mediation: Mediation is not available for this proceeding.

TECHNICAL EVALUATION
AND
PRELIMINARY DETERMINATION

Tampa Electric Company

Big Bend Station
Off-site Transloading of Coal, Petcoke and Slag Project
Solid Fuel Yard Emissions Unit No. 010
Tampa, Hillsborough County

DEP File No. 0570039-025-AC

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

July 10, 2006

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

1. APPLICATION INFORMATION

1.1 Applicant Name and Address

Tampa Electric Company (TEC)
Big Bend Station - Electric Generating Facility
Apollo Beach Road
Tampa, Hillsborough County, Florida 33572

Authorized Representative: Karen Sheffield, General Manager

1.2 Reviewing and Process Schedule

12-06-04: Date of Receipt of Application (waiver of the air construction permit processing time)
01-20-05: DEP Incompleteness Letter for both Title V and Air Construction Permit requests
04-19-05: Received TEC request to extend the response deadline to May 31, 2005
05-31-05: Received TEC Response to Incompleteness Letter
06-28-05: DEP e-mail confirming telephone conversation of 6/27/05
07-01-05: DEP Application Status Letter
07-11-05: TEC e-mail requesting to separate the Title V project (removal of the CO limit)
09-02-05: TEC e-mail and letter requesting to withdraw Title V Application revision
02-13-06: TEC revised application submitted
02-22-06: DEP incompleteness letter
05-10-06: Air Construction application complete. TEC's response to DEP's letter
xx-xx-xx: Intent Issued

2. FACILITY INFORMATION

2.1 Facility Location

The Big Bend Station Power Plant is located at Big Bend Road, North Ruskin, Hillsborough County. This site is approximately 75 kilometers from the Chassahowitzka National Wilderness Area, a Class I PSD Area. The UTM coordinates of this facility are Zone 17; 361.9 km E; 3075.0 km N.

2.2 Standard Industrial Classification Codes (SIC)

| | | |
|--------------------|------|--------------------------------------|
| Industry Group No. | 49 | Electric, Gas, and Sanitary Services |
| Industry No. | 4911 | Electric Services |

2.3 Facility Category

The TEC facility is a nominal 1998 MW (megawatts) electric generation facility. This facility consists of four steam boilers (Units Nos. 1 through 4); four steam turbines; three simple-cycle combustion turbines (CT Nos. 1, 2, and 3); solids fuels, fly ash limestone, gypsum, slag, bottom ash storage and handling facilities; and fuel oil storage tanks.

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 Rule 62-212.400, 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, F.A.C., Prevention of Significant

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

Deterioration (PSD). Per Rule 62-210.200, F.A.C., the proposed modification (off-site transloading of coal, petcoke and slag) at this facility does not result in emissions increases above the PSD level of 25/15 TPY of PM/PM₁₀.

This facility (4 steam boilers) is also subject to the provisions of Title IV, Acid Rain, Clean Air Act as amended in 1990.

3. TRANSLOADING PROJECT DESCRIPTION

Coal, petcoke, or slag will be brought in by barge at infrequent intervals and transferred to Transfer Station T2 using existing conveyors. From Station T2, the transloaded materials will be transferred to storage piles located in the west fuel yard using existing conveyors CB-Y and CB-Z. The coal, petcoke, and slag will then be loaded into trucks using front-end loaders for off-site shipment.

The only new emissions points associated with this operation are: (a) the transfer of coal, petcoke from a storage pile by front-end loaders to trucks and (b) coal, petcoke, or slag truck travel on Big Bend paved and unpaved roads. All other coal, petcoke or slag handling activities will use existing equipment (e.g., conveyor belts, storage pile stackout, and dozer operations in storage piles). The coal or petcoke will be treated with a chemical surfactant prior to arriving at the Big Bend Station. The slag has minimal dust potential based on its glassine properties and therefore does not need to be treated with a chemical surfactant.

This project modification comprises the emissions points PET-01; COAL-01; and SLAG-01. Refer to Attachment B Process Flow Diagram. The estimated total particulate matter emissions as a result of this modification do not exceed 18/5 PM/PM₁₀ TPY. Attachment A (Application submitted on December 6, 2004, January 23, and February 13, 2006), shows the facility plot plan showing the onsite travel path, a total of 2.6 paved miles and 300 unpaved feet for one round trip of the transloading trucks.

The maximum annual transloading rate is estimated at 450,000 tons for all materials combined.

3.1. Emissions Unit

This permit addresses the new emissions points described below at the Solid Fuel Yard Facility:

| EMISSIONS UNIT NO. | SYSTEM | DESCRIPTION* |
|---|----------------------------------|---|
| ARMS E. U. No. 010; 029; 030; 031 and 037 Solid Fuel Yard Facility | Fuel Handling and Storage System | Emissions Points FH-001 through FH-073 Fugitives Emissions |

New emissions points as a result of this project (part of the Solid Fuel Yard Facility's fugitives emissions points) are: Transloading of petcoke [PET-01]; coal [COAL-01]; slag [SLAG-01]; and truck traffic [PET-01/COAL-01/SLAG-01]:

| Source Designator | PM/PM ₁₀ Control Method | Control Efficiency | Transfer Rates | Emission Point |
|---|---------------------------------------|--------------------|----------------|------------------------|
| Front-End Reclaim from Petcoke Storage Pile to Trucks | Moist Material & Chemical Surfactants | 90% | 150,000 TPY | <u>PET-01</u> |
| Front-End Reclaim from Coal Storage Pile to Trucks | Moist Material & Chemical Surfactants | 90% | 150,000 TPY | <u>COAL-01</u> |
| Front-End Reclaim from Slag Storage Pile to Trucks | Moist Material | 90% | 150,000 TPY | <u>SLAG-01</u> |
| Source Designator | PM/PM ₁₀ Control Method | Control Efficiency | Vehicle Miles | Emission Point |
| Truck Traffic (Paved Roads) | Watering as necessary | 90% | 45,000 VMT/yr | Pet/Coal/Slag 02a / 2b |
| Truck Traffic (unpaved Roads) | Watering as necessary | 90% | 984 VMT/yr | Pet/Coal/Slag 03a / 3b |

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

Existing emissions points associated with the proposed off-site transloading of petcoke/coal/slag:

| <u>Source Designator</u> | <u>PM Control Method</u> | <u>Control Efficiency</u> <u>Slag/Petcoke/Coal</u> | <u>Design Capacity</u> <u>Transfer Rates</u> | <u>Emission Point</u> |
|--|--------------------------|---|---|-----------------------|
| Barge Clamshell to Conveyor D 1 | Moist Material | 25% | 150,000 TPH | FH-001 |
| Barge Bucket Elevator to Conveyor A1 | Moist Material | 25% | 150,000 TPH | FH-002 |
| Conveyor A1 to Conveyor B 1 | Moist Material | 85% | 150,000 TPH | FH-003 |
| Conveyor B1 to Conveyor D 1 | Moist Material | 85% | 150,000 TPH | FH-004 |
| Self Unloading Barge to Conveyor D 1 | Moist Material | 25% | 150,000 TPH | FH-005 |
| Conveyor D1 to Conveyor E 1 | Moist Material | 85% | 150,000 TPH | FH-006 |
| <u>Control Efficiency</u> <u>Slag*</u> | | | | |
| Conveyor E 1 to Conveyor Y | Moist Material | 85% | 150,000 TPH | FH-007 |
| Conveyor Y to Conveyor Z | Moist Material | 0% | 150,000 TPH | FH-008a |
| Conveyor Z to Slag Storage Pile | Moist Material | 0% | 150,000 TPH | FH-008b |
| <u>Control Efficiency</u> <u>Petcoke or Coal*</u> | | | | |
| Conveyor E 1 to Conveyor Y | Moist Material | 90% | 150,000 TPH | FH-007 |
| Conveyor Y to Conveyor Z | Moist Material | 90% | 150,000 TPH | FH-008a |
| Conveyor Z to Petcoke or Coal Storage Pile | Moist Material | 90% | 150,000 TPH | FH-008b |

Note: Vehicle Miles Traveled (VMT) and Tons per hour (TPH).

*Control Efficiency for these conveyors for the transloading of slag is reported as 0% since a dust suppressant will not be applied due to slag glassine properties and low potential for dusting. The control efficiency for these conveyors for the transloading of coal and petcoke is reported as 90%.

[Source: TEC, Transloading Project Modification response dated May 31, 2005 and Application dated February 13, 2006].

4. SOLID FUEL YARD FACILITY DESCRIPTION

Solid fuel is unloaded from ship/barge into the Solid fuel yard, the blending bins or goes directly to the tripper room via belt conveyors. Solid fuel from the piles is loaded onto belt conveyors using a rail mounted or mobile reclaimer. The solid fuel is then belt conveyed to the blending bins, which consists of six storage bins, where the solid fuel may be blended for use at the plant, or transloaded into trucks for shipment off site. Particulate matter (PM) emissions from the conveyors in the blending bins are controlled by 4 rotoclones, one at the conveyor drop, and one for every 2 bins. Blending bins can either feed the transloader, or solid fuel can be conveyed, via 2 parallel belts (T1, T2) to 2 crushers (each belt has a crusher), or diverted directly to the tripper room. PM emissions from the 2 crushers and transfer tower are controlled by 2 rotoclones. Coal residual from Polk Power Station is received by truck and placed in a building, where it is conveyed to the unit tripper room.

In the tripper room, 2 trippers bunker the solid fuels into 4 solid fuel bunkers. Each unit has its own respective bunker. From the bunkers, the solid fuel is gravity fed into 14 ball mills, and then fed into the boilers. There are 3 ball mills, each for Unit Nos. 1 – 3, and 5 ball mills for Unit No. 4. From the mills, the solid fuel is pneumatically transported into classifiers, two for each mill on Unit Nos. 1-3

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and one for each mill on Unit No. 4 for a total of 23 classifiers. The fuel is then transported into the respective boilers.

Fugitive emissions sources located at the Big Bend Station consist of activities associated with the storage and handling of the solid fuels.

Emissions information submitted with the Title V renewal application shows a range of 25 to 100 tpy for the existing Solid Fuel Yard operation based on a composite AP-42 emission factor of 0.01 lb/ton of fuel handled.

The current Big Bend Station Title V permit includes the following rates: The maximum annual fuel throughput rate for the Solid Fuel Yard is limited to 1,428,030 tons and an hourly maximum of 4000 tph (24-hr average).

For this project, the proposed maximum annual transloading rate of coal, petcoke and slag is estimated at 150,000 tons for each material and 450,000 tons for all three materials combined. The estimated hourly truck count is 11 truck/hr and 11,538 trucks/yr for each of the three materials (coal, petcoke and slag) shipped by truck.

The existing Big Bend Solid Fuel Yard Facility operation consists of the following emissions points:

| <u>Description</u> | <u>Source ID</u> |
|---|------------------|
| Barge Clamshell to Conveyor D1 | FH-001 |
| Barge Bucket Elevator to Conveyor A1 | FH-002 |
| Conveyor A1 to Conveyor B1 | FH-003 |
| Conveyor B1 to Conveyor D1 | FH-004 |
| Self-Unloading Barge to Conveyor D1 | FH-005 |
| Conveyor D1 to Conveyor E1 | FH-006 |
| Conveyor E1 to Conveyor Y or Conveyor F1 | FH-007 |
| Conveyor Y to Conveyor Z | FH-008a |
| Conveyor Z to West Emergency Pile | FH-008b |
| Dozer Operations on West Emergency Storage Pile | FH-009 |
| West Emergency Storage Pile | FH-010 |
| Dozer Reclaim from West Emergency Pile to Portable Conveyor | FH-011a |
| Conveyor Z to Conveyor P | FH-012 |
| Conveyor P to Intermediate Conveyor | FH-013 |
| Intermediate Conveyor to North Stacker Conveyor (G2) | FH-014 |
| North Stacker Conveyor (G2) to North/Center Storage Pile | FH-015 |
| Mobile Reclaimer to North Stacker Conveyor (G2) | FH-016 |
| North Stacker Conveyor (G2) to Conveyor P | FH-017 |
| Dozer Operations on North Storage Pile | FH-018 |
| North Storage Pile | FH-019 |
| Dozer Operations on Middle (Common) Storage Pile | FH-020 |
| Fuel Storage - Middle (Common) Storage Pile | FH-021 |
| Conveyor F1 to South Stacker Conveyor (G1) | FH-022 |
| South Stacker Conveyor (G1) to South/Center Storage Pile | FH-023 |
| South Reclaimer to South Reclaimer Conveyor (G1) | FH-024 |

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

| <u>Description</u> | <u>Source ID</u> |
|---|--------------------|
| South Reclaimer Conveyor (G1) to Conveyor F1 | FH-025 |
| Dozer Operations on South Storage Pile | FH-026 |
| South Storage Pile | FH-027 |
| Conveyor P to Conveyor J2 | FH-028 |
| Conveyor J2 to Conveyor Q2 | FH-029 |
| Conveyor F1 to Conveyor J1 | FH-030 |
| Conveyor J1 to Conveyor Q1 | FH-031 |
| Conveyors Q1 and Q2 to Blending Bins | FH-032 thru FH-035 |
| Blending Bins to Conveyors T1, T2 | FH-036 thru FH-047 |
| Conveyor T1 to Crusher #1 | FH-048 |
| Conveyor T2 to Crusher #2 | FH-049 |
| Crusher to Conveyor W1 | FH-050 |
| Crusher to Conveyor W2 | FH-051 |
| Conveyor U to East Emergency Storage Pile | FH-052 |
| Dozer Operations on East Emergency Storage Pile | FH-053 |
| East Emergency Storage Pile | FH-054 |
| Conveyor W1 to Conveyor L1 | FH-055 |
| Conveyor W2 to Conveyor L2 | FH-056 |
| Dozer Reclaim from East Emergency Pile to "K" Feeders | FH-057 |
| "K" Feeders to Conveyors L1 or L2 | FH-058 |
| Conveyors L1 and L2 to Conveyors M1 and M2, and Conveyors M1 and M2 to Coal Bunkers | FH-059 thru FH-062 |
| Dozer Operations on Storage Pile | FH-063 |
| Dozer Reclaim from Storage Pile to Loadout Conveyor | FH-064 |
| Loadout Conveyor to Rail Transfer Conveyor | FH-065 |
| Railcar Loading | FH-066 |
| Non-TEC Fuel Stockpile to Loadout Conveyor | FH-067 |
| Non-TEC Fuel Truck Loading | FH-068 |
| Polk Fuel Truck Loading | FH-069 |
| Long Term Storage Pile | FH-070 |
| Dozer Operations on Long Term Storage Pile | FH-071 |
| Trucks, Full | FH-072 |
| Trucks, Empty | FH-073 |

[Source: Additional Information: e-mail and letter dated September 2, 2005 and January 17, 2006]

The fly ash and the limestone handling and storage and their fugitive emission points are not identified as part of the Solid Fuel Yard Emissions Point Units.

5. RULE APPLICABILITY

This project will be reviewed under Rule 62-212.300 F.A.C., General Preconstruction Review Requirements. This proposed off site solid fuel transloading modification project, is not subject to review under Rule 62-212.400 F.A.C., Prevention of Significant Deterioration (PSD), because the

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

potential emission increases for PM/PM₁₀ (~18/5 TPY), do not exceed the significant emission rates given in Rule 62-210.200, F.A.C.

The existing particulate matter facility-wide emissions cap of 2,767 TPY will not be exceeded as a result of this project [0570039-012-AC and 05790039-017-AV].

The Solid Fuel Yard Facility is subject to all applicable requirements of the 40CFR60, New Source Performance Standard (NSPS) Subpart Y for Coal Preparation Plants.

This facility is located in an area (Hillsborough County) designated "unclassifiable" for SO₂, "maintenance" for Ozone (O₃), and lead (Pb), in the "area of influence" of the PM maintenance area and "attainment" for all the other criteria pollutants. [Rule 62-204.360, F.A.C. and Applicant's e-mail dated August 11, 2005].

This facility shall comply with all applicable provisions of the Florida Administrative Code (including applicable portions of the Code of Federal Regulations incorporated therein). These requirements are already incorporated in the current Title V Operation Permit for this facility.

6. SOURCE IMPACT ANALYSIS

6.1 Emission Limitations

The proposed off-site transloading operation will emit not more than 18/5 TPY of particulate matter (PM/PM₁₀) as a result of the new emission point PET-01; COAL-01; SLAG-01 and PET/COAL/SLAG-02a, 02b Truck Traffic (paved roads); and PET/COAL/SLAG-03a, 03b Truck Traffic (unpaved roads). There will be no increase in maximum hourly or annual Big Bend Station fuel yard solid fuel handling rates. (Application submitted December 6, 2004, January 23, and February 13, 2006, Attachment D).

6.2 Control Technology

As reported by the applicant, unconfined particulate matter emissions that may result from operations at this facility include vehicular traffic on paved and unpaved road, wind-blown dust from yard areas and periodic abrasive blasting.

This facility shall comply with applicable provisions of Rule 62-210.320 F.A.C.- Reasonable Precautions for Unconfined Emissions of Particulate Matter, and all the specific and facility wide conditions already included in the Title V permit.

7. CONCLUSION

Based on the foregoing technical evaluation of the application and additional information submitted by the applicant, the Department has made a preliminary determination that the proposed project will comply with all applicable state and federal air pollution regulations.

Scott M. Sheplak, P.E.
Teresa Heron, Review Engineer

PERMITTEE:

Tampa Electric Company (TEC)
Big Bend Power Station
Big Bend Road
Tampa, Florida 33572

| | |
|----------|------------------------------------|
| File No. | 0570039-025-AC |
| Project | Transloading Project Modification |
| SIC No. | 4911 |
| ARMS No. | Solid Fuel Yard Emissions Unit 037 |
| Expires: | December 31, 2006 |

Authorized Representative:
Karen Sheffield, General Manager

PROJECT AND LOCATION:

This is an Air Construction Permit to allow the transloading of coal (except residual coal), petcoke and/or slag to off site facilities. Emissions points associated with this operation are: (a) the transfer of coal, petcoke or slag from a storage pile by front-end loaders to trucks, and (b) coal, petcoke, or slag truck travel on the facility paved and unpaved roads. This operation is conducted at the facility's Solid Fuel Yard. This Emission Unit is located at the Big Bend Power Plant, Big Bend Road, Tampa, Hillsborough County. UTM coordinates are: Zone 17; 361.9 km E; 3075 km N.

STATEMENT OF BASIS:

This construction permit is issued under the provisions of Chapter 403 of the Florida Statutes (F.S.), and Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.). The above named permittee is authorized to modify the facility in accordance with the conditions of this permit and as described in the application, approved drawings, plans, and other documents on file with the Department of Environmental Protection (Department).

Attached appendices made a part of this permit:

Appendix GC Construction Permit General Conditions
Appendix C Common Permit Conditions

Joseph Kahn, P.E., Acting Director
Division of Air Resource Management

SECTION I. FACILITY INFORMATION

1.0 FACILITY DESCRIPTION

TEC Big Bend is a nominal 1998 MW electric generation facility. This facility consists of four steam boilers (Units Nos. 1 through 4) fired with solid fuels and controlled by individual ESP and a flue gas desulfurization system; four steam turbines; three simple-cycle combustion turbines (CT Nos. 1, 2, and 3) fired with No.2 fuel oil; storage and handling facilities for solid fuels, fly ash, limestone, gypsum, slag, and bottom ash; fuel oil storage tanks and ancilliary equipment. There are ongoing nitrogen oxides (NO_x) control projects for Units 3 and 4 pursuant to a Consent Final Judgement (CFJ) between TEC and the Department and a Consent Decree (CD) between TEC and the United States Environmental Protection Agency (EPA).

This permit addresses only two additional emissions points at the Solid Fuel Yard Facility.

SOLID FUEL YARD DESCRIPTION: Solid fuel (coal, petcoke, slag, and coal residual from the Polk Power Station) is unloaded from ship/barge into the solid fuel yard, the blending bins or directly to the tripper room via belt conveyors. Solid fuel from the piles is loaded onto belt conveyors using a rail mounted or mobile reclaimer. The solid fuel is then belt conveyed to the blending bins, which consists of six storage bins, where the solid fuel may be blended for use at the plant, or transloaded into trucks for shipment off site. Particulate matter (PM) emissions from the conveyors in the blending bins are controlled by 4 rotocones, one at the conveyor drop, and one for every 2 bins. Blending bins can either feed the transloader, or solid fuel can be conveyed, via 2 parallel belts (T1, T2) to 2 crushers (each belt has a crusher), or diverted directly to the tripper room. PM emissions from the 2 crushers and transfer tower are controlled by 2 rotocones. Coal residual from Polk Power Station is received by truck and placed in a building, where it is conveyed to the unit tripper room.

From the tripper room, 2 trippers bunker the solid fuels into 4 solid fuel bunkers. Each unit has its own respective bunker. From the bunkers, the solid fuel is gravity fed into 14 mills, and then fed into the boilers. There are 3 ball mills, each for Unit Nos. 1 – 3, and 5 ball mills for Unit No. 4. From the mills, the solid fuel is pneumatically fed into classifiers, two for each mill on Unit Nos. 1-3 and one for each mill on Unit No. 4 for a total of 23 classifiers, and then into the respective boilers.

Proposed Project

Coal, petcoke, or slag will be brought in by barge at infrequent intervals and transferred to Transfer Station T2 using existing conveyors. From Station T2, the transloaded materials will be transferred to storage piles located in the fuel yard using a combination of existing conveyors. The coal, petcoke, and slag will then be loaded into truck using front-end loaders for off-site shipment.

The only new additional emissions points associated with this operation are: (a) the transfer of coal, petcoke or slag from a storage pile by front-end loaders to trucks and (b) coal, petcoke, or slag truck travel on Big Bend paved and unpaved roads. All other coal, petcoke or slag handling activities will use existing equipment (e.g., conveyor belts, storage pile stackout, and dozer operations on storage piles). The coal or petcoke will be treated with a chemical surfactant prior to arriving at the Big Bend Station. The slag has minimal dust potential due to its glassine properties and therefore does not need to be treated with a chemical surfactant.

2.0 REGULATORY CLASSIFICATION

The facility, TEC Big Bend, 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 Rule 62-210.200, 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).

SECTION I. FACILITY INFORMATION

This facility is located in an area (Hillsborough County) designated "unclassifiable" for SO₂, "maintenance" for Ozone (O₃), and lead (Pb), in the "area of influence" of Hillsborough County particulate matter (PM) maintenance area, and "attainment" for all the other criteria pollutants (Rule 62-204.360, F.A.C.).

This facility is also subject to the provisions of Title IV, Acid Rain, Clean Air Act as amended in 1990.

Based on the initial Title V permit application received June 14, 1996, this facility is a major source of hazardous air pollutants (HAPs).

3.0 PERMIT SCHEDULE

- XX/X/06 Public Notice published in the legal section of Tampa Tribune on XXXX
- XX/X/06 Distributed Intent to Issue Permit
- 05/10/06 Application deemed complete
- 05/10/06 Received TEC Response to Incompleteness Letter
- 02/22/06 DEP Incompleteness Letter
- 02/13/06 Received Revised Application

4.0 RELEVANT DOCUMENTS:

The documents listed below are the basis of the permit. They are specifically related to this permitting action, but not all are incorporated into this permit. These documents are on file with the Department.

- 12/06/04: Date of Receipt of Application (waiver of the air construction permit processing time)
- 01/20/05: DEP Incompleteness Letter for both Title V and Air Construction Permit requests
- 04/19/05: Received TEC request to extend the response deadline to May 31, 2005
- 05/31/05: Received TEC Response to Incompleteness Letter
- 06/28/05: DEP e-mail confirming telephone conversation of 6/27/05
- 07/01/05: DEP Application Status Letter
- 07/11/05: TEC e-mail requesting removal of the CO limit.
- 09/02/05: TEC e-mail and letter requesting to withdraw the Title V application.
- 09/02/05: Air Construction application complete
- 12/01/05: Notice of Intent to Publish Draft Permit 0570039-018 Distributed
- 12/14/05: Request for Extension of Time to File Petition for Hearing received (until January 23)
- 01/03/06: Receipt of Proof of Publication
- 01/09/06: Comments received by e-mail from the EPCHC on 1/9/06; 1/12/06 and 1/17/06
- 01/11/06: Comments received by e-mail from TECO on 1/11/06
- 01/23/06: Revised Application received via e-mail
- 01/25/06: Request for Extension of Time to File Petition for Hearing received (until March 10)
- 02/13/06: Revised Application received via FedEx
- 02/22/06: DEP Incompleteness Letter
- 03/03/06: TEC's letter withdrawing the original application
- 05/10/06: Received TEC Response to Incompleteness Letter

- Title V Permit, 0570039-017-AV, effective January 1, 2005.

SECTION II. ADMINISTRATIVE REQUIREMENTS

GENERAL AND ADMINISTRATIVE REQUIREMENTS

1. Permitting Authority: The Permitting Authority for this project is the Florida Department of Environmental Protection's Bureau of Air Regulation located at 2600 Blair Stone Road, MS #5505, Tallahassee, Florida 32399-2400 and phone number 850/488-0114.
2. Compliance Authority: All documents related to reports, tests, and notifications should be submitted to the DEP Southwest District office (DEPSW), 3804 Coconut Palm Drive, Tampa, Florida 33619 and phone number 813/744-6100 and the Environmental Protection Commission of Hillsborough County (EPCHC), 3629 Queen Palm Dr, Tampa, Florida 33619-1309, and phone number 813/627-2600.
3. General Conditions: The owner and operator are subject to, and shall operate under the attached General Conditions listed in *Appendix GC* of this permit. General Conditions are binding and enforceable pursuant to Chapter 403, F.S. [Rule 62-4.160, F.A.C.]
4. Applicable Regulations, Forms and Application Procedures: Unless otherwise indicated in this permit, the construction and operation of this project shall be in accordance with the capacities and specifications stated in the application. This facility is subject to all applicable provisions of: Chapter 1-3.62 Rules of the Environmental Protection Commission of Hillsborough County (EPCHC); Chapter 403, F.S.; Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296, and 62-297, F.A.C.; 40 CFR 60; and 40 CFR 63. The permittee shall use the applicable forms listed in Rule 62-210.900, F.A.C. and follow the application procedures in Chapter 62-4, F.A.C. Issuance of this permit does not relieve the facility owner or operator from compliance with any applicable federal, state, or local permitting or regulations. [Rules 62-204.800, 62-210.300 and 62-210.900, F.A.C.]
5. Permit Expiration: For good cause, the permittee may request that this air construction permit be extended. Such a request shall be submitted to the Department's Bureau of Air Regulation at least sixty (60) days prior to the expiration of this permit. [Rules 62-4.070(4), 62-4.080, and 62-210.300(1), F.A.C.]
6. Completion of Construction: Construction on the Solid Fuel Yard is complete. On-going construction activities include the necessary activities for the transloading operations described in this permit. *The permit expiration date is November 30, 2006.*
7. New or Additional Conditions: For good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time. [Rule 62-4.080, F.A.C.]
8. Modifications: No emissions unit or facility subject to this permit shall be constructed or modified without obtaining an air construction permit from the Department. Such permit shall be obtained prior to beginning construction or modification. [Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C.]
9. Title V Permit: An application for a revision of the Title V operation permit pursuant to Chapter 62-213, F.A.C., must be submitted to the Department's Bureau of Air Quality Regulation to incorporate the specific conditions of this Air Construction Permit. [Chapter 62-213, F.A.C.]

EXISTING PERMITS APPLICABLE REQUIREMENTS

10. Applicable Construction and Operating Permit Requirements: This permit (transloading coal, petcoke, or slag to off-site facilities) does not supersede or change any applicable requirement of previous construction/operation permits for the Solid Fuel Yard or for any other emission unit at the Facility. A list of all authorized emissions points at the fuel yard facility shall be included in the Title V permit revision and/or renewal.

Permitting Note: Specific Conditions No. A.2 and B.2 of Title V Permit 0570629-017-AV contain the fuels authorized to be burned in Units 1 through 4. This permit does not authorize any additional fuels.

SECTION III. EMISSION UNIT(S) SPECIFIC CONDITIONS

This section addresses the following emissions points in the Solid Fuel Yard:

| <u>E.U. ID No.</u> | <u>Brief Description of Emission Points:</u> |
|-------------------------|---|
| -037 | PET-01: Front-End Reclaim from Petcoke Storage Pile to Trucks |
| Off- Site Transloading | COAL-01: Front-End Reclaim from Coal Storage Pile to Trucks |
| Operations at the Solid | SLAG-01: Front-End Reclaim from Slag Storage Pile to Trucks |
| Fuel Yard | PET/COAL/SLAG-02a, 02b: Truck Traffic (Paved Roads) |
| (fugitive emissions) | PET/COAL/SLAG-03a, 03b: Truck Traffic (unpaved Roads) |

ESSENTIAL POTENTIAL TO EMIT (PTE) PARAMETERS

1. Materials Allowed and Permitted Capacity. The allowable materials to be transloaded are coal (except residual coal), petcoke or slag. The maximum hourly transloading rate to trucks shall not exceed 142 tons per hour; only one material will be transloaded at a time. Maximum annual transloading rate shall not exceed 150,000 for each material and 450,000 for all three materials combined. The maximum throughput rate of the Solid Fuel Yard shall not exceed 4,000 tons per hour on a 24-hr average (1,428,030 tons per year). [Rules 62-4.160(2), and 62-210.200 (PTE), F.A.C. and AC29-114676]

{Permitting Note: It should be noted that only 150,000 TPY of one material type (coal or petcoke or slag) shall be transported. The 450,000 TPY transloading rate shall not be interpreted as transloading this quantity for one single material, it is an annual rate for all three materials *combined*}.

OPERATING REQUIREMENTS

2. Hours of Operation. The solid fuel yard is allowed to operate continuously, i.e., 8,760 hours/year. [Rules 62-4.160(2) and 62-210.200, F.A.C., P.T.E.]

EMISSION LIMITATIONS AND STANDARDS

3. Visible Emissions. Visible emissions generated by fugitive or unconfined particulate matter from this transloading operation (emissions points PET-01, COAL-01, SLAG-01, and PET/COAL/SLAG-02a, 02b and 03a, 03b) shall not exceed 20% opacity. [Rule 62-296.320(4)(b)1, F.A.C.]

TEST METHODS AND PROCEDURES

4. Test Methods and Frequency. 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. Initial and annual testing is required. A VE test shall be performed on the following new truck-loading emissions points: PET-01; COAL-01 and SLAG-01. [Rules 62-204.800, 62-297.310(7)(a)4., and 62-297.400, F.A.C.]

REASONABLE ASSURANCES

5. Controls: All controls associated with the transfer points (i.e., the enclosures and dust suppression) shall be maintained to the extent that the capture efficiencies credited will be achieved. Reasonable precautions to prevent unconfined emissions of particulate matter shall be in accordance with Rule 62-296.320(4), F.A.C. [Rule 62-4.070(3), and Rule 62-296.320(4) (c) F.A.C.]

REPORTS AND RECORDS

6. Duration: All reports and records required by this permit shall be kept for at least (5) years from the date the information was recorded. [62-4.160(14)(b), F.A.C.]

APPENDIX GC
GENERAL CONDITIONS

The permittee shall comply with the following general conditions from Rule 62-4.160, F.A.C.

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey and vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.
4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:
 - a. Have access to and copy and records that must be kept under the conditions of the permit;
 - b. Inspect the facility, equipment, practices, or operations regulated or required under this permit, and,
 - c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:
 - a. A description of and cause of non-compliance; and
 - b. The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida Statutes.

APPENDIX GC
GENERAL CONDITIONS

Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.
11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.
12. This permit or a copy thereof shall be kept at the work site of the permitted activity.
13. This permit also constitutes:
 - a. Determination of Best Available Control Technology ();
 - b. Determination of Prevention of Significant Deterioration ();
 - c. Compliance with New Source Performance Standards () and
 - d. Compliance with National Emissions Standards for Hazardous Air Pollutants ().
14. The permittee shall comply with the following:
 - a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
 - b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application or this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
 - c. Records of monitoring information shall include:
 - 1) The date, exact place, and time of sampling or measurements;
 - 2) The person responsible for performing the sampling or measurements;
 - 3) The dates analyses were performed;
 - 4) The person responsible for performing the analyses;
 - 5) The analytical techniques or methods used; and
 - 6) The results of such analyses.
15. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

APPENDIX C
COMMON CONDITIONS

{Permitting Note: Unless otherwise specified in the permit, the following conditions apply to all emissions units and activities at the facility.}

EMISSIONS AND CONTROLS

1. Plant Operation - Problems: If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by fire, wind or other cause, the permittee shall notify each Compliance Authority as soon as possible, but at least within one working day, excluding weekends and holidays. The notification shall include: pertinent information as to the cause of the problem; steps being taken to correct the problem and prevent future recurrence; and, where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with the conditions of this permit or the regulations. [Rule 62-4.130, F.A.C.]
2. General Pollutant Emission Limiting Standards. Objectionable Odor Prohibited. No person shall cause, suffer, allow, or permit the discharge of air pollutants, which cause or contribute to an objectionable odor.
[Rule 62-296.320(2), F.A.C.]
3. General Particulate Emission Limiting Standards. General Visible Emissions Standard.
Except for emissions units that are subject to a particulate matter or opacity limit set forth or established by rule and reflected by conditions in this permit, no person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density of which is equal to or greater than that designated as Number 1 on the Ringelmann Chart (20 percent opacity). EPA Method 9 is the method of compliance pursuant to Chapter 62-297, F.A.C.
[Rules 62-296.320(4)(b)1. & 4., F.A.C.]
4. General Pollutant Emission Limiting Standards. Volatile Organic Compounds (VOC) Emissions or Organic Solvents (OS) Emissions. The permittee shall allow no person to store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds (VOC) or organic solvents (OS) without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department.
[Rule 62-296.320(1)(a), F.A.C.]
5. Circumvention: The permittee shall not circumvent the air pollution control equipment or allow the emission of air pollutants without this equipment operating properly. [Rule 62-210.650, F.A.C.]
6. Excess Emissions Allowed: Excess emissions resulting from startup, shutdown or malfunction of any emissions unit shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]
7. Excess Emissions Prohibited: Excess emissions caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure that may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. [Rule 62-210.700(4), F.A.C.]

{Permitting Note: The Excess Emissions Rule at Rule 62-210.700, F.A.C., cannot vary any requirement of a NSPS or NESHAP provision.}

8. Volatile Organic Compounds (VOC) or Organic Solvents (OS) Emissions: No person shall store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department. [Rule 62-296.320(1), F.A.C.]
9. Objectionable Odor Prohibited: No person shall cause, suffer, allow or permit the discharge of air pollutants, which cause or contribute to an objectionable odor. An "objectionable odor" means any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance. [Rules 62-296.320(2) and 62-210.200(203), F.A.C.]

APPENDIX C
COMMON CONDITIONS

10. General Visible Emissions: No person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity equal to or greater than 20 percent opacity. This regulation does not impose a specific testing requirement. [Rule 62-296.320(4)(b)1, F.A.C.]
11. Unconfined Emissions of Particulate Matter:
- (1) No person shall cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any activity, including vehicular movement; transportation of materials; construction, alteration, demolition or wrecking; or industrially related activities such as loading, unloading, storing or handling; without taking reasonable precautions to prevent such emissions.
 - (2) Any permit issued to a facility with emissions of unconfined particulate matter shall specify the reasonable precautions to be taken by that facility to control the emissions of unconfined particulate matter.
 - (3) Reasonable precautions include the following:
 - a. Paving and maintenance of roads, parking areas and yards.
 - b. Application of water or chemicals to control emissions from such activities as demolition of buildings, grading roads, construction, and land clearing.
 - c. Application of asphalt, water, chemicals or other dust suppressants to unpaved roads, yards, open stock piles and similar activities.
 - d. Removal of particulate matter from roads and other paved areas under the control of the owner or operator of the facility to prevent reentrainment, and from buildings or work areas to prevent particulate from becoming airborne.
 - e. Landscaping or planting of vegetation.
 - f. Use of hoods, fans, filters, and similar equipment to contain, capture and/or vent particulate matter.
 - g. Confining abrasive blasting where possible.
 - h. Enclosure or covering of conveyor systems.

Additional reasonable precautions applicable to this facility are included in the Title V Permit.
 - (4) In determining what constitutes reasonable precautions for a particular source, the Department shall consider the cost of the control technique or work practice, the environmental impacts of the technique or practice, and the degree of reduction of emissions expected from a particular technique or practice.

[Rule 62-296.320(4)(c), F.A.C.]

TESTING REQUIREMENTS

12. Required Number of Test Runs: For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured; provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five-day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five-day period allowed for the test, the Secretary or his or her designee may accept the results of two complete runs as proof of compliance, provided that the arithmetic mean of the two complete runs is at least 20% below the allowable emission limiting standard. [Rule 62-297.310(1), F.A.C.]
13. Operating Rate During Testing: Testing of emissions shall be conducted with the emissions unit operating at permitted capacity. Permitted capacity is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impractical to test at permitted capacity, an emissions unit may be tested at less than the maximum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test rate until a new test is conducted. Once the 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.

APPENDIX C
COMMON CONDITIONS

14. Calculation of Emission Rate: For each emissions performance test, the indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the three separate test runs unless otherwise specified in a particular test method or applicable rule. [Rule 62-297.310(3), F.A.C.]
15. Test Performance Requirements: Tests shall be conducted in accordance with all applicable requirements of 40CFR60, Subpart A - General Provisions and 40CFR63, Subpart A - General Provisions. In the event that the facility fails any initial or annual performance test, a retest shall be conducted within 30 days of the test date of the failed test.

16. Applicable Test Procedures.

(a) *Required Sampling Time.*

1. Unless otherwise specified in the applicable rule, the required sampling time for each test run shall be no less than one hour and no greater than four hours, and the sampling time at each sampling point shall be of equal intervals of at least two minutes.
2. Opacity Compliance Tests. When EPA Method 9 is specified as the applicable opacity test method, the required minimum period of observation for a compliance test shall be sixty (60) minutes for emissions units which emit or have the potential to emit 100 tons per year or more of particulate matter, and thirty (30) minutes for emissions units which have potential emissions less than 100 tons per year of particulate matter and are not subject to a multiple-valued opacity standard. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur.

Exceptions to these requirements are as follows:

- a. The minimum observation period for opacity tests conducted by employees or agents of the Department to verify the day-to-day continuing compliance of a unit or activity with an applicable opacity standard shall be twelve minutes.
 - b. 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.
 - c. The observation period for special opacity tests that are conducted to provide data to establish a surrogate standard pursuant to Rule 62-297.310(5)(k), F.A.C., Waiver of Compliance Test Requirements, shall be established as necessary to properly establish the relationship between a proposed surrogate standard and an existing mass emission limiting standard.
- (b) *Minimum Sample Volume.* Unless otherwise specified in the applicable rule, the minimum sample volume per run shall be 25 dry standard cubic feet.
- (c) *Required Flow Rate Range.* For EPA Method 5 particulate sampling, acid mist/sulfur dioxide, and fluoride sampling which uses Greenburg Smith type impingers, the sampling nozzle and sampling time shall be selected such that the average sampling rate will be between 0.5 and 1.0 actual cubic feet per minute, and the required minimum sampling volume will be obtained.
- (d) *Calibration of Sampling Equipment.* Calibration of the sampling train equipment shall be conducted in accordance with the schedule shown in Table 297.310-1 (attached).
- (e) *Allowed Modification to EPA Method 5.* When EPA Method 5 is required, the following modification is allowed: the heated filter may be separated from the impingers by a flexible tube.

[Rule 62-297.310(4), F.A.C.]

17. Determination of Process Variables

- a. *Required Equipment.* The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.
- b. *Accuracy of Equipment.* Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.

[Rule 62-297.310(5), F.A.C.]

APPENDIX C
COMMON CONDITIONS

18. Sampling Facilities: The permittee shall install permanent stack sampling ports and provide sampling facilities that meet the requirements of Rule 62-297.310(6), F.A.C. Refer to Appendix SS-1 Stack Sampling Facilities, attached to this permit.
19. Test Notification: The owner or operator shall notify in writing to the Compliance Authority, at least *30 days* (initial) and *15 days* (annual) 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 for the owner or operator. [Rule 62-297.310(7)(a)9, F.A.C.]
20. Exceptions and Approval of Alternate Procedures and Requirements: An Alternate Sampling Procedure (ASP) may be requested from the Bureau of Monitoring and Mobile Sources of the Florida Department of Environmental Protection in accordance with the procedures specified in Rule 62-297.620, F.A.C.
21. Frequency of Compliance Tests. The following provisions apply only to those emissions units that are subject to an emissions limiting standard for which compliance testing is required.
- (a) *General Compliance Testing*.
1. The owner or operator of an emissions unit that is subject to any emission limiting standard shall conduct a compliance test that demonstrates compliance with the applicable emission limiting standard prior to obtaining a renewed operation permit. Emissions units that are required to conduct an annual compliance test may submit the most recent annual compliance test to satisfy the requirements of this provision. In renewing an air operation permit pursuant to Rule 62-210.300(2)(a)3.b., c., or d., F.A.C., the Department shall not require submission of emission compliance test results for any emissions unit that, during the year prior to renewal:
- a. Did not operate; or
- b. In the case of a fuel burning emissions unit, burned liquid fuel for a total of no more than 400 hours.
2. During each federal fiscal year (October 1 - September 30), unless otherwise specified by rule, order, or permit, the owner or operator of each emissions unit shall have a formal compliance test conducted for:
- a. Visible emissions, if there is an applicable standard;
- b. Each of the following pollutants, if there is an applicable standard, and if the emissions unit emits or has the potential to emit: 5 tons per year or more of lead or lead compounds measured as elemental lead; or 100 tons per year or more of any other regulated air pollutant; and,
- c. Each NESHAP pollutant, if there is an applicable emission standard.
3. The owner or operator shall notify the Department, 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 for the owner or operator.
- (b) *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.
- (c) *Waiver of Compliance Test Requirements*. If the owner or operator of an emissions unit that is subject to a compliance test requirement demonstrates to the Department, pursuant to the procedure established in Rule 62-297.620, F.A.C., that the compliance of the emissions unit with an applicable weight emission limiting standard can be adequately determined by means other than the designated test procedure, such as specifying a surrogate standard of no visible emissions for particulate matter sources equipped with a bag house or specifying a fuel analysis for sulfur dioxide emissions, the Department shall waive the compliance test requirements for such emissions units and order that the alternate means of determining compliance be used, provided, however, the provisions of Rule 62-297.310(7)(b), F.A.C., shall apply.
- [Rule 62-297.310(7), F.A.C.; 40 CFR 63.1349(c)]
22. Test Reports: The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department on the results of each such test. The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed. The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the

APPENDIX C
COMMON CONDITIONS

test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the following information:

1. The type, location, and designation of the emissions unit tested.
2. The facility at which the emissions unit is located.
3. The owner or operator of the emissions unit.
4. The normal type and amount of fuels used and materials processed, and the types and amounts of fuels used and material processed during each test run.
5. The means, raw data and computations used to determine the amount of fuels used and materials processed, if necessary to determine compliance with an applicable emission limiting standard.
6. The type of air pollution control devices installed on the emissions unit, their general condition, their normal operating parameters (pressure drops, total operating current and GPM scrubber water), and their operating parameters during each test run.
7. A sketch of the duct within 8 stack diameters upstream and 2 stack diameters downstream of the sampling ports, including the distance to any upstream and downstream bends or other flow disturbances.
8. The date, starting time and duration of each sampling run.
9. The test procedures used, including any alternative procedures authorized pursuant to Rule 62-297.620, F.A.C. Where optional procedures are authorized in this chapter, indicate which option was used.
10. The number of points sampled and configuration and location of the sampling plane.
11. For each sampling point for each run, the dry gas meter reading, velocity head, pressure drop across the stack, temperatures, average meter temperatures and sample time per point.
12. The type, manufacturer and configuration of the sampling equipment used.
13. Data related to the required calibration of the test equipment.
14. Data on the identification, processing and weights of all filters used.
15. Data on the types and amounts of any chemical solutions used.
16. Data on the amount of pollutant collected from each sampling probe, the filters, and the impingers, are reported separately for the compliance test.
17. The names of individuals who furnished the process variable data, conducted the test, analyzed the samples and prepared the report.
18. All measured and calculated data required to be determined by each applicable test procedure for each run.
19. The detailed calculations for one run that relate the collected data to the calculated emission rate.
20. The applicable emission standard and the resulting maximum allowable emission rate for the emissions unit plus the test result in the same form and unit of measure.
21. A certification that, to the knowledge of the owner or his authorized agent, all data submitted are true and correct. When a compliance test is conducted for the Department or its agent, the person who conducts the test shall provide the certification with respect to the test procedures used. The owner or his authorized agent shall certify that all data required and provided to the person conducting the test are true and correct to his knowledge.

[Rule 62-297.310(8), F.A.C.]

RECORDS AND REPORTS

23. **Records Retention:** Upon request, the permittee shall furnish all records and plans required under EPCHC and FDEP rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the EPCHC. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least five years from the date of the sample, measurement, report, or application unless otherwise specified by EPCHC or FDEP rule.

[Rules 62-4.160(14)(a)&(b) and 62-213.440(1)(b)2.b., F.A.C.]

APPENDIX C
COMMON CONDITIONS

24. Excess Emissions Report: If excess emissions occur, the owner or operator shall notify the Air Facilities Section of the EPCHC, within (1) working day (excluding weekends and legal holidays) of: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. In addition, the EPCHC may request a written summary report of the incident.
[Rules 62-4.130 and 62-210.700(6), F.A.C.]
25. Excess Emissions Malfunction Notification Report - Malfunctions: In case of excess emissions resulting from malfunctions, each owner or operator shall notify the EPCHC in accordance with Rule 62-4.130, F.A.C. In addition, a full written report on the malfunctions shall be submitted in a quarterly report.
[Rule 62-210.700(6), F.A.C.]
26. Annual Operating Report: The permittee shall submit an annual report that summarizes the actual operating rates and emissions from this facility. Annual operating reports shall be submitted to EPCHC, the Compliance Authority, by March 1st of each year. [Rule 62-210.370(2), F.A.C.]
27. Central File Requirements: This facility shall maintain a central file containing all measurements, records, and other data that are required to be collected pursuant to the various specific conditions of this permit.
[Rule 62-4.070(3), F.A.C.]

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Ms. Karen Sheffield, General Manager

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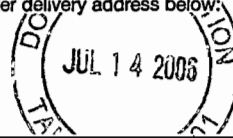
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A. Signature  Agent
 Addressee

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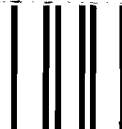


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4. Restricted Delivery? (Extra Fee) Yes

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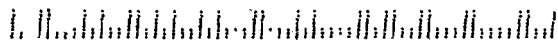
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Dept. of Environmental Protection
Division of Air Resources Mgt.
Bureau of Air Regulation, NSR
2600 Blair Stone Rd., MS 5505
Tallahassee, FL 32399-2400

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JUL 17 2006

BUREAU OF AIR REGULATION



Memorandum

Florida Department of Environmental Protection

TO: Trina L. Vielhauer

THRU: ~~for~~ A.A. Linero *snb*
Scott Sheplak

FROM: Teresa Heron *TH*

DATE: June 23, 2006

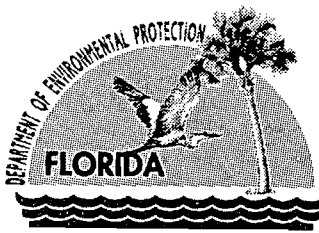
SUBJECT: Tampa Electric Company (TEC) – Big Bend Station. Construction Permit
Application to Construct/Modify the Solid Fuel Handling and Storage System
DRAFT DEP File No. 0570039-025-AC
Off-site Transloading of Coal, Petcoke and Slag Project

Attached is the draft package for the air construction permit for the above mentioned facility. The applicant submitted a revised application to reflect an annual transloading rate of 450, 000 tons for the three materials combined. The original application mistakenly stated an annual transloading rate of 150,000 for the three materials combined. They withdrew the original application and reapplied on February 13 (complete May 10).

We recommend your approval and signature.

Day 90 is August 8.

AAL/SMS/tmh



Jeb Bush
Governor

Department of Environmental Protection

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

Colleen M. Castille
Secretary

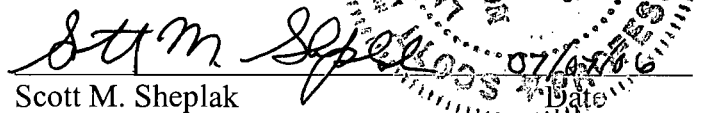
P.E. Certification Statement

Applicant:
Tampa Electric Company
Big Bend Station

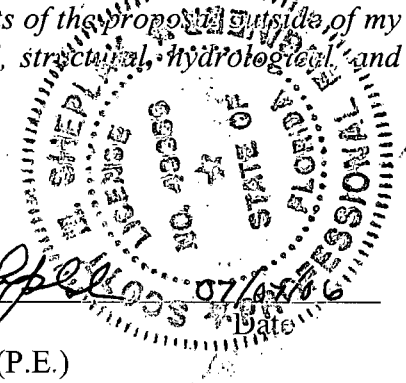
Permit No.: 0570039-018-AC

Project Type: Air Construction Permit
Off-site Transloading Operation

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
Professional Engineer (P.E.)
License 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: 850/921-9533

SMS/TH



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MAY 10 2006

BUREAU OF AIR REGULATION

May 9, 2006

Ms. Teresa Heron
Florida Department of Environmental Protection
Division of Air Resource Management
111 South Magnolia Drive, Suite 4
Tallahassee, FL 32301

Via FedEx
Airbill No. 7914 7419 7057

**Re: Tampa Electric Company
Big Bend Station
Title V Air Operation Permit Revision Project No.: 0570039-021-AV
Air Construction Permit Modification Project No.: 0570039-018-AC
Request for Additional Information - Fuel Transloading**

Dear Ms. Heron:

Tampa Electric Company (TEC) has received your letter dated February 22, 2006 requesting additional information with regard to the air construction permit application addressing fuel transloading project for Big Bend Station. This correspondence is intended to provide a response to each specific issue raised by the Department of Environmental Protection (Department). For your convenience, TEC has restated each point and provided a response below each specific issue.

Department Comment 1:

The Department received your revised application to increase the annual transloading rate from 150,000 tons for all three materials combined to 150,000 tons per each material and 450,000 tons for all three materials combined. Please provide an explanation for the rationale behind this change.

TEC Comment 1:

The intent of the original permit application was to transload three different materials at 150,000 tons each, resulting in a total of 450,000 tons of material being transloaded per year. TEC resubmitted the permit application for the fuel transloading project to clarify the intent of the original application.

Department Comment 2:

It is our understanding that the original application for this project will be withdrawn.


S

Ms. Teresa Heron
May 9, 2006
Page 2 of 2

TEC Comment 2:

TEC submitted a request to withdraw the original application for this project on March 3, 2006. TEC understands that with the submission of this additional information along with our professional engineer's certification, the Department will continue processing our air construction permit application for the fuel transloading project at Big Bend Station. If you have any further questions regarding this matter, please contact me or Shelly Castro at (813) 228-4408.

Sincerely,



Byron T. Burrows, P.E., B.C.E.E
Manager- Air Programs
Environmental, Health & Safety

EHS/rlk/SSC258

Enclosure

c/enc: Mr. Jim Little - EPA
Mr. Scott Sheplak - FDEP
Mr. Jason Waters - FDEP SWD
Mr. Al Linero - FDEP
Ms. Alice Harman - EPCHC

**TAMPA ELECTRIC COMPANY
BIG BEND STATION
FUEL TRANSLOADING**

Professional Engineer Certification

Professional Engineer Statement:

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

(1) To the best of my knowledge, the information presented in the response by Tampa Electric Company (TEC) to the Department's February 22, 2006 request for additional information concerning the fuel transloading project proposed for the TEC Big Bend Station is true, accurate, and complete based on my review of material provided by TEC engineering and environmental staff; and

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

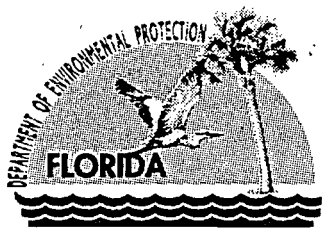
Signature

Date

5/6/06

(seal)

* Certification is applicable to the Tampa Electric Company (TEC) response to the Department's February 22, 2006 request for additional information regarding the fuel transloading project planned for the Big Bend Station.



Jeb Bush
Governor

Department of Environmental Protection

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

Colleen M. Castille
Secretary

February 22, 2006

057 0034-025-AC

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

Ms. Karen Sheffield
General Manager
Tampa Electric Company
Post Office Box 111
Tampa, Florida 33601-0111

Re: Air Construction Permit Modification Project No.: 0570039-018-AC
Big Bend Station – Fuel Transloading

Dear Ms. Sheffield:

The Department received your revised application to increase the annual transloading rate from 150,000 tons for all three materials combined to 150,000 tons per each material and 450,000 tons for all three materials combined. Please provide an explanation for the rationale behind this change.

It is our understanding that the original application for this project will be withdrawn.

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. Please note that per Rule 62-4.055(1): "The applicant shall have ninety days after the Department mails a timely request for additional information to submit that information to the Department.. Failure of an applicant to provide the timely requested information by the applicable date shall result in denial of the application."

If you have any questions regarding this matter, please call Teresa Heron at 850/921-9529.

Sincerely,

A. A. Linero, Program Administrator
South Permitting Section

Cc: Tom Davis, P.E.
Alice Harmon, EPCHC
Jim Little, EPA

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2. Article Number
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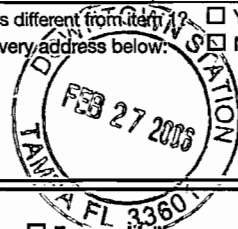
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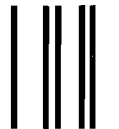
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Division of Air Resources ~~Mgt~~
Bureau of Air Regulation, ~~NSR~~
2600 Blair Stone Rd , MS 5505
Tallahassee, FL 32399-2400

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MAR 02 2006

BUREAU OF AIR REGULATION

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FEB 08 2006

BUREAU OF AIR REGULATION

February 7, 2006

Ms. Teresa Heron
Florida Department of
Environmental Protection
111 South Magnolia Drive, Suite 4
Tallahassee, FL 32301

Via FedEx
Airbill No. 7913 6517 8076

**Re: Tampa Electric Company Big Bend Station
Title V Permit No. 0570039-023-AV
Air Construction Permit Application for
Coal, Petcoke or Slag Transloading Revised**

Dear Ms. Heron,

Please find the enclosed revised air construction permit application as a follow-up to the discussions between Tampa Electric Company (TEC) and the Florida Department of Environmental Protection (Department) concerning the coal, slag, and petcoke transloading project at Big Bend Station.

TEC presently handles a variety of solid fuels at its Big Bend Station located in North Ruskin, Hillsborough County. These solid fuels include coal, coal residual, and petroleum coke (petcoke). TEC plans to receive, store, and transfer coal, petcoke and slag to trucks for subsequent use by another facility.

The coal, petcoke or slag will be brought in by barge at infrequent intervals and transloaded onto existing solid fuel handling equipment. The only new additional emission points associated with the handling of coal, petcoke or slag are: (a) the transfer of coal, petcoke or slag from a storage pile by front-end loaders to trucks, and (b) coal, petcoke or slag truck travel on Big Bend Station paved roads. All other coal, petcoke or slag handling activities will utilize existing equipment; i.e., conveyor belts, storage pile stackout, dozer operations on storage piles, etc. The coal or petcoke will be treated with a chemical surfactant prior to arriving at the Big Bend Station. Based on its glassine properties, the slag has minimal dust potential and therefore does not need to be treated with a chemical surfactant. TEC plans to handle a maximum of 150,000 tons per year (tpy) each of coal, petcoke, and slag with a maximum of 450,000 tpy for all three materials. There will be no increases in maximum hourly or annual Big Bend Station fuel yard solid fuel handling rates. TEC will continue to comply with all solid fuel yard requirements specified in its current Big Bend Station Title V operating permit.

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

(813) 228-4111

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[HTTP://WWW.TAMPAELECTRIC.COM](http://www.tampaelectric.com)

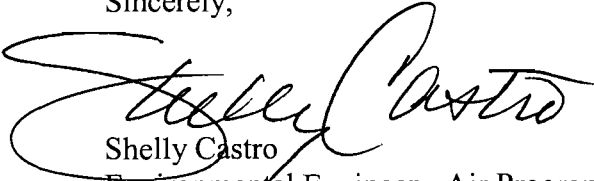
CUSTOMER SERVICE:
HILLSBOROUGH COUNTY (813) 223-0800
OUTSIDE HILLSBOROUGH COUNTY 1 (888) 223-0800

Ms. Teresa Heron
February 7, 2006
Page 2 of 2

For clarification, this revised air construction permit application is being resubmitted to the Department based on recent changes to the coal, slag, or petcoke transloading project.

TEC appreciates the cooperation of the Department in this matter. If you have any questions or comments, please contact me at (813) 228-4408.

Sincerely,

A handwritten signature in black ink that reads "Shelly Castro". The signature is written in a cursive style with a large, looping initial "S".

Shelly Castro
Environmental Engineer - Air Programs
Environmental, Health & Safety

EHS/rk/SSC250

Enclosure

c/enc: Ms. Trina Vielhauer, FDEP
Mr. Jason Waters, FDEP SW
Mr. Scott Sheplak, FDEP
Mr. Sterlin Woodard, EPCHC
Ms. Alice Harman, EPCHC

BIG BEND STATION
COAL, PETCOKE, AND SLAG
TRANSLOADING PROJECT

APPLICATION FOR
AIR CONSTRUCTION PERMIT AND
TITLE V OPERATION PERMIT REVISION

Prepared for:



TAMPA ELECTRIC
Tampa, Florida

Prepared by:

ECT

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

ECT No. 030609-0100

Revised February 2006

INTRODUCTION

Tampa Electric Company (TEC) previously submitted a permit exemption notification to the Florida Department of Environmental Protection (FDEP) on June 11, 2004. This permit exemption notification advised FDEP of TEC's plans to transload coal, petcoke, and slag at its Big Bend Station solid fuel yard for subsequent use by non-TEC facilities.

In response to this permit exemption notification, FDEP requested that TEC submit an air construction permit application for the transloading project since limits on capacity (i.e., maximum transloading throughput rates) cannot be authorized by a permit exemption. In response to FDEP's request, this concurrent air construction and Title V revision permit application, using DEP Form No. 62-210.900(1), Application for Air Permit—Long Form, constitutes TEC's request to transload coal, petcoke, and slag at the Big Bend Station for subsequent use by non-TEC facilities.

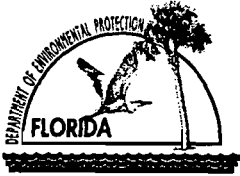
PROJECT DESCRIPTION

Coal, petcoke, or slag will be brought in by barge at infrequent intervals and transferred to storage piles using existing solid fuel handling equipment. The only new additional emission points associated with the transloading of coal, petcoke, or slag are: (a) the transfer of coal, petcoke, or slag from a storage pile by front-end loaders to trucks and (b) coal, petcoke, or slag truck travel on Big Bend Station paved and unpaved roads. All other coal, petcoke, or slag handling activities will utilize existing equipment (i.e., conveyor belts, storage pile stackout, dozer operations on storage piles, etc). The coal or petcoke will be treated with a chemical surfactant prior to arriving at the Big Bend Station. Based on its glassine properties, the slag has minimal dust potential and therefore does not need to be treated with a chemical surfactant. TEC plans to handle a maximum of 150,000 tons per year (tpy) each of coal, petcoke, and slag with a maximum of 450,000 tpy for all three materials. There will be no increases in maximum hourly or annual Big Bend Station fuel yard solid fuel handling rates. TEC will continue to comply with all solid fuel yard requirements specified in its current Big Bend Station Title V operating permit.

A facility plot plan showing the onsite travel path (total of 2.6 paved miles and 300 unpaved feet for one round trip) of the transloading trucks is provided in Attachment A. A process flow diagram showing the existing solid fuel and new transloading activities is provided in Attachment B. The material to be transloaded (coal, petcoke, and slag) will be received by barge and transferred to Transfer Station T2 using existing conveyors. From Transfer Station T2, the transloaded materials will be transferred to storage piles located in the fuel yard using a combination of existing conveyors. The coal, petcoke, and slag will then be loaded into trucks for offsite shipment using front-end loaders.

AIR CONSTRUCTION PERMIT APPLICATION

FDEP's Application for Air Permit—Long Form follows this introduction. A facility plot plan, process flow diagram, precautions to prevent unconfined fugitive particulate matter, and emission rate calculations are provided in Attachments A through D, respectively.



Department of Environmental Protection

Division of Air Resource Management

APPLICATION FOR AIR PERMIT - LONG FORM

I. APPLICATION INFORMATION

Air Construction Permit—Use this form to apply for an air construction permit for a proposed project:

- subject to prevention of significant deterioration (PSD) review, nonattainment area (NAA) new source review, or maximum achievable control technology (MACT) review; or
- where the applicant proposes to assume a restriction on the potential emissions of one or more pollutants to escape a federal program requirement such as PSD review, NAA new source review, Title V, or MACT; or
- at an existing federally enforceable state air operation permit (FESOP) or Title V permitted facility.

Air Operation Permit – Use this form to apply for:

- an initial federally enforceable state air operation permit (FESOP); or
- an initial/revised/renewal Title V air operation permit.

Air Construction Permit & Revised/Renewal Title V Air Operation Permit (Concurrent Processing Option)

– Use this form to apply for both an air construction permit and a revised or renewal Title V air operation permit incorporating the proposed project.

To ensure accuracy, please see form instructions.

Identification of Facility

| | |
|--|--|
| 1. Facility Owner/Company Name: Tampa Electric Company | |
| 2. Site Name: Big Bend Station | |
| 3. Facility Identification Number: 0570039 | |
| 4. Facility Location...: Street Address or Other Locator: Big Bend Road City: Tampa County: Hillsborough Zip Code: 33572 | |
| 5. Relocatable Facility? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No | 6. Existing Title V Permitted Facility? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |

Application Contact

| | |
|---|--|
| 1. Application Contact Name: Shelly Castro, Engineer – Air Programs | |
| 2. Application Contact Mailing Address... Organization/Firm: Tampa Electric Company Street Address: P. O. Box 111 City: Tampa State: FL Zip Code: 33601 | |
| 3. Application Contact Telephone Numbers... Telephone: (813) 228-4408 ext. Fax: (813) 228-1308 | |
| 4. Application Contact Email Address: <u>sscastro@tecoenergy.com</u> | |

Application Processing Information (DEP Use)

| | |
|------------------------------------|--|
| 1. Date of Receipt of Application: | |
| 2. Project Number(s): | |
| 3. PSD Number (if applicable): | |
| 4. Siting Number (if applicable): | |

APPLICATION INFORMATION

Purpose of Application

This application for air permit is submitted to obtain: (Check one)

Air Construction Permit

- Air construction permit.

Air Operation Permit

- Initial Title V air operation permit.
 Title V air operation permit revision.
 Title V air operation permit renewal.
 Initial federally enforceable state air operation permit (FESOP) where professional engineer (PE) certification is required.
 Initial federally enforceable state air operation permit (FESOP) where professional engineer (PE) certification is not required.

Air Construction Permit and Revised/Renewal Title V Air Operation Permit (Concurrent Processing)

- Air construction permit and Title V permit revision, incorporating the proposed project.
 Air construction permit and Title V permit renewal, incorporating the proposed project.

Note: By checking one of the above two boxes, you, the applicant, are requesting concurrent processing pursuant to Rule 62-213.405, F.A.C. In such case, you must also check the following box:

- I hereby request that the department waive the processing time requirements of the air construction permit to accommodate the processing time frames of the Title V air operation permit.

Application Comment

TEC presently transloads solid fuels at the Big Bend Station for use at its Polk Power Station. This construction permit application requests approval to transload coal, petcoke or slag at the Big Bend Station fuel yard for subsequent use by non-TEC facilities.

The coal, petcoke or slag will be brought in by barge at infrequent intervals and transferred to storage piles using existing solid fuel handling equipment. The only new additional emission points associated with the transloading of coal, petcoke or slag are: (a) the transfer of coal, petcoke or slag from a storage pile by front-end loaders to trucks, and (b) coal, petcoke or slag truck travel on Big Bend Station paved and unpaved roads. All other coal, petcoke or slag handling activities will utilize existing equipment; i.e., conveyor belts, storage pile stackout, dozer operations on storage piles, etc. The coal or petcoke will be treated with a chemical surfactant prior to arriving at the Big Bend Station. Based on its glassine properties, the slag has minimal dust potential and therefore does not need to be treated with a chemical surfactant. TEC plans to handle up to 150,000 tons per year each of coal, petcoke, and slag for a total of up to 450,000 tons per year for all three materials. There will be no increases in maximum hourly or annual Big Bend Station fuel yard solid fuel handling rates. TEC will continue to comply with all solid fuel yard requirements specified in its current Big Bend Station Title V operating permit.

APPLICATION INFORMATION

Owner/Authorized Representative Statement N/A

Complete if applying for an air construction permit or an initial FESOP.

| |
|--|
| 1. Owner/Authorized Representative Name: |
| 2. Owner/Authorized Representative Mailing Address... Organization/Firm: Street Address: City: State: Zip Code: |
| 3. Owner/Authorized Representative Telephone Numbers... Telephone: ext. Fax: |
| 4. Owner/Authorized Representative Email Address: |
| 5. Owner/Authorized Representative Statement: <i>I, the undersigned, am the owner or authorized representative of the facility addressed in this air permit application. 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 and all other requirements identified in this application to which the facility is subject. 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 the facility or any permitted emissions unit.</i> _____ Signature Date |

APPLICATION INFORMATION

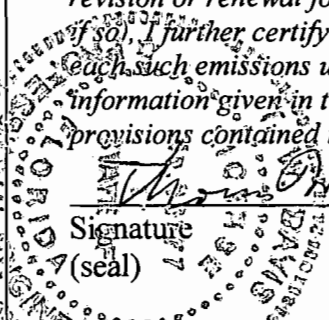
Application Responsible Official Certification

Complete if applying for an initial/revised/renewal Title V permit or concurrent processing of an air construction permit and a revised/renewal Title V permit. If there are multiple responsible officials, the "application responsible official" need not be the "primary responsible official."

| |
|--|
| 1. Application Responsible Official Name: Karen Sheffield, General Manager - Big Bend Station |
| 2. Application Responsible Official Qualification (Check one or more of the following options, as applicable): <input checked="" type="checkbox"/> For a corporation, the president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities applying for or subject to a permit under Chapter 62-213, F.A.C. <input type="checkbox"/> For a partnership or sole proprietorship, a general partner or the proprietor, respectively. <input type="checkbox"/> For a municipality, county, state, federal, or other public agency, either a principal executive officer or ranking elected official. <input type="checkbox"/> The designated representative at an Acid Rain source. |
| 3. Application Responsible Official Mailing Address... Organization/Firm: Tampa Electric Company Street Address: P.O. Box 111 City: Tampa State: FL Zip Code: 33601-0111 |
| 4. Application Responsible Official Telephone Numbers... Telephone: (813) 228-4111 ext. Fax: (813) 228-1308 |
| 5. Application Responsible Official Email Address: <u>kasheffield@tecoenergy.com</u> |
| 6. Application Responsible Official Certification: <p><i>I, the undersigned, am a responsible official of the Title V source addressed in this air permit application. 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 and all other applicable requirements identified in this application to which the Title V source is subject. 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 the facility or any permitted emissions unit. Finally, I certify that the facility and each emissions unit are in compliance with all applicable requirements to which they are subject, except as identified in compliance plan(s) submitted with this application.</i></p> <p><u>Karen Sheffield</u> Signature <u>2/6/06</u> Date</p> |

APPLICATION INFORMATION

Professional Engineer Certification

| |
|--|
| 1. Professional Engineer Name: Thomas W. Davis Registration Number: 36777 |
| 2. Professional Engineer Mailing Address... Organization/Firm: Environmental Consulting & Technology, Inc. Street Address: 3701 Northwest 98th Street City: Gainesville State: FL Zip Code: 32606-5004 |
| 3. Professional Engineer Telephone Numbers... Telephone: (352) 332-0444 ext. Fax: (352) 332-6722 |
| 4. Professional Engineer Email Address: tdavis@ectinc.com |
| 5. Professional Engineer Statement: <i>I, the undersigned, hereby certify, except as particularly noted herein*, that:</i> <i>(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution 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</i> <i>(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.</i> <i>(3) If the purpose of this application is to obtain a Title V air operation permit (check here <input checked="" type="checkbox"/>, 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 plan and schedule is submitted with this application.</i> <i>(4) If the purpose of this application is to obtain an air construction permit (check here <input checked="" type="checkbox"/>, if so) or concurrently process and obtain an air construction permit and a Title V air operation permit revision or renewal for one or more proposed new or modified emissions units (check here <input type="checkbox"/>, 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.</i> <i>(5) If the purpose of this application is to obtain an initial air operation permit or operation permit revision or renewal for one or more newly constructed or modified emissions units (check here <input type="checkbox"/>, if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit 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.</i>  Signature _____ Date <u>2/2/06</u> (seal) |

* Attach any exception to certification statement.

II. FACILITY INFORMATION

A. GENERAL FACILITY INFORMATION

Facility Location and Type

| | | | |
|--|--------------------------------------|--|------------------------------------|
| 1. Facility UTM Coordinates... Zone 17 East (km) 361.9 North (km) 3,075.0 | | 2. Facility Latitude/Longitude... Latitude (DD/MM/SS) Longitude (DD/MM/SS) | |
| 3. Governmental Facility Code: 0 | 4. Facility Status Code: A | 5. Facility Major Group SIC Code: 49 | 6. Facility SIC(s): 4911 |
| 7. Facility Comment : | | | |

Facility Contact

| |
|--|
| 1. Facility Contact Name: Karen Zwolak, Senior Environmental Consultant |
| 2. Facility Contact Mailing Address... Organization/Firm: Tampa Electric Company Street Address: P. O. Box 111 City: Tampa State: FL Zip Code: 33601 |
| 3. Facility Contact Telephone Numbers: Telephone: (813) 228-4111 ext. Fax: (813) 228-1308 |
| 4. Facility Contact Email Address: kozwolak@tecoenergy.com |

Facility Primary Responsible Official N/A

Complete if an "application responsible official" is identified in Section I. that is not the facility "primary responsible official."

| |
|--|
| 1. Facility Primary Responsible Official Name: |
| 2. Facility Primary Responsible Official Mailing Address... Organization/Firm: Street Address: City: State: Zip Code: |
| 3. Facility Primary Responsible Official Telephone Numbers... Telephone: () - ext. Fax: () - |
| 4. Facility Primary Responsible Official Email Address: |

FACILITY INFORMATION

Facility Regulatory Classifications

Check all that would apply *following* completion of all projects and implementation of all other changes proposed in this application for air permit. Refer to instructions to distinguish between a “major source” and a “synthetic minor source.”

| | |
|---|----------------------------------|
| 1. <input type="checkbox"/> Small Business Stationary Source | <input type="checkbox"/> Unknown |
| 2. <input type="checkbox"/> Synthetic Non-Title V Source | |
| 3. <input checked="" type="checkbox"/> Title V Source | |
| 4. <input checked="" type="checkbox"/> Major Source of Air Pollutants, Other than Hazardous Air Pollutants (HAPs) | |
| 5. <input type="checkbox"/> Synthetic Minor Source of Air Pollutants, Other than HAPs | |
| 6. <input checked="" type="checkbox"/> Major Source of Hazardous Air Pollutants (HAPs) | |
| 7. <input type="checkbox"/> Synthetic Minor Source of HAPs | |
| 8. <input checked="" type="checkbox"/> One or More Emissions Units Subject to NSPS (40 CFR Part 60) | |
| 9. <input type="checkbox"/> One or More Emissions Units Subject to Emission Guidelines (40 CFR Part 60) | |
| 10. <input type="checkbox"/> One or More Emissions Units Subject to NESHAP (40 CFR Part 61 or Part 63) | |
| 11. <input type="checkbox"/> Title V Source Solely by EPA Designation (40 CFR 70.3(a)(5)) | |
| 12. Facility Regulatory Classifications Comment: | |

FACILITY INFORMATION

List of Pollutants Emitted by Facility

| 1. Pollutant Emitted | 2. Pollutant Classification | 3. Emissions Cap [Y or N]? |
|--------------------------|-----------------------------|----------------------------|
| NOX | A | N |
| SO2 | A | Y |
| CO | A | N |
| PM10 | A | Y |
| PM | A | Y |
| SAM (Sulfuric Acid Mist) | A | N |
| VOC | A | N |
| PB | B | N |
| H106 (Hydrogen Chloride) | A | N |
| H107 (Hydrogen Fluoride) | A | N |
| H133 (Nickel Compounds | A | N |
| HAPS (Total) | A | N |
| | | |
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| | | |
| | | |
| | | |

FACILITY INFORMATION

C. FACILITY ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

| |
|---|
| 1. Facility Plot Plan: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: <u>Att. A</u> <input type="checkbox"/> Previously Submitted, Date: |
| 2. Process Flow Diagram(s): (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: <u>Att. B</u> <input type="checkbox"/> Previously Submitted, Date: |
| 3. Precautions to Prevent Emissions of Unconfined Particulate Matter: (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: <u>Att. C</u> <input type="checkbox"/> Previously Submitted, Date: |

Additional Requirements for Air Construction Permit Applications

| |
|--|
| 1. Area Map Showing Facility Location: <input type="checkbox"/> Attached, Document ID: <input checked="" type="checkbox"/> Previously Submitted, Date: <u>June 30, 2004</u> |
| 2. Description of Proposed Construction or Modification: <input checked="" type="checkbox"/> Attached, Document ID: <u>See comment below</u> <input type="checkbox"/> Not Applicable |
| 3. Rule Applicability Analysis: <input type="checkbox"/> Attached, Document ID: <input checked="" type="checkbox"/> Previously Submitted, Date: <u>June 30, 2004</u> |
| 4. List of Exempt Emissions Units (Rule 62-210.300(3)(a) or (b)1., F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable |
| 5. Fugitive Emissions Identification (Rule 62-212.400(2), F.A.C.): <input type="checkbox"/> Attached, Document ID: <input checked="" type="checkbox"/> Previously Submitted, Date: <u>June 30, 2004</u> |
| 6. Preconstruction Air Quality Monitoring and Analysis (Rule 62-212.400(5)(f), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable |
| 7. Ambient Impact Analysis (Rule 62-212.400(5)(d), F.A.C.): <input type="checkbox"/> Attached, Document ID: <input checked="" type="checkbox"/> Not Applicable |
| 8. Air Quality Impact since 1977 (Rule 62-212.400(5)(h)5., F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable |
| 9. Additional Impact Analyses (Rules 62-212.400(5)(e)1. and 62-212.500(4)(e), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable |
| 10. Alternative Analysis Requirement (Rule 62-212.500(4)(g), F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable |

FACILITY INFORMATION

Additional Requirements for FESOP Applications N/A

- | |
|--|
| 1. List of Exempt Emissions Units (Rule 62-210.300(3)(a) or (b)1., F.A.C.): <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Not Applicable |
|--|

Additional Requirements for Title V Air Operation Permit Applications

See comment below

- | |
|--|
| 1. List of Insignificant Activities (Required for initial/renewal applications only): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable |
| 2. Identification of Applicable Requirements (Required for initial/renewal applications, and for revision applications if this information would be changed as a result of the revision being sought): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable |
| 3. Compliance Report and Plan (Required for all initial/revision/renewal applications): <input type="checkbox"/> Attached, Document ID: _____ Note: A compliance plan must be submitted for each emissions unit that is not in compliance with all applicable requirements at the time of application and/or at any time during application processing. The department must be notified of any changes in compliance status during application processing. |
| 4. List of Equipment/Activities Regulated under Title VI (If applicable, required for initial/renewal applications only): <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Equipment/Activities On site but Not Required to be Individually Listed <input checked="" type="checkbox"/> Not Applicable |
| 5. Verification of Risk Management Plan Submission to EPA (If applicable, required for initial/renewal applications only): <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable |
| 6. Requested Changes to Current Title V Air Operation Permit: <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable |

Additional Requirements Comment

A description of the proposed fuel yard transloading modification project is provided in the Introduction and also in Application Comment section on Page 2 of this application.

Title V operating permit renewal application was submitted on June 30, 2004. This application included a Compliance Report and Plan.

EMISSIONS UNIT INFORMATION

Section [1] of [1]

A. GENERAL EMISSIONS UNIT INFORMATION

Title V Air Operation Permit Emissions Unit Classification

1. Regulated or Unregulated Emissions Unit? (Check one, if applying for an initial, revised or renewal Title V air operation permit. Skip this item if applying for an air construction permit or FESOP only.)
- 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.

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in this Section: (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.

2. Description of Emissions Unit Addressed in this Section:
Solid Fuel Yard, Fugitive Emissions. Transloading of coal, petcoke, or slag.

3. Emissions Unit Identification Number: **010**

| | | | | |
|--|--|--|--|--|
| 4. Emissions Unit Status Code: A | 5. Commence Construction Date: N/A | 6. Initial Startup Date: N/A | 7. Emissions Unit Major Group SIC Code: 49 | 8. Acid Rain Unit? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No |
|--|--|--|--|--|

9. Package Unit:
Manufacturer: _____ Model Number: _____

10. Generator Nameplate Rating:

11. Emissions Unit Comment:

TEC presently transloads solid fuels at the Big Bend Station for use at its Polk Power Station. This construction permit application requests approval to transload coal, petcoke or slag at the Big Bend Station fuel yard for subsequent use by non-TEC facilities.

The coal, petcoke or slag will be brought in by barge at infrequent intervals and transferred to storage piles using existing solid fuel handling equipment. The only new additional emission points associated with the transloading of coal, petcoke or slag are: (a) the transfer of coal, petcoke or slag from a storage pile by front-end loaders to trucks, and (b) coal, petcoke or slag truck travel on Big Bend Station paved and unpaved roads.

EMISSIONS UNIT INFORMATION

Section [1] of [1]

Emissions Unit Control Equipment

1. Control Equipment/Method(s) Description:

Coal and petcoke – dust suppression by chemical surfactant

2. Control Device or Method Code(s): **062**

EMISSIONS UNIT INFORMATION

Section [1] of [1]

B. EMISSIONS UNIT CAPACITY INFORMATION

(Optional for unregulated emissions units.)

Emissions Unit Operating Capacity and Schedule

| |
|--|
| 1. Maximum Process or Throughput Rate: 4,000 tons per hour |
| 2. Maximum Production Rate: N/A |
| 3. Maximum Heat Input Rate: N/A million Btu/hr |
| 4. Maximum Incineration Rate: pounds/hr N/A tons/day |
| 5. Requested Maximum Operating Schedule: 24 hours/day 7 days/week 52 weeks/year 8,760 hours/year |
| 6. Operating Capacity/Schedule Comment: Maximum throughput rate of 4,000 tons per hour is for the existing fuel yard and currently authorized solid fuels. The transloading project, which will utilize existing barge unloading and transfer equipment, will not increase current maximum hourly or annual BigBend Station fuel yard solid fuel handling rates. Transloading of coal, petcoke, or slag will occur infrequently. Maximum hourly transloading rate to trucks is 144.2 tons per hour; only one material will be transloaded at a time. Maximum annual transloading rate is 150,000 tons for each material and 450,000 tons for all three materials combined. |

EMISSIONS UNIT INFORMATION

Section [1] of [1]

C. EMISSION POINT (STACK/VENT) INFORMATION

(Optional for unregulated emissions units.)

Emission Point Description and Type

| | | | |
|--|---|--|--|
| 1. Identification of Point on Plot Plan or Flow Diagram: Existing: FH-001 through FH-031, FH-036 through FH-047, FH-050 through FH-058, FH-063, FH-067 through FH-073. Transloading: PET/SLAG/COAL-01, PET/SLAG/COAL-02a, PET/SLAG/COAL-02b, PET/SLAG/COAL-03a, PET/SLAG/COAL-03b | | 2. Emission Point Type Code: 4 | |
| 3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking: N/A | | | |
| 4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common: N/A | | | |
| 5. Discharge Type Code: F | 6. Stack Height: N/A feet | 7. Exit Diameter: N/A feet | |
| 8. Exit Temperature: 77 °F | 9. Actual Volumetric Flow Rate: N/A acfm | 10. Water Vapor: N/A % | |
| 11. Maximum Dry Standard Flow Rate: N/A dscfm | | 12. Nonstack Emission Point Height: Approx. 10 feet | |
| 13. Emission Point UTM Coordinates...N/A Zone: East (km): North (km): | | 14. Emission Point Latitude/Longitude...N/A Latitude (DD/MM/SS) Longitude (DD/MM/SS) | |
| 15. Emission Point Comment: The only new additional emission points associated with the transloading of coal, petcoke or slag are: (a) the transfer of coal, petcoke or slag from a storage pile by front-end loaders to trucks, and (b) coal, petcoke or slag truck travel on Big Bend Station paved and unpaved roads. All other coal, petcoke or slag handling activities will utilize existing equipment; i.e., conveyor belts, storage pile stackout, dozer operations on storage piles, etc. | | | |

D. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 1

| | | |
|--|---|---|
| 1. Segment Description (Process/Fuel Type): Handling and transfer of solid fuels, including the transloading of coal, petcoke, or slag. | | |
| 2. Source Classification Code (SCC): 3-05-102-03 | | 3. SCC Units: Tons Transferred or Handled |
| 4. Maximum Hourly Rate: 4,000 | 5. Maximum Annual Rate: 6,000,000 | 6. Estimated Annual Activity Factor: N/A |
| 7. Maximum % Sulfur: N/A | 8. Maximum % Ash: N/A | 9. Million Btu per SCC Unit: N/A |
| 10. Segment Comment: Maximum throughput rates are for the existing fuel yard. The transloading project, which will utilize existing barge unloading and transfer equipment, will not increase current maximum hourly or annual Big Bend Station fuel yard solid fuel handling rates. Transloading of coal, petcoke, or slag will occur infrequently. Maximum hourly transloading rate to trucks is 144.2 tons per hour; only one material will be transloaded at a time. Maximum annual transloading rate is 150,000 tons for each material and 450,000 tons for all three materials combined. | | |

Segment Description and Rate: Segment ___ of ___

| | | |
|---|-------------------------|--------------------------------------|
| 1. Segment Description (Process/Fuel Type) (limit to 500 characters): | | |
| 2. Source Classification Code (SCC): | | 3. SCC Units: |
| 4. Maximum Hourly Rate: | 5. Maximum Annual Rate: | 6. Estimated Annual Activity Factor: |
| 7. Maximum % Sulfur: | 8. Maximum % Ash: | 9. Million Btu per SCC Unit: |
| 10. Segment Comment: | | |

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
POTENTIAL/ESTIMATED FUGITIVE EMISSIONS**

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

| | | | |
|---|--|--|--|
| 1. Pollutant Emitted: PM | | 2. Total Percent Efficiency of Control: See Attachment D | |
| 3. Potential Emissions: N/A lb/hour N/A tons/year | | 4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | |
| 5. Range of Estimated Fugitive Emissions (as applicable): N/A to 17.5 tons/year | | | |
| 6. Emission Factor: See Attachment D Reference: AP-42 | | 7. Emissions Method Code: 3 | |
| 8. Calculation of Emissions: See Attachment D | | | |
| 9. Pollutant Potential/Estimated Fugitive Emissions Comment: The information shown above is applicable to the proposed new coal, petcoke, or slag transloading fugitive emission points. Detailed PM/PM₁₀ emission estimates are provided in Attachment D. | | | |

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
ALLOWABLE EMISSIONS**

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation. (See Comment in Field 6)

Allowable Emissions Allowable Emissions ____ of ____

| | |
|---|--|
| 1. Basis for Allowable Emissions Code: | 2. Future Effective Date of Allowable Emissions: |
| 3. Allowable Emissions and Units: | 4. Equivalent Allowable Emissions: lb/hour tons/year |
| 5. Method of Compliance: | |
| 6. Allowable Emissions Comment (Description of Operating Method): TEC is not requesting any revisions to currently authorized emission limits as specified in Final Title V Permit No. 0570039-013-AV. The solid fuel is only subject to visible emission limitations – these limits are provided in Section G of this application. | |

Allowable Emissions Allowable Emissions ____ of ____

| | |
|---|--|
| 1. Basis for Allowable Emissions Code: | 2. Future Effective Date of Allowable Emissions: |
| 3. Allowable Emissions and Units: | 4. Equivalent Allowable Emissions: lb/hour tons/year |
| 5. Method of Compliance: | |
| 6. Allowable Emissions Comment (Description of Operating Method): | |

**F1. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION –
 POTENTIAL/ESTIMATED FUGITIVE EMISSIONS**

(Optional for unregulated emissions units.)

Potential/Estimated Fugitive Emissions

Complete for each pollutant identified in Subsection E if applying for an air construction permit or concurrent processing of an air construction permit and a revised or renewal Title V permit. Complete for each emissions-limited pollutant identified in Subsection E if applying for an air operation permit.

| | | | |
|---|--|--|--|
| 1. Pollutant Emitted: PM10 | | 2. Total Percent Efficiency of Control: See Attachment D | |
| 3. Potential Emissions: N/A lb/hour N/A tons/year | | 4. Synthetically Limited? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No | |
| 5. Range of Estimated Fugitive Emissions (as applicable): N/A to 4.9 tons/year | | | |
| 6. Emission Factor: See Attachment D Reference: AP-42 | | 7. Emissions Method Code: 3 | |
| 8. Calculation of Emissions: See Attachment D | | | |
| 9. Pollutant Potential/Estimated Fugitive Emissions Comment: The information shown above is applicable to the proposed new coal, petcoke, or slag transloading fugitive emission points. Detailed PM/PM₁₀ emission estimates are provided in Attachment D. | | | |

**F2. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION -
 ALLOWABLE EMISSIONS**

Complete if the pollutant identified in Subsection F1 is or would be subject to a numerical emissions limitation. **(See Comment in Field 6)**

Allowable Emissions Allowable Emissions ____ of ____

| | |
|---|--|
| 1. Basis for Allowable Emissions Code: | 2. Future Effective Date of Allowable Emissions: |
| 3. Allowable Emissions and Units: | 4. Equivalent Allowable Emissions: lb/hour tons/year |
| 5. Method of Compliance: | |
| 6. Allowable Emissions Comment (Description of Operating Method): TEC is not requesting any revisions to currently authorized emission limits as specified in Final Title V Permit No. 0570039-013-AV. The solid fuel is only subject to visible emission limitations – these limits are provided in Section G of this application. | |

Allowable Emissions Allowable Emissions ____ of ____

| | |
|---|--|
| 1. Basis for Allowable Emissions Code: | 2. Future Effective Date of Allowable Emissions: |
| 3. Allowable Emissions and Units: | 4. Equivalent Allowable Emissions: lb/hour tons/year |
| 5. Method of Compliance: | |
| 6. Allowable Emissions Comment (Description of Operating Method): | |

EMISSIONS UNIT INFORMATION

Section [1] of [1]

G. VISIBLE EMISSIONS INFORMATION

Complete if this emissions unit is or would be subject to a unit-specific visible emissions limitation.

Visible Emissions Limitation: Visible Emissions Limitation 1 of 2

| | |
|---|--|
| 1. Visible Emissions Subtype: VE20 | 2. Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other |
| 3. Allowable Opacity: Normal Conditions: 20 % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour | |
| 4. Method of Compliance: EPA Reference Method 9 | |
| 5. Visible Emissions Comment: Limit applicable to all unconfined emission sources. Rule 62-296.320(4)(b)(1), F.A.C. | |

Visible Emissions Limitation: Visible Emissions Limitation 2 of 2

| | |
|--|--|
| 1. Visible Emissions Subtype: VE05 | 2. Basis for Allowable Opacity: <input checked="" type="checkbox"/> Rule <input type="checkbox"/> Other |
| 3. Allowable Opacity: Normal Conditions: 5 % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour | |
| 4. Method of Compliance: EPA Reference Method 9 | |
| 5. Visible Emissions Comment: Limit applicable to emission sources other than unconfined emission sources. Rule 62-296.711(2)(a), F.A.C. | |

FACILITY INFORMATION

EMISSIONS UNIT INFORMATION

Section [1] of [1]

H. CONTINUOUS MONITOR INFORMATION

Complete if this emissions unit is or would be subject to continuous monitoring.

Continuous Monitoring System: Continuous Monitor _____ of _____ N/A

| | |
|--|--|
| 1. Parameter Code: | 2. Pollutant(s): |
| 3. CMS Requirement: | <input type="checkbox"/> Rule <input type="checkbox"/> Other |
| 4. Monitor Information... Manufacturer: Model Number: Serial Number: | |
| 5. Installation Date: | 6. Performance Specification Test Date: |
| 7. Continuous Monitor Comment: | |

Continuous Monitoring System: Continuous Monitor _____ of _____

| | |
|--|--|
| 1. Parameter Code: | 2. Pollutant(s): |
| 3. CMS Requirement: | <input type="checkbox"/> Rule <input type="checkbox"/> Other |
| 4. Monitor Information... Manufacturer: Model Number: Serial Number: | |
| 5. Installation Date: | 6. Performance Specification Test Date: |
| 7. Continuous Monitor Comment: | |

FACILITY INFORMATION

EMISSIONS UNIT INFORMATION

Section [1] of [1]

I. EMISSIONS UNIT ADDITIONAL INFORMATION

Additional Requirements for All Applications, Except as Otherwise Stated

| |
|--|
| 1. Process Flow Diagram (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input checked="" type="checkbox"/> Attached, Document ID: Att. B <input type="checkbox"/> Previously Submitted, Date |
| 2. Fuel Analysis or Specification (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable |
| 3. Detailed Description of Control Equipment (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable |
| 4. Procedures for Startup and Shutdown (Required for all operation permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable |
| 5. Operation and Maintenance Plan (Required for all permit applications, except Title V air operation permit revision applications if this information was submitted to the department within the previous five years and would not be altered as a result of the revision being sought) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Previously Submitted, Date <u>June 30, 2004</u> |
| 6. Compliance Demonstration Reports/Records <input type="checkbox"/> Attached, Document ID: _____ Test Date(s)/Pollutant(s) Tested: _____ <input type="checkbox"/> Previously Submitted, Date: _____ Test Date(s)/Pollutant(s) Tested: _____ <input type="checkbox"/> To be Submitted, Date (if known): _____ Test Date(s)/Pollutant(s) Tested: _____ <input checked="" type="checkbox"/> Not Applicable Note: For FESOP applications, all required compliance demonstration records/reports must be submitted at the time of application. For Title V air operation permit applications, all required compliance demonstration reports/records must be submitted at the time of application, or a compliance plan must be submitted at the time of application. |
| 7. Other Information Required by Rule or Statute <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable |

FACILITY INFORMATION

EMISSIONS UNIT INFORMATION

Section [1] of [1]

Additional Requirements for Air Construction Permit Applications

| |
|---|
| 1. Control Technology Review and Analysis (Rules 62-212.400(6) and 62-212.500(7), F.A.C.; 40 CFR 63.43(d) and (e)) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable |
| 2. Good Engineering Practice Stack Height Analysis (Rule 62-212.400(5)(h)6., F.A.C., and Rule 62-212.500(4)(f), F.A.C.) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable |
| 3. Description of Stack Sampling Facilities (Required for proposed new stack sampling facilities only) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable |

Additional Requirements for Title V Air Operation Permit Applications

| |
|---|
| 1. Identification of Applicable Requirements <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable |
| 2. Compliance Assurance Monitoring <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable |
| 3. Alternative Methods of Operation <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable |
| 4. Alternative Modes of Operation (Emissions Trading) <input type="checkbox"/> Attached, Document ID: _____ <input checked="" type="checkbox"/> Not Applicable |
| 5. Acid Rain Part Application <input type="checkbox"/> Certificate of Representation (EPA Form No. 7610-1) <input type="checkbox"/> Copy Attached, Document ID: _____ <input type="checkbox"/> Acid Rain Part (Form No. 62-210.900(1)(a)) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Repowering Extension Plan (Form No. 62-210.900(1)(a)1.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> New Unit Exemption (Form No. 62-210.900(1)(a)2.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Retired Unit Exemption (Form No. 62-210.900(1)(a)3.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Phase II NOx Compliance Plan (Form No. 62-210.900(1)(a)4.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input type="checkbox"/> Phase II NOx Averaging Plan (Form No. 62-210.900(1)(a)5.) <input type="checkbox"/> Attached, Document ID: _____ <input type="checkbox"/> Previously Submitted, Date: _____ <input checked="" type="checkbox"/> Not Applicable |

FACILITY INFORMATION

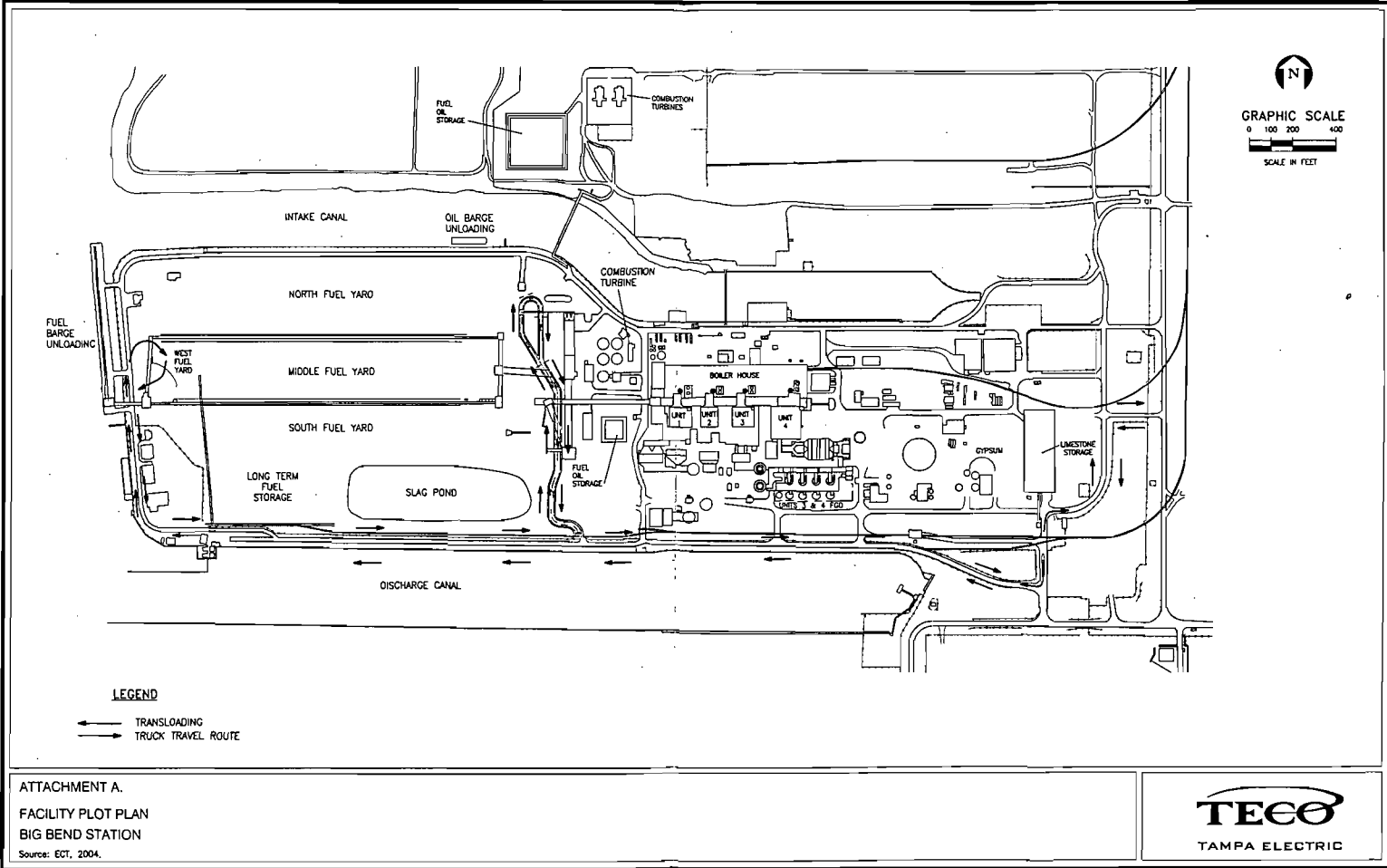
EMISSIONS UNIT INFORMATION

Section [1] of [1]

Additional Requirements Comment

Title V operating permit renewal application was previously submitted on June 30, 2004.

ATTACHMENT A
FACILITY PLOT PLAN



LEGEND

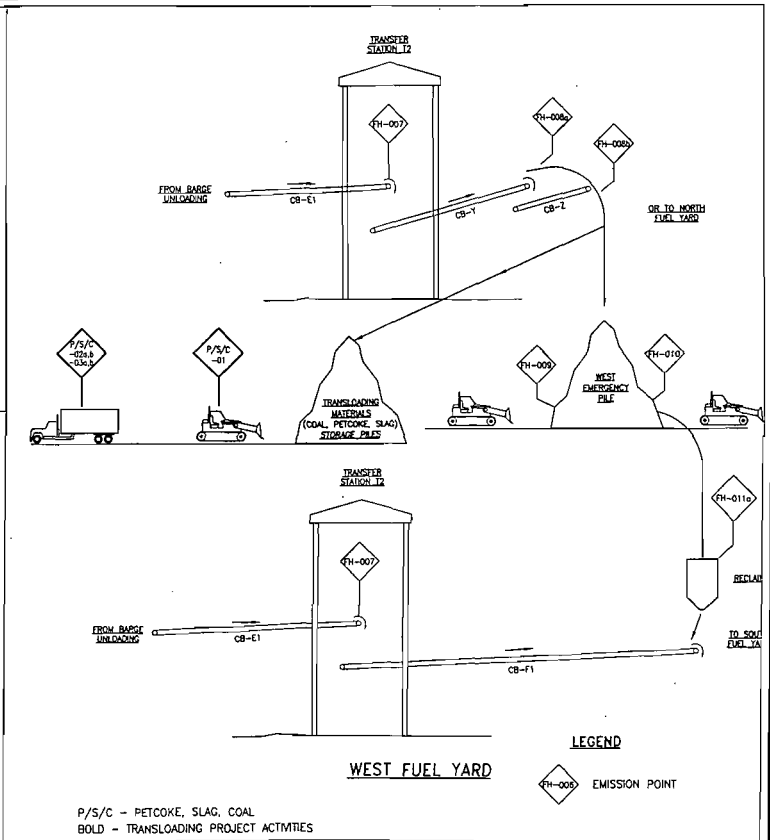
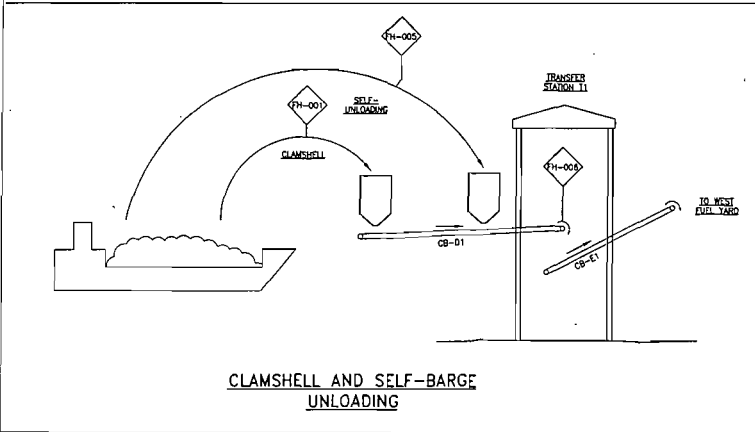
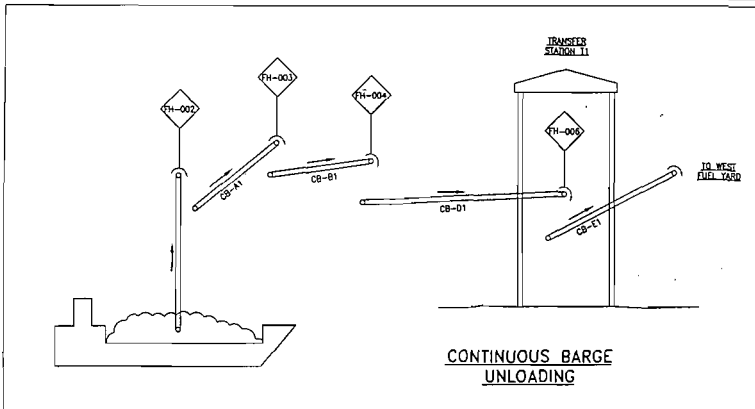
- ← TRANSLOADING
- TRUCK TRAVEL ROUTE

ATTACHMENT A.
 FACILITY PLOT PLAN
 BIG BEND STATION

Source: ECT, 2004.



ATTACHMENT B
PROCESS FLOW DIAGRAM



ATTACHMENT B.
 FUEL HANDLING PROCESS FLOW SCHEMATIC, BARGE UNLOADING, TRANSLOADING, AND WEST FUEL YARD

Sources: TEC, 1994. ECT, 2004.



ATTACHMENT C

**PRECAUTIONS TO PREVENT EMISSIONS
OF UNCONFINED PARTICULATE MATTER**

BIG BEND STATION

PRECAUTIONS TO PREVENT EMISSIONS OF UNCONFINED PARTICULATE MATTER

Unconfined particulate matter emissions that may result from operations include:

- Vehicular traffic on paved and unpaved roads.
- Wind-blown dust from yard areas.
- Periodic abrasive blasting.

The following techniques will be used to prevent unconfined particulate matter emissions on an as needed basis:

- Chemical or water application to:
 - Unpaved roads.
 - Unpaved yard areas.
- Paving and maintenance of roads, parking areas and yards.
- Landscaping or planting of vegetation.
- Confining abrasive blasting where possible.
- Other techniques, as necessary.

ATTACHMENT D
EMISSIONS RATE CALCULATIONS

Tampa Electric Company - Big Bend Station
Petroleum Coke/Slag/Coal Transloading PM/PM₁₀ Emission Estimates

| Emission Point Description | Emission Point ID | Potential Emission Rates | | | |
|---------------------------------------|---|--------------------------|---------------|------------------|--------------|
| | | PM | | PM ₁₀ | |
| | | (lb/hr) | (tpy) | (lb/hr) | (tpy) |
| A. Petroleum Coke | | | | | |
| Petcoke Handling - Existing Equipment | FH-001 thru FH-008b | 9.955 | 0.187 | 4.709 | 0.088 |
| Petcoke Truck Loading at Storage Pile | PET-01 | 0.012 | 0.006 | 0.006 | 0.003 |
| Trucks (Empty) - Paved Roads | PET/SLAG/COAL-02a | 2.773 | 1.442 | 0.541 | 0.281 |
| Trucks (Full) - Paved Roads | PET/SLAG/COAL-02b | 7.844 | 4.079 | 1.530 | 0.796 |
| Trucks (Empty) - Unpaved Roads | PET/SLAG/COAL-03a | 0.236 | 0.122 | 0.074 | 0.038 |
| Trucks (Full) - Unpaved Roads | PET/SLAG/COAL-03b | 0.322 | 0.167 | 0.101 | 0.524 |
| Totals | | 21.141 | 6.003 | 6.959 | 1.731 |
| B. Slag | | | | | |
| Slag Handling - Existing Equipment | FH-001 thru FH-008b | 18.989 | 0.356 | 8.981 | 0.168 |
| Slag Truck Loading at Storage Pile | SLAG-01 | 0.014 | 0.007 | 0.007 | 0.003 |
| Trucks (Empty) - Paved Roads | PET/SLAG/COAL-02a | 2.773 | 1.442 | 0.541 | 0.281 |
| Trucks (Full) - Paved Roads | PET/SLAG/COAL-02b | 7.844 | 4.079 | 1.530 | 0.796 |
| Trucks (Empty) - Unpaved Roads | PET/SLAG/COAL-03a | 0.236 | 0.122 | 0.074 | 0.038 |
| Trucks (Full) - Unpaved Roads | PET/SLAG/COAL-03b | 0.322 | 0.167 | 0.101 | 0.524 |
| Totals | | 30.177 | 6.174 | 11.233 | 1.811 |
| C. Coal | | | | | |
| Coal Handling - Existing Equipment | FH-001 thru FH-008b | 11.044 | 0.207 | 5.223 | 0.098 |
| Coal Truck Loading at Storage Pile | COAL-01 | 0.013 | 0.007 | 0.006 | 0.003 |
| Trucks (Empty) - Paved Roads | PET/SLAG/COAL-02a | 2.773 | 1.442 | 0.541 | 0.281 |
| Trucks (Full) - Paved Roads | PET/SLAG/COAL-02b | 7.844 | 4.079 | 1.530 | 0.796 |
| Trucks (Empty) - Unpaved Roads | PET/SLAG/COAL-03a | 0.236 | 0.122 | 0.074 | 0.038 |
| Trucks (Full) - Unpaved Roads | PET/SLAG/COAL-03b | 0.322 | 0.167 | 0.101 | 0.524 |
| Totals | | 22.231 | 6.025 | 7.475 | 1.741 |
| | Totals for All Materials (all emission points) | N/A | 18.202 | N/A | 5.283 |
| | Totals for All Materials (new emission points) | N/A | 17.452 | N/A | 4.928 |

Source: ECT, 2006.

EMISSION INVENTORY WORKSHEET

Tampa Electric Company - Big Bend Station

**Petcoke
Transloading**

EMISSION SOURCE TYPE

FUGITIVE PM - MATERIAL TRANSFER (DROPS)

FACILITY AND SOURCE DESCRIPTION

Emission Source Description: Fugitive PM - Transloading of Petroleum Coke
 Emission Control Method(s)/ID No.(s): Moist material, application of chemical surfactant
 Emission Point ID: FH-001 thru FH-008b, PET-01

EMISSION ESTIMATION EQUATIONS

PM Emission (lb/hr) = $0.74 \times 0.0032 \times ((\text{Wind Speed}/5)^{1.3} / (\text{Material Moisture Content}/2)^{1.4}) \times \text{Material Handled (ton/hr)} \times (1 - (\text{Control Eff.} / 100))$
 PM Emission (ton/yr) = $0.74 \times 0.0032 \times ((\text{Wind Speed}/5)^{1.3} / (\text{Material Moisture Content}/2)^{1.4}) \times \text{Material Handled (ton/yr)} \times (1 \text{ ton}/2,000 \text{ lb}) \times (1 - (\text{Control Eff.} / 100))$

Source: Section 13.2.4, AP-42, January 1995.

INPUT DATA AND EMISSIONS CALCULATIONS

| Mean Wind Speed: | | 8.6 mph | | Material Moisture Content: | | 7.0 weight % | | | |
|--|-----------|-------------------------|----------|--|------------------------|--|-----------------------------|---------------|---------------|
| Material Transfer Point | Source ID | Material Transfer Rates | | Uncontrolled Emission Factor (lb PM/ton) | Control Efficiency (%) | Controlled Emission Factor (lb PM/ton) | Potential PM Emission Rates | | |
| | | (ton/hr) | (ton/yr) | | | | (lb/hr) | (ton/yr) | |
| Existing Equipment | | | | | | | | | |
| Barge Clamshell to Conveyor D1 | FH-001 | 4,000 | 150,000 | 0.000830 | 25.0 | 0.000622 | 2.4888 | 0.0467 | |
| Barge Bucket Elevator to Conveyor A1 | FH-002 | 4,000 | 150,000 | 0.000830 | 25.0 | 0.000622 | 2.4888 | 0.0467 | |
| Conveyor A1 to Conveyor B1 | FH-003 | 4,000 | 150,000 | 0.000830 | 85.0 | 0.000124 | 0.4978 | 0.0093 | |
| Conveyor B1 to Conveyor D1 | FH-004 | 4,000 | 150,000 | 0.000830 | 85.0 | 0.000124 | 0.4978 | 0.0093 | |
| Self-Unloading Barge to Conveyor D1 | FH-005 | 4,000 | 150,000 | 0.000830 | 25.0 | 0.000622 | 2.4888 | 0.0467 | |
| Conveyor D1 to Conveyor E1 | FH-006 | 4,000 | 150,000 | 0.000830 | 85.0 | 0.000124 | 0.4978 | 0.0093 | |
| Conveyor E1 to Conveyor Y | FH-007 | 4,000 | 150,000 | 0.000830 | 90.0 | 0.000083 | 0.3318 | 0.0062 | |
| Conveyor Y to Conveyor Z | FH-008a | 4,000 | 150,000 | 0.000830 | 90.0 | 0.000083 | 0.3318 | 0.0062 | |
| Conveyor Z to Petcoke Storage Pile | FH-008b | 4,000 | 150,000 | 0.000830 | 90.0 | 0.000083 | 0.3318 | 0.0062 | |
| New Equipment | | | | | | | | | |
| Front-End Loader Reclaim from Petcoke Storage Pile to Trucks | PET-01 | 144.2 | 150,000 | 0.000830 | 90.0 | 0.000083 | 0.0120 | 0.0062 | |
| | | | | | | | Totals | 9.9673 | 0.1929 |

SOURCES OF INPUT DATA

| Parameter | Data Source |
|--|--|
| Mean Wind Speed, mph | Climate of the States (Tampa, FL), Third Edition, 1985. |
| Material Moisture Content | TEC, 2004. |
| Material Transfer Point Identification | TEC, 2004. |
| Material Transfer Rates | TEC, 2004. |
| Control Efficiency | Table 3.2.17-2, Workbook on Estimation and Dispersion Modeling for Fugitive Particulate Sources, UARG, September 1981. |

NOTES AND OBSERVATIONS

1. Material transfer rates based on 8 hrs/dy, 5 dys/wk, and 26 wks/yr operation.
2. Control Efficiencies: Side Enclosure (25%), Enclosure (85%), Treated With Dust Suppressant (90%).

DATA CONTROL

| | | | |
|--------------------|-----------|-------|------|
| Data Collected by: | S. Castro | Date: | 9/04 |
| Evaluated by: | T. Davis | Date: | 9/04 |
| Data Entered by: | T. Davis | Date: | 9/04 |

| EMISSION INVENTORY WORKSHEET | | | | | | | | Petcoke Transloading | | |
|---|--|--|----------|--|------------------------|--|---|-------------------------|---------------|--|
| Tampa Electric Company - Big Bend Station | | | | | | | | | | |
| EMISSION SOURCE TYPE | | | | | | | | | | |
| FUGITIVE PM ₁₀ - MATERIAL TRANSFER (DROPS) | | | | | | | | | | |
| FACILITY AND SOURCE DESCRIPTION | | | | | | | | | | |
| Emission Source Description: | | Fugitive PM ₁₀ - Transloading of Petroleum Coke | | | | | | | | |
| Emission Control Method(s)/ID No.(s): | | Moist material, application of chemical surfactant | | | | | | | | |
| Emission Point ID: | | FH-001 thru FH-008b, PET-01 | | | | | | | | |
| EMISSION ESTIMATION EQUATIONS | | | | | | | | | | |
| $PM_{10} \text{ Emission (lb/hr)} = 0.35 \times 0.0032 \times [(Wind \ Speed/5)^{1.5} / (Material \ Moisture \ Content/2)^{1.4}] \times Material \ Handled \ (ton/hr) \times (1 - (Control \ Eff. / 100))$ | | | | | | | | | | |
| $PM_{10} \text{ Emission (ton/yr)} = 0.35 \times 0.0032 \times [(Wind \ Speed/5)^{1.5} / (Material \ Moisture \ Content/2)^{1.4}] \times Material \ Handled \ (ton/yr) \times (1 \ ton/2,000 \ lb) \times (1 - (Control \ Eff. / 100))$ | | | | | | | | | | |
| Source: Section 13.2.4, AP-42, January 1995. | | | | | | | | | | |
| INPUT DATA AND EMISSIONS CALCULATIONS | | | | | | | | | | |
| Mean Wind Speed: | | 8.6 mph | | Material Moisture Content: | | 7.0 weight % | | | | |
| Material Transfer Point | Source ID | Material Transfer Rates | | Uncontrolled Emission Factor (lb PM/ton) | Control Efficiency (%) | Controlled Emission Factor (lb PM/ton) | Potential PM ₁₀ Emission Rates | | | |
| | | (ton/hr) | (ton/yr) | | | | (lb/hr) | (ton/yr) | | |
| Existing Equipment | | | | | | | | | | |
| Barge Clamshell to Conveyor D1 | FH-001 | 4,000 | 150,000 | 0.000392 | 25.0 | 0.000294 | 1.1771 | 0.0221 | | |
| Barge Bucket Elevator to Conveyor A1 | FH-002 | 4,000 | 150,000 | 0.000392 | 25.0 | 0.000294 | 1.1771 | 0.0221 | | |
| Conveyor A1 to Conveyor B1 | FH-003 | 4,000 | 150,000 | 0.000392 | 85.0 | 0.000059 | 0.2354 | 0.0044 | | |
| Conveyor B1 to Conveyor D1 | FH-004 | 4,000 | 150,000 | 0.000392 | 85.0 | 0.000059 | 0.2354 | 0.0044 | | |
| Self-Unloading Barge to Conveyor D1 | FH-005 | 4,000 | 150,000 | 0.000392 | 25.0 | 0.000294 | 1.1771 | 0.0221 | | |
| Conveyor D1 to Conveyor E1 | FH-006 | 4,000 | 150,000 | 0.000392 | 85.0 | 0.000059 | 0.2354 | 0.0044 | | |
| Conveyor E1 to Conveyor Y | FH-007 | 4,000 | 150,000 | 0.000392 | 90.0 | 0.000039 | 0.1570 | 0.0029 | | |
| Conveyor Y to Conveyor Z | FH-008a | 4,000 | 150,000 | 0.000392 | 90.0 | 0.000039 | 0.1570 | 0.0029 | | |
| Conveyor Z to Petcoke Storage Pile | FH-008b | 4,000 | 150,000 | 0.000392 | 90.0 | 0.000039 | 0.1570 | 0.0029 | | |
| New Equipment | | | | | | | | | | |
| Front-End Loader Reclaim from Petcoke Storage Pile to Trucks | PET-01 | 144.2 | 150,000 | 0.000392 | 90.0 | 0.000039 | 0.0057 | 0.0029 | | |
| | | | | | | | Totals | 4.7143 | 0.0912 | |
| SOURCES OF INPUT DATA | | | | | | | | | | |
| Parameter | Data Source | | | | | | | | | |
| Mean Wind Speed, mph | Climate of the States (Tampa, FL), Third Edition, 1985. | | | | | | | | | |
| Material Moisture Content | TEC, 2004. | | | | | | | | | |
| Material Transfer Point Identification | TEC, 2004. | | | | | | | | | |
| Material Transfer Rates | TEC, 2004. | | | | | | | | | |
| Control Efficiency | Table 3.2.17-2, Workbook on Estimation and Dispersion Modeling for Fugitive Particulate Sources, UARG, September 1981. | | | | | | | | | |
| NOTES AND OBSERVATIONS | | | | | | | | | | |
| 1. Material transfer rates based on 8 hrs/dy, 5 dys/wk, and 26 wks/yr operation. | | | | | | | | | | |
| 2. Control Efficiencies: Side Enclosure (25%), Enclosure (85%), Treated With Dust Suppressant (90%). | | | | | | | | | | |
| DATA CONTROL | | | | | | | | | | |
| Data Collected by: | S. Castro | | | | | | Date: | 9/04 | | |
| Evaluated by: | T. Davis | | | | | | Date: | 9/04 | | |
| Data Entered by: | T. Davis | | | | | | Date: | 9/04 | | |

| EMISSION INVENTORY WORKSHEET | | | | | | | | Slag Transloading | |
|---|--|------------------------------------|----------|--|------------------------|--|-----------------------------|----------------------|---------------|
| Tampa Electric Company - Big Bend Station | | | | | | | | | |
| EMISSION SOURCE TYPE | | | | | | | | | |
| FUGITIVE PM - MATERIAL TRANSFER (DROPS) | | | | | | | | | |
| FACILITY AND SOURCE DESCRIPTION | | | | | | | | | |
| Emission Source Description: | | Fugitive PM - Transloading of Slag | | | | | | | |
| Emission Control Method(s)/ID No.(s): | | Moist material, enclosures | | | | | | | |
| Emission Point ID: | | FH-001 thru FH-008b, PET-01 | | | | | | | |
| EMISSION ESTIMATION EQUATIONS | | | | | | | | | |
| $PM \text{ Emission (lb/hr)} = 0.74 \times 0.0032 \times \left[\frac{(\text{Wind Speed}/5)^{1.5}}{(\text{Material Moisture Content}/2)^{1.4}} \right] \times \text{Material Handled (ton/hr)} \times (1 - (\text{Control Eff.} / 100))$ | | | | | | | | | |
| $PM \text{ Emission (ton/yr)} = 0.74 \times 0.0032 \times \left[\frac{(\text{Wind Speed}/5)^{1.5}}{(\text{Material Moisture Content}/2)^{1.4}} \right] \times \text{Material Handled (ton/yr)} \times (1 \text{ ton}/2,000 \text{ lb}) \times (1 - (\text{Control Eff.} / 100))$ | | | | | | | | | |
| Source: Section 13.2.4, AP-42, January 1995. | | | | | | | | | |
| INPUT DATA AND EMISSIONS CALCULATIONS | | | | | | | | | |
| Mean Wind Speed: | | 8.6 mph | | Material Moisture Content: | | 6.22 | | weight % | |
| Material Transfer Point | Source ID | Material Transfer Rates | | Uncontrolled Emission Factor (lb PM/ton) | Control Efficiency (%) | Controlled Emission Factor (lb PM/ton) | Potential PM Emission Rates | | |
| | | (ton/hr) | (ton/yr) | | | | (lb/hr) | (ton/yr) | |
| Existing Equipment | | | | | | | | | |
| Barge Clamshell to Conveyor D1 | FH-001 | 4,000 | 150,000 | 0.000979 | 25.0 | 0.000734 | 2.9365 | 0.0551 | |
| Barge Bucket Elevator to Conveyor A1 | FH-002 | 4,000 | 150,000 | 0.000979 | 25.0 | 0.000734 | 2.9365 | 0.0551 | |
| Conveyor A1 to Conveyor B1 | FH-003 | 4,000 | 150,000 | 0.000979 | 85.0 | 0.000147 | 0.5873 | 0.0110 | |
| Conveyor B1 to Conveyor D1 | FH-004 | 4,000 | 150,000 | 0.000979 | 85.0 | 0.000147 | 0.5873 | 0.0110 | |
| Self-Unloading Barge to Conveyor D1 | FH-005 | 4,000 | 150,000 | 0.000979 | 25.0 | 0.000734 | 2.9365 | 0.0551 | |
| Conveyor D1 to Conveyor E1 | FH-006 | 4,000 | 150,000 | 0.000979 | 85.0 | 0.000147 | 0.5873 | 0.0110 | |
| Conveyor E1 to Conveyor Y | FH-007 | 4,000 | 150,000 | 0.000979 | 85.0 | 0.000147 | 0.5873 | 0.0110 | |
| Conveyor Y to Conveyor Z | FH-008a | 4,000 | 150,000 | 0.000979 | 0.0 | 0.000979 | 3.9153 | 0.0734 | |
| Conveyor Z to Petcoke Storage Pile | FH-008b | 4,000 | 150,000 | 0.000979 | 0.0 | 0.000979 | 3.9153 | 0.0734 | |
| New Equipment | | | | | | | | | |
| Front-End Loader Reclaim from Slag Storage Pile to Trucks | SLAG-01 | 144.2 | 150,000 | 0.000979 | 90.0 | 0.000098 | 0.0141 | 0.0073 | |
| | | | | | | | Totals | 19.0033 | 0.3634 |
| SOURCES OF INPUT DATA | | | | | | | | | |
| Parameter | Data Source | | | | | | | | |
| Mean Wind Speed, mph | Climate of the States (Tampa, FL), Third Edition, 1985. | | | | | | | | |
| Material Moisture Content | TEC, 2004. | | | | | | | | |
| Material Transfer Point Identification | TEC, 2004. | | | | | | | | |
| Material Transfer Rates | TEC, 2004. | | | | | | | | |
| Control Efficiency | Table 3.2.17-2, Workbook on Estimation and Dispersion Modeling for Fugitive Particulate Sources, UARG, September 1981. | | | | | | | | |
| NOTES AND OBSERVATIONS | | | | | | | | | |
| 1. Material transfer rates based on 8 hrs/dy, 5 dys/wk, and 26 wks/yr operation. | | | | | | | | | |
| 2. Control Efficiencies: Side Enclosure (25%), Enclosure (85%) | | | | | | | | | |
| DATA CONTROL | | | | | | | | | |
| Data Collected by: | S. Castro | | | Date: | 9/04 | | | | |
| Evaluated by: | T. Davis | | | Date: | 9/04 | | | | |
| Data Entered by: | T. Davis | | | Date: | 9/04 | | | | |

| EMISSION INVENTORY WORKSHEET | | | | | | | | Slag Transloading | |
|--|--|--|----------|--|------------------------|--|---|------------------------------|---------------|
| EMISSION SOURCE TYPE | | | | | | | | | |
| FUGITIVE PM₁₀ - MATERIAL TRANSFER (DROPS) | | | | | | | | | |
| FACILITY AND SOURCE DESCRIPTION | | | | | | | | | |
| Emission Source Description: | | Fugitive PM ₁₀ - Transloading of Slag | | | | | | | |
| Emission Control Method(s)/ID No.(s): | | Moist material | | | | | | | |
| Emission Point ID: | | FH-001 thru FH-008b, PET-01 | | | | | | | |
| EMISSION ESTIMATION EQUATIONS | | | | | | | | | |
| PM ₁₀ Emission (lb/hr) = 0.35 x 0.0032 x [(Wind Speed/5) ^{1.3} / (Material Moisture Content/2) ^{1.4}] x Material Handled (ton/hr) x (1 - (Control Eff. / 100)) | | | | | | | | | |
| PM ₁₀ Emission (ton/yr) = 0.35 x 0.0032 x [(Wind Speed/5) ^{1.3} / (Material Moisture Content/2) ^{1.4}] x Material Handled (ton/yr) x (1 ton/2,000 lb) x (1 - (Control Eff. / 100)) | | | | | | | | | |
| Source: Section 13.2.4, AP-42, January 1995. | | | | | | | | | |
| INPUT DATA AND EMISSIONS CALCULATIONS | | | | | | | | | |
| Mean Wind Speed: | | 8.6 mph | | Material Moisture Content: | | 6.22 | | weight % | |
| Material Transfer Point | Source ID | Material Transfer Rates | | Uncontrolled Emission Factor (lb PM/ton) | Control Efficiency (%) | Controlled Emission Factor (lb PM/ton) | Potential PM ₁₀ Emission Rates | | |
| | | (ton/hr) | (ton/yr) | | | | (lb/hr) | (ton/yr) | |
| Existing Equipment | | | | | | | | | |
| Barge Clamshell to Conveyor D1 | FH-001 | 4,000 | 150,000 | 0.000463 | 25.0 | 0.000347 | 1.3889 | 0.0260 | |
| Barge Bucket Elevator to Conveyor A1 | FH-002 | 4,000 | 150,000 | 0.000463 | 25.0 | 0.000347 | 1.3889 | 0.0260 | |
| Conveyor A1 to Conveyor B1 | FH-003 | 4,000 | 150,000 | 0.000463 | 85.0 | 0.000069 | 0.2778 | 0.0052 | |
| Conveyor B1 to Conveyor D1 | FH-004 | 4,000 | 150,000 | 0.000463 | 85.0 | 0.000069 | 0.2778 | 0.0052 | |
| Self-Unloading Barge to Conveyor D1 | FH-005 | 4,000 | 150,000 | 0.000463 | 25.0 | 0.000347 | 1.3889 | 0.0260 | |
| Conveyor D1 to Conveyor E1 | FH-006 | 4,000 | 150,000 | 0.000463 | 85.0 | 0.000069 | 0.2778 | 0.0052 | |
| Conveyor E1 to Conveyor Y | FH-007 | 4,000 | 150,000 | 0.000463 | 85.0 | 0.000069 | 0.2778 | 0.0052 | |
| Conveyor Y to Conveyor Z | FH-008a | 4,000 | 150,000 | 0.000463 | 0.0 | 0.000463 | 1.8518 | 0.0347 | |
| Conveyor Z to Petcoke Storage Pile | FH-008b | 4,000 | 150,000 | 0.000463 | 0.0 | 0.000463 | 1.8518 | 0.0347 | |
| New Equipment | | | | | | | | | |
| Front-End Loader Reclaim from Slag Storage Pile to Trucks | SLAG-01 | 144.2 | 150,000 | 0.000463 | 90.0 | 0.000046 | 0.0067 | 0.0035 | |
| | | | | | | | Totals | 8.9880 | 0.1719 |
| SOURCES OF INPUT DATA | | | | | | | | | |
| Parameter | Data Source | | | | | | | | |
| Mean Wind Speed, mph | Climate of the States (Tampa, FL), Third Edition, 1985. | | | | | | | | |
| Material Moisture Content | TEC, 2004. | | | | | | | | |
| Material Transfer Point Identification | TEC, 2004. | | | | | | | | |
| Material Transfer Rates | TEC, 2004. | | | | | | | | |
| Control Efficiency | Table 3.2.17-2, Workbook on Estimation and Dispersion Modeling for Fugitive Particulate Sources, UARG, September 1981. | | | | | | | | |
| NOTES AND OBSERVATIONS | | | | | | | | | |
| 1. Material transfer rates based on 8 hrs/dy, 5 dys/wk, and 26 wks/yr operation. | | | | | | | | | |
| 2. Control Efficiencies: Side Enclosure (25%), Enclosure (85%), Treated With Dust Suppressant (90%). | | | | | | | | | |
| DATA CONTROL | | | | | | | | | |
| Data Collected by: | S. Castro | | | | | Date: | 9/04 | | |
| Evaluated by: | T. Davis | | | | | Date: | 9/04 | | |
| Data Entered by: | T. Davis | | | | | Date: | 9/04 | | |

| EMISSION INVENTORY WORKSHEET | | | | | | | | Coal Transloading | |
|--|--|--|----------|--|------------------------|--|-----------------------------|----------------------|---------------|
| Tampa Electric Company - Big Bend Station | | | | | | | | | |
| EMISSION SOURCE TYPE | | | | | | | | | |
| FUGITIVE PM - MATERIAL TRANSFER (DROPS) | | | | | | | | | |
| FACILITY AND SOURCE DESCRIPTION | | | | | | | | | |
| Emission Source Description: | | Fugitive PM - Transloading of Coal | | | | | | | |
| Emission Control Method(s)/ID No.(s): | | Moist material, application of chemical surfactant | | | | | | | |
| Emission Point ID: | | FH-001 thru FH-008b, COAL-01 | | | | | | | |
| EMISSION ESTIMATION EQUATIONS | | | | | | | | | |
| PM Emission (lb/hr) = 0.74 x 0.0032 x [(Wind Speed/5) ^{1.3} / (Material Moisture Content/2) ^{1.4}] x Material Handled (ton/hr) x (1 - (Control Eff. / 100)) | | | | | | | | | |
| PM Emission (ton/yr) = 0.74 x 0.0032 x [(Wind Speed/5) ^{1.3} / (Material Moisture Content/2) ^{1.4}] x Material Handled (ton/yr) x (1 ton/2,000 lb) x (1 - (Control Eff. / 100)) | | | | | | | | | |
| Source: Section 13.2.4, AP-42, January 1995. | | | | | | | | | |
| INPUT DATA AND EMISSIONS CALCULATIONS | | | | | | | | | |
| Mean Wind Speed: | | 8.6 mph | | Material Moisture Content: | | 6.5 weight % | | | |
| Material Transfer Point | Source ID | Material Transfer Rates | | Uncontrolled Emission Factor (lb PM/ton) | Control Efficiency (%) | Controlled Emission Factor (lb PM/ton) | Potential PM Emission Rates | | |
| | | (ton/hr) | (ton/yr) | | | | (lb/hr) | (ton/yr) | |
| Existing Equipment | | | | | | | | | |
| Barge Clamshell to Conveyor D1 | FH-001 | 4,000 | 150,000 | 0.000920 | 25.0 | 0.000690 | 2.7609 | 0.0518 | |
| Barge Bucket Elevator to Conveyor A1 | FH-002 | 4,000 | 150,000 | 0.000920 | 25.0 | 0.000690 | 2.7609 | 0.0518 | |
| Conveyor A1 to Conveyor B1 | FH-003 | 4,000 | 150,000 | 0.000920 | 85.0 | 0.000138 | 0.5522 | 0.0104 | |
| Conveyor B1 to Conveyor D1 | FH-004 | 4,000 | 150,000 | 0.000920 | 85.0 | 0.000138 | 0.5522 | 0.0104 | |
| Self-Unloading Barge to Conveyor D1 | FH-005 | 4,000 | 150,000 | 0.000920 | 25.0 | 0.000690 | 2.7609 | 0.0518 | |
| Conveyor D1 to Conveyor E1 | FH-006 | 4,000 | 150,000 | 0.000920 | 85.0 | 0.000138 | 0.5522 | 0.0104 | |
| Conveyor E1 to Conveyor Y | FH-007 | 4,000 | 150,000 | 0.000920 | 90.0 | 0.000092 | 0.3681 | 0.0069 | |
| Conveyor Y to Conveyor Z | FH-008a | 4,000 | 150,000 | 0.000920 | 90.0 | 0.000092 | 0.3681 | 0.0069 | |
| Conveyor Z to Coal Storage Pile | FH-008b | 4,000 | 150,000 | 0.000920 | 90.0 | 0.000092 | 0.3681 | 0.0069 | |
| New Equipment | | | | | | | | | |
| Front-End Loader Reclaim from Coal Storage Pile to Trucks | COAL-01 | 144.2 | 150,000 | 0.000920 | 90.0 | 0.000092 | 0.0133 | 0.0069 | |
| | | | | | | | Totals | 11.0569 | 0.2140 |
| SOURCES OF INPUT DATA | | | | | | | | | |
| Parameter | Data Source | | | | | | | | |
| Mean Wind Speed, mph | Climate of the States (Tampa, FL), Third Edition, 1985. | | | | | | | | |
| Material Moisture Content | TEC, 2004. | | | | | | | | |
| Material Transfer Point Identification | TEC, 2004. | | | | | | | | |
| Material Transfer Rates | TEC, 2004. | | | | | | | | |
| Control Efficiency | Table 3.2.17-2, Workbook on Estimation and Dispersion Modeling for Fugitive Particulate Sources, UARG, September 1981. | | | | | | | | |
| NOTES AND OBSERVATIONS | | | | | | | | | |
| 1. Material transfer rates based on 8 hrs/dy, 5 dys/wk, and 26 wks/yr operation. | | | | | | | | | |
| 2. Control Efficiencies: Side Enclosure (25%), Enclosure (85%), Treated With Dust Suppressant (90%). | | | | | | | | | |
| DATA CONTROL | | | | | | | | | |
| Data Collected by: | S. Castro | | | Date: | | | 9/04 | | |
| Evaluated by: | T. Davis | | | Date: | | | 9/04 | | |
| Data Entered by: | T. Davis | | | Date: | | | 9/04 | | |

| EMISSION INVENTORY WORKSHEET | | | | | | | | Coal Transloading | |
|--|--|--|----------|--|------------------------|--|---|----------------------|---------------|
| Tampa Electric Company - Big Bend Station | | | | | | | | | |
| EMISSION SOURCE TYPE | | | | | | | | | |
| FUGITIVE PM ₁₀ - MATERIAL TRANSFER (DROPS) | | | | | | | | | |
| FACILITY AND SOURCE DESCRIPTION | | | | | | | | | |
| Emission Source Description: | | Fugitive PM ₁₀ - Transloading of Coal | | | | | | | |
| Emission Control Method(s)/ID No.(s): | | Moist material, application of chemical surfactant | | | | | | | |
| Emission Point ID: | | FH-001 thru FH-008b, COAL-01 | | | | | | | |
| EMISSION ESTIMATION EQUATIONS | | | | | | | | | |
| PM ₁₀ Emission (lb/hr) = 0.35 x 0.0032 x [(Wind Speed/5) ^{1.3} / (Material Moisture Content/2) ^{1.4}] x Material Handled (ton/hr) x (1 - (Control Eff. / 100)) | | | | | | | | | |
| PM ₁₀ Emission (ton/yr) = 0.35 x 0.0032 x [(Wind Speed/5) ^{1.3} / (Material Moisture Content/2) ^{1.4}] x Material Handled (ton/yr) x (1 ton/2,000 lb) x (1 - (Control Eff. / 100)) | | | | | | | | | |
| Source: Section 13.2.4, AP-42, January 1995. | | | | | | | | | |
| INPUT DATA AND EMISSIONS CALCULATIONS | | | | | | | | | |
| Mean Wind Speed: | | 8.6 mph | | Material Moisture Content: | | 6.5 weight % | | | |
| Material Transfer Point | Source ID | Material Transfer Rates | | Uncontrolled Emission Factor (lb PM/ton) | Control Efficiency (%) | Controlled Emission Factor (lb PM/ton) | Potential PM ₁₀ Emission Rates | | |
| | | (ton/hr) | (ton/yr) | | | | (lb/hr) | (ton/yr) | |
| Existing Equipment | | | | | | | | | |
| Barge Clamshell to Conveyor D1 | FH-001 | 4,000 | 150,000 | 0.000435 | 25.0 | 0.000326 | 1.3058 | 0.0245 | |
| Barge Bucket Elevator to Conveyor A1 | FH-002 | 4,000 | 150,000 | 0.000435 | 25.0 | 0.000326 | 1.3058 | 0.0245 | |
| Conveyor A1 to Conveyor B1 | FH-003 | 4,000 | 150,000 | 0.000435 | 85.0 | 0.000065 | 0.2612 | 0.0049 | |
| Conveyor B1 to Conveyor D1 | FH-004 | 4,000 | 150,000 | 0.000435 | 85.0 | 0.000065 | 0.2612 | 0.0049 | |
| Self-Unloading Barge to Conveyor D1 | FH-005 | 4,000 | 150,000 | 0.000435 | 25.0 | 0.000326 | 1.3058 | 0.0245 | |
| Conveyor D1 to Conveyor E1 | FH-006 | 4,000 | 150,000 | 0.000435 | 85.0 | 0.000065 | 0.2612 | 0.0049 | |
| Conveyor E1 to Conveyor Y | FH-007 | 4,000 | 150,000 | 0.000435 | 90.0 | 0.000044 | 0.1741 | 0.0033 | |
| Conveyor Y to Conveyor Z | FH-008a | 4,000 | 150,000 | 0.000435 | 90.0 | 0.000044 | 0.1741 | 0.0033 | |
| Conveyor Z to Coal Storage Pile | FH-008b | 4,000 | 150,000 | 0.000435 | 90.0 | 0.000044 | 0.1741 | 0.0033 | |
| New Equipment | | | | | | | | | |
| Front-End Loader Reclaim from Coal Storage Pile to Trucks | COAL-01 | 144.2 | 150,000 | 0.000435 | 90.0 | 0.000044 | 0.0063 | 0.0033 | |
| | | | | | | | Totals | 5.2296 | 0.1012 |
| SOURCES OF INPUT DATA | | | | | | | | | |
| Parameter | Data Source | | | | | | | | |
| Mean Wind Speed, mph | Climate of the States (Tampa, FL), Third Edition, 1985. | | | | | | | | |
| Material Moisture Content | TEC, 2004. | | | | | | | | |
| Material Transfer Point Identification | TEC, 2004. | | | | | | | | |
| Material Transfer Rates | TEC, 2004. | | | | | | | | |
| Control Efficiency | Table 3.2.17-2, Workbook on Estimation and Dispersion Modeling for Fugitive Particulate Sources, UARG, September 1981. | | | | | | | | |
| NOTES AND OBSERVATIONS | | | | | | | | | |
| 1. Material transfer rates based on 8 hrs/dy, 5 dys/wk, and 26 wks/yr operation. | | | | | | | | | |
| 2 Control Efficiencies: Side Enclosure (25%), Enclosure (85%), Treated With Dust Suppressant (90%). | | | | | | | | | |
| DATA CONTROL | | | | | | | | | |
| Data Collected by: | S. Castro | | | Date: | 9/04 | | | | |
| Evaluated by: | T. Davis | | | Date: | 9/04 | | | | |
| Data Entered by: | T. Davis | | | Date: | 9/04 | | | | |

| EMISSION INVENTORY WORKSHEET | | | | | | Truck Traffic (Paved Roads) | |
|---|---|---|-----------------------------------|----------------------|------------------------|--|--------------|
| Tampa Electric Company - Big Bend Station | | | | | | | |
| EMISSION SOURCE TYPE | | | | | | | |
| FUGITIVE PM - TRUCK TRAFFIC ON PAVED ROADS | | | | | | | |
| FACILITY AND SOURCE DESCRIPTION | | | | | | | |
| Emission Source Description: | | Fugitive PM - Transloading of Coal, Petcoke or Slag; Truck Traffic on Paved Roads | | | | | |
| Emission Control Method(s)/ID No. (s): | | Watering, As Necessary | | | | | |
| Emission Point ID: | | PET/SLAG/COAL-02 | | | | | |
| EMISSION ESTIMATION EQUATIONS | | | | | | | |
| $PM \text{ Emission (lb/hr)} = ((0.082 \times [(Silt \text{ Loading Factor}/2)^{0.65}] \times [(Truck \text{ Weight}/3)^{1.50} - 0.00047] \times (1 - ("Wet" \text{ Days}/1,460)) \times Vehicle \text{ Miles Traveled (VMT)}/hr \times (1 - (Control \text{ Eff.} / 100)))$ | | | | | | | |
| $PM \text{ Emission (ton/yr)} = ((0.082 \times [(Silt \text{ Loading Factor}/2)^{0.65}] \times [(Truck \text{ Weight}/3)^{1.50} - 0.00047] \times (1 - ("Wet" \text{ Days}/1,460)) \times Vehicle \text{ Miles Traveled (VMT)}/yr \times (1 \text{ ton}/2,000 \text{ lb}) \times (1 - (Control \text{ Eff.} / 100)))$ | | | | | | | |
| Source: Section 13.2.1, AP-42, December 2003. | | | | | | | |
| INPUT DATA AND EMISSIONS CALCULATIONS | | | | | | | |
| Uncontrolled Silt Loading Factor: | | 9.7 g/m ² | Mean Annual Number of "Wet" Days: | | 100 | | |
| Operating Hours: | | 8 hr/dy | 5 dy/wk | | 28 wk/yr | | |
| Material Shipped by Truck: | | 150,000 ton/yr | Truck Travel Distance (one way): | | 6,864 ft | | |
| Hourly Truck Count: | | 11 trucks/hr | Annual Truck Count: | | 11,538 trucks/yr | | |
| Truck Traffic Type | Source ID | Vehicle Miles Traveled | | Vehicle Weight (ton) | Control Efficiency (%) | Potential PM Emission Rates | |
| | | (VMT/hr) | (VMT/yr) | | | (lb/hr) | (ton/yr) |
| Trucks (Empty) | PET/SLAG/COAL-02a | 14.423 | 15,000 | 13.0 | 90.0 | 2.773 | 1.442 |
| Trucks (Full) | PET/SLAG/COAL-02b | 14.423 | 15,000 | 26.0 | 90.0 | 7.844 | 4.079 |
| Totals | | | | | | 10.62 | 5.521 |
| SOURCES OF INPUT DATA | | | | | | | |
| Parameter | Data Source | | | | | | |
| Uncontrolled Silt Loading Factor | Based on factor for iron and steel production, ECT, 2004. | | | | | | |
| Mean Annual Number of "Wet" Days | Figure 13.2.1-2, Section 13.2.1, AP-42, November 2003. | | | | | | |
| Vehicle Miles Traveled, VMT | TEC, 2004. | | | | | | |
| Truck Weights, ton | TEC, 2004. | | | | | | |
| Control Efficiency | Estimated, ECT 2004. | | | | | | |
| NOTES AND OBSERVATIONS | | | | | | | |
| DATA CONTROL | | | | | | | |
| Data Collected by: | S. Castro | | | Date: | 9/04 | | |
| Evaluated by: | T. Davis | | | Date: | 9/04 | | |
| Data Entered by: | T. Davis | | | Date: | 9/04 | | |

| EMISSION INVENTORY WORKSHEET | | | | | | Truck Traffic (Paved Roads) | |
|--|-------------------|---|-----------------------------------|----------------------|------------------------|---|--------------|
| Tampa Electric Company - Big Bend Station | | | | | | | |
| EMISSION SOURCE TYPE | | | | | | | |
| FUGITIVE PM₁₀ - TRUCK TRAFFIC ON PAVED ROADS | | | | | | | |
| FACILITY AND SOURCE DESCRIPTION | | | | | | | |
| Emission Source Description: | | Fugitive PM ₁₀ - Transloading of Coal, Pelcoke or Slag; Truck Traffic on Paved Roads | | | | | |
| Emission Control Method(s)/ID No.(s): | | Watering, As Necessary | | | | | |
| Emission Point ID: | | PET/SLAG/COAL-02 | | | | | |
| EMISSION ESTIMATION EQUATIONS | | | | | | | |
| PM ₁₀ Emission (lb/hr) = ((0.016 x [(Silt Loading Factor/2) ^{0.65}] x [(Truck Weight/3) ^{1.50}] - 0.00047) x (1 - ("Wet" Days/1,460)) x Vehicle Miles Traveled (VMT)hr x (1 - (Control Eff. / 100)) | | | | | | | |
| PM ₁₀ Emission (ton/yr) = ((0.016 x [(Silt Loading Factor/2) ^{0.65}] x [(Truck Weight/3) ^{1.50}] - 0.00047) x (1 - ("Wet" Days/1,460)) x Vehicle Miles Traveled (VMT)yr x (1 ton/2,000 lb) x (1 - (Control Eff. / 100)) | | | | | | | |
| Source: Section 13.2.1, AP-42, December 2003. | | | | | | | |
| INPUT DATA AND EMISSIONS CALCULATIONS | | | | | | | |
| Uncontrolled Silt Loading Factor: | | 9.7 g/m ² | Mean Annual Number of "Wet" Days: | | 100 | | |
| Operating Hours: | | 8 hr/dy | 5 dy/wk | 26 wk/yr | | | |
| Material Shipped by Truck: | | 150,000 ton/yr | Truck Travel Distance (one way): | | 6,864 ft | | |
| Hourly Truck Count: | | 11 trucks/hr | Annual Truck Count: | | 11,538 trucks/yr | | |
| Truck Traffic Type | Source ID | Vehicle Miles Traveled | | Vehicle Weight (ton) | Control Efficiency (%) | Potential PM ₁₀ Emission Rates | |
| | | (VMT/hr) | (VMT/yr) | | | (lb/hr) | (ton/yr) |
| Trucks (Empty) | PET/SLAG/COAL-02a | 14.423 | 15,000 | 13.0 | 90.0 | 0.541 | 0.281 |
| Trucks (Full) | PET/SLAG/COAL-02b | 14.423 | 15,000 | 26.0 | 90.0 | 1.530 | 0.796 |
| Totals | | | | | | 2.07 | 1.077 |
| SOURCES OF INPUT DATA | | | | | | | |
| Parameter | | Data Source | | | | | |
| Uncontrolled Silt Loading Factor | | Based on factor for iron and steel production, ECT, 2004. | | | | | |
| Mean Annual Number of "Wet" Days | | Figure 13.2.1-2, Section 13.2.1, AP-42, November 2003. | | | | | |
| Vehicle Miles Traveled, VMT | | TEC, 2004. | | | | | |
| Truck Weights, ton | | TEC, 2004. | | | | | |
| Control Efficiency | | Estimated, ECT 2004. | | | | | |
| NOTES AND OBSERVATIONS | | | | | | | |
| DATA CONTROL | | | | | | | |
| Data Collected by: | | S. Castro | | | Date: | | 9/04 |
| Evaluated by: | | T. Davis | | | Date: | | 9/04 |
| Data Entered by: | | T. Davis | | | Date: | | 9/04 |

| EMISSION INVENTORY WORKSHEET | | | | | | | Truck Traffic (Unpaved Roads) | |
|---|-------------------|------------------------|---|----------------------|------------------------|-----------------------------|----------------------------------|--|
| Tampa Electric Company - Big Bend Station | | | | | | | | |
| EMISSION SOURCE TYPE | | | | | | | | |
| FUGITIVE PM - TRUCK TRAFFIC ON UNPAVED ROADS | | | | | | | | |
| FACILITY AND SOURCE DESCRIPTION | | | | | | | | |
| Emission Source Description: | | | Fugitive PM - Transloading of Coal, Petcoke or Slag; Truck Traffic on Unpaved Roads | | | | | |
| Emission Control Method(s)/ID No. (s): | | | Watering, As Necessary | | | | | |
| Emission Point ID: | | | PET/SLAG/COAL-03 | | | | | |
| EMISSION ESTIMATION EQUATIONS | | | | | | | | |
| PM Emission (lb/hr) = ((4.9 x [(surface material silt content)/12] ^{0.7}) x [(Truck Weight/3) ^{0.465} x (365 - "Wet" Days/365) x Vehicle Miles Traveled (VMT)/hr x (1 - (Control Eff. / 100)) | | | | | | | | |
| PM Emission (tons/yr) = ((4.9 x [(surface material silt content)/12] ^{0.7}) x [(Truck Weight/3) ^{0.465} x (365 - "Wet" Days/365) x Vehicle Miles Traveled (VMT)/yr x (1 ton/2,000 lb) x (1 - (Control Eff. / 100)) | | | | | | | | |
| Source: Equation 1a, Section 13.2.2, AP-42, December 2003. | | | | | | | | |
| INPUT DATA AND EMISSIONS CALCULATIONS | | | | | | | | |
| Surface Silt Content: 13.5 % | | | Mean Annual Number of "Wet" Days: 100 | | | | | |
| Operating Hours: 8 hr/dy | | | 5 dy/wk | | | 26 wk/yr | | |
| Coal Shipped by Truck: 150,000 ton/yr | | | Truck Travel Distance (one way): 150 ft | | | | | |
| Hourly Truck Count: 11 trucks/hr | | | Annual Truck Count: 11,538 trucks/yr | | | | | |
| Truck Traffic Type | Source ID | Vehicle Miles Traveled | | Vehicle Weight (ton) | Control Efficiency (%) | Potential PM Emission Rates | | |
| | | (VMT/hr) | (VMT/yr) | | | (lb/hr) | (ton/yr) | |
| Trucks (Empty) | PET/SLAG/COAL-03a | 0.315 | 328 | 13.0 | 90.0 | 0.236 | 0.122 | |
| Trucks (Full) | PET/SLAG/COAL-03b | 0.315 | 328 | 26.0 | 90.0 | 0.322 | 0.167 | |
| Totals | | | | | | 0.56 | 0.290 | |
| SOURCES OF INPUT DATA | | | | | | | | |
| Parameter | | | Data Source | | | | | |
| Surface Silt Content, % | | | Based on average surface silt content for industrial roads, Table 13.2.2-3, AP-42, December 2003. | | | | | |
| Mean Annual Number of "Wet" Days | | | Figure 13.2.2-1, Section 13.2.2, AP-42, December 2003. | | | | | |
| Vehicle Miles Traveled, VMT | | | TEC, 2004. | | | | | |
| Truck Weights, ton | | | TEC, 2004. | | | | | |
| NOTES AND OBSERVATIONS | | | | | | | | |
| DATA CONTROL | | | | | | | | |
| Data Collected by: S. Castro | | | Date: 9/04 | | | | | |
| Evaluated by: T. Davis | | | Date: 9/04 | | | | | |
| Data Entered by: T. Davis | | | Date: 9/04 | | | | | |

| EMISSION INVENTORY WORKSHEET | | | | | | | Truck Traffic (Unpaved Roads) | | | |
|--|-------------------|---|---|----------------------|----------------------------------|---|----------------------------------|------------------|-----|--|
| Tampa Electric Company - Blg Bend Station | | | | | | | | | | |
| EMISSION SOURCE TYPE | | | | | | | | | | |
| FUGITIVE PM ₁₀ - TRUCK TRAFFIC ON UNPAVED ROADS | | | | | | | | | | |
| FACILITY AND SOURCE DESCRIPTION | | | | | | | | | | |
| Emission Source Description: | | | Fugitive PM ₁₀ - Transloading of Coal, Petcoke or Slag; Truck Traffic on Unpaved Roads | | | | | | | |
| Emission Control Method(s)/ID No. (s): | | | Watering, As Necessary | | | | | | | |
| Emission Point ID: | | | PET/SLAG/COAL-03 | | | | | | | |
| EMISSION ESTIMATION EQUATIONS | | | | | | | | | | |
| $PM_{10} \text{ Emission (lb/hr)} = ((1.5 \times [\text{surface material silt content}]^{0.9}) \times [(\text{Truck Weight})^{0.49} \times (365 - \text{"Wet" Days}/365) \times \text{Vehicle Miles Traveled (VMT)/hr} \times (1 - (\text{Control Eff.} / 100))])$ | | | | | | | | | | |
| $PM_{10} \text{ Emission (tons/yr)} = ((1.5 \times [\text{surface material silt content}]^{0.9}) \times [(\text{Truck Weight})^{0.49} \times (365 - \text{"Wet" Days}/365) \times \text{Vehicle Miles Traveled (VMT)/yr} \times (1 - (\text{Control Eff.} / 100))])$ | | | | | | | | | | |
| Source: Equation 1a, Section 13.2.2, AP-42, December 2003. | | | | | | | | | | |
| INPUT DATA AND EMISSIONS CALCULATIONS | | | | | | | | | | |
| Surface Silt Content: | | | 13.5 % | | | Mean Annual Number of "Wet" Days: | | | 100 | |
| Operating Hours: | | | 8 hr/dy | | 5 dy/wk | | 26 wk/yr | | | |
| Coal Shipped by Truck: | | | 150,000 ton/yr | | Truck Travel Distance (one way): | | | 150 ft | | |
| Hourly Truck Count: | | | 11 trucks/hr | | Annual Truck Count: | | | 11,538 trucks/yr | | |
| Truck Traffic Type | Source ID | Vehicle Miles Traveled | | Vehicle Weight (ton) | Control Efficiency (%) | Potential PM ₁₀ Emission Rates | | | | |
| | | (VMT/hr) | (VMT/yr) | | | (lb/hr) | (ton/yr) | | | |
| Trucks (Empty) | PET/SLAG/COAL-03a | 0.315 | 328 | 13.0 | 90.0 | 0.074 | 0.038 | | | |
| Trucks (Full) | PET/SLAG/COAL-03b | 0.315 | 328 | 26.0 | 90.0 | 0.101 | 0.524 | | | |
| Totals | | | | | | 0.17 | 0.563 | | | |
| SOURCES OF INPUT DATA | | | | | | | | | | |
| Parameter | | Data Source | | | | | | | | |
| Surface Silt Content, % | | Based on average surface silt content for industrial roads, Table 13.2.2-3, AP-42, December 2003. | | | | | | | | |
| Mean Annual Number of "Wet" Days | | Figure 13.2.2-1, Section 13.2.2, AP-42, December 2003. | | | | | | | | |
| Vehicle Miles Traveled, VMT | | TEC, 2004. | | | | | | | | |
| Truck Weights, ton | | TEC, 2004. | | | | | | | | |
| NOTES AND OBSERVATIONS | | | | | | | | | | |
| DATA CONTROL | | | | | | | | | | |
| Data Collected by: | | S. Castro | | | Date: | | 9/04 | | | |
| Evaluated by: | | T. Davis | | | Date: | | 9/04 | | | |
| Data Entered by: | | T. Davis | | | Date: | | 9/04 | | | |

BIG BEND STATION
COAL, PETCOKE, AND SLAG
TRANSLOADING PROJECT

APPLICATION FOR
AIR CONSTRUCTION PERMIT AND
TITLE V OPERATION PERMIT REVISION

Prepared for:



TAMPA ELECTRIC
Tampa, Florida

Prepared by:

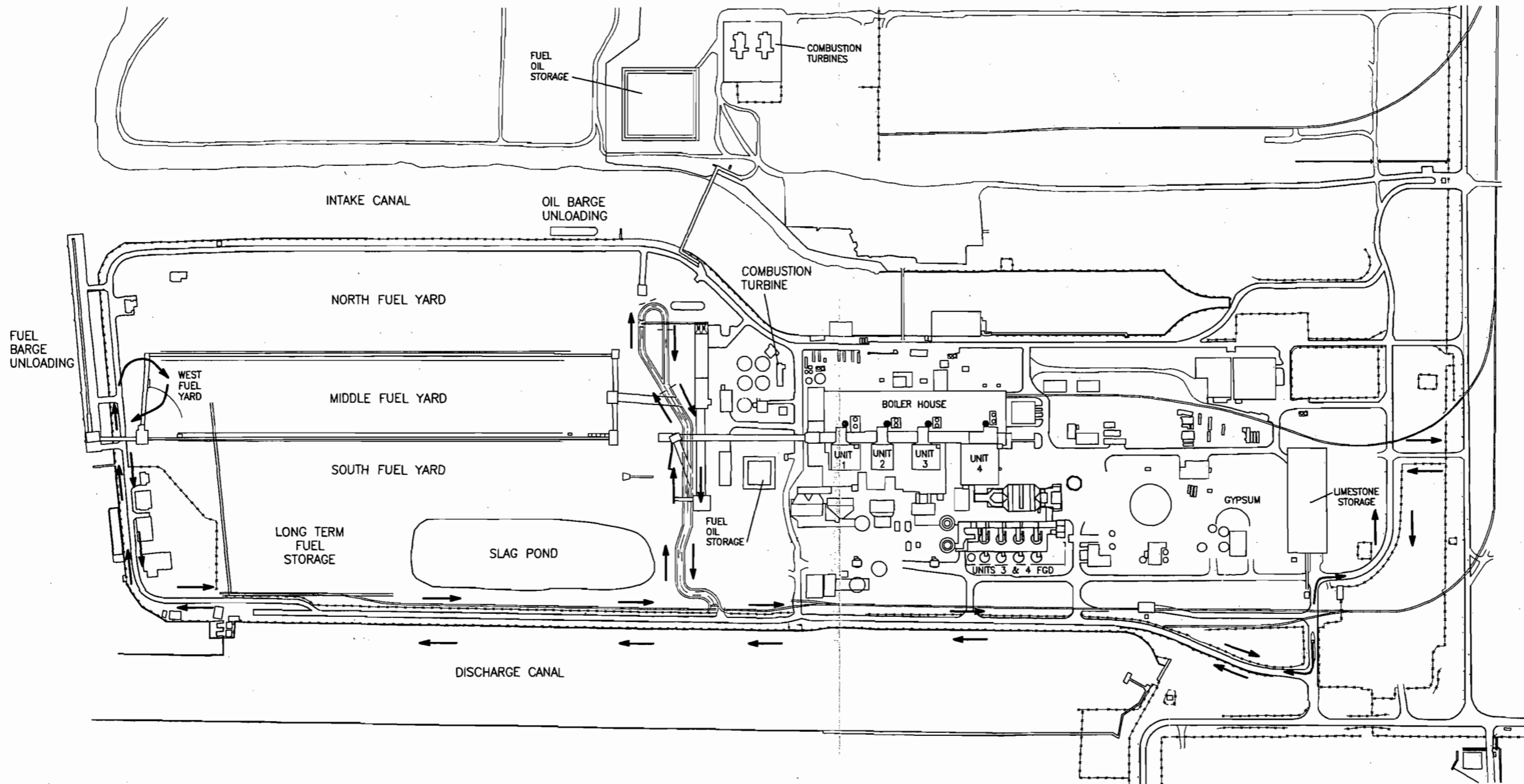
ECT

Environmental Consulting & Technology, Inc.

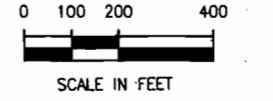
3701 Northwest 98th Street
Gainesville, Florida 32606

ECT No. 030609-0100

Revised February 2006



GRAPHIC SCALE



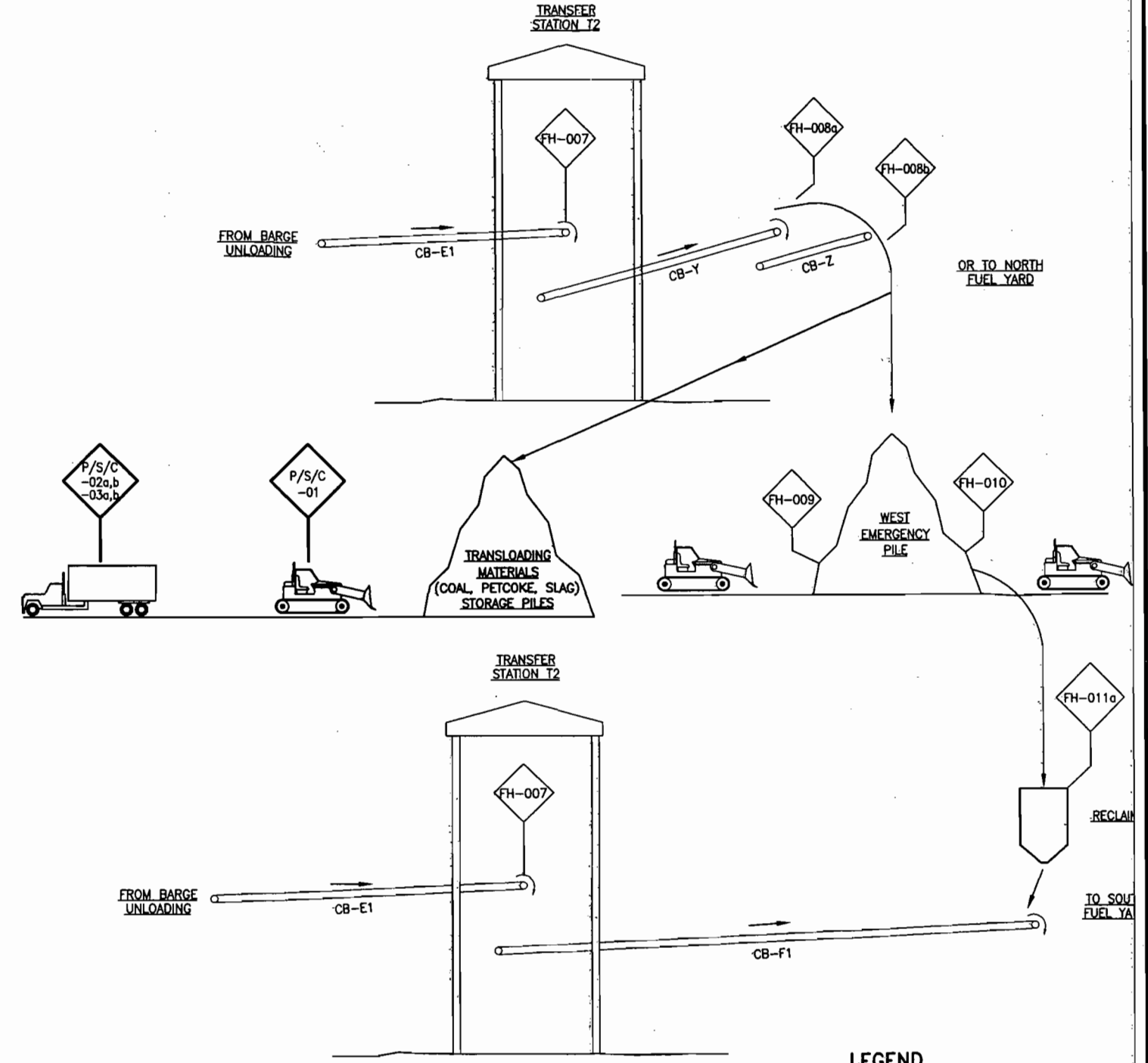
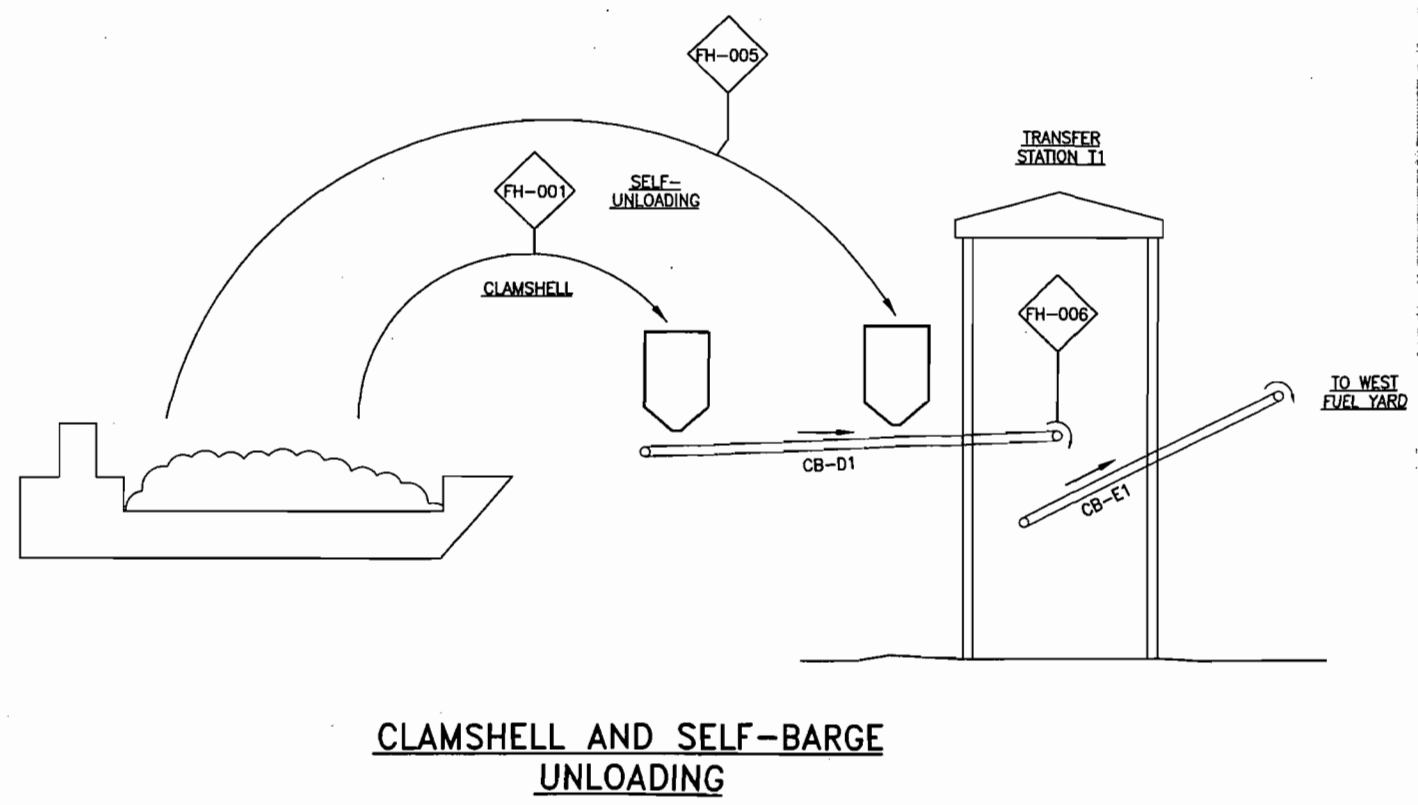
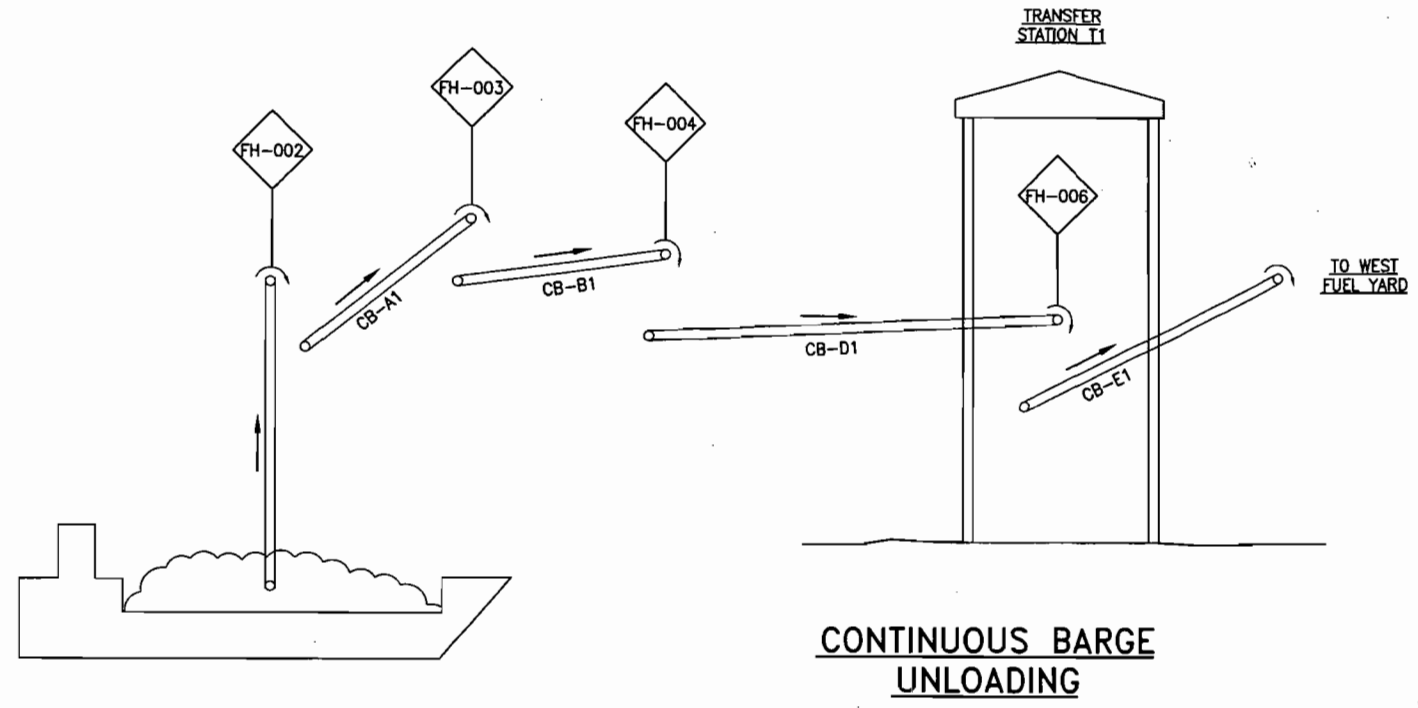
LEGEND

- ← TRANSLADING
- TRUCK TRAVEL ROUTE

ATTACHMENT A.
 FACILITY PLOT PLAN
 BIG BEND STATION

Source: ECT, 2004.





LEGEND

◆ FH-006 EMISSION POINT

P/S/C - PETCOKE, SLAG, COAL
BOLD - TRANSLOADING PROJECT ACTIVITIES

ATTACHMENT B.
 FUEL HANDLING PROCESS FLOW SCHEMATIC, BARGE UNLOADING, TRANSLOADING, AND WEST FUEL YARD

Sources: TEC, 1994. ECT, 2004.

