



**TECHNICAL EVALUATION  
&  
PRELIMINARY DETERMINATION**

**APPLICANT**

Tampa Electric Company  
702 North Franklin Street  
Tampa, Florida 33602

Big Bend Station  
Facility ID No. 0570039

**PROJECT**

Project No. 0570039-092-AC  
Application for Minor Source Air Construction Permit  
Limestone Transloading & Storage Project

**COUNTY**

Hillsborough County, Florida

**PERMITTING AUTHORITY**

Florida Department of Environmental Protection  
Division of Air Resource Management  
Office of Permitting and Compliance  
2600 Blair Stone Road, MS#5505  
Tallahassee, Florida 32399-2400

Date

1. GENERAL PROJECT INFORMATION

1.1. Air Pollution Regulations

Projects at stationary sources with the potential to emit air pollution are subject to the applicable environmental laws specified in Section 403 of the Florida Statutes (F.S.). The statutes authorize the Department of Environmental Protection (Department) to establish regulations regarding air quality as part of the Florida Administrative Code (F.A.C.), which includes the following applicable chapters: 62-4 (Permits); 62-204 (Air Pollution Control – General Provisions); 62-210 (Stationary Sources – General Requirements); 62-212 (Stationary Sources – Preconstruction Review); 62-213 (Operation Permits for Major Sources of Air Pollution); 62-296 (Stationary Sources - Emission Standards); and 62-297 (Stationary Sources – Emissions Monitoring). Specifically, air construction permits are required pursuant to Chapters 62-4, 62-210 and 62-212, F.A.C.

In addition, the U. S. Environmental Protection Agency (EPA) establishes air quality regulations in Title 40 of the Code of Federal Regulations (CFR). Part 60 specifies New Source Performance Standards (NSPS) for numerous industrial categories. Part 61 specifies National Emission Standards for Hazardous Air Pollutants (NESHAP) based on specific pollutants. Part 63 specifies NESHAP based on the Maximum Achievable Control Technology (MACT) for numerous industrial categories. The Department adopts these federal regulations in Rule 62-204.800, F.A.C.

1.2. Glossary of Common Terms

Because of the technical nature of the project, the permit contains numerous acronyms and abbreviations, which are defined in Appendix A of this permit.

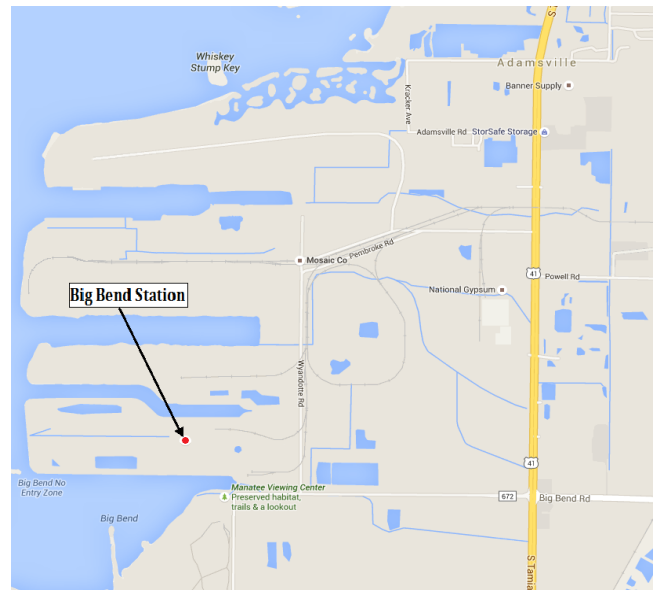
1.3. Facility Location and Description

The Big Bend Station is an existing electric generation facility, which is categorized under Standard Industrial Classification Code No. 4911. The existing Big Bend Station is located in Hillsborough County at 13031 Wyandotte Road, Apollo Beach, Florida. The UTM coordinates of the existing facility are Zone 17, 363.15 kilometers (km) East, and 3074.91 km North. This site is in an area of influence for a particulate matter maintenance area and a sulfur dioxide non-attainment area, pursuant to Rule 62-204.340, F.A.C..

FIGURE 1 - LOCATION OF HILLSBOROUGH COUNTY.



FIGURE 2 - LOCATION OF BIG BEND STATION.



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Situated on Tampa Bay, the Big Bend Power Station is located on nearly 1,500 acres in the southeastern region of Hillsborough County.

**FIGURE 3 - AERIAL VIEW OF THE BIG BEND STATION.**



Tampa Electric Company (Tampa Electric) Big Bend Station is a nominal 1,892 megawatt (MW) electric generation facility. This facility consists of four fossil fuel fired boiler electrical generating Units 1 – 4 (EU 001 – EU 004); four steam turbine electrical generators; two simple-cycle combustion turbines (SCCT) 4A and 4B (EU 041 and EU 042) sharing a common electrical generator; solid fuels, fly ash, limestone, gypsum, slag, bottom ash storage and handling facilities; and, fuel oil storage tanks.

Units 1 through 4 have a combined electrical generation output of 1,821 MW. Units 1 through 3 each have a design electrical generating capacity of 445 MW. Unit 4 has a design electrical generating capacity of 486 MW. The fuel fired in all four units consists of coal, or a coal/petroleum coke blend containing a maximum of 20% petroleum coke by weight, or coal blended with coal residual generated from the Polk Power Station, or a coal/petroleum coke blend further blended with coal residual generated from the Polk Power Station, and on-site generated fly ash. In addition to the fuels allowed to be burned during normal operation, each unit burns natural gas during startup, shutdown, flame stabilization, low load operation (either alone or while co-firing solid fuels) and during the startup of an additional solid fuel mill on an already operating unit.

For each unit, nitrogen oxide (NO<sub>x</sub>) emissions are controlled by low-NO<sub>x</sub> burners and a selective catalytic reduction system. Unit 4 also has a separated over fire air system to further control NO<sub>x</sub> emissions. Particulate matter (PM) emissions are controlled by a dry electrostatic precipitator while sulfur dioxide (SO<sub>2</sub>) emissions are controlled by a wet flue gas desulfurization system, on each unit. Units 1 through 3 are equipped with continuous emissions monitoring systems (CEMS) to measure NO<sub>x</sub>, SO<sub>2</sub>, PM and carbon dioxide (CO<sub>2</sub>). Unit 4 is equipped with CEMS to measure carbon monoxide (CO), NO<sub>x</sub>, SO<sub>2</sub>, PM and CO<sub>2</sub>. These units began operation in 1970 (Unit 1), 1973 (Unit 2), 1976 (Unit 3), and 1985 (Unit 4).

The SCCT 4A and 4B (EU 041 and EU 042) consist of one PWPS FT8-3<sup>®</sup> SwiftPac<sup>®</sup> aero-derivative SCCT-electrical generator to operate in simple cycle mode. The SwiftPac<sup>®</sup> consists of two combustion turbines coupled to one common generator having a nominal gross generation capacity of 62 MW. Each SCCT is allowed to fire natural gas and ultra-low sulfur distillate fuel oil. Each SCCT is equipped with water injection to minimize NO<sub>x</sub> emissions and an oxidation catalyst to minimize CO and volatile organic compounds (VOC) emissions.

### 1.4. Facility Regulatory Categories

- The facility is a major source of hazardous air pollutants (HAP).
- The facility operates units subject to the acid rain provisions of the Clean Air Act and Chapter 62-214, F.A.C.
- The facility is a Title V major source of air pollution in accordance with Chapter 62-213, F.A.C.

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- The facility is a major stationary source in accordance with Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality.
- The facility operates units subject to the NSPS of 40 CFR 60.
- The facility operates units subject to the NESHAP of 40 CFR 63.

### 1.5. Processing Schedule

04/06/2016 Department received the application for an air pollution construction permit.

04/12/2016 Department requested additional information.

04/18/2016 Department received additional information; application resubmitted.

06/15/2016 Applicant resubmitted the application for an air pollution construction permit in order incorporate additional requests.

07/06/2016 Applicant submitted administrative corrections to the application.

### 1.6. Project Description

Tampa Electric intends to transload limestone from ocean vessels to a temporary storage pile in the fuel yard. The limestone will then be transloaded via trucks to the limestone handling building or to new segregated permanent storage piles located within the existing east and south gypsum storage areas. These activities will include sources of PM, PM with a mean diameter of 10 microns or less ( $PM_{10}$ ) and PM with a mean diameter of 2.5 microns or less ( $PM_{2.5}$ ) emissions due to the transfer of limestone (i.e., truck loading and unloading operations/unloading, truck traffic on paved facility roads, front-end loader storage pile operations, and storage pile windblown dust). This project also includes the increased handling of limestone.

**FIGURE 4 - PROPOSED LIMESTONE TRANSLOADING PLOT PLAN.**





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The following existing emissions unit (EU) will be affected by this project.

EU No.	Description
010	Fugitive Emissions from Fuel Unloading and Handling Operations

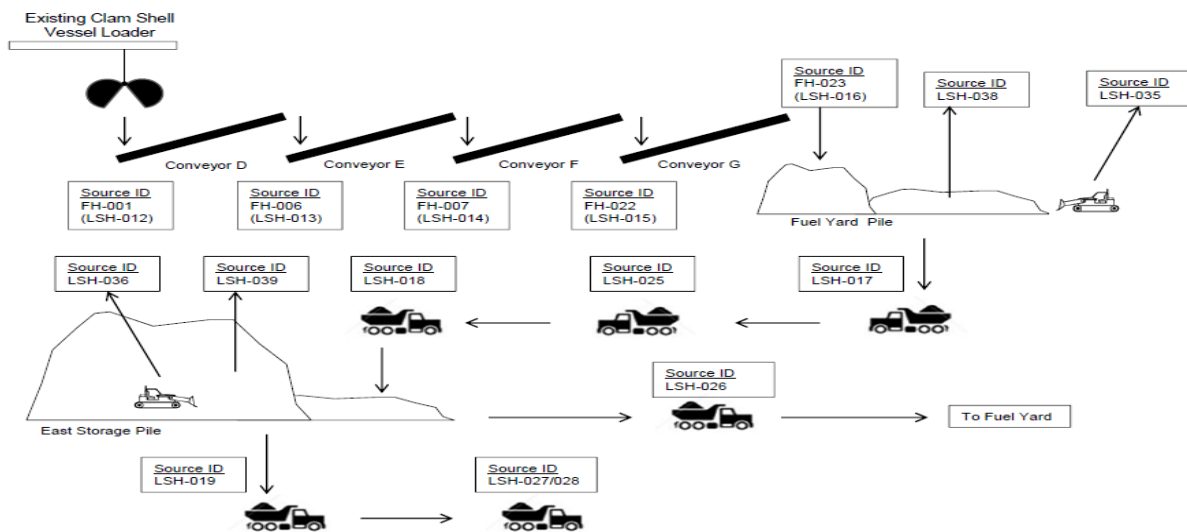
This project revises several conditions in underlying air construction permits. Tampa Electric applied for concurrent revisions in multiple air construction permits, which will be addressed in permit No. 0570039-092-AC and incorporated in Title V Air Operation Revision Permit No. 0570039-093-AV, affecting the EU listed above.

**1.6.1. Additional Project Features**

On February 4, 2014, permit No. 0570039-077-AC was issued for Tampa Electric to temporarily authorize the unloading of various types of limestone transported to the facility by railcar and/or ocean vessels. The purpose of that project was to explore a higher quality of limestone from new sources to increase the performance of the Flue Gas Desulphurization (FGD) systems. Prior to this permit, the facility only received limestone via truck unloading. Based on a maximum amount of limestone being received at the facility via railcar/ocean vessel of 105,000 tons per year (TPY), the estimated PM/PM<sub>10</sub> emissions from that project were less than 5 TPY, which met the case-by-case permitting exemption requirements pursuant to Rule 62.4.040(1)(b), F.A.C. Based on this exemption, the Big Bend Station is currently authorized to transload up to 105,000 TPY of limestone from railcars or ocean vessels using the existing solid fuel unloading and conveying systems to unload and store limestone in the fuel yard area. Through this project, Tampa Electric is requesting to increase the high quality limestone handling to a transfer rate of 200,000 TPY from ocean vessels only, which will no longer meet the exemption criteria in project 0570039-077-AC.

Tampa Electric proposes to continue to utilize the existing solid fuel yard handling system to unload high quality limestone from the ocean vessels onto a temporary limestone storage pile located in the fuel yard. Trucks will haul the high quality limestone from the temporary storage pile to the east or south permanent storage areas, where the limestone will be unloaded and stored in areas segregated from the stored gypsum. The empty trucks will travel back to the fuel yard to reload until the temporary limestone pile in the fuel yard area is depleted. Heavy equipment (e.g. front end loaders) will stack and manage the limestone piles in the east or south storage areas. When the high quality limestone is needed for the FGD system, it will be loaded into trucks and hauled to the FGD unloading area. Also, limestone may be transferred between the east and south storage area to account for operational changes. A plot plan of the proposed activity can be seen in **FIGURE 4**. A flow diagram of the transloading activity around the east storage pile can be seen in **FIGURE 5**.

**FIGURE 5 - PROCESS FLOW DIAGRAM OF LIMESTONE TRANSLOADING AND STORAGE.**

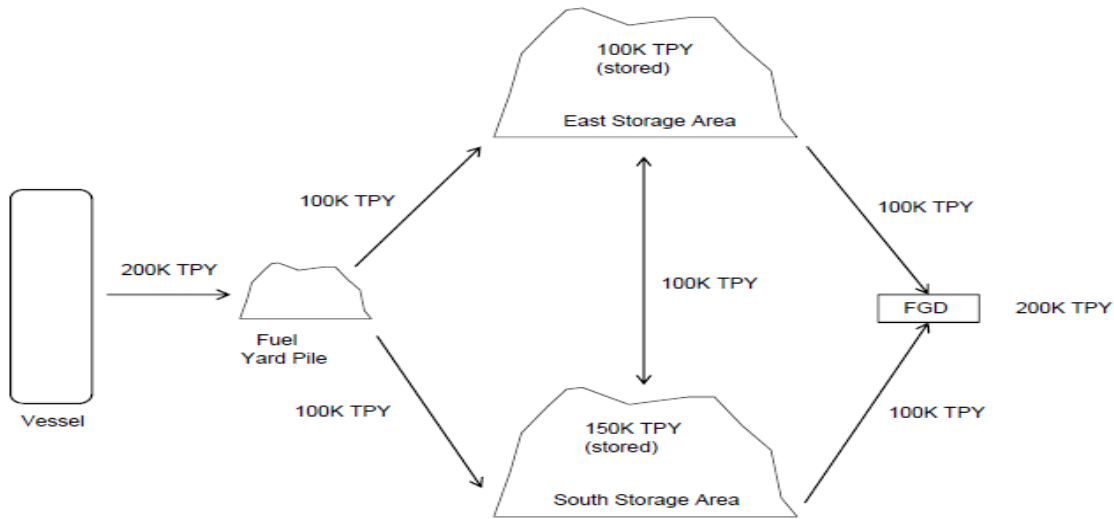


*Note: Not all transfer points associated with this project are indicated in the process flow diagram.*

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A representation of the proposed amount of limestone being transferred from the ocean vessel to various piles and the FGD system can be seen in **Figure 6**.

**FIGURE 6 - LIMESTONE TRANSLOADING AND STORAGE MASS BALANCE.**



**1.6.2. Engineering Controls**

No new equipment will be required to unload the limestone from ocean vessels. The existing engineering controls and best management practices in the solid fuel yard handling system will be used to minimize fugitive dust emissions. The existing conveyors with totally enclosed transfers points and water sprays/chemical surfactants will be used to minimize fugitive emissions from truck traffic, transfer points and storage piles. **TABLE 1** and **TABLE 2** identify the existing and new emission points, respectively. The following tables also provide a description of the engineering controls and best management practices (BMP) that will be utilized.

Various transfer points are repeated in **TABLE 1** as the material will be transferred from the ocean vessel to the south radial stacker through existing conveyors D1, E1, F1 and G1 (FH-001, FH-006, FH-007, FH-022 and FH-023). Alternatively, as a backup, the limestone may also be transferred from the ocean vessel to the north radial stacker/reclaimer system through existing conveyors D1, E1, Y, Z, P and G2 (FH-001, FH-006, FH-007, FH-008a, FH-012, FH-013 and FH-0015). This may cause the location of the temporary storage pile to vary in the fuel yard, either under the south radial stacker/reclaimer system or the north radial stacker/reclaimer system.

**TABLE 1 – EXISTING FUEL YARD CONVEYING EQUIPMENT AND SOURCE SUMMARY.**

Identification No.	Brief Description	Emission	Engineering Controls
<b>FH-001</b>	Barge Clamshell to Conveyor D1	Fugitive	BMP - FW.4,FW.5
<b>FH-006</b>	Conveyor D1 to Conveyor E1	---	Enclosed
<b>FH-007</b>	Conveyor E1 to Conveyor F1	---	Enclosed
<b>FH-022</b>	Conveyor F1 to South Stacker Conveyor (G1)	Fugitive	BMP - FW.4,FW.5
<b>FH-023</b>	South Stacker Conveyor (G1) to Storage Pile	Fugitive	BMP - FW.4,FW.5
<b>FH-001</b>	Barge Clamshell to Conveyor D1	Fugitive	BMP - FW.4,FW.5
<b>FH-006</b>	Conveyor D1 to Conveyor E1	---	Enclosed
<b>FH-007</b>	Conveyor E1 to Conveyor Y or Conveyor F1	---	Enclosed
<b>FH-008a</b>	Conveyor Y to Conveyor Z	---	Enclosed
<b>FH-012</b>	Conveyor Z to Conveyor P	---	Enclosed
<b>FH-013</b>	Conveyor P to North Stacker Conveyor (G2)	Fugitive	BMP - FW.4,FW.5
<b>FH-015</b>	North Stacker Conveyor (G2) to Storage Pile	Fugitive	BMP - FW.4,FW.5

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**TABLE 2 - LIMESTONE TRANSLOADING AND SOURCE SUMMARY.**

Identification No.	Brief Description	Emission	Engineering Controls
LSH-017	Load Truck at Temporary Fuel Yard Pile (Heading for East Storage Area)	Fugitive	BMP - FW.4,FW.5
LSH-018	Unload Trucks at East Storage Area	Fugitive	BMP - FW.4,FW.5
LSH-019	Load Trucks in East Storage Area to FGD	Fugitive	BMP - FW.4,FW.5
LSH-020	Load Truck at Temporary Fuel Yard Pile (Heading for South Storage Area)	Fugitive	BMP - FW.4,FW.5
LSH-021	Unload Truck at South Storage Area	Fugitive	BMP - FW.4,FW.5
LSH-022	Load Trucks in South Storage to FGD	Fugitive	BMP - FW.4,FW.5
LSH-023	Load Trucks (Transfer Between Storage Areas)	Fugitive	BMP - FW.4,FW.5
LSH-024	Unload Trucks (Transfer Between Storage Areas)	Fugitive	BMP - FW.4,FW.5
LSH-025	Truck Traffic, Full (Fuel Yard to East Storage Area)	Fugitive	BMP - FW.4,FW.5
LSH-026	Truck Traffic, Empty (East Storage Area to Fuel Yard)	Fugitive	BMP - FW.4,FW.5
LSH-027	Truck Traffic, Full (East Storage Area to FGD)	Fugitive	BMP - FW.4,FW.5
LSH-028	Truck Traffic, Empty (FGD to East Storage Area)	Fugitive	BMP - FW.4,FW.5
LSH-029	Truck Traffic, Full (Fuel Yard to South Storage Area)	Fugitive	BMP - FW.4,FW.5
LSH-030	Truck Traffic, Empty (South Storage Area to Fuel Yard)	Fugitive	BMP - FW.4,FW.5
LSH-031	Truck Traffic, Full (South Storage Area to FGD)	Fugitive	BMP - FW.4,FW.5
LSH-032	Truck Traffic, Empty (FGD to South Storage Area)	Fugitive	BMP - FW.4,FW.5
LSH-033	Truck Traffic, Full (Transfer Between Storage Areas)	Fugitive	BMP - FW.4,FW.5
LSH-034	Truck Traffic, Empty (Transfer Between Storage Areas)	Fugitive	BMP - FW.4,FW.5
LSH-035	Store/Reclaim Fuel Yard Pile	Fugitive	BMP - FW.4,FW.5
LSH-036	Store/Reclaim East Gypsum Storage Area	Fugitive	BMP - FW.4,FW.5
LSH-037	Store/Reclaim South Storage Area	Fugitive	BMP - FW.4,FW.5
LSH-038	Wind erosion Fuel Yard Pile	Fugitive	BMP - FW.4,FW.5
LSH-039	Wind erosion East Storage Area	Fugitive	BMP - FW.4,FW.5
LSH-040	Wind erosion South Storage Area	Fugitive	BMP - FW.4,FW.5

**2. PSD APPLICABILITY**

The Department regulates major stationary sources in accordance with Florida’s PSD program pursuant to Rule 62-212.400, F.A.C. PSD preconstruction review is required in areas that are currently in attainment with the state and federal AAQS or areas designated as “unclassifiable” for certain regulated pollutants. Commonly addressed PSD pollutants for electrical generating facilities such as the Big Bend Station include: CO, NO<sub>x</sub>, PM, PM<sub>10</sub>, PM<sub>2.5</sub>, SO<sub>2</sub>, VOC and sulfuric acid mist (SAM).

Additional PSD pollutants that are more common to certain other industries include: lead (Pb), mercury (Hg), hydrogen sulfide (H<sub>2</sub>S), total reduced sulfur (TRS) including H<sub>2</sub>S, reduced sulfur compounds (RSC) including H<sub>2</sub>S, municipal waste combustor (MWC) organics measured as total tetra- through octa-chlorinated dibenzo-p-dioxins and dibenzofurans (dioxin/furan), MWC metals measured as PM; MWC acid gases measured as SO<sub>2</sub> and HCl, and municipal solid waste (MSW) landfill emissions as non-methane organic compounds (NMOC).

As defined in Rule 62-210.200(Definitions), F.A.C., a stationary source is a “major stationary source” (major PSD source) if it emits or has the potential to emit (PTE):

- 250 TPY or more of any PSD pollutant; or
- 100 TPY or more of any PSD pollutant and the facility belongs to one of the 28 listed PSD major facility categories.

The list given in the citation includes the category of “Electric Services”. The given category applies to the facility before and after the proposed project. The Big Bend Station is a major stationary source based on actual emissions of and potential to emit 100 TPY or more of several individual PSD pollutants.

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For major stationary sources such as the Big Bend Station, PSD applicability for modification projects is based on thresholds known as the significant emission rates (SER) as defined in Rule 62-210.200(Definitions), F.A.C. Any “net emissions increase” as defined in Rule 62-210.200(Definitions), F.A.C. of a PSD pollutant from the project that equals or exceeds the respective SER is considered “significant”. SER also means any emissions rate or any net emissions increase of a PSD pollutant associated with a major stationary source or major modification which would construct within 10 km of a Class I area and have an impact on such area equal to or greater than 1 gram per cubic meter, 24-hour average.

Although a facility may be “major” (i.e. emits or has the potential to emit 100 or 250 TPY as applicable) for only one PSD pollutant, a project must include Best Available Control Technology (BACT) controls for any PSD pollutant that exceeds the corresponding significant emission rates given in **TABLE 2** below.

**TABLE 2 – LIST OF SER BY PSD-POLLUTANT.** <sup>a, c</sup>

Pollutant	SER (TPY)	Pollutant	SER (TPY)
CO	100	NO <sub>x</sub>	40
PM/PM <sub>10</sub> /PM <sub>2.5</sub>	25/15/10	Ozone (VOC) <sup>b</sup>	40
PM <sub>2.5</sub> (NO <sub>x</sub> )	40	PM <sub>2.5</sub> (SO <sub>2</sub> )	40
Ozone (NO <sub>x</sub> ) <sup>b</sup>	40	SAM	7
SO <sub>2</sub>	40	Pb	0.6
Hg	0.1	GHG (CO <sub>2</sub> e)	> 75,000 (CO <sub>2</sub> e) and > 0 (mass) <sup>d</sup>

a. Excluding fluoride and those pollutants defined for Pulp and Paper, MWC, MSW landfills.  
 b. Ozone (O<sub>3</sub>) is regulated by its precursors (VOC and NO<sub>x</sub>). PSD for PM<sub>2.5</sub> can be triggered by its precursors (NO<sub>x</sub> and SO<sub>2</sub>).  
 c. Pursuant to 40 CFR 52.21(b)(23)(ii), pollutants with no SER listed at 40 CFR 52.21(b)(23)(i) have a SER of zero TPY.  
 d. A source that triggers PSD review for a traditional PSD pollutant would also trigger PSD review for greenhouse gases (GHGs) if the source would emit or have the potential to emit 75,000 TPY of GHG on a carbon dioxide-equivalent (CO<sub>2</sub>e) basis. Under this framework, a source cannot become subject to PSD review solely on the basis of GHG emissions.

### 2.1. PSD Applicability for Project

The project is located in Hillsborough County which is in an area that is currently in an area of influence for a particulate matter maintenance area and in an area of influence for a sulfur dioxide non-attainment area. As provided in the application, **TABLE 3** below summarizes potential emissions and PSD applicability for the project.

**TABLE 3 - SUMMARY OF THE APPLICANT'S APPLICABILITY ANALYSIS.**

Pollutant	Annual Emissions, TPY		Subject to PSD?
	Potential Emissions	Significant Emissions Rate	
PM	13	25	No
PM <sub>10</sub>	3.5	15	No
PM <sub>2.5</sub>	0.64	10	No

a. The EPA AP-42 procedure, Chapter 13.2.4 - Aggregate Handling and Storage Piles, was used to estimate the limestone fugitive emissions and AP-42 procedures, Chapter 13.2.1 Paved Roads and Chapter 13.2.2 Unpaved Road, were used to estimate emissions from vehicle traffic.  
 b. The moisture content of the crushed limestone was determined to be approximately 7.5%. This percentage was calculated as the average moisture content recovered from 46 samples of the crushed limestone.  
 c. The control efficiencies of the emission sources averaged to approximately 28%.  
 d. A mean wind speed of 10 miles per hour (mph) was used to evaluate the equations found in the AP-42 procedures. This wind speed was determined as the average from the fastest wind speeds observed in Tampa, Florida Years 1951-1980.

As shown in the above table, total project emissions will not exceed the PSD significant emissions rates; therefore, the project is not subject to PSD preconstruction review.



**3. DEPARTMENT REVIEW**

**3.1. Brief Discussion of Emissions**

The Department performed a series of calculations to review the estimated PM emissions from the proposed activities. The EPA AP-42 procedure, Chapter 13.2.4 - Aggregate Handling and Storage Piles, was used to estimate the limestone fugitive emissions and AP-42 procedures, Chapter 13.2.1 Paved Roads and Chapter 13.2.2 Unpaved Road, was used to estimate emissions from vehicle traffic.

All piles will be open to the atmosphere. The dimensions of the piles proposed by the applicant are represented in **TABLE 4**. The following parameters were evaluated for emission calculations.

**TABLE 4 – DIMENSIONS OF PROPOSED LIMESTONE PILES**

Dimensions	Fuel Yard Pile	East Storage Area	South Storage Area
Mass (Tons)	200,000	100,000	150,000
Volume (Cubic Feet)	4,444,444	2,222,222	3,333,333
Pile Radius (Feet)	162	129	147
Surface Area (Square Meters)	10,784	6,793	8,902

The Department’s estimates found in Error! Reference source not found. show that the total limestone fugitive emissions from PM/PM<sub>10</sub>/PM<sub>2.5</sub> exceed the 5 TPY exemption criteria. However, PM/PM<sub>10</sub>/PM<sub>2.5</sub> are below the PSD significant emission rate (SER) thresholds of 25, 15, and 10 TPY, respectively.

**TABLE 5 - LIMESTONE TRANSLOADING AND STORAGE EMISSIONS SUMMARY**

Pollutant	Potential to Emit (TPY)		
	PM	PM <sub>10</sub>	PM <sub>2.5</sub>
Transfer Points East Storage Area	0.49	0.23	0.04
Transfer Points South Storage Area	0.49	0.23	0.04
Transfer Points Between Storage Areas	1.85	0.37	0.09
Truck Traffic East Storage Area	2.54	0.51	0.12
Truck Traffic South Storage Area	3.31	0.66	0.16
Truck Traffic Between Storage Areas	1.85	0.37	0.09
Loader Operations Fuel Yard, East and South Storage Areas	2.45	0.63	0.06
Wind Erosion Fuel Yard Pile	0.85	0.21	0.00
Wind Erosion East Storage Area	0.53	0.13	0.00
Wind Erosion South Storage Area	0.70	0.17	0.00
<b>Total</b>	<b>15.1</b>	<b>3.52</b>	<b>0.61</b>

**3.2. State Requirements**

The Department emission standards applicable to the limestone transloading and storage emission sources are discussed in the following sections.

*Rule 62-296.320, F.A.C., General Pollutant Emission Limitation Standards.*

- This rule prohibits the discharge of air pollutants which cause or contribute to an objectionable odor;
- This rule specifies a visible emissions (VE) standard of 20 % opacity; and
- The rule prohibits emissions of unconfined PM provisions without taking reasonable precautions to prevent such emissions.

**3.3. Rules of the Environmental Protection Commission of Hillsborough County (EPCHC)**

No additional EPCHC rules are added to emission unit 10.

### 3.4. Federal NSPS Provisions

There are no NSPS that are applicable to the limestone transloading and storage emission sources.

### 3.5. Federal NESHAP Provisions

There are no NESHAPS that are applicable to the limestone transloading and storage emission sources.

### 3.6. Other Draft Permit Requirements

The draft permit will require the water sprays/chemical surfactants to be used in order to minimize fugitive emissions from truck traffic, transfer points and storage piles.

## 4. PERMIT MODIFIED

### Tampa Electric Company Requested Revisions

The emissions source associated with the following revision is the Fossil Fuel Steam Generator Unit 4 (EU 004)

Permit No. PSD-FL-040

*Part 1 (Specific Conditions), Table 1*

*Request:* As part of the application, Tampa Electric requested to remove the 20% opacity limit not to be exceeded for more than one 6-minute period per hour and never to exceed 27% opacity for Unit 4. Unit 4 is equipped with a PM CEMS. NSPS Subpart Da exempts the opacity standard if a PM CEMS is used to measure emissions of PM.

*Response:* Fossil Fuel Fired Steam Generator Unit No. 4 (EU 004) is currently regulated under the NSPS Subpart Da (Standards of Performance for Electric Utility Steam Generating Units for Which Construction is Commenced After September 18, 1978) of 40 CFR 60, adopted and incorporated by reference in Rule 62-204.800(8)(b)2., F.A.C. and PSD permit No. PSD-FL-040, which was issued on October 19, 1981. At that time, the only opacity limitation imposed on Unit 4 was the 20% opacity limit from NSPS Subpart Da of 40 CFR 60. Effective April 24, 2013, EPA revised Subpart Da to exempt owners of affected units from the opacity standard if they choose to install PM CEMS. The revised NSPS Subpart Da provides the following exemption:

*“§60.42Da(b). Except as provided in paragraphs (b)(1) and (b)(2) of this section, on and after the date the initial PM performance test is completed or required to be completed under §60.8, whichever date comes first, an owner or operator of an affected facility shall not cause to be discharged into the atmosphere any gases which exhibit greater than 20% opacity (6-minute average), except for one 6-minute period per hour of not more than 27% opacity.*

- (1) An owner or operator of an affected facility that elects to **install, calibrate, maintain, and operate a CEMS for measuring PM emissions according to the requirements of this subpart is exempt from the opacity standard** specified in this paragraph (b) of this section.*
- (2) An owner or operator of an affected facility that combusts only natural gas and/or synthetic natural gas that chemically meets the definition of natural gas is exempt from the opacity standard specified in paragraph (b) of this section.”*

Because the facility elected to install and operate a PM CEMS to comply with the Mercury and Air Toxics Rule (40 CFR 63, Subpart UUUUU) and NSPS Subpart Da exempts the opacity standard if a PM CEMS is used to continuously monitor emissions of PM, the Department will remove the opacity standards and the corresponding compliance requirements for Unit 4.

## 5. PRELIMINARY DETERMINATION

The Department makes a preliminary determination that the proposed project will comply with all applicable state and federal air pollution regulations as conditioned by the draft permit. This determination is based on a technical review of the complete application, reasonable assurances provided by the applicant, and the conditions specified

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in the draft permit. No air quality modeling analysis is required because the project does not result in a significant increase in emissions. Lara Rabbath is the project engineer responsible for reviewing the application and drafting the permit. Additional details of this analysis may be obtained by contacting the project engineer at the Department's Office of Permitting and Compliance at Mail Station #5505, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400 at 850/717-9082 or by email [Lara.Rabbath@dep.state.fl.us](mailto:Lara.Rabbath@dep.state.fl.us).