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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

EHSvik\SCG175

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

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/PM<sub>10</sub>), sulfur dioxide (SO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>), 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/PM<sub>10</sub>.

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/PM<sub>10</sub> 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; <del>029; 030; 031 and 037</del> 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~~].  
012a/2b/COAL-012a/2b/SLAG-012a/2b]:

<u>Source Designator</u>	<u>PM/PM<sub>10</sub> Control Method</u>	<u>Control Efficiency</u>	<u>Transfer Rates</u>	<u>Emission Point</u>
<del>Front-End</del> Reclaim from Petcoke Storage Pile to Trucks	Moist Material & Chemical Surfactants	90%	150,000 TPY	<del>FH-PET-01074a</del>
<del>Front-End</del> Reclaim from Coal Storage Pile to Trucks	Moist Material & Chemical Surfactants	90%	150,000 TPY	<del>FH-COAL-01074b</del>
<del>Front-End</del> Reclaim from Slag Storage Pile to Trucks	Moist Material	90%	150,000 TPY	<del>FH-SLAG-01074c</del>
<u>Source Designator</u>	<u>PM/PM<sub>10</sub> 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	<del>FH-Pet/Coal/Slag-02a/2b-075a/075b</del>
Truck Traffic (unpaved Roads)	Watering as necessary	90%	984 VMT/yr	<del>FH-Pet/Coal/Slag-03a/3b-076a/076b</del>

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>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

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 reclaimers. 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

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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
<b><u>Description</u></b>	<b><u>Source ID</u></b>
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
<del>Non-TEC Fuel</del> Stockpile to Loadout Conveyor	FH-067
<del>Non-TEC Fuel</del> 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/PM<sub>10</sub> (~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 SO<sub>2</sub>, "maintenance" for Ozone (O<sub>3</sub>), 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/PM<sub>10</sub>) 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 eEmissions 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

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

**SECTION I. FACILITY INFORMATION**

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JK/AAL/SMS/th

## SECTION I. FACILITY INFORMATION

### 1.0 FACILITY DESCRIPTION

TEC Big Bend is a nominal ~~4998~~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 (NO<sub>x</sub>) 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/PM<sub>10</sub>), sulfur dioxide (SO<sub>2</sub>), nitrogen oxides (NO<sub>x</sub>), 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

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This facility is located in an area (Hillsborough County) designated "unclassifiable" for SO<sub>2</sub>, "maintenance" for Ozone (O<sub>3</sub>), 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>
<del>-03710</del>	<del>FH-074a</del> PET-01: <del>Front End</del> -Reclaim from Petcoke Storage Pile to Trucks
<del>Off-Site Transloading</del>	<del>FH-074b</del> COAL-01: <del>Front End</del> -Reclaim from Coal Storage Pile to Trucks
<del>Operations at the Solid</del>	<del>FH-074c</del> SLAG-01: <del>Front End</del> -Reclaim from Slag Storage Pile to Trucks
<del>Fuel Yard</del>	<del>FH-075a, 075b</del> PET/COAL/SLAG- <del>02a, 02b</del> : <del>Truck Traffic (Paved Roads)</del> 075a: <u>empty truck,</u>
<del>(fugitive emissions)</del>	<u>075b: full truck</u>
	<del>FH-076a, 076b</del> PET/COAL/SLAG- <del>03a, 03b</del> : <del>Truck Traffic (unpaved Roads)</del> 076a: <u>empty truck,</u>
	<u>076b: full truck</u>

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-01074a. (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

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#### 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.]